

MONTHLY CATALOG

UNITED STATES

GOVERNMENT PUBLICATIONS

DECEMBER 1970

Entries 17418-18405
and Annual Index

PRINTED BY THE
UNITED STATES OF AMERICA

DISTRIBUTION OF PUBLICATIONS

In ordering publications listed in this catalog, it should be noted that *only* those marked with an asterisk (*) are obtainable from the Superintendent of Documents.

Publications marked with a farad (Φ) are sold by the National Technical Information Service, Springfield, VA 22151.

Where a single dagger (†) is the distribution symbol, application should be made directly to the department or bureau issuing the document.

* For sale by SUPERINTENDENT OF DOCUMENTS

Φ For sale by National Technical Information Service, Springfield, VA 22151.

† Distribution made by Issuing Office. Not definitely available if unaccompanied by a price

‡ Printed for Official Use
(not available for distribution)

● Sent to Depository Libraries

SIZES OF PUBLICATIONS

Symbols used to designate sizes of publications listed in this catalog are as follows:

4°	6-12 inches high and width more than $\frac{3}{4}$ of height
large 4°	over 12 inches high and width more than $\frac{3}{4}$ of height
small 4°	under 6 inches high and width more than $\frac{3}{4}$ of height
8°	8-10 inches in height (size not given in entry except where publication is narrow or oblong)
large 8°	10-12 inches in height
12°	7-8 inches in height
16°	6-7 inches in height
24°	5-6 inches in height
32°	4-5 inches in height
48°	up to 4 inches high
f°	above 12 inches in height
narrow	width less than $\frac{3}{5}$ of height
oblong	width more than height

MONTHLY CATALOG

OF UNITED STATES
GOVERNMENT PUBLICATIONS



DECEMBER 1970

Number 911

Entries 17418-18405
and Annual Index January-December 1970

Issued by the **SUPERINTENDENT OF DOCUMENTS**

U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402 : 1970

L.C. Card 4-18088

FOR SALE BY THE SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
PRINTING OFFICE, WASHINGTON, DC 20402. PRICE 75 CENTS PER COPY
EXCEPT DECEMBER (INDEX) ISSUE, WHICH VARIES IN PRICE
SUBSCRIPTION PRICE \$7.00 PER YEAR (INCLUDING INDEX)
\$1.75 ADDITIONAL FOR FOREIGN MAILING
THIS ISSUE \$3.

PREVIEWS

The following publications are in the process of being printed. Advance sales orders may be placed for these publications. Orders will be scheduled and copies mailed as soon as stocks are received. It is not possible to estimate the lapse of time before the publications will actually appear. All information in regard to title, series, classification, distribution, and price given in these listings is preliminary and subject to change when the publications actually come from the press. Those so marked will be sent to depository libraries, providing, that at the time of going to press, the libraries were on list to receive the items under which these publications will be distributed.

- Airframe and powerplant mechanics certification information, July 1970. (Federal Aviation Administration.) 20c. ● TD 4.8: A1 7/21
- Behavior analysis model of a follow through program, model programs, childhood education. (Education Office, OE-20131.) 20c. ● HE 5.220: 20131
- Bolsa Island nuclear power and desalting project facilities. (Interior Department, Research and development report 570.) \$2.50. ● I 1.88: 570
- Bulletin of prosthetics research, spring 1970. (Veterans Administration, BPR 10-13.) \$1.50. ● VA 1.23/3: 10-13
- Civil rights directory. [1970.] (Civil Rights Commission, Clearinghouse publication no. 15, revised 1970.) 75c. ● CR 1.10: 15/2
- Commercial pilot written test guide, revised 1970. (Federal Aviation Administration.) \$1.50. ● TD 4.8: P 64/6/970
- Copepods parasitic on sharks from the west coast of Florida. (Smithsonian contributions to zoology no. 38.) 40c. SI 1.27: 38
- Don't you get hooked! [anti-smoking poster]. (Public Health Service.) 20c. ● HE 20.12: H 76
- Dubnoff school for educational therapy, model programs, childhood education. (Education Office, OE-20137.) 20c. ● HE 5.220: 20137
- Engineering evaluation project gasoline, consol synthetic fuel process. (Coal Research Office, Research and development report 59.) \$2.75. ● I 63.10: 59
- Fish Creek Mountains tuff and volcanic center, Lander County, Nevada. (Geological Survey, Professional paper 681.) 35c. ● I 19.16: 681
- Frederick Douglass years, a cultural history exhibition. (Smithsonian Institution.) 65c. ● SI 1.2: D 74
- Freshwater Triclad of North America. (Smithsonian contributions to zoology no. 80.) 30c. ● CI 1.27: 80
- Industry wage survey, meat products. (Labor Statistics Bureau, Bulletin 1677.) \$1.00. ● L 2.3: 1677
- Manual of instruction for construction of roads and bridges. (Public Roads Bureau.) \$3.25. ● TD 2.108: R 53/3
- Mexican Americans and the administration of justice in the southwest, summary. (Civil Rights Commission, Clearinghouse publication no. 26.) 20c. ● CR 1.10: 26
- Milkhouse building, plan no. 6078. (Agriculture Department, Miscellaneous publication 1183.) 5c. ● A 1.38: 1183
- NRO migrant child development centers, model programs, childhood education. (Education Office, OE-20133.) 20c. ● HE 5.220: 20133
- Peat deposits of southeastern New York. (Geological Survey, Bulletin 1317-B.) 25c. ● I 19.3: 1317-B
- Potential for genetic suppression of insect populations. (Agriculture Department, Miscellaneous publication 1178.) 60c. ● A 1.38: 1178
- Project fuel cell, 1970 final report. (Coal Research Office, Research and development report 57.) \$6.75. ● I 63.10: 57
- Responsive environment model of a follow through program, model programs, childhood education. (Education Office, OE-20139.) 20c. ● HE 5.220: 20139
- Schizophrenia bulletin. [Issue no. 2, fall 1970.] (National Institute of Mental Health.) \$1.00. ● HE 20.2414: 2

- Scientists & engineers in the Federal personnel system, 1970. (Civil Service Commission.) 40c. ● CS 1.2: Sci 2/3/970
- Selecting and financing a home. (Agriculture Department, Home and garden bulletin 182.) 15c. ● A 1.77: 182
- Sericea Lespedeza, its use and management. (Agriculture Department, Farmers' bulletin 2245.) 25c. ● A 1.9: 2245
- Standard time in United States, July 1970. (Transportation Department.) 35c. ● TD 1.2: T 48
- Study of minority group employment in the Federal government, 1969. (Civil Service Commission.) \$5.50. ● CS 1.2: M66/969
- Tax information of sponsors of contests and sporting events. (Internal Revenue Service, Publication 558 (10-70), revised.) 10c. ● T22.44.2: 558/3
- Tax information on educational expenses. (Internal Revenue Service, Publication 508 (10-70), revised.) 10c. ● T 22.44/2: 508/3

Contents

	Page
Previews -----	III
Abbreviations, Explanation-----	VI
General Information-----	VII
How To Order Publications-----	VIII
New Classification Numbers Assigned	
January-December 1970-----	IX
Discontinued Series-----	xxx
Corrections for Previous Monthly	
Catalogs -----	xxxii
List of Government Authors-----	xxxiii
Monthly Catalog-----	1
Index January-December 1970-----	65

Abbreviations

add-----	addition, addendum, addenda.	n. d-----	no date.
amdt., amdts-----	amendment, amendments.	n. p-----	no place.
app-----	appendix, appendixes.	no., nos-----	number, numbers.
bk., bks-----	book, books.	p-----	page, pages.
chap-----	chapter, chapters.	p. of pl-----	pages of plates.
Cong-----	Congress.	par., pars-----	paragraph, paragraphs.
Dept-----	Department.	pl-----	plate, plates.
doc-----	document.	por-----	portrait, portraits.
facsim-----	facsimile, facsimiles.	pt., pts-----	part, parts.
fy-----	fiscal year.	rp-----	report.
G.H.A-----	Greenwich hour angle.	S-----	Senate, Senate bill.
H-----	House.	S. Con. Res-----	Senate concurrent resolution.
H. Con. Res-----	House concurrent resolution.	S. doc-----	Senate document.
H. doc-----	House document.	S. ex. doc-----	Senate executive document.
H. ex. doc-----	House executive document.	S. ex. rp-----	Senate executive report.
H. J. Res-----	House joint resolution.	S. J. Res-----	Senate joint resolution.
H.R-----	House of Representatives, House bill.	S. Res-----	Senate resolution.
H. Res-----	House resolution.	S. rp-----	Senate report.
H. rp-----	House report.	sec-----	section, sections.
il-----	illustration, illustrations.	sess-----	session, sessions.
in-----	inch, inches.	Stat. L-----	Statutes at large.
lat-----	latitude.	supp-----	supplement.
long-----	longitude.	tab-----	table, tables.
m-----	mile.	Treas-----	Treasury.
		v-----	volume, volumes.
		vs., v-----	versus.

Common abbreviations for the names of States, months, etc., are also used.

An explanation of the symbols used to designate sizes of publications is given on the inside of the front cover.

Explanation

The individual issuing department, bureau, office, or agency is considered the publisher of Government publications.

Words and figures enclosed in brackets [] in titles are given for information, but do not appear on the title pages of the publications cataloged. Place and printer are not given for publications printed at the United States Government Printing Office, Washington, D.C., or at Government departmental and field printing plants. The dates given with Senate and House documents and reports are the dates on which they were ordered to be printed. Usually the printing promptly follows the ordering, but various causes sometimes make delays.

Under provisions of the Printing Act of January 12, 1895, all Government publications, except administrative and confidential (or restricted), are entered in the Monthly Catalog.

The L.C. card number appended to some of the entries is for those libraries ordering printed cards from the Library of Congress. The number at the extreme right of an entry indicates the classification of the publication in the Office of the Superintendent of Documents.

General Information

The Superintendent of Documents, Government Printing Office, Washington, DC, is authorized by law to sell copies of Government publications and to allow a discount of 25 percent to book dealers and also to quantity purchasers of 100 or more copies of a single publication on condition that they will adhere to the public sales price set by the Superintendent of Documents and that publications shall not be overprinted with any advertising matter.

Publications cannot be supplied free to individuals nor forwarded in advance of payment.

PRICE LIST

There is no general price list of public documents, but numerous lists have been prepared on special subjects and any of these will be furnished free, on application, by subject or subjects concerning which information is desired. It will also be noted that current publications which are for sale are listed in this catalog.

LIST OF SELECTED PUBLICATIONS

In addition to the price lists, the Documents Office issues a biweekly list of Selected United States Government publications for sale by the Superintendent of Documents. Each list is arranged alphabetically by subjects, with annotations and prices, and may be obtained free upon application to the Superintendent of Documents.

CONGRESSIONAL BILLS, DOCUMENTS, AND REPORTS

More than 12,000 different bills are usually introduced during a Congress, and there are additional prints on many during the progress of the legislation. With the exception of a very few—such as revenue bills—the demand is an unknown quantity and on most of them we receive no orders, which makes it impossible to print a sales supply. It may be that a copy could be obtained from your Congressman.

A difficult problem is also presented in providing a supply of congressional documents, hearings, and reports because there are approximately 6,000 of this class of publications issued during a Congress and only a few of them are called for. We will attempt to print for sale a few of the more important ones, but if not priced the only possible source would be from your Congressman.

HOW TO ORDER PUBLICATIONS

Publications entered in this catalog that are for sale by the Superintendent of Documents are indicated by an asterisk (*) preceding the price. Those for sale by the National Technical Information Service are indicated by a farad (Φ) preceding the price. A black dot (●) indicates that the publication has been or will be sent to depository libraries. A dagger (†) indicates that application should be made to the department, bureau, or agency issuing the document. A double dagger (‡) indicates that the document is printed for official use and is not obtainable. Whenever additional information concerning the method of procuring a document seems necessary, it will be found under the name of the bureau by which it was published.

In ordering a publication from the Superintendent of Documents, give (if known) the name of the publishing department, bureau, or agency, and the title, together with the classification number which is added to the entry at the extreme right; order the congressional documents and reports by the title, together with the document or report number and the Congress, e.g., H. Doc. 103, 88th Congress.

Do not use the L.C. card number in ordering a publication from the Superintendent of Documents.

HOW TO REMIT

Remittances for documents marked with an asterisk (*) should be made to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, by coupon, postal money order, express order, or check. Publications cannot be mailed in advance of receipt of remittance. Currency may be sent at sender's risk. Foreign remittances should be made either by international money order or draft on an American bank.

Foreign money, defaced or smooth coins, will not be accepted. Do not send postage stamps.

For the convenience of the general public, coupons in the denomination of 5¢ that are good until used in exchange for Government publications sold by the Superintendent of Documents, may be purchased from this office. Address order to Superintendent of Documents, Government Printing Office, Washington, DC 20402.

Persons who make frequent purchases from the Superintendent of Documents may find a deposit account convenient. Deposits of \$25.00 or more are accepted against which orders may be placed without making individual remittances or first obtaining quotations. Order blanks are furnished for this purpose. After the handling of the order has been completed, it will be returned showing the publications supplied, explanations regarding those not sent, the amount of charge, and the balance on deposit.

No charge is made for postage on documents forwarded to points in United States and possessions, or to Canada, Cuba, Mexico, and certain Central and South American countries. To other countries the regular rate of postage is charged, and remittances must cover such postage. In computing foreign postage, add one-fourth of the price of the publication.

LIBRARY CLASSIFICATION IN DOCUMENTS OFFICE

The classification given at the right of entries for departmental publications is that used in the Library of the Public Documents Department. It is also used as a catalog number for sales stock of this office. The shilling mark (/) separates what would ordinarily be superior or inferior numbers or letters, as it is not practicable to print these numbers or letters as superiors or inferiors in the Monthly Catalog.

New Classification Numbers Assigned January-December 1970

NOTE.—New classes appearing for the first time in this issue of the Monthly Catalog are listed in *italics*.

- | | |
|-------------------------------|---|
| A 1.104: nos.----- | Agriculture Department.
Science study aids (numbered). |
| A 1.105: CT----- | Water and related land resources [by area].
Forest Service. |
| A 13.49/4-2: CT----- | Equip tips.
NOTE.—Earlier publications numbered in E D & T series, A 13.49/4: (nos.). |
| A 13.51/2: date----- | Forest and windbarrier planting and seeding in the United States, report (annual).
NOTE.—Formerly issued as a part of Tree planters notes, A 13.51: (nos.). |
| A 13.69/10-2: date----- | Rocky Mountain Forest and Range Experiment Station: Publications for [year] (annual). |
| A 13.83: date----- | Annual grazing statistical report. |
| A 13.84: nos.----- | Engineering technical information system: Technical report ETR (series).
Soil Conservation Service. |
| A 57.1/3: CT----- | Soil Conservation Service [State reports]. |
| A 57.46/3-2: date----- | Water supply outlook for Montana and Federal-State-private cooperative snow surveys: Snow pillow records. |
| A 57.59: CT----- | Watershed work plans [by area].
NOTE.—See, for earlier publications, A 57.2: (CT). |
| A 57.60: date----- | Observational study of agricultural aspects of Arkansas River multiple-purpose project, annual report. |
| A 57.61: -.62: Reserved | |
| A 57.63: nos.----- | Conservation agronomy technical notes (numbered).
NOTE.—Issued by Western Region, Portland, Oregon. |
| A 67.38: date----- | Foreign Agricultural Service.
Document retrieval subject index (monthly). |
| A 77.212/9: date----- | Agricultural Research Service.
Disease control services activities (quarterly). |
| A 77.219/4: nos.----- | Index-catalogue of medical and veterinary zoology, special publications (numbered). |
| A 77.330: CT----- | Posters.
Consumer and Marketing Service. |
| A 88.11/20: v.nos.& nos.----- | Long staple cotton review. |
| A 88.12/22-2: date----- | Fresh fruit and vegetable market news, wholesale market prices summary (annual). |
| A 88.17/6: Reserved | |
| A 88.17/7: date----- | Federal meat and poultry inspection statistical summary (annual).
NOTE.—Supersedes C&MS-54 (year), Federal meat inspection, statistical summary for (year). |
| A 92.9/16: date----- | Statistical Reporting Service.
Eggs, chickens and turkeys (monthly).
NOTE.—Replaces Hatchery production, A 92.9/6:: Turkeys and chickens tested, A 92.9/2:: Pullet chicks for broiler hatchery supply flocks, A 92.9:: and Egg production (formerly a part of Crop production). |

	Food and Nutrition Service.
A 98.3 : -8 : Reserved	FNS--(series).
A 98.9 : nos-----	Type A topics, National school lunch program.
A 98.10 : date-----	NOTE.—See, for earlier class, A 88.50 : (date).
	Export Marketing Service.
A 99.1 : date-----	Annual report.
A 99.2 : CT-----	General publications.
A 99.3 : -5 : Reserved	Regulations, rules, and instructions.
A 99.6 : CT-----	Arms Control and Disarmament Agency.
AC 1.16 : date-----	World military expenditures.
	Commerce Department.
C 1.32/5 : Reserved	
C 1.32/6 : date-----	Domestic and international business news to use for trade association periodicals.
C 1.57 : nos-----	Minority Business Enterprise Office: Press releases.
C 1.57/2 : date-----	OMBE [Office of Minority Business Enterprise] outlook.
	Census Bureau.
C 3.202/19 : date-----	Census of Business: Merchandise line sales, BC-MLS (series).
C 3.205/5 : nos-----	Demographic reports for foreign countries, P 96--(series).
C 3.215/12 : Reserved	
C 3.215/13 : letters-nos-----	Construction reports: Housing completions, C22 (series) (monthly).
C 3.240/6 : nos-----	Data access description: Census geography series, CG--(nos.)
C 3.245 : letters-nos-----	Census of construction industries: Advance industry reports.
C 3.245/2 : date-----	Census of construction industries: Announcements and order forms.
C 3.245/3 : date/nos-----	Census of construction industries: Final reports.
	Coast and Geodetic Survey.
C 4.12/5 : nos-----	C&GS technical manuals.
	National Bureau of Standards.
C 13.1/6 : date-----	Center for Computer Sciences and Technology technical highlights, fiscal year.
C 13.48/2 : CT-----	NBS standard reference materials [announcements].
	Patent Office.
C 21.14/3 : nos-----	Supervisor and personnel administration (numbered).
	Weather Bureau.
C 30.87 : nos-----	Systems Development Office reports (numbered).
	Maritime Administration.
C 39.208 : date-----	Employment report of United States flag merchant fleet, oceangoing vessels 1,000 gross tons and over.
C 39.228 : date-----	Ships registered under Liberian, Panamanian, and Honduran flags deemed by Navy Department to be under effective U.S. control (quarterly).
C 39.233 : date-----	Foreign oceanborne trade of United States containerized cargo summary, selected trade routes (quarterly).
	Business and Defense Services Administration.
C 41.113 : Reserved	
C 41.114 : date-----	Steel import data (monthly).
	International Commerce Bureau.
C 42.15/3-2 : date-----	Cumulative index to foreign production and commercial reports.

- C 42.31/2: CT----- International Marketing Information Service:
Country market survey.
- C 42.32: date----- Research on U.S. international trade.
Environmental Science Services Administration.
- C 52.21/4-2: date----- Scientific and technical publications of ESSA
Research Laboratories: Earth Sciences
Laboratories.
Foreign Direct Investments Office.
- C 54.6: CT----- Regulations, rules, and instructions.
- C 54.7: nos----- Press releases.
Federal Communications Commission.
- CC 1.1/2: date----- Summary of activities, in fiscal [year].
Civil Rights Commission.
- CR 1.11/2: nos----- Clearinghouse publication: Urban series.
Civil Service Commission.
- CS 1.61/3: nos----- Personnel bibliography series.
Defense Department.
- D 1.6/6: nos----- LCC [life cycle costing]-(series).
Defense Department.
- D 1.13/2-3:----- U.S.A.F. Armed Services procurement regula-
tions supplement.
NOTE.—Supersedes and replaces Air Force pro-
curement instructions (D 301.6/4: date).
- D 7.1/11: date----- Annual historical summary: Defense Indus-
trial Supply Center.
Army Department.
- D 101.22/6: nos----- MTMTS [Military Traffic Management and
Terminal Service] pamphlets.
- D 101.66/2: nos. & nos----- Translog (monthly).
NOTE.—Replaces Transportation Proceedings,
D 101.66: (v. nos. & nos.).
- D 101.67/2: date----- BESRL [Behavioral Science Research Labora-
tory] work program (annual).
Engineers Corps (Army).
- D 103.49: Reserved
- D 103.50: nos----- EARI [Engineer Agency for Resources In-
ventories] development research series
reports.
Army Medical Department.
- D 104.15/2: -15/3: Reserved
- D 104.15/4: nos----- Walter Reed Army Institute of Research,
Walter Reed Army Medical Center: Health
data publications.
- D 104.22: date----- Surgical Research Unit, Brooke Army Medical
Center, Fort Sam Houston, Tex.: Annual
research progress report.
- D 104.23: date----- Abstracts from annual and technical reports
submitted by USAMRDC contractors/
grantees (quarterly).
- D 104.23/2: date----- Advanced abstracts of scientific and technical
papers submitted for publication and presen-
tation (quarterly).
- D 104.24: v. nos. & nos----- Newsletter of U.S. Army Medical Department.
Army Department.
- D 111.9/4: nos----- Army Electronics Command, Fort Monmouth,
N.J.: Research and development technical re-
port ECOM (series).
Civil Defense Office.
- D 119.14: nos----- Buildings with fallout protection, design case
studies (numbered).
Naval Air Systems Command.
- D 202.18: Reserved
- D 202.19: date----- Mech (quarterly).
NOTE.—See, for earlier publication, D 202.2: M
46/967.
- D 202.20: v. nos. & nos----- Fathom (quarterly).

- Naval Oceanographic Office.
D 203.31: v. nos----- Global ocean floor analysis and research data series.
D 203.32: Reserved
National Oceanographic Instrumentation Center: Instrument fact sheet, IFS-(series).
D 203.32/2: nos-----
D 203.32/3: letters-nos----- ——— Technical bulletin.
Naval Personnel Bureau.
D 208.3/2: date----- Navy chaplains bulletin (quarterly).
D 208.6/2: date----- Bureau of Naval Personnel manual.
Air Force Department.
D 301.27/2: letters-nos----- Air Weather Service pamphlet, AWSP (series).
Federal Power Commission.
FP 1.7/3: date----- Uniform system of accounts prescribed for public utilities and licensees.
NOTE.—See, for earlier publications, FP 1.7: Ac 2/3/(date), FP 1.7: Ac 2/4/(date), and FP 1.7: Ac 2/5/(date).
Federal Reserve System Board of Governors.
FR 1.28/4: date----- Assets and liabilities of all commercial banks in United States (weekly).
NOTE.—Federal Reserve statistical release, H.8.
Health, Education, and Welfare Department.
FS 1.36: nos----- Project Head Start (series).
NOTE.—See, for earlier class, PrEx 10.12:(nos.).
FS 1.36/2: date----- Child Development Office: Manuals (numbered).
National Institutes of Health.
FS 2.22/64: nos----- Computer Research and Technology Division: Technical reports.
Public Health Service.
FS 2.60/16: nos----- National Communicable Disease Center shigella surveillance reports.
FS 2.315: date----- Calendar of National meetings (quarterly).
FS 2.319: date----- Partnership for health news.
Education Office.
FS 5.86: date----- Better education for handicapped children, annual report.
Food and Drug Administration.
FS 13.135: date----- Interstate shellfish shippers list (monthly).
NOTE.—See, for earlier class, FS 2.16:(date).
General Services Administration.
GS 1.6/6-2: nos----- Counseling guides (numbered).
National Archives and Records Service.
GS 4.10/2: nos----- National Archives inventory series.
GS 4.24: date----- Directory of U.S. Government audiovisual personnel.
Transportation and Communications Service.
GS 8.9: date----- Annual motor vehicle report.
Health, Education, and Welfare Department.
HE 1.37: nos----- Footnote, journal of HEW Audit Agency.
HE 1.38: date----- Directory of public elementary and secondary schools in selected districts, enrollment and staff by racial/ethnic group.
HE 1.39: Reserved
HE 1.40: date----- Health professions educational assistance program, report to the President and the Congress.
Social Security Administration.
HE 3.51/5: date----- Directory [of] medicare providers and suppliers of services.
HE 3.56: nos----- Office of Research and Statistics: Staff papers.
HE 3.57: date/sec.nos----- Health insurance for the aged [annual, by sections].
Federal Credit Unions Bureau.
HE 3.303: v.nos.& nos----- Bulletin.

- HE 5.77/2: date----- Education Office.
ERIC products, bibliography of information analysis publications of ERIC clearinghouses (annual).
- HE 5.87: CT----- Elementary teacher education program, feasibility studies.
- HE 17.9/a: CT----- Social and Rehabilitation Service.
Welfare in review (separates).
NOTE.—See, for earlier class, FS 14.10/2:(CT).
- HE 17.20: CT----- National Citizens Conference on rehabilitation of the disabled and disadvantaged [publications].
- HE 17.21: date----- Grants, Juvenile Delinquency Prevention and Control Act.
Rehabilitation Services Administration.
- HE 17.112: Reserved
- HE 17.113: v.nos.& nos----- Mental retardation abstracts (quarterly).
NOTE.—See, for earlier class, FS 2.22/52: (v. nos. & nos.).
- HE 17.114: nos----- Statistical notes.
- HE 17.115: -.116: Reserved
- HE 17.117: CT----- Current facility reports.
NOTE.—See, for earlier classes, FS 2.53/2: and HE 20.2415/2:.
- HE 17.309/a: CT----- Aging Administration.
Aging (separates).
NOTE.—See, for earlier class, FS 14.9/a:(CT).
- HE 17.609: date----- National Center for Social Statistics.
Child care arrangements of AFDC recipients under the work incentive program, NCSS report E-4.
- HE 17.614: date----- Program facts on federally aided public assistance income maintenance programs, NCSS report A-6.
- HE 17.618: date----- Social services for families and children, NCSS report E-6.
- HE 17.621: date----- Medicaid and other medical care financed from public assistance funds, NCSS report B-6.
- HE 17.634: date----- Source of funds expended for public assistance payments and for cost of administration, services, and training, fiscal year, NCSS report F-2.
- HE 17.639: -.639/2: Reserved
- HE 17.639/3: date----- Report of findings, AFDC Study, NCSS report AFDC-3.
- HE 17.701: date----- Community Service Administration.
Annual report.
- HE 17.702: CT----- General publications.
- HE 17.703: -.708: Reserved
- HE 17.709: date----- Services to AFDC families, annual report to Congress.
- HE 17.801: date----- Youth Development and Delinquency Prevention Administration.
Annual report.
- HE 17.802: CT----- General publications.
- HE 17.803: -.808: Reserved
- HE 17.809: CT----- Bibliographies and lists of publications.
- HE 18.-19.: Reserved
- HE 20.1: date----- Public Health Service.
Annual report.
NOTE.—See, for earlier class, FS 2.1: (date).
- HE 20.2: CT----- General publications.
NOTE.—See, for earlier class, FS 2.2: (CT).
- HE 20.3: -.9: Reserved

- HE 20.10 : nos_____ Health information series (numbered).
NOTE.—See, for earlier class, FS 2.50 : (nos.).
- HE 20.11 : nos_____ Public Health Service bibliography series (numbered).
NOTE.—See, for earlier class, FS 2.21 : (nos.).
- HE 20.12 : CT_____ Posters.
- HE 20.13 :—1000 : Reserved Consumer Protection and Environmental Health Service.
- HE 20.1001 : date_____ Annual report.
- HE 20.1002 : CT_____ General publications.
NOTE.—See, for earlier publications, FS 2.2 : (CT).
- HE 20.1003 :—1008 : Reserved
- HE 20.1009 : date_____ Public advisory committees: Authority, structure, functions, members.
- HE 20.1010 : date_____ Conference of State sanitary engineers, report of proceedings.
NOTE.—See, for earlier class, FS 2.83/4 : (date).
- HE 20.1011 : letters—nos_____ Environmental Health Service.
Environmental health series.
NOTE.—See, for earlier class, FS 2.300 : (letters—nos.).
- HE 20.1012 :—1100 : Reserved Environmental Control Administration.
- HE 20.1101 : date_____ Annual report.
- HE 20.1102 : CT_____ General publications.
NOTE.—See, for earlier publications, FS 2.2 : (CT).
- HE 20.1103 :—1107 : Reserved
- HE 20.1108 : CT_____ Handbooks, manuals, guides.
NOTE.—See, for earlier publications, FS 2.6/2 : (CT).
- HE 20.1109 : nos_____ Selected papers from Bureau of Radiological Health seminar program (numbered).
- HE 20.1110 : v.nos.& nos_____ Radiological health data and reports (monthly).
NOTE.—See, for earlier class, FS 2.90 : (v. nos. & nos.).
- HE 20.1111 : nos_____ Radiation exposure overviews, OCS [Office of Criteria and Standards] (series).
- HE 20.1112 : nos_____ ORO [Office of Regional Operations] (series).
- HE 20.1113 : nos_____ Analytical Reference Service studies.
NOTE.—See, for earlier class, FS 2.300/5 : (nos.).
- HE 20.1114 : nos_____ DEP [Division of Electronic Products] (series).
- HE 20.1115 : nos_____ DBE [Division of Biological Effects] (series).
- HE 20.1116 : nos_____ Injury Control Research Laboratory: Research report, ICRL-RR (series).
NOTE.—See, for earlier class, FS 2.316 : (nos.).
- HE 20.1117 : CT_____ Community environmental management series.
- HE 20.1118 :—1200 : Reserved Food and Drug Administration.
- HE 20.1201 : date_____ Annual report.
NOTE.—See, for earlier class, FS 13.101 : (date).
- HE 20.1202 : CT_____ General publications.
NOTE.—See, for earlier class, FS 13.102 : (CT).
- HE 20.1203 : Reserved
- HE 20.1203/2 : date_____ National Clearinghouse for Poison Control Centers, bulletin.
NOTE.—See, for earlier class, FS 2.96 : (date).
- HE 20.1204 :—1207 : Reserved

- HE 20.1208: CT----- Handbooks, manuals, guides.
NOTE.—See, for earlier class, FS 13.119:(CT).
- HE 20.1209: v.nos.& nos.----- FDA clinical experience abstracts (biweekly).
NOTE.—See, for earlier class, FS 13.132:(v. nos. & nos.).
- HE 20.1210: v.nos.& nos.----- FDA papers.
NOTE.—See, for earlier class, FS 13.128:(v. nos. & nos.).
- HE 20.1211: v.nos.& nos.----- Health aspects of pesticides, abstract bulletin.
NOTE.—See, for earlier class, FS 13.133:(v. nos. & nos.).
- HE 20.1212: nos.----- Commercial import detentions.
NOTE.—See, for earlier class, FS 13.120:(nos.).
- HE 20.1213: date----- Interstate shellfish shippers list (monthly).
NOTE.—See, for earlier class, FS 13.135:(date).
- HE 20.1214: -1300: Reserved
- HE 20.1301: date----- National Air Pollution Control Administration.
Annual report.
- HE 20.1302: CT----- General publications.
NOTE.—See, for earlier publications, FS 2.2:(CT).
- HE 20.1303: Reserved
- HE 20.1303/2: APTIC [Air Pollution Technical Information Center] bulletin.
NOTE.—See, for earlier class, FS 2.93/6:(v. nos. & nos.).
- HE 20.1303/3: v.nos.& nos.----- NAPCA abstracts bulletin.
- HE 20.1303/4: date----- Bulletin of air pollution training courses.
- HE 20.1304: -1307: Reserved
- HE 20.1308: CT----- Handbooks, manuals, guides.
NOTE.—See, for earlier publications, FS 2.6/2:(CT).
- HE 20.1309: nos.----- National Air Pollution Control Administration publication, AP-(series).
NOTE.—See, for earlier class, FS 2.93/3:(nos.).
- HE 20.1309/a: CT----- National Air Pollution Control Administration publication, AP-(series) (separates).
- HE 20.1309/2: nos.----- National Air Pollution Control Administration publication, APTD (series).
NOTE.—See, for earlier class, FS 2.93/3-2:(nos.).
- HE 20.1310: CT----- Reports for consultation on interstate air quality control regions.
NOTE.—See, for earlier class, FS 2.93/5:(CT).
- HE 20.1310/2: CT----- Air pollution report, Federal facilities, air quality control regions.
- HE 20.1311: Reserved
- HE 20.1312: CT----- Addresses.
NOTE.—See, for earlier publications, FS 2.30:(CT).
- HE 20.1313: -1400: Reserved
- HE 20.1401: date----- Solid Waste Management Bureau.
Annual report.
- HE 20.1402: CT----- General publications.
- HE 20.1403: -1407: Reserved
- HE 20.1408: CT----- Handbooks, manuals, guides.
NOTE.—See, for earlier publications, HE 20.1108:(CT).
- HE 20.1409: date----- National survey of community solid waste practices.
- HE 20.1410: CT----- Addresses.
- HE 20.1411: -1500: Reserved
- HE 20.1501: date----- Radiological Health Bureau.
Annual report.

HE 20.1502: CT-----	General publications.
HE 20.1503:--1507: Reserved	
HE 20.1508: CT-----	Handbooks, manuals, guides.
HE 20.1509:--1511: Reserved	
HE 20.1512: nos-----	ORO [Office of Regional Operations] (series). NOTE.—See, for earlier class, HE 20.1112: (nos.).
HE 20.1513:--1800: Reserved	
HE 20.1801: date-----	Community Environmental Management Bureau. Annual report.
HE 20.1802: CT-----	General publications.
HE 20.1803:--1808: Reserved	
HE 20.1809: nos-----	Injury Control Research Laboratory: Research report, ICRL-RR (series). NOTE.—See, for earlier class, HE 20.1116: (nos.).
HE 20.1810:--2000: Reserved	
HE 20.2001: date-----	Health Services and Mental Health Administration. Annual report.
HE 20.2002: CT-----	General publications. NOTE.—See, for earlier publications, FS 2.2: (CT).
HE 20.2003:--2007: Reserved	
HE 20.2008: CT-----	Handbooks, manuals, guides.
HE 20.2009: date-----	18-Month calendar of national meetings (quarterly). NOTE.—See, for earlier class, FS 2.315:(date).
HE 20.2010: v.nos.& nos-----	Public health reports (monthly). NOTE.—See, for earlier class, FS 2.7:(v.nos.& nos.).
HE 20.2011: v.nos-----	HSMHA public advisory committees: Authority, structure, functions. NOTE.—See, for earlier class, FS 2.321:(v.nos.).
HE 20.2011/2: v.nos-----	HSMHA public advisory committees: Roster of members.
HE 20.2012: date-----	List of publications. NOTE.—See, for earlier class, FS 2.24/2:(date).
HE 20.2013: letters-nos-----	Emergency health series. NOTE.—See, for earlier class, FS 2.302:(letters-nos.).
HE 20.2014: date-----	Indian health program (annual). NOTE.—See, for earlier publications, FS 2.2: In 25/7.
HE 20.2014/2: date-----	To the first Americans, annual report on Indian health program of Public Health Service. NOTE.—See, for earlier class, FS 2.86/4:(date).
HE 20.2015: date-----	Directory of local health and mental health units. NOTE.—See, for earlier class, FS 2.77:(date).
HE 20.2015/2: date-----	Directory of State, territorial, and regional health authorities (annual). NOTE.—See, for earlier class, FS 2.77/2:(date).
HE 20.2016: date-----	Grants-in-aid and other financial assistance programs. NOTE.—See, for earlier class, FS 2.317:(date).
HE 20.2017:--2100: Reserved	
HE 20.2101: date-----	National Center for Health Services Research and Development. Annual report.
HE 20.2102: CT-----	General publications. NOTE.—See, for earlier publications, FS 2.2: (CT).
HE 20.2103:--2109: Reserved	
HE 20.2110: nos-----	NCHS-RD-(series).

HE 20.2111: Reserved	
HE 20.2112: nos.-----	Reprint series (numbered).
HE 20.2113: -.2200: Reserved	
HE 20.2201: date-----	National Center for Health Statistics. Annual report. NOTE.—See, for earlier publications, FS 2.102: (CT).
HE 20.2202: CT-----	General publications. NOTE.—See, for earlier class, FS 2.102: (CT).
HE 20.2203: -.2208: Reserved	
HE 20.2209: v.nos.& nos.-----	Monthly vital statistics report. NOTE.—See, for earlier class, FS 2.116: (v. nos. & nos.).
HE 20.2210: nos.-----	Vital and health statistics. NOTE.—See, for earlier class, FS 2.85/2: (nos.).
HE 20.2211: date-----	Annual report of United States National Committee on Vital and Health Statistics, fiscal year. NOTE.—See, for earlier class, FS 2.120: (date).
HE 20.2212: date-----	Vital statistics of U.S. NOTE.—See, for earlier class, FS 2.112: (date).
HE 20.2213: Reserved	
HE 20.2214: date-----	Proceedings of national meeting of public health conference on records and statistics (annual). NOTE.—See, for earlier class, FS 2.122: (date).
HE 20.2215: date-----	Health resources statistics (annual). NOTE.—See, for earlier class, FS 2.123: (date).
HE 20.2216: -.2300: Reserved	
HE 20.2301: date-----	National Communicable Disease Center. Annual report.
HE 20.2302: CT-----	General publications. NOTE.—See, for earlier class, FS 2.60/2: (CT).
HE 20.2303: -.2307: Reserved	
HE 20.2308: CT-----	Handbooks, manuals, guides. NOTE.—See, for earlier class, FS 2.60/7: (CT).
HE 20.2309: nos.-----	National Communicable Disease Center salmonella surveillance reports (monthly). NOTE.—See, for earlier class FS 2.60/13: (nos.).
HE 20.2309/2: date-----	Center for Disease Control salmonella surveillance, annual summary. NOTE.—See, for earlier class, FS 2.60/12-2: (date).
HE 20.2309/3: nos.-----	National Communicable Disease Center shigella surveillance, reports (quarterly). NOTE.—See, for earlier class, FS 2.60/16: (nos.).
HE 20.2309/4: -.2309/5: Reserved	
HE 20.2309/6: date-----	Foodborne outbreaks, annual summary. NOTE.—See, for earlier class, FS 2.60/18: (date).
HE 20.2309/7: nos.-----	Center for Disease Control rubella surveillance [reports]. NOTE.—See, for earlier class, FS 2.60/17: (nos.).
HE 20.2310: v.nos.& nos.-----	Morbidity and mortality weekly report. NOTE.—See, for earlier class, FS 2.60/9: (v.nos.& nos.).
HE 20.2311: date/nos.-----	Current literature on venereal disease, abstracts and bibliography. NOTE.—See, for earlier class, FS 2.11/2: (date/nos.).

- HE 20.2312: date----- CDC veterinary public health notes.
HE 20.2313: date----- Reported tuberculosis data (annual).
NOTE.—See for earlier class, FS 2.42/3: (date).
- HE 20.2314: date----- United States immunization survey.
HE 20.2315: -.2400: Reserved
- HE 20.2401: date----- National Institute of Mental Health.
HE 20.2402: CT----- Annual report.
General publications.
NOTE.—See, for earlier publications, FS 2.22: (CT).
- HE 20.2403: -.2407: Reserved
HE 20.2408: CT----- Handbooks, manuals, guides.
HE 20.2409: v.nos.& nos----- Psychopharmacology bulletin (quarterly).
NOTE.—See, for earlier class, FS 2.22/29: (v. nos. & nos.).
- HE 20.2409/2: v.nos.& nos----- Psychopharmacology abstracts.
NOTE.—See, for earlier class, FS 2.22/29-2: (v. nos. & nos.).
- HE 20.2410: v.nos.& nos----- Mental health digest (monthly).
NOTE.—See, for earlier class, FS 2.22/50-5: (v. nos. & nos.).
- HE 20.2411: date----- Occupational mental health notes.
NOTE.—See, for earlier class, FS 2.22/50-3: (date).
- HE 20.2412: date----- National Institute of Mental Health support programs.
NOTE.—See, for earlier class, FS 2.22: N 21/8/ (date).
- HE 20.2413: date----- Bulletin of suicidology.
NOTE.—See, for earlier class, FS 2.22/50-6: (date).
- HE 20.2413/2: CT----- Bulletin of suicidology, supplements.
HE 20.2414: date----- Schizophrenia bulletin.
HE 20.2415: letters/nos----- Mental health statistics series.
NOTE.—See, for earlier class, FS 2.53/2-2: (letters/nos.).
- HE 20.2415/2: CT----- Mental health statistics: Current facility reports.
NOTE.—See, for earlier class, FS 2.53/2: (CT).
- HE 20.2416: nos----- Drug dependence.
HE 20.2417: CT----- Bibliographies and lists of publications.
NOTE.—See, for earlier publications, FS 2.22/13: (CT).
- HE 20.2418: date----- Mental health directory.
NOTE.—See, for earlier class, FS 2.22/49: (date).
- HE 20.2419: nos----- Mental health program reports.
NOTE.—See, for earlier class, FS 2.22/50-4: (nos.).
- HE 20.2420: Reserved
HE 20.2421: CT----- Posters.
HE 20.2422: CT----- Saint Elizabeth's Hospital, publications.
NOTE.—See, for earlier publications, FS 11. and/or HE 11.
- HE 20.2423: -.2500: Reserved
- HE 20.2501: date----- Health Facilities Planning and Construction Service.
HE 20.2502: CT----- Annual report.
General publications.
NOTE.—See, for earlier publications, FS 2.2: (CT).
- HE 20.2503: -.2508: Reserved
HE 20.2509: date----- Hill-Burton project register.
NOTE.—See, for earlier class, FS 2.74: (date).

- HE 20.2509/2: date_____ Hill-Burton program progress report (annual).
NOTE.—See, for earlier class, FS 2.95:(date).
- HE 20.2510: date_____ Representative construction cost of Hill-Burton hospitals and related health facilities (bi-annual).
NOTE.—See, for earlier class, FS 2.74/6:(date).
- HE 20.2511: letters-nos_____ Health facilities series.
NOTE.—See, for earlier class, FS 2.74/3:(letters-nos.).
- HE 20.2512: -.2550: Reserved
Community Health Service.
- HE 20.2551: date_____ Annual report.
- HE 20.2552: CT_____ General publications.
NOTE.—See, for earlier publications, FS 2.2:(CT).
- HE 20.2553: -.2557: Reserved
- HE 20.2557/2: date_____ CHScene, notes from the Community Health Service.
- HE 20.2558: CT_____ Handbooks, manuals, guides.
NOTE.—See, for earlier publications, FS 2.6/3:(CT).
- HE 20.2559: date_____ Partnership for health news.
NOTE.—See, for earlier class, FS 2.319:(date).
- HE 20.2560: -.2600: Reserved
Regional Medical Programs Service.
- HE 20.2601: date_____ Annual report.
- HE 20.2602: CT_____ General publications.
NOTE.—See, for earlier publications, FS 2.2:(CT).
- HE 20.2603: -.2607: Reserved
- HE 20.2608: CT_____ Handbooks, manuals, guides.
NOTE.—See, for earlier publications, FS 2.6/2:(CT).
- HE 20.2609: date_____ Smoking and health bibliographical bulletin (monthly).
NOTE.—See, for earlier class, FS 2.24/4:(date).
- HE 20.2610: Reserved
- HE 20.2611: date_____ Selected bibliography of regional medical programs.
NOTE.—See, for earlier publications, FS 2.24:M 46/2.
- HE 20.2612: -.2650: Reserved
Indian Health Service.
- HE 20.2651: date_____ Annual report.
- HE 20.2651/2: date_____ Health Program Systems Center: Annual report.
- HE 20.2652: CT_____ General publications.
NOTE.—See, for earlier publications, FS 2.2:(CT).
- HE 20.2653: -.2657: Reserved
- HE 20.2658: CT_____ Handbooks, manuals, guides.
NOTE.—See, for earlier publications, FS 2.6/2:(CT).
- HE 20.2659: date_____ Dental services for American Indians and Alaskan natives (annual).
NOTE.—See, for earlier class, FS 2.86/3:(date).
- HE 20.2660: CT/date_____ Indian vital statistics [by area].
NOTE.—See, for earlier class, FS 2.86/5:(CT/date).
- HE 20.2661: -.2700: Reserved
Federal Health Programs Service.
- HE 20.2701: date_____ Annual report.
- HE 20.2702: CT_____ General publications.
NOTE.—See, for earlier publications, FS 2.2:(CT).

- HE 20.2703 :-2708 : Reserved
 HE 20.2709 : date----- Annual statistical summary, fiscal year.
 NOTE.—See, for earlier class, FS 2.18/2 : (date).
- HE 20.2710 : v.nos.& nos----- Automated multiphasic health testing bibliog-
 raphy.
- HE 20.2711 :-2750 : Reserved
 HE 20.2751 : date----- Maternal and Child Health Service.
 HE 20.2752 : CT----- Annual report.
 HE 20.2753 :-2757 : Reserved General publications.
 HE 20.2758 : CT----- Handbooks, manuals, guides.
 HE 20.2759 : CT----- Bibliographies and lists of publications.
 HE 20.2760 :-3000 : Reserved
- HE 20.3001 : date----- National Institutes of Health.
 HE 20.3002 : CT----- Annual report.
 General publications.
 NOTE.—See, for earlier class, FS 2.22 : (CT).
- HE 20.3003 :-3007 : Reserved
 HE 20.3008 : CT----- Handbooks, manuals, guides.
 NOTE.—See, for earlier class, FS 2.22/15 : (CT).
- HE 20.3009 : date----- NIH quarterly publications list.
 NOTE.—See, for earlier class, FS 2.22/13-9 :
 (date).
- HE 20.3009/2 : date----- Recent translations, selected list (monthly).
 NOTE.—See, for earlier class, FS 2.22/13-2 :
 (date).
- HE 20.3010 : date----- Clinical Center, current clinical studies and
 patient referral procedures.
 NOTE.—See, for earlier class, FS 2.22 : C 61/3/
 (date).
- HE 20.3011 : nos----- Computer Research and Technology Divisions :
 Technical reports.
 NOTE.—See, for earlier class, FS 2.22/64 :
 (nos.).
- HE 20.3012 : CT----- Bibliographies and lists of publications.
 NOTE.—See, for earlier class, FS 2.22/13 : (CT).
- HE 20.3013 : date----- Public Health Service grants and awards
 (annual).
 NOTE.—See, for earlier class, FS 2.22/7 : (date).
- HE 20.3013/2 : date----- Research grants index (annual).
 NOTE.—See, for earlier class, FS 2.22/7-2 :
 (date).
- HE 20.3014 : nos----- Resources for medical research and education,
 reports.
 NOTE.—See, for earlier class, FS 2.22/33 : (CT).
- HE 20.3015 : date----- Associated training programs in medical and
 biological sciences, at National Institutes of
 Health (annual).
 NOTE.—See, for earlier publications, FS 2.22 :
 M 46/4/ (date).
- HE 20.3016 : date----- NIH almanac (annual).
- HE 20.3017 : date----- Scientific directory and annual bibliography.
 NOTE.—See, for earlier class, FS 2.22/13-8 :
 (date).
- HE 20.3018 : date----- NIH public advisory groups: Authority, struc-
 ture, functions.
 NOTE.—See, for earlier class, FS 2.22/22-2 :
 (date).
- HE 20.3019 : Reserved
 HE 20.3020 : CT----- Posters.
 HE 20.3021 :-3023 : Reserved

- HE 20.3024 : date----- Progress against cancer, report by National Advisory Cancer Council.
NOTE.—See, for earlier class, FS 2.22/14-2 : (date).
- HE 20.3025 : -3100 : Reserved Health Professions Education and Manpower Training Bureau.
Annual report.
General publications.
NOTE.—See, for earlier publications, FS 2.22 : (CT).
- HE 20.3103 : -3107 : Reserved Handbooks, manuals, guides.
NOTE.—See, for earlier publications, FS 2.6/2 : (CT).
- HE 20.3109 : sec.nos----- Health manpower source book.
NOTE.—See, for earlier publications, FS 2.2 : M 31/sec. (nos.)/(date).
- HE 20.3110 : date----- Nurses in public health.
NOTE.—See, for earlier class, FS 2.81 : (date).
- HE 20.3111 : date----- Current research project grants (annual).
NOTE.—See, for earlier publication, FS 2.22 : N 93/8/969.
- HE 20.3112 : date----- Fluoridation census (annual).
NOTE.—See, for earlier class, FS 2.304 : (date).
- HE 20.3113 : CT----- Bibliographies and lists of publications.
NOTE.—See, for earlier publications, FS 2.22/13 : (CT).
- HE 20.3114 : -3150 : Reserved National Cancer Institute.
Annual report.
General publications.
NOTE.—See, for earlier publications, FS 2.22 : (CT).
- HE 20.3153 : -3158 : Reserved Carcinogenesis abstracts (monthly).
NOTE.—See, for earlier class, FS 2.22/39 : (v. nos. & nos.).
- HE 20.3159 : v.nos.& nos----- Cancer chemotherapy reports, pt. 1.
NOTE.—See, for earlier class, FS 2.22/30 : (v. nos. & nos.).
- HE 20.3160 : v.nos.& nos----- Cancer chemotherapy reports, pt. 2.
NOTE.—See, for earlier class, FS 2.22/30-3 : (v. nos. & nos.).
- HE 20.3160/3 : v.nos.& nos----- Cancer chemotherapy reports, pt. 3.
NOTE.—See, for earlier class, FS 2.22/30-4 : (v. nos. & nos.).
- HE 20.3161 : v.nos.& nos----- Journal of National Cancer Institute.
NOTE.—See, for earlier class, FS 2.31 : (v. nos. & nos.).
- HE 20.3162 : -3163 : Reserved Chemotherapy fact sheets.
NOTE.—See, for earlier class, FS 2.22/63 : (CT).
- HE 20.3164 : CT----- Bibliographies and lists of publications.
Research reports.
NOTE.—See, for earlier class, FS 2.22/32-2 : (CT).
- HE 20.3165 : CT-----
- HE 20.3166 : CT-----
- HE 20.3167 : -3200 : Reserved National Heart and Lung Institute.
Annual report.
General publications.
NOTE.—See, for earlier class, FS 2.22 : (CT).

- HE 20.3203 :-.3207 : Reserved
 HE 20.3208 : CT----- Handbooks, manuals, guides.
 NOTE.—See, for earlier publications, FS 2.22/15 : (CT).
- HE 20.3209 : date----- Fibrinolysis, thrombolysis, and blood clotting bibliography.
 NOTE.—See, for earlier class, FS 2.22/13-6 : (date).
- HE 20.3210 : date----- Medical Devices Application Program, annual report.
 NOTE.—Entitled Artificial Heart Program prior to July 29, 1970.
- HE 20.3211 :-.3250 : Reserved
 National Institute of Allergy and Infectious Diseases.
- HE 20.3251 : date----- Annual report.
 HE 20.3252 : CT----- General publications.
 HE 20.3253 :-.3300 : Reserved
 National Institute of Arthritis and Metabolic Diseases.
- HE 20.3301 : date----- Annual report.
 HE 20.3302 : CT----- General publications.
 NOTE.—See, for earlier publications, FS 2.22 : (CT).
- HE 20.3303 :-.3308 : Reserved
 HE 20.3309 : v.nos.& nos----- Endocrinology index (bimonthly).
 NOTE.—See, for earlier class, FS 2.22/48-2 : (v.nos.& nos.).
- HE 20.3310 : v.nos.& nos----- Diabetes literature index (monthly).
 NOTE.—See, for earlier class, FS 2.22/53 : (v.nos.& nos.).
- HE 20.3310/2 : v.nos.& nos----- Diabetes literature index, annual index issue.
 NOTE.—See, for earlier class, FS 2.22/53-2 : (v.nos.& nos.).
- HE 20.3311 : v.nos.& nos----- Artificial kidney bibliography (quarterly).
 NOTE.—See, for earlier class, FS 2.22/13-5 : (v.nos.& nos.).
- HE 20.3312 : v.nos.& nos----- Arthritis and rheumatic diseases abstracts (monthly).
 NOTE.—See, for earlier class, FS 2.22/47 : (v.nos.& nos.).
- HE 20.3313 : v.nos.& nos----- Gastroenterology abstracts and citations (monthly).
 NOTE.—See, for earlier class, FS 2.22/54 : (v.nos.& nos.).
- HE 20.3314 : date----- Annual contractors' conference of artificial kidney program, proceedings.
 NOTE.—See, for earlier publication, FS 2.22 : K 54.
- HE 20.3315 :-.3350 : Reserved
 National Institute of Child Health and Human Development.
- HE 20.3351 : date----- Annual report.
 HE 20.3352 : CT----- General publication.
 NOTE.—See for earlier publications, FS 2.22 : (CT).
- HE 20.3353 :-.3358 : Reserved
 HE 20.3359 : nos----- Adult development and aging abstracts.
 NOTE.—See, for earlier class, FS 2.22/25-3 : (nos.).
- HE 20.3360 : Reserved
 HE 20.3361 : CT----- Bibliographies and lists of publications.
 HE 20.3362 : nos----- Population research reports (numbered).
 NOTE.—See, for earlier class, FS 2.22/61 : (nos.).
- HE 20.3363 :-.3400 : Reserved

- HE 20.3401 : date-----
HE 20.3402 : CT-----
- National Institute of Dental Research.
Annual report.
General publications.
NOTE.—See, for earlier publications, FS 2.22 : (CT).
- HE 20.3403 :-.3407 : Reserved
HE 20.3408 : CT-----
- Handbooks, manuals, guides.
NOTE.—See, for earlier publications, FS 2.22/15 : (CT).
- HE 20.3409 :-.3450 : Reserved
- National Institute of General Medical Sciences.
Annual report.
General publications.
NOTE.—See, for earlier publications, FS 2.22 : (CT).
- HE 20.3451 : date-----
HE 20.3452 : CT-----
- HE 20.3453 :-.3500 : Reserved
- National Institute of Neurological Disease and Stroke.
Annual report.
General publications.
NOTE.—See, for earlier publications, FS 2.22 : (CT).
- HE 20.3501 : date-----
HE 20.3502 : CT-----
- HE 20.3503 :-.3508 : Reserved
HE 20.3509 : v.nos.& nos-----
- Epilepsy abstracts (monthly).
NOTE.—See, for earlier class, FS 2.22/59 : (v. nos. & nos.).
- HE 20.3509/2 : v.nos.& nos-----
- Epilepsy abstracts (compilations).
NOTE.—See, for earlier class, FS 2.22/59-2 : (date).
- HE 20.3510 : nos-----
- NINDS monographs.
NOTE.—See, for earlier class, FS 2.22/55 : (nos.).
- HE 20.3511 : v.nos.& nos-----
- Parkinson's disease & related disorders, citations from the literature.
- HE 20.3512 :-.3550 : Reserved
- National Institute of Environmental Health Sciences.
Annual report.
General publications.
- HE 20.3551 : date-----
HE 20.3552 : CT-----
HE 20.3553 :-.3600 : Reserved
- National Library of Medicine.
Annual report.
NOTE.—See, for earlier class, FS 2.201 : (date).
- HE 20.3602 : CT-----
- General publications.
NOTE.—See, for earlier class, FS 2.202 : (CT).
- HE 20.3603 :-.3607 : Reserved
HE 20.3608 : CT-----
- Handbooks, manuals, guides.
NOTE.—See, for earlier class, FS 2.217 : (CT).
- HE 20.3608/2 : Reserved
HE 20.3608/3 : CT-----
HE 20.3609 : v.nos.& nos-----
- Film guides.
National Library of Medicine current catalog (biweekly).
NOTE.—See, for earlier class, FS 2.216 : (v. nos. & nos.).
- HE 20.3609/2 : date-----
- National Library of Medicine current catalog, cumulative listing.
NOTE.—See, for earlier class, FS 2.216/2 : (date).
- HE 20.3610 : v.nos.& nos-----
- Monthly bibliography of medical reviews.
NOTE.—See, for earlier class, FS 2.209/2-2 : (v. nos. & nos.).
- HE 20.3611 : nos-----
- Notes for medical catalogers.
NOTE.—See, for earlier class, FS 2.215 : (nos.).
- HE 20.3612 : v.nos.& nos-----
- Index medicus, including Bibliography of medical reviews (monthly).
NOTE.—See, for earlier class, FS 2.208/2 : (v. nos. & nos.).

- HE 20.3612/2: v.nos.& nos----- Abridged index medicus (monthly).
 HE 20.3612/3: v.nos----- Cumulated index medicus.
 NOTE.—See, for earlier class, FS 2.208/4: (v. nos.).
- HE 20.3613: v.nos.& nos----- Toxicity bibliography (quarterly).
 NOTE.—See, for earlier class, FS 2.218: (v.nos.& nos.).
- HE 20.3614: Reserved
 HE 20.3614/2: nos----- Literature searches (numbered).
 HE 20.3615: nos----- Bibliography of the history of medicine (annual, cumulated every five years).
 NOTE.—See, for earlier class, FS 2.209/4: (nos.).
- HE 20.3616: --3700: Reserved
 John E. Fogarty International Center for Advanced Study in the Health Sciences.
- HE 20.3701: date----- Annual report.
 HE 20.3702: CT----- General publications.
 NOTE.—See, for earlier publications, FS 2.22: (CT).
- HE 20.3703: --3750: Reserved
 National Eye Institute.
 HE 20.3751: date----- Annual report.
 HE 20.3752: CT----- General publications.
 HE 20.3753: --3758: Reserved
 HE 20.3759: date----- Statistics on blindness in the model reporting area (annual).
 NOTE.—See, for earlier class, FS 2.22/37-2: (date).
- HE 20.3759/2: date----- Conference of model reporting area for blindness, proceedings (annual).
 NOTE.—See, for earlier class, FS 2.22/37: (date).
- HE 20.3760: --4000: Reserved
 Food and Drug Administration.
 HE 20.4001: date----- Annual report.
 NOTE.—See, for earlier class, HE 20.1201: (date).
- HE 20.4002: CT----- General publications.
 NOTE.—See, for earlier class, HE 20.1202: (CT).
- HE 20.4003: --4005: Reserved
 HE 20.4006: CT----- Regulations, rules, and instructions.
 NOTE.—See, for earlier class, HE 20.1206: (CT).
- HE 20.4007: --4011: Reserved
 HE 20.4012: date----- National drug code directory.
 NOTE.—See, for earlier class, FS 13.134: (date).
- HE 20.4013: date----- FDA current drug information.
 HE 20.4014: Reserved
 HE 20.4015: nos----- FDA publications (numbered).
 NOTE.—See, for earlier class, FS 13.111: (nos.).
- HE 20.4016: --4018: Reserved
 HE 20.4019: date----- Poison control statistics (annual).
- HE 21.1: date----- Child Development Office.
 HE 21.2: CT----- Annual report.
 HE 21.3: --8: Reserved
 HE 21.9: v.nos.& nos----- General publications.
- Children (bimonthly).
 NOTE.—See, for earlier class, FS 17.215: (nos.) & nos.).
- HE 21.10: date----- Publications of Office of Child Development.
 HE 21.11: --100: Reserved
- HE 21.101: date----- Children's Bureau.
 HE 21.102: CT----- Annual report.
 General publications.
 NOTE.—See, for earlier class, FS 17.202: (CT).
- HE 21.103: --108: Reserved
 HE 21.109: nos----- Youth reports.

- HE 21.110: nos.----- Publications (numbered).
NOTE.—See, for earlier class, FS 17.210: (nos.).
- HE 21.111: nos.----- Folders.
NOTE.—See, for earlier class, FS 17.215: (nos.).
- HE 21.112: nos.----- Research relating to children, bulletins (numbered).
NOTE.—See, for earlier class, FS 17.211: (nos.).
- HE 21.113: CT----- Bibliographies and lists of publications.
NOTE.—See, for earlier class, FS 17.212: (CT).
- HE 21.114: -.200: Reserved
- HE 21.201: date----- Head Start and Child Development Bureau.
Annual report.
- HE 21.202: CT----- General publications.
- HE 21.203: -.207: Reserved
- HE 21.208: CT----- Handbooks, manuals, guides.
- HE 21.209: v.nos.& nos----- Head start newsletter.
NOTE.—See, for earlier class, PrEx 10.12/2: (v. nos. & nos.).
- HH 1.36: v.nos.& nos----- Housing and Urban Development Department.
HUD challenge (bimonthly).
- HH 1.37: date----- Government National Mortgage Association:
Annual report.
- HH 1.38: date----- HUD statistical yearbook (annual).
- HH 1.39: Reserved
- HH 1.40: nos----- HUD international information series (numbered).
- HH 8.10: nos----- Urban Management Assistance Administration.
Housing planning information series (numbered).
- I 19.53/3: date----- Geological Survey.
National reference list of water quality stations, water year (annual).
- I 22.10: v.nos.& nos----- Interior Department Library.
Population trends and environmental policy (monthly).
- I 27.58: -.59: Reserved
- I 27.60: nos----- Reclamation Bureau.
REC-OCE [Reclamation Bureau—Office of Chief Engineer] (series).
- I 28.29/2: date----- Mines Bureau.
Cement, annual.
- I 28.61/3: date----- Gold and silver, annual.
- I 29.1/2: date----- National Park Service.
Advisory Council on Historic Preservation, annual report.
- I 29.76: date----- National register (annual).
- I 29.76/2: date----- Advisory list to National register of historic places.
- I 49.74: nos----- Sport Fisheries and Wildlife Bureau.
Foreign game leaflets (numbered).
- I 66.19: date----- Outdoor Recreation Bureau.
Balance, a discussion of conservation issues.
- I 66.19/2: date----- Continental Divide trail study progress reports.
- I 66.19/3: date----- Mid-continent memo.
- I 67.13/4: letters-nos----- Federal Water Pollution Control Administration.
Water pollution control research series.
NOTE.—This class does not include WP-20-series, which is classified I 67.13/3:.
- I 67.20: Reserved
- I 67.21: nos----- Estuarine pollution study series.
- I 68.3: -.8: Reserved
- I 68.9: CT----- Alaska Power Administration.
- IC 1.12/3: CT----- Alaska resources development studies.
Interstate Commerce Commission.
Handbooks, manuals, guides.

- Justice Department.**
 J 1.33/3: v.nos.& nos.----- LEAA newsletter (monthly).
 J 1.36: nos.----- PR-(series).
 NOTE.—Issued by Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice.
- J 1.36/2: nos.----- IOR-(series).
 NOTE.—Issued by Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice.
- Narcotics and Dangerous Drugs Bureau.**
 J 2.9: Reserved
 J 2.10: nos.----- Fact sheets.
 NOTE.—See, for earlier similar class, FS 13.130: (nos.).
- Labor Department.**
 L 1.2/a: CT.----- General publications (separates).
 L 1.7/6: date----- Job guide for young workers.
 NOTE.—See, for earlier class, L 7.25/2:(date).
 L 1.20/6: date----- Black news digest (weekly).
 L 1.58/2: nos.----- PM (series).
 NOTE.—Issued by Job Corps.
 L 1.59: date----- Directory of local employment security offices.
 NOTE.—See, for earlier class, L 7.68:(date).
 L 1.60: date----- Employment service statistics (monthly).
 NOTE.—See, for earlier class, L 7.19/2-2:(date).
 L 1.61: date----- Employment and wages of workers covered by State unemployment insurance laws and unemployment compensation for Federal employees, by industry and State.
 NOTE.—See, for earlier class, L 7.20/3:(date).
 L 1.62: v.nos.& nos.----- Unemployment insurance claims (weekly).
 NOTE.—See, for earlier class, L 7.39:(v. nos. & nos.).
 L 1.62/2: date----- Unemployment insurance statistics.
 NOTE.—See, for earlier class, L 7.18/4:(date).
 L 1.63: date----- Farm labor developments.
 NOTE.—See, for earlier class, L 7.55:(date).
- Labor Statistics Bureau.**
 L 2.93:—96: Reserved
 L 2.97: nos.----- Urban employment survey reports (numbered).
 L 2.98: nos.----- Special labor force reports (numbered).
Employees Compensation Bureau.
 L 26.8/2-2: date----- Federal work injury facts, occupational distribution, duration and direct cost factors of work injuries to civilian federal employees during calendar year.
Unemployment Insurance Service.
 L 33.8: CT.----- Handbooks, manuals, guides.
 NOTE.—See, for earlier publications, L 1.7/2: (CT).
- Library of Congress.**
 LC 1.30/8: v.nos.& nos.----- Accessions list: Eastern Africa.
 LC 1.32/4: date----- Federal Library Committee: Annual report.
National Credit Union Administration.
 NCU 1.1: date----- Annual report.
 NOTE.—See, for earlier class, FS 3.301:(date).
 NCU 1.2: CT----- General publications.
 NOTE.—See, for earlier class, FS 3.302:(CT).
 NOU 1.3: v.nos.& nos.----- Bulletin.
 NOTE.—See, for earlier class, FS 3.303:(v. nos. & nos.).

NF 3.9: nos_____	National Endowment for the Humanities.
NF 3.10: date_____	Occasional papers.
	Humanities.
NS 1.29:v.nos.& nos_____	National Science Foundation.
NS 1.30: date_____	Mosaic (quarterly).
	Federal support of research and development at universities and colleges and selected nonprofit institutions, fiscal year, report to the President and Congress.
NS 1.31: CT_____	Science resources studies highlights.
P 1.12/5: issue no_____	Post Office Department.
	Postal Service manual.
	NOTE.—Replaces Postal manual, P 1.12/2: (nos.).
P 1.31/6: nos_____	Maintenance handbook, MS—(series).
	President of United States (Richard M. Nixon) (Jan. 20, 1969—).
Pr 37.3: -6: Reserved	
Pr 37.7: date_____	Press releases.
Pr 37.8: CT_____	Committees and commissions of the President.
Pr 37.9: date_____	Economic report of the President.
	NOTE.—See, for earlier class, Pr 36.9: (date).
PrEx 1.10/4-4: CT_____	News and clues for sheltered workshops.
	Budget Bureau.
PrEx 2.3/3: CT_____	Executive management bulletin (series).
PrEx 2.18: date_____	Simplifying Federal aid to States & communities, annual report to President on an inter-agency program.
	Economic Opportunity Office.
PrEx 10.7/3: date_____	OEO news summary.
	National Council on Marine Resources and Engineering Development.
PrEx 12.11: nos_____	MSAS [Marine Sciences Affairs Staff] publications (numbered).
	National Clearinghouse for Drug Abuse Information.
PrEx 13.1: date_____	Annual report.
PrEx 13.2: CT_____	General publications.
PrEx 13.3: -7: Reserved	
PrEx 13.8: CT_____	Handbooks, manuals, guides.
	Council on Environmental Quality.
PrEx 14.1: date_____	Annual report.
PrEx 14.2: CT_____	General publications.
	State Department.
S 1.8/2: date_____	Employees of diplomatic missions (quarterly).
S 1.71/3: nos_____	Economic foreign policy series.
S 1.101/9: date_____	Government-supported research, international affairs, research completed and in progress.
	International Development Agency.
S 18.39: nos_____	Private development assistance series, reports (numbered).
	Peace Corps.
S 19.12/2: date_____	Bi-annual statistical summary.
	Smithsonian Institution.
SI 1.1/a6: date_____	Smithsonian Institution Press, annual report.
SI 1.28: nos_____	Smithsonian studies in history and technology.
SI 1.31: CT_____	Addresses.
	Transportation Department.
TD 1.8: CT_____	Handbooks, manuals, guides.
TD 1.9/2: Reserved	
TD 1.9/3: date_____	Department of Transportation telephone directory, directory of services and classified.
	Bibliographic lists (numbered).
TD 1.15: nos_____	Bibliographies and lists of publications.
TD 1.15/2: CT_____	Federal aircraft noise abatement plan, fiscal year.
TD 1.16: date_____	

TD 1.17: CT-----	Automobile insurance and compensation study.
TD 1.18: date-----	Domestic & international facilitation programs, fiscal year.
TD 1.19: date-----	National plan for navigation (annual).
TD 1.109/8: date-----	National Transportation Safety Board. Briefs of accidents involving missing aircraft, U.S. general aviation.
TD 1.109/9: date-----	Briefs of accidents involving alcohol as a cause/factor, U.S. general aviation.
TD 1.109/10: date-----	Briefs of accidents involving corporate/executive aircraft, U.S. general aviation.
TD 1.109/11: date-----	Briefs of accidents by make and model of aircraft, U.S. general aviation (compilation).
TD 1.116: CT-----	Marine casualty reports. NOTE.—Title varies.
TD 1.117: CT-----	Highway accident reports.
TD 1.118: CT-----	Pipeline accident reports. Federal Highway Administration.
TD 2.14: nos-----	Highway beauty awards competition (annual).
TD 2.15: date-----	Summer youth opportunity campaign (annual).
TD 2.16: date-----	Annual report to Secretary of Transportation on accident investigation and reporting activities of Federal Highway Administration.
TD 2.17: date-----	Annual report on status of Equal Employment Opportunity Program. Public Roads Bureau.
TD 2.117/2: letters-nos-----	TIES computer program (series).
TD 2.126: date-----	Fatal and injury accident rates of Federal-aid and other highway systems (annual). NOTE.—See, for earlier class, TD 2.102: Ac 2.
TD 2.127: nos-----	Hydraulic design series (numbered). NOTE.—See, for earlier class, C 37.23:(nos.).
TD 2.128: CT-----	Highway construction usage factors for [major highway construction materials]. NOTE.—See, for earlier publications, C 37.2:(CT).
TD 2.129: date-----	Highway activities of municipalities of 50,000 or more population (annual).
TD 2.210/4-2: nos-----	Highway safety literature, indexes (quarterly).
TD 2.213: v.nos.& nos-----	Consumer information series. Motor Carriers Safety Bureau.
TD 2.312/2: date-----	Analysis of accident reports involving fire. NOTE.—See, for earlier class, TD 2.302: Ac 2/date.
TD 2.312/3: date-----	Analysis and summary of accident investigations. Federal Railroad Administration.
TD 3.10/2: nos-----	Railroad accident investigation summary reports (numbered).
TD 3.13: nos-----	NECTP [Northeast Corridor Transportation Project] (series). Railroad Safety Bureau.
TD 3.106: CT-----	Regulations, rules and instructions. NOTE.—See, for earlier publications, IC 1.12/2:(CT).
TD 3.110: nos-----	Railroad accident investigation reports. NOTE.—See, for earlier class, TD 3.10:(nos.).
TD 3.110/2: nos-----	Railroad accident investigation summary reports. NOTE.—See, for earlier class, TD 3.10/2:(nos.). Federal Aviation Administration.
TD 4.8/3: Reserved	

TD 4.8/4: CT-----	Airport design standards. NOTE.—See, for earlier class, TD 4.8: A1 7/14.
TD 4.27: CT-----	Maps and charts. NOTE.—See, for earlier class, FAA 1.16:(CT).
TD 4.32/2: nos-----	Office of Noise Abatement: Report FAA-NO (series).
TD 4.32/3: nos-----	Report FAA-NS—(series).
TD 4.33: date-----	National aviation system plan. NOTE.—See, for earlier publications, TD 4.2: N 21/2/(date).
TD 4.33/2: date-----	National aviation system, policy summary (annual).
TD 4.34: nos-----	Data reports (numbered).
TD 4.211: date-----	Aviation Medicine Office. Directory, aviation medical examiners. NOTE.—See, for earlier class, FAA 7.8:.
TD 4.212: CT-----	Addresses.
TD 4.412: TC-----	Flight Standards Service. Addresses.
TD 5.3: nos-----	Coast Guard. Bulletins. NOTE.—See, for earlier class, T 47.3:(nos.).
TD 5.4/3: nos-----	Boating safety circular.
TD 5.12/2: date-----	Merchant vessels of United States. NOTE.—See, for earlier class, T 17.11/2:(date).
TD 8.1: date-----	National Highway Safety Bureau. Annual report. NOTE.—See, for earlier class, TD 2.201:(date).
TD 8.2: CT-----	General publications. NOTE.—See, for earlier class, TD 2.202:(CT).
TD 8.3: -8: Reserved	
TD 8.8/2: nos-----	Community action program for traffic safety, guides (numbered).
TD 8.9: -10: Reserved	
TD 8.10/2: nos-----	Highway safety literature indexes (annual). NOTE.—See, for earlier class, TD 2.210/4:(nos.).
TD 8.10/3: date-----	Highway safety literature annual cumulations. NOTE.—See, for earlier class, TD 2.210/3:(nos.).
TD 8.11: DOT HS nos-----	Multidisciplinary accident investigations (numbered).
TD 8.12: Reserved	
TD 8.13: CT-----	Bibliographies and lists of publications.
Y 3.Ad 6:1/date-----	Administrative Conference of United States. Annual report.
Y 3.Ad 6:2 CT-----	General publications.
Y 3.Am 3/6:1/date-----	American Revolution Bicentennial Commission. Annual report.
Y 3.Am 3/6:2 CT-----	General publications.
Y 3.Am 3/6:3/-7/Reserved	
Y 3.Am 3/6:7-2/v.nos.-nos---	Bicentennial era.
Y 3.At 7:33-2/v.nos.& nos---	Atomic Energy Commission. AEC news releases.
Y 3.F 31/8:9-2/date-----	Federal Deposit Insurance Corporation. Report of call, assets, liabilities, capital accounts commercial and mutual savings banks (unnumbered). NOTE.—See, for earlier publications, Y 3.F 31/8:9/(nos.).
Y 3.G 79/3:1/date-----	Great Lakes Basin Commission. Report.
Y 3.G 79/3:2 CT-----	General publications.

Y 3.N 21/23: 1/date-----	National Visitors Center Study Commission. Report.
Y 3.N 21/24: 1/date-----	National Water Commission. Report.
Y 3.N 21/24: 9/nos-----	Interim reports (numbered).
Y 3.N 21/25: 1/date-----	National Commission on Product Safety. Reports.
Y 3.N 21/25: 2 CT-----	General publications.
Y 3.P 11/4: 8 CT-----	Pacific Northwest River Basins Commission. Handbooks, manuals, guides.
Y 3.Sp 2/7: 1/date-----	Cabinet Committee on Opportunity for Spanish Speaking. Annual report.
Y 3.Sp 2/7: 2 CT-----	General publications.
Y 3.W 29: 10/date-----	Water Resources Council. Notes on sedimentation activities, calendar year.
Y 3.W 58/16: 1/date-----	White House Conference on Food, Nutrition and Health. Report.
Y 4.C 86/3: CT-----	Crime, Select Committee on, House. Publications.
Y 4.H 81/6: CT-----	House Restaurant, Select Committee on, House. Publications.

Discontinued Series

A 17.18: v.nos.& nos-----	National Agricultural Library. Bibliography of agriculture (monthly). NOTE.—Discontinued with v. 33, no. 12, Dec. 1969.
A 77.216/2: date-----	Agricultural Research Service. Summary, brucellosis eradication . . . (monthly). NOTE.—Discontinued with June 1968 issue.
A 82.60: date-----	Agricultural Stabilization and Conservation Service. Purchase reports (irregular). NOTE.—Discontinued with Dec. 1968 issue.
A 82.61: date-----	Sales reports (irregular). NOTE.—Discontinued with Dec. 1968 issue.
A 92.9: date-----	Statistical Reporting Service. Pullet chicks for broiler hatchery supply flocks (monthly). NOTE.—Discontinued with statistics in Novem- ber 1969 issue. Information now included in Eggs, chickens and turkeys, A 92.9/16:(date).
A 92.9/2: date-----	Turkeys and chickens tested (monthly). NOTE.—Discontinued with issued dated Oct. 21, 1969.
A 92.9/6: date-----	Hatchery production (monthly). NOTE.—Discontinued with statistics in Novem- ber 1969 issue. Information now included in Eggs, chickens and turkeys, A 92.9/16:(date).
A 92.18/2: date-----	Shipments of stocker and feeder cattle and sheep (monthly). NOTE.—Discontinued with Feb. 27, 1969 issue.
C 3.215/6: letter-nos-----	Census Bureau. Construction reports: Housing authorized by building permits and public contracts, States and standard metropolitan statistical areas, C 42—(series) (monthly). NOTE.—Discontinued as separate series. Com- bined with Construction report C 40—(series) be- ginning with July 1969 issue.

International Commerce Bureau.

C 42.11/2: nos.----- Current export bulletin, supplement to Comprehensive export schedule (irregular).

NOTE.—Discontinued with no. 985, May 15, 1969, and replaced by Export control bulletin, C 42.11/3: (nos.).

Air Force Department.

D 306.8: v.nos.& nos.----- Aerospace maintenance safety (monthly).

NOTE.—Discontinued with v. 25, no. 2, Feb. 1970. Material issued in this publication will be issued in Aerospace safety, effective with v. 26, no. 3, March 1970 issue.

Federal Home Loan Bank Board.

FHL 1.14: v.nos.& nos.----- Federal Home Loan Bank Board digest (monthly).

NOTE.—Discontinued with v. 10, no. 9, 10, Apr.—May 1968.

Federal Reserve System Board of Governors.

FR 1.28: date.----- Assets and liabilities of all banks in United States (semimonthly).

NOTE.—Discontinued. Statistics now published in Statistical release H.8, Assets and liabilities of all commercial banks in United States, beginning with Feb. 5, 1969 issue.

Food and Drug Administration.

FS 13.130/2: date.----- BDAC bulletin (irregular).

NOTE.—Discontinued. See, for later similar information, BNDD bulletin, J 24.3: (v. nos. & nos.).

Federal Trade Commission.

FT 1.16/2: CT.----- Proposed trade practice rules (irregular).

NOTE.—Discontinued in 1968.

National Institutes of Health.

HE 20.3009/2: date.----- Recent translations, selected list (monthly).

NOTE.—Discontinued with Dec. 1969 issue.

Housing and Urban Development Department.

HH 1.30: date.----- Housing and urban development notes (bi-monthly).

NOTE.—Discontinued in 1968.

Interior Department.

I 1.80: date.----- Missouri River basin progress report.

NOTE.—Discontinued with annual report, fiscal year 1970.

Mines Bureau.

I 28.57: date.----- Zinc mine production (monthly).

NOTE.—Discontinued with Oct. 1968 issue. Information, beginning Nov. 1968, incorporated in Zinc industry.

I 28.60: date.----- Lead mine production (monthly).

NOTE.—Discontinued with July 1968 issue. Information, beginning Aug. 1968, incorporated in Lead industry.

I 28.61: date.----- Gold (monthly).

NOTE.—Discontinued with Sept. 1968 issue. Information, beginning Oct. 1968, incorporated in Gold and silver.

I 28.62: date.----- Silver (monthly).

NOTE.—Discontinued with Oct. 1968 issue. Information, beginning Nov. 1968, incorporated in Gold and silver.

I 28.68: date.----- Zinc scrap (monthly).

NOTE.—Discontinued with Oct. 1968 issue. Information, beginning Nov. 1968, incorporated in Zinc industry.

I 28.79/2: date.----- Brass mill [scrap and metal consumption and stocks at brass and wire mills (monthly)].

NOTE.—Discontinued with Apr. 1968 issue. Information beginning May 1968, incorporated in Copper industry.

- Commercial Fisheries Bureau.**
I 49.18/3: date----- Monthly list of new publications.
 NOTE.—Discontinued with Sept. 1969 issue.
- Prisons Bureau.**
J 16.13: v.nos.& nos----- Atlantian (quarterly).
 NOTE.—Discontinued with v. 26, no. 1-4.
J 16.18: v.nos.& nos----- Eagle (irregular).
 NOTE.—Discontinued with Spring 1968 issue.
- Labor Statistics Bureau.**
L 2.38/4: date----- Consumer price indexes for selected items and groups (quarterly).
 NOTE.—Discontinued with Dec. 1967-Dec. 1968 issue. Now included in monthly detailed report.
- Library of Congress.**
LC 2.9: date----- World list of future international meetings (bimonthly).
 NOTE.—Discontinued with Sept. 1969 issue.
- LC 30.10: v.nos.& nos**----- Monthly index of Russian accessions.
 NOTE.—Discontinued with v. 22, no. 5, May 1969.
- Economic Opportunity Office.**
PrEx 10.9/2: v.nos.& nos----- Communities in action, bimonthly magazine about War on poverty.
 NOTE.—Discontinued with v. 5, no. 3, June 1969.
- Job Corps staff newsletter (monthly).**
PrEx 10.10/3: v.nos.& nos-----
 NOTE.—Discontinued with v. 5, no. 8, Sept.-Oct. 1969.
- State Department.**
S 1.98: v.nos.& nos----- Foreign policy briefs (fortnightly).
 NOTE.—Discontinued with v. 18, no. 27, June 30, 1969.
- Tennessee Valley Authority.**
Y 3.T 25: 22/v.nos.& nos----- Teamwork (monthly).
 NOTE.—Discontinued with v. 25, no. 12.

Correction for Previous Monthly Catalogs

- Dec. 1965. Entry 19637, Research note INT-(series). Correct heading to read Research paper INT-(series).
- Nov. 1969. Entry 15850, Missouri River basin progress, annual report, [fiscal year] 1969. Correct class to read I 1.80: 969-2.
- Dec. 1969. Entry 16897, Title 5, United States Code, Government organization and employees, June 30, 1969. Correct class to read Y 4.P 84/11: Un 3/2/969.
- July 1970. Entry 9568, Working with older people, guide to practice: v. 2, Biological, psychological and sociological aspects of aging. Correct class to read HE 20.2558: O1 1/v. 2.
- Sept. 1970. Entry 12569, 1969 Wildlife statistics [calendar year 1969]. Change title to read 1969 Wildfire statistics [calendar year 1969].
- Oct. 1970. Entry 13020, Air Force pamphlet AFP 211-12. Delete this entry. The publication to which it refers is in the Sept. 1970 Monthly Catalog.
- Entry 13083, Selected bibliography on radioactive occurrences in United States. Correct distribution to read * Paper, \$1.25, and add ● Item 1051-C.
- Entry 13490, Committee hearings serial CC, Custom slaughtering. Correct class to read Y 4.Ag 8/1: S1 1/2.
- Entry 13550, Controlled dangerous substances, narcotics and drug control laws, hearings. Correct class to read Y 4.W 36: D 21/5.
- Entry 13552, Written statements and other material submitted by administration witnesses during hearings on subject of foreign trade and tariffs. Correct class to read Y 4.W 36: F 76 tr/8.
- Entry 13707, Inspection of meat imports, hearings. Correct class to read Y 4.Ag 8/2: M 46/9.

List of Government Authors

	Beginning entry
Advisory Commission on Intergovernmental Relations.....	17418
Agriculture Department.....	17431
Agricultural Research Service.....	17419
Agricultural Stabilization and Conservation Service.....	17429
Consumer and Marketing Service.....	17720
Economic Research Service.....	17904
Extension Service.....	17955
Farmer Cooperative Service.....	17956
Federal Crop Insurance Corporation.....	17967
Foreign Agricultural Service.....	18005
Forest Service.....	18007
Soil Conservation Service.....	18332
Statistical Reporting Service.....	18365
American Battle Monuments Commission.....	17456
Arms Control and Disarmament Agency.....	17458
Atomic Energy Commission.....	17472
Cabinet Committee on Opportunity for the Spanish Speaking.....	17480
Civil Aeronautics Board.....	17544
Civil Service Commission.....	17549
Commerce Department.....	17560
Business and Defense Services Administration.....	17479
Census Bureau.....	17481
Domestic Commerce Bureau.....	17748
Economic Development Administration.....	17750
Environmental Science Services Administration.....	17946
Coast and Geodetic Survey.....	17558
Weather Bureau.....	18401
International Commerce Bureau.....	18078
National Bureau of Standards.....	18232
Clearinghouse for Federal Scientific and Technical Information	
See below, National Technical Information Service.	
National Technical Information Service.....	18275
Patent Office.....	18300
United States Travel Service.....	18397
Congress.....	17572
Economic Joint Committee.....	17611
House of Representatives.....	17614
Agriculture Committee.....	17631
Armed Services Committee.....	17633
Banking and Currency Committee.....	17635
District of Columbia Committee.....	17636
Education and Labor Committee.....	17637
Foreign Affairs Committee.....	17644
Government Operations Committee.....	17646

Congress—Continued

	Depository No.
House of Representatives—Continued	
Interior and Insular Affairs Committee.....	17647
Internal Security Committee.....	17648
Interstate and Foreign Commerce Committee.....	17649
Judiciary Committee.....	17650
Post Office and Civil Service Committee.....	17651
Small Business, Select Committee on.....	17652
Veterans' Affairs Committee.....	17653
Printing Joint Committee.....	17654
Reduction of Federal Expenditures Joint Committee.....	17655
Senate	17657
Aging, Special Committee on.....	17686
Appropriations Committee.....	17687
Armed Services Committee.....	17689
Banking and Currency Committee.....	17691
Commerce Committee.....	17693
Equal Educational Opportunity, Select Committee on.....	17696
Finance Committee.....	17697
Foreign Relations Committee.....	17701
Interior and Insular Affairs Committee.....	17702
Judiciary Committee.....	17706
Labor and Public Welfare Committee.....	17710
Post Office and Civil Service Committee.....	17713
Public Works Committee.....	17714
Defense Department.....	17730
Air Force Department.....	17449
Air Force Academy.....	17448
Army Department.....	17460
Civil Defense Office.....	17647
Engineers Corps.....	17915
Lake Survey.....	18135
Navy Department.....	18298
Marine Corps.....	18138
Medicine and Surgery Bureau.....	18140
Naval Facilities Engineering Command.....	18280
Naval Operations Office.....	
Naval Observatory.....	18281
Naval Oceanographic Office.....	18283
Naval Personnel Bureau.....	18287
Naval Research Office.....	18291
Federal Home Loan Bank Board.....	17972
Federal Maritime Commission.....	17977
Federal Power Commission.....	17984
Federal Reserve System Board of Governors.....	17989
Federal Trade Commission.....	17995
General Accounting Office.....	18031
General Services Administration	
National Archives and Records Service.....	18230
Government Printing Office	
Public Documents Division.....	18304

	Depository No.
Health, Education, and Welfare Department.....	18056
Education Office.....	17906
Public Health Service.....	18308
Environmental Health Service	
National Air Pollution Control Administration.....	18229
Radiological Health Bureau.....	18313A
Solid Waste Management Bureau.....	18340
Health Services and Mental Health Administration.....	18058
Community Health Service.....	17569
Indian Health Service.....	18063
Maternal and Child Health Service.....	18139
National Center for Health Statistics.....	18240
National Institute of Mental Health.....	18265
Regional Medical Programs Service	
National Clearinghouse for Smoking and Health.....	18242
National Institutes of Health.....	18266
National Heart and Lung Institute.....	18244
National Institute of Allergy and Infectious Diseases.....	18263
National Institute of Child Health and Human Development.....	18264
Social and Rehabilitation Service.....	18327
Community Services Administration.....	17571
National Center for Social Statistics.....	18241
Social Security Administration.....	18328
Housing and Urban Development Department.....	18059
Federal Housing Administration.....	17975
Interior Department.....	18064
Federal Water Quality Administration.....	17996
Fish and Wildlife Service	
Commercial Fisheries Bureau.....	17565
Sport Fisheries and Wildlife Bureau.....	18341
Geographic Names Board.....	18038
Geological Survey.....	18039
Mines Bureau.....	18142
National Park Service.....	18272
Outdoor Recreation Bureau.....	18299
Reclamation Bureau.....	18315
Solicitor, Office of.....	18339
Interstate Commerce Commission.....	18090
Joint Publications Research Service.....	18091
Labor Department.....	18113
Labor Statistics Bureau.....	18114
Manpower Administration	
Apprenticeship and Training Bureau.....	17457
Workplace Standards Administration	
Women's Bureau.....	18405
Library of Congress.....	18136
Copyright Office.....	17723
National Aeronautics and Space Administration.....	18177
National Capital Planning Commission.....	18239
National Credit Union Administration.....	18243

	Depository No.
National Labor Relations Board.....	18269
National Science Foundation.....	18273
Post Office Department	
See below, United States Postal Service.	
President of United States.....	18301
Executive Office of the President	
Council on Environmental Quality.....	17729
Economic Opportunity Office.....	17751
Small Business Administration.....	18321
Smithsonian Institution.....	18325
State Department.....	18343
Supreme Court.....	18366
Tariff Commission.....	18379
Transportation Department.....	18384
Coast Guard.....	17559
Federal Aviation Administration.....	17957
Air Traffic Service.....	17453
Aircraft Development Service.....	17455
Aviation Medicine Office.....	17476
Systems Research and Development Service.....	18367
Federal Highway Administration.....	17968
Motor Carrier Safety Bureau.....	18176
Public Roads Bureau.....	18310
Federal Railroad Administration.....	17988
National Highway Safety Bureau.....	18245
National Transportation Safety Board.....	18276
Treasury Department.....	18387
Fiscal Service	
Public Debt Bureau.....	18303
Internal Revenue Service.....	18075
United States Postal Service.....	18392
Veterans Administration.....	18398

Monthly Catalog

NO. 911 • DECEMBER 1970

ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS Washington, DC 20575

- 17418 Making Safe streets act work, intergovernmental challenge. Sept. 1970. xv+78 p. il. 4° (A-36; Commission report.) * Paper, \$1.00. • Item 1049-D
L.C. card 72-609675 Y 3.Ad 9/8:2 Sa 1

AGRICULTURAL RESEARCH SERVICE, Agriculture Dept. Washington, DC 20250

ARS (series). † A 77.15:(nos.)

- 17419 71-39. Compositional studies on oilseeds, oils, and meals, list of publications and patents, 1962-69, Northern Regional Research Laboratory. Aug. 1970. 21 p. 4° [Supersedes ARS 71-23, supp. 1-7.]
L.C. card 78-609742
- 17420 71-40. Engineering studies on processing of oils and meals, list of publications and patents, 1962-69, Northern Regional Research Laboratory. Aug. 1970. 7 p. 4° [Supersedes ARS 71-24, supp. 107.]
L.C. card 74-609741
- 17422 71-42. Edible soybean protein and related studies, list of publications and patents, 1962-69, Northern Regional Research Laboratory. Aug. 1970. 24 p. 4° [Supersedes ARS 71-25, supp. 1-7.]
L.C. card 70-609740
- 17422 71-42. Edible soybean protein and related studies, list of publications and patents, 1962-69, Northern Regional Research Laboratory. Aug. 1970. 13 p. 4° [Supersedes ARS 71-26, supp. 1-7.]
L.C. card 76-609739
- 17423 71-43. Chemically modified oil products for industrial uses, list of publications and patents, 1962-69, Northern Regional Research Laboratory. Aug. 1970. 24 p. 4° [Supersedes ARS 71-27, supp. 1-7.]
L.C. card 72-609738
- 17424 71-44. Reviews and general articles on oilseed crops research, list of publications, 1962-69, Northern Regional Research Laboratory. Aug. 1970. 12 p. 4° ([Northern Utilization Research and Development Division, Peoria, Ill.]) [Supersedes ARS 71-29, supp. 1-7.]
L.C. card 79-609737
- 17425 Disease control services activities, public stockyards, animal identification, health and humane requirements, training-technical and professional development, quarterly report for Apr.-May-June 1968. Sept. 1968. 4 p. 4° (Animal Health Division.) ‡ A 77.212/9:968/2
- 17426 Plant inventory no. 176, Plant material introduced Jan. 1-Dec. 31, 1968 (nos. 324308-338613). [1970.] 405 p. † • Item 101 A 77.515:176
- 17427 1970 proceedings of National Brucellosis Committee of Livestock Conservation Inc. and progress report of cooperative State-Federal brucellosis eradication program; [by H. C. King and others]. [Sept. 1970.] cover title, ii+53 p. il. 4° † • Item 30
L.C. card 66-60298 A 77.202: B 83/16/970
- 17425 Profile of scientists in research activities of Agricultural Research Service. Mar. 1970. cover title, [2]+2-32 p. il. 4° [MOHR staff report prepared jointly by Personnel Division of Agricultural Research Service and Office of Personnel, Agriculture Dept. Text on p. 2 of cover.] †
A 77.2: Sci 2/3

•For Sale by National Technical Information Service,
Springfield, VA 22151

•Sent to depository Libraries

Page 1

GOVERNMENT PUBLICATIONS

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE, Agriculture Dept., Washington, DC 20250

- 17429 ASCS aerial photography status maps as of July 31, 1970. [1970.] cover title, [1]+69 p. il. 4° [Issued with perforations.] † A 82.2: Ae 8/970
L.C. card 70-604453
- 17430 Virginia 1970 [1968 highlights], agricultural conservation program. [1970.] [15] p. il. 4° (Agricultural Stabilization and Conservation Service, Virginia State Office, Richmond, Va.) † A 82.1/2: V 81/968-2

AGRICULTURE DEPARTMENT Washington, DC 20250

NOTE.—Requests to the Department of Agriculture for publications should include the USDA number if given in the entry.

Agriculture handbooks. ● Item 3 A 1.76:(nos.)

- 17431 384. The look of our land, airphoto atlas of rural United States [North Central, with list of selected references; compiled by Simon Baker and Henry W. Dill, jr.]. [Sept. 1970.] cover title, 64 p. il. oblong 8° (Economic Research Service.) [Includes regions K, L, and M. Text on p. 2 of cover.] * Paper, 75c.
L.C. card 72-609746
- 17432 397. Handbook of agricultural charts, 1970. [Nov. 1970.] cover title, 145 p. il. ([Economic Research, Statistical Reporting, Agricultural Research, Foreign Agricultural Services.]) * Paper, 65c.
L.C. card 64-82697

Farmers' bulletins. ● Item 9 A 1.9:(nos.)

- 17433 1869. Foundations for farm buildings; [prepared by Agricultural Engineering Research Division, Agricultural Research Service]. [Revised June 1965, slightly revised Oct. 1970.] [1970.] 32 p. il. * Paper, 20c.
L.C. card 70-609460
- 17434 2104. Protecting log cabins, rustic work, and unseasoned wood from injurious insects in eastern United States [with list of supplementary references; by R. A. St. George]. [Revised Sept. 1970.] [1970.] ii+18 p. il. ([Beltsville Forest Insect Laboratory, Forest Service.]) * Paper, 15c.
L.C. card 76-609548
- 17435 2243. Farm lighting; [prepared by Albert V. Krewatch and L. E. Campbell]. [Dec. 1966.] 16 p. il. ([Agricultural Research Service.]) [Prepared in cooperation with University of Maryland.] * Paper, 10c.
L.C. card 79-605194

Home and garden bulletins. ● Item 11 A 1.77:(nos.)

- 17436 67. Insects and related pests of house plants, how to control them; [by George V. Johnson and Floyd F. Smith]. [Revised Sept. 1970.] [1970.] 16 p. il. ([Entomology Research Division, Agricultural Research Service.]) * Paper, 10c.
L.C. card 77-609695
- 17437 87. Growing figs in South for home use. [Dec. 1962, slightly revised Oct. 1970.] [1970.] 12 p. il. [Information furnished by A. H. Krezdorn, Head, Department of Fruit Crops, University of Florida and by Crops Research Division, Agricultural Research Service. Supersedes Farmers' bulletin 1031 Fig growing in South Atlantic and Gulf States.] * Paper, 10c.
L.C. card 70-609629
- 17488 131. Growing dahlias; [prepared by Crops Research Division and Entomology Research Division, Agricultural Research Service]. [Revised Oct. 1970.] [1970.] 8 p. il. * Paper, 10c.
L.C. card 72-609502
- 17439 178. Controlling eastern tent caterpillar; [prepared by Entomology Research Division, Agricultural Research Service]. [Oct. 1970.] 10 p. il. [Supersedes Leaflet 161, Eastern tent caterpillar.] * Paper, 10c.
L.C. card 75-609630

Leaflets. ● Item 12 A 1.35:(nos.)

- 17440 137. Blight of pears, apples, and quinces; [prepared by Crops Research Division, Agricultural Research Service]. [Revised Oct. 1970.] [1970.] [6] p. il. narrow 8° * Paper, 10c.
- 17441 219. Home fruit garden in Southeastern and Central Southern States; [prepared by Crops Research Division, Agricultural Research Service]. [Revised Dec. 1951, slightly revised Sept. 1970.] [1970.] 8 p. il. * Paper, 10c.
L.C. card 79-609745

Marketing research reports. ● Item 13-B A 1.82:(nos.)

- 17442 885. Contact, residue, and vapor toxicity of new insecticides to stored-product insects, 2; [by Roy D. Speirs and Joe H. Lang]. [Sept. 1970.] iv+35 p. 4° (Agricultural Research Service.) * Paper, 35c.
L.C. card 70-609492

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

- 17443 887. Candidate mothproofers: Toxicity to fabric insects and persistence through washing and drycleaning, pt. 1.; [by Lehman L. McDonald, Hobart P. Boles, and Roy E. Bry]. [Sept. 1970.] ii+9 p. 4° ([Market Quality Research Division], Agricultural Research Service.) * Paper, 15c.
L.C. card 70-609693
- 17444 903. Cotton gin operating costs in west Texas, 1968-69; [by Charles A. Willmot, Dale L. Shaw, and Zolon M. Looney]. [Sept. 1970.] ii+17 p. 4° (Economic Research Service.) †
L.C. card 71-609680
- 17445 907-1. Food prices before and after distribution of welfare checks, low-income areas, 7 cities, 1969, statistical summary; [by Eileen F. Taylor]. Oct. 1970. cover title, iv+115 p. ii. 4° ([Marketing Economics Division], Economic Research Service.) †
L.C. card 75-609701

Miscellaneous publication.

- 17446 932. Planning your retirement, guide for Department of Agriculture employees [with list of books to help you plan]. [Revised Sept. 1970.] [1970.] iv+17+[2] p. ii. (Office of Personnel.) [The last 2 pages are left blank for notes.] † ● Item 13-A A 1.38: 932/3

Statistical bulletin.

- 17447 457. Power and equipment on farms in 1964, 48 States, major items by size and type [with selected bibliography; by Paul E. Strickler]. [Aug. 1970.] vi+29 p. ii. 4° ([Farm Production Economics Division, Economic Research Service]) * Paper, 30c. ● Item 15 A 1.34: 457
L.C. card 75-608826

AIR FORCE ACADEMY, Colo., Defense Dept. United States Air Force Academy, CO 80840

- 17448 Basic cadet training. [1970.] cover title, 32 p. ii. 4° [Text and other illustrations on p. 2-4 of cover.] † ● Item 425-A-1 D 305.2: C 11/970

AIR FORCE DEPARTMENT, Defense Dept. Washington, DC 20330

Air Force manual AFM (series).

- 17449 88-9, chap. 4. See Army Department, Technical manual 5-811-4.

Air Weather Service technical report.

- 17450 215. Mean cloudiness and gradient-level charts over tropics, v. 1: Text, pt. A, Monthly resultant gradient-level wind [with list of references], by Gary D. Atkinson; pt. B, Average monthly cloudiness [with list of references], by James C. Sadler. Aug. 1970. iii+22 p. ii. 4° [Published by Air Weather Service (MAC).] † D 301.40: 215/v.1
- 17451 Selected acquisitions, v. 8, no. 6. June 1969. 49 p. 4° (Air University Library, Maxwell Air Force Base, Ala.) [Issued weekly.] † D 301.26/22: 8/6
- 17452 Selected documents accession list, v. 18, no. 30. July 23, 1969. [2] p. 4° (Air University Library, Maxwell Air Force Base, Ala.) [Issued weekly.] † D 301.26/21: 18/30

AIR TRAFFIC SERVICE, Transportation Dept. Washington, DC 20553

- 17453 International weather schedules service O, Change 10. [Aug. 5, 1970.] [74] p. 4° (7330.6 CHG 10.) [Issued in looseleaf form. Cancellation date Apr. 1, 1971.] † ● Item 431-D-1 FAA 3.8: W 37/2/966/ch.10
- 17454 Minimum en route IFR altitudes over particular routes and intersections. June 1970. cover title, [1]+155 p. 4° (Flight Information Division.) [Semi-annual consolidation of pt. 95, subchapter F. Consolidation of all data in Subparts C and D, which were in effect June 25, 1970, amendment 193 included. Not an amendment to pt. 95, therefore, it will not appear in Federal register.] † TD 4.302: A1 7/970

GOVERNMENT PUBLICATIONS

AIRCRAFT DEVELOPMENT SERVICE, Transportation Dept. Washington, DC 20553

- 17455 Propulsion fuel system fire safety; by Thomas G. Horeff. [1970.] [10] leaves, il. 4° [Presented to 3d annual R&D report to industry, June 17, 1969.] ‡
TD 4.602 : H 78

AMERICAN BATTLE MONUMENTS COMMISSION Washington, DC 20421

- 17456 American memorials and overseas military cemeteries. 1970. [20] p. il. 4° folded into narrow 8° size. [Colored illustration on front cover.] ‡
● Item 1050 Y 3.Am 3 : C 33/970

APPRENTICESHIP AND TRAINING BUREAU, Labor Dept. Washington, DC 20210

- 17457 Directory for reaching minority groups. 1970. [3]+255 p. 4° * Paper, \$2.00.
● Item 748 L.C. card 79-609666 L 23.2 : M 66

ARMS CONTROL AND DISARMAMENT AGENCY Washington, DC 20451

- 17458 Arms control and national security. 2d edition [revised Aug. 1970]. [1970.] [2]+34 p. il. 4° ([Publication 49.]) * Paper, 55c. ● Item 125-A-3
L.C. card 71-609743 AC 1.2 : Ar 5/2/970
- 17459 Documents on disarmament, 1969 [with bibliography; compiled and annotated by Robert W. Lambert with assistance of Ruth Ihara and Jean Mayer]. [Aug. 1970.] xviii+821 p. ([Publication 55.]) * Paper, \$3.50.
● Item 865-B AC 1.11/2 : 969
L.C. card 60-64408

ARMY DEPARTMENT, Defense Dept. Washington, DC 20310

- 17460 Army ROTC scholarship program. [1970.] cover title, [20] p. il. 4° [Text and other illustrations on p. 1-4 of cover. Illustrations are colored.] ‡
● Item 325 D 101.2 : R 31/13/970
- 17461 Office of Chief of Chaplains historical review, July 1, 1968-June 30, 1969. [1970.] 163 p. 4° ‡ ● Item 325
L.C. card 76-602194 D 101.2 : C 36/4/968-69
- Pamphlets. ‡ ● Item 327 (Rev. 1969) D 101.22 : (nos.)
- 17462 340-1. Form and guide letters, how to design and use them. Sept. 17, 1970. 23 p. il. 4° [Issued with perforations. Supersedes DA Pam 340-1. Feb. 3, 1961.]
- 17463 350-26-4. Organizational mechanic/repairman course, tactical and support vehicles, amphibian resupply (LARC 5). Sept. 1970. cover title, [73] p. 4° [Issued with perforations. Supersedes DA Pam 350-26-A, Nov. 30, 1965.]
- 17464 600-8. Military personnel office management and administrative procedures, Change 21. Aug. 7, 1970. [129] p. il. 4° [Supersedes AR 600-16 and AR 600-17, Jan. 27, 1964 and May 5, 1964, including all changes. Issued in looseleaf form.]

Technical bulletin TB (series).

- 17465 MED 282. Anticholinesterase intoxication, pathophysiology, signs and symptoms, and management. Jan. 21, 1970. 6 p. 4° [Issued with perforations.] * Paper, 10c. D 101.25 : MED 282

Technical manual TM (series).

- 17466 5-805-4. Noise control for mechanical equipment [with list of references]. Sept. 1970. cover title, iii+215+[1] p. il. 4° [Issued with perforations.] ‡ ● Item 329
L.C. card 70-609515 D 101.11 : (nos.)

*For Sale by Superintendent of Documents
‡Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

- 17467 5-811-4. [Engineering and design]: Corrosion control. Aug. 1, 1962, Change 1. Dec. 20, 1969. [8] p. il. 4° ([Air Force Dept.], AFM 88-9, chap. 4.) [Formerly designated Corps of Engineers manual EM 1110-1-184. Issued in looseleaf form.] ‡ D 103.6/3: 1110-1-184/ch. 1
- 17468 8-293. Physical therapy for lower-extremity amputees [with list of references]. Oct. 1968 [published 1969]. cover title, 98 p. il. 4° [Issued with perforations. Text on p. 2 of cover. Includes copyrighted material. Supersedes TM 8-293, June 14, 1946.] * Paper, \$1.25.
L.C. card 75-609744
- 17469 55-1500-323-25. Organizational, DS, GS, and depot maintenance manual: Installation practices for aircraft electric and electronic wiring. Aug. 1968. [reprinted 1970]. cover title, [2]+ix+272+[2] p. il. 1 pl. 4° [Issued with perforations. Includes current pages from Changes 1 and 2. Supersedes TM 11-350, Dec. 3, 1959.] ‡ ● Item 329
- 17470 743-200-1. Storage and materials handling, Change 10. Feb. 13, 1969. [20] p. il. 4° [Issued in looseleaf form.] ‡ ● Item 329
- 17471 Your auditing career, civilian career opportunities with Army Audit Agency. [1970.] cover title, [15] p. il. 4° [Text on p. 2 of cover.] ‡ ● Item 325
D 101.2: Au 2/2

ATOMIC ENERGY COMMISSION Washington, DC 20545

AEC research and development reports. Y 3.At 7: 22/(letters-nos.)

- 17472 CEX-59.4.13. Aeroradioactivity survey and related surface geology of Chicago area, Ill. and Ind. (Arms-1) [with list of references cited; by] George M. Flint, Jr. and James A. Pitkin June 1970. cover title, 25 p. il. map in pocket, 4° (Civil Effects Test Operations; [Division of Biology and Medicine].) [Prepared in cooperation with Geological Survey.] ‡ Paper, \$3.00.
L.C. card 70-609669
- 17473 GEMP-740. Evaluation of plastic fatigue properties of heat-resistant alloys [with list of references; by] J. B. Conway]. Dec. 1969. cover title, iv+72 p. il. 4° (Nuclear Systems Programs, General Electric Company, Cincinnati, Ohio.) ‡ Paper, \$3.00.
L.C. card 76-609668
- 17474 NYO-2740-7. Annual report on research project [radiological physics, biophysics, and radiobiology; with list of references]. July 1, 1970. cover title, 263 p. il. 4° (Radiological Research Laboratory, Columbia University, New York, N.Y.; [contract AT-(30-1)-2740.]) ‡ Paper, \$3.00.
- 17475 Public safety newsletter: Public safety information bulletin no. 1. Oct. 1966. 8 p. 4° (Division of Operational Safety.) ‡ ● Item 1051-P
Y 3.At 7: 58/1

AVIATION MEDICINE OFFICE, Transportation Dept. Washington, DC 20553

[Aviation medical report] AM (series). TD 4.210:(nos.)

- 17476 70-8. Physiological responses of men during sleep deprivation [with list of references; by] Vincent Florica [and others]. May 1970. [4]+16+[2] p. il. 4° ‡ Paper, \$3.00.
- 17477 70-9. Anticollision flights for supersonic transport (SST) [with list of references; by] Siegfried Gerathwohl, Everett W. Morris. [and] Joseph A. Sirks. May 1970. [4]+23+[1] p. il. 4° ‡ Paper, \$3.00.
- 17478 70-12. Physiologically tolerable decompression profiles for supersonic transport type certification [with list of references; by] Stanley R. Mohler. July 1970. [5]+13+[1] p. 4° ‡ Paper, \$3.00.

BUSINESS AND DEFENSE SERVICES ADMINISTRATION, Commerce Dept., Washington, DC 20230

- 17479 United States lumber exports, 1969. July 1970. 9 p. 4° ‡ Paper, 25c. Commerce Department, Sales and Distribution Section, Washington, DC 20230
L.C. card 67-61472 C 41.101: 969

GOVERNMENT PUBLICATIONS

CABINET COMMITTEE ON OPPORTUNITY FOR THE SPANISH SPEAKING, 1800 G St., NW., Washington, DC 20506

NOTE.—The Cabinet Committee on Opportunity for the Spanish Speaking was established by PL 91-181, approved Dec. 30, 1969.

- 17480 New era, Spanish speaking people of United States; editor, Carlos Conde. Fall, 1970. v+24 p. il. † ● Item 1067-K Y 3.Sp 2/7: 2 N 42

CENSUS BUREAU, Commerce Dept. Suitland, MD 20233

1967 census of business: Retail trade, merchandise line sales BC 67-MLS (series). ([Business Division.]

- 17481 27. Missouri. [Revised edition]. Oct. 1970. cover title, v+85 p. il. 4° * Paper, \$1.00. ● Item 132-A-28 C 3.202/19: 967/27/rev.

1967 census of business: [Wholesale trade, subject reports] BC 67-WS (series). ([Business Division.]) [Preprint of corresponding chapter of v. 5, Wholesale trade, subject reports.]

- 17482 4. Sales by class of customer. Sept. 1970. viii+103 p. il. 4° * Paper, 70c. ● Item 133 C 3.202/8: 967/4

1967 census of construction industries: Area statistics, CC 67-A (series). ([Construction Statistics Division.]) ● Item 133-D-2 C 3.245/3: CC 67-A-(nos.)

- 17483 4. Arizona. Oct. 1970. vii+16 p. il. * Paper, 35c.
17484 8. Connecticut. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17485 10. District of Columbia. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17486 13. Hawaii. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17487 17. Iowa. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17488 18. Kansas. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17489 21. Maine. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17490 23. Massachusetts. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17491 29. Nebraska. Oct. 1970. vii+16 p. 4° * Paper, 35c.
17492 36. North Dakota. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17493 37. Ohio. Oct. 1970. vii+16 p. il. 4° * Paper, 35c.
17494 41. Rhode Island. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.
17495 43. South Dakota. Oct. 1970. viii+16 p. il. 4° * Paper, 35c.
17496 52. Wyoming. [Oct. 1970.] cover title, vii+16 p. il. 4° * Paper, 35c.

1967 census of manufactures: Area series MC67 (3). ([Industry Division.]) [Preprint from v. 3, Area statistics.] ● Item 137 C 3.24/3: 967/(nos.)

- 17497 3. Arizona. Oct. 1970. vi+10+A3 p. il. 4° * Paper, 35c.
17498 6. Colorado. Oct. 1970. vi+14+A3 p. il. 4° * Paper, 40c.
17499 12. Hawaii. Oct. 1970. vi+8+A3 p. il. 4° * Paper, 30c.
17500 16. Iowa. Oct. 1970. vi+23+A3 p. il. 4° * Paper, 40c.
17501 20. Maine. Oct. 1970. vi+12+A3 p. il. 4° * Paper, 35c.
17502 28. Nebraska. Oct. 1970. vi+17+A3 p. il. 4° * Paper, 40c.
17503 29. Nevada. Oct. 1970. vi+7+A3 p. * Paper, 30c.
17504 30. New Hampshire. Oct. 1970. vi+11+A3 p. il. 4° * Paper, 35c.
17505 32. New Mexico. Oct. 1970. vi+9+A3 p. il. 4° * Paper, 35c.
17506 38. Oregon. Oct. 1970. vi+16+A3 p. il. 4° * Paper, 40c.
17507 40. Rhode Island. Oct. 1970. vi+15+A3 p. il. 4° * Paper, 35c.
17508 42. South Dakota. Oct. 1970. vi+10+A3 p. il. 4° * Paper, 35c.
17509 45. Utah. Oct. 1970. vi+10+A3 p. il. 4° * Paper, 35c.
17510 46. Vermont. Oct. 1970. vi+10+A3 p. il. 4° * Paper, 35c.

1967 census of manufactures: [Industry series] MC 67(2). ([Industry Division.]) [Preprint from v. 2, Industry statistics.] ● Item 136 C 3.24/4: 967/(nos.)

- 17511 19A. Ordnance and accessories. Oct. 1970. vi+24+A4 p. 4° * Paper, 40c.
17512 20A. Meat products. Oct. 1970. vi+24+A4 p. 4° * Paper, 45c.
17513 20H. Fats and oils. Oct. 1970. vi+26+A4 p. 4° * Paper, 45c.
17514 22A. Weaving mills. Oct. 1970. vi+28+A4 p. 4° * Paper, 50c.
17515 23B. Women's and misses' outerwear. Oct. 1970. vi+38+A4 p. 4° * Paper, 50c.
17516 23C. Women's and children's underwear, headwear, children's outerwear. Oct. 1970. vi+43+A4 p. 4° * Paper, 60c.
17517 23D. Miscellaneous apparel and accessories. Oct. 1970. vi+30+A4 p. 4° * Paper, 40c.

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

- 17518 23E. Miscellaneous fabricated textile products. Oct. 1970. vi+29+A4 p. 4° * Paper, 50c.
- 17519 26A. Pulp, paper, and board mills. Oct. 1970. vi+36+A4 p. 4° * Paper, 55c.
- 17520 27B. Commercial printing and manifold business forms. Oct. 1970. vi+30+A4 p. 4° * Paper, 50c.
- 17521 28A. Industrial chemicals. Sept. 1970. vi+43+A4 p. 4° * Paper, 40c.
- 17522 28C. Drugs. Sept. 1970. vi+25+A4 p. 4° * Paper, 55c.
- 17523 29A. Petroleum and coal products. Oct. 1970. vi+26+A4 p. 4° * Paper, 50c.
- 17524 30A. Rubber and miscellaneous plastics products. Oct. 1970. vi+33+A4 p. 4° * Paper, 50c.
- 17525 34C. Fabricated structural metal products. Oct. 1970. vi+41+A4 p. 4° * Paper, 55c.
- 17526 34D. Screw machine products, fasteners and washers, metal stampings, and metal services. Oct. 1970. vi+25+A4 p. 4° * Paper, 50c.
- 17527 35E. General industrial machinery and equipment. Nov. 1970. vi+39+A4 p. 4° * Paper, 55c.
- 17528 35F. Office, computing, and accounting machines. Oct. 1970. vi+25+A4 p. 4° * Paper, 40c.
- 17529 36B. Household appliances. Oct. 1970. vi+33+A4 p. 4° * Paper, 55c.
- 17530 36D. Communication equipment, including radio and TV, and electronic components and accessories. Sept. 1970. vi+51+A4 p. 4° * Paper, 65c.
- 17531 37B. Aircraft and parts. Oct. 1970. vi+22+A4 p. 4° * Paper, 45c.
- 17532 38A. Instruments: Surgical, dental, and ophthalmic equipment and supplies. Oct. 1970. vi+41+A4 p. 4° * Paper, 55c.
- 17533 38B. Photographic equipment: Clocks, watches, and watchcases. Oct. 1970. vi+22+A4 p. 4° * Paper, 40c.
- 17534 39D. Miscellaneous manufactures. Oct. 1970. vi+24+A4 p. 4° * Paper, 50c.

1970 census of population: Number of inhabitants, PC(1)-A (series). ([Population Division.])

- 17535 47. Vermont. Oct. 1970. viii+19 p. il. 4° * Paper, 35c. ● Item 159-A-48
C 3.223/5: 970/47

Construction reports: Building permit, C40 (series).

- 17536 69-13. Housing authorized by building permits and public contracts, 1969. [Oct. 1970.] cover title, [2]+377 p. il. 4° ([Construction Statistics Division.]) * Paper, \$2.75. ● Item 140-A (Rev.)
L.C. card A63-7410 C 3.215/4: C 40-69-13

- 17537 Current industrial reports: Home-type receivers and television sets, automobile radios, phonographs, and record player attachments, 1969. Sept. 10, 1970. 2 p. 4° (Series MA-36M(69)-1.) † Paper, 25c. ● Item 142-A
C 3.158: MA 36 M(69)-1

Current population reports: Series P-60, Consumer income. * Paper, \$14.00 (including Series P-20, P-23, P-25, P-26, P-27, P-28 summaries, P-60, and P-65 for one year) \$3.50 additional for foreign mailing; single copy prices vary. ● Item 142-C C 3.186: P-60/(nos.)

- 17538 74. Annual mean income, lifetime income, and educational attainment of men in United States, for selected years, 1956-68; [by Mary F. Henson and Mitsuo Ono]. Oct. 30, 1970. cover title, ii+81 p. il. 4° * Paper, 65c.

- 17539 Foreign commerce and navigation of United States, 1965. June 1970. ([Foreign Trade Division.]) ● Item 143-(Rev.)

L.C. card 7-19228 C 3.159: 965/v.(nos.)

- v. 1. Standard international trade classification (SITC) commodity by country. xxxiii+594 p. il. 4° [Also issued as H. doc. 354, pt. 1, 91st Cong. 2d sess.] * Cloth, \$7.00.
- v. 2. Area and country by standard international trade classification (SITC). xxxiii+808 p. il. 4° [Also issued as H. doc. 354, pt. 2, 91st Cong., 2d sess.] * Cloth, \$8.25.
- v. 3. Schedule A and schedule B commodity by country. xxxiii+926 p. 4° [Also issued as H. doc. 354, pt. 3, 91st Cong., 2d sess.] * Cloth, \$9.00.

- 17540 New South, [address by* George H. Brown, Director, Bureau of Commerce, Department of Commerce [at] International Conference on Population Priorities and Options for Commerce and Industry, 1970-2000, University of North Carolina, Oct. 23, 1970. 1970. 11 p. 4° † C 3.132: B 81/3

- 17541 U.S. commodity exports and imports as related to output 1967 and 1966: prepared under direction of Harold T. Goldstein, Sept. 1970. [3]+232 p. il. 4° (Series ES2 no. 10; Industry and Commodity Classification Staff.) * Paper, \$2.00. ● Item 160-B
L.C. card A62-9090 C 3.229: 10

◆For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

- 17542 U.S. waterborne foreign trade: Trade area, coastal district, customs district, port of lading or unlading, and type of service, calendar year 1969. Sept. 11, 1970. 21 p. 4° (FT 985.) † Paper, 10c. ● Item 144
C 3.164: 935/969
- 17543 ——— Vessel entrances and clearances, 1969. Aug. 25, 1970. 5 p. 4° (FT 975.) † Paper, 10c. ● Item 144
L.C. card 54-36320 C 3.164: 975/969

CIVIL AERONAUTICS BOARD Washington, DC 20428

- 17544 Aircraft operating cost and performance report for calendar years 1968 and 1969, [v. 4]. [Aug. 1970.] viii+[1]+130 p. il. oblong 8° (Cost and Statistics Division, Bureau of Accounts and Statistics.) * Paper, \$2.25.
● Item 177-A-1
L.C. card 68-60217 C 31.259: 4
- 17545 Remarks of John G. Adams, Member, Civil Aeronautics Board, before Wings Club, New York, N.Y., Sept. 16, 1970. 1970. 10 p. 4° †
C 31.215: Ad 1/14
- 17546 Remarks prepared for delivery for Secor D. Browne, Chairman, Civil Aeronautics Board before International Aviation Club, Washington, D.C., Sept. 17, 1970. [1970.] 7 p. 4° †
C 31.215: B 81/19

CIVIL DEFENSE OFFICE (Army), Defense Dept. Washington, DC 20310

- 17547 Federal civil defense guide, pt. B, chap. 1, app. 6, Executive order 10958, Aug. 14, 1961, as amended delegating functions respecting stockpiles of medical supplies and equipment and food. Aug. 1970. [4] p. 4° (50 USC App. 2271 note, 3 CFR, 1961 supp. p. 121, 26 F.R. 7571, as amended by Executive order 11051, Sept. 28, 1962, 27 F.R. 9683.) [Issued in looseleaf form. Supersedes pt. B chap. 1, appen. 6, Apr. 15, 1963.] † ● Item 320-B-3
D 119.8/4: pt.B/chap.1/app.6
- 17548 Federal civil defense guide: pt. B, chap. 1, app. 9, Office of Civil Defense regulations, chap. 18, Code of Federal regulations. Aug. 1970. [1]+50 p. 4° [Reprinted from Code of Federal regulations (32 CFR 1800 to end) as of Jan. 1, 1970. Issued with perforations.] † ● Item 320-B-3
D 119.8/4: pt.B/chap.1/app.9

CIVIL SERVICE COMMISSION Washington, DC 20415

- 17549 Federal jobs in engineering, physical sciences, & related professions, GS-5 through GS-15, [announcement 424]. [Sept. 1970.] [23] p. il. 4° ([Bureau of Recruiting and Examining.]) † ● Item 292 CS 1.26: 970/424
- 17550 Federal service entrance examination, [announcement 410]. [Sept. 1970.] 16 p. il. 4° † ● Item 292 CS 1.26: 967/410/rev.-4
- 17551 Federal service entrance examination, announcement 410, attachment: Procedure for taking FSEE written Test. July 1970. 1 p. 4° [Expires July 1971.] † CS 1.26: 967/410/rev.-4/att.
- 17552 Management Sciences Training Center announces schedule for Jan.-June 1971. [1970.] cover title, [15] p. 4° ([Financial management training programs]; Bureau of Training.) [Text on p. 2-4 of cover.] † ● Item 295 CS 1.2: M 31/7
- Pamphlets. CS 1.48: (letters-nos.)
- 17553 BRE-27. Federal employment of noncitizens. Oct. 1970. [4] p. narrow 8° †
● Item 299
- 17554 SM 70-69A. Preliminary report of minority group employment in Federal Government [1969], errata. [1970.] [3] p. 4° †

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

- 17555 Preparing for Federal service entrance examination, supplement to announcement 410, sample questions and suggestions on how to do your best when you take the test. Sept. 1970. 15 p. il. 4° † ● Item 292
CS 1.26: 967/410/rev.-4/supp.
- 17556 Professional careers in biological & agricultural sciences with Federal Government, announcement 421. Revised Nov. 1970. [1970.] [11] p. 4° [No closing date.] † ● Item 292
CS 1.26: 969/421/rev.
- 17557 Veterinarian trainee, grade GS-7, for current salary rates, ask for copy of AN 2500, summer employment for juniors in veterinary medicine, apply to U.S. Civil Service Commission, Washington Area Office, Hyattsville Branch Office, Federal Center Building, Hyattsville, Md., announcement WAH-0007. Nov. 2, 1970. 6 p. narrow 8° [No closing date and no written test required.] † ● Item 292
CS 1.26/4: 970/DAH-007

CLEARINGHOUSE FOR FEDERAL SCIENTIFIC AND TECHNICAL INFORMATION, Commerce Dept.

NOTE.—The Clearinghouse for Federal Scientific and Technical Information in the National Bureau of Standards has been transferred to National Technical Information Service.

COAST AND GEODETIC SURVEY, Commerce Dept. Washington, DC 20230

- 17558 Authorized nautical chart agents for sale of Coast and Geodetic Survey nautical charts and publications. Oct. 1, 1970. 22 p. † C 4.2: N 22/970-2

COAST GUARD, Transportation Dept. Washington, DC 20591

- 17559 Auxiliary membership qualification guide, amendment 1, errata. [1970.] [7] leaves. (CG-302.) † ● Item 934-A TD 5.8: Au 9/amdt.1/errata

COMMERCE DEPARTMENT Washington, DC 20230

NOTE.—Requests to the Commerce Department for publications should give the full title and the date of the publication. Do not include Monthly Catalog entry numbers or Superintendent of Documents classification numbers which should be used only when ordering from the Superintendent of Documents.

- 17560 Address by Maurice H. Stans, Secretary of Commerce before annual Marketing Conference of Conference Board, New York, N.Y., Oct. 14, 1970. 1970. 14 p. 4° †
C 1.18: St 2/52
- 17561 Do you know your economic ABC's? profits and American economy, simplified explanation of profit incentive and how it stimulates economic growth. [1970.] 46 p. oblong 24° * Paper, 35c. ● Item 128
L.C. card 65-62095
C 1.2: P 94/2/970
- Overseas business reports OBR (series). [Issued irregularly.] * Paper, \$16.00 a yr., \$5.00 additional for foreign mailing; single copy, 15c. (1-3 yr. subs.). ● Item 231-B
C 1.50: (nos.)
- 17562 70-45. Market profiles for Africa; prepared in Africa Division, Office of International Regional Economics. Sept. 1970. 46 p. il. 4° (Bureau of International Commerce.) [Issued with perforations. Supersedes OBR-69-34.]
- 17563 70-54. Foreign trade regulations of Portugal; prepared in European Division, Office of International Regional Economics. Sept. 1970. 8 p. 4° (Bureau of International Commerce.) [Issued with perforations. Supersedes OBR 66-61.]
- 17564 70-56. Basic data on economy of Afghanistan [with bibliography]; prepared by Jackson B. Hearn. Oct. 1970. 9 p. il. 4° (Bureau of International Commerce.) [Issued with perforations. Supersedes OBR 66-84.]
L.C. card 66-97329

♠For Sale by National Technical Information Service,
Springfield, VA 22151
●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

COMMERCIAL FISHERIES BUREAU, Interior Dept. Washington, DC 20240

- Circulars. † ● Item 609 I 49.4:(nos.)
- 17565 342. Report of Bureau of Commercial Fisheries Biological Laboratory, St. Petersburg Beach, Fla., fiscal year 1969. Aug. 1970. iii+22 p. il. 4° (Contribution 55, Bureau of Commercial Fisheries Biological Laboratory, St. Petersburg Beach, Fla.) [Includes list of publications.]
- 17566 346. Sportman's guide to handling, smoking, and preserving Great Lakes coho salmon [with list of literature cited]; by Shearon Dudley [and others]. Sept. 1970. iii+28 p. il.
- L.C. card 70-609476
- Commercial fisheries review separate.
- 17567 878. Fishery oceanography 4: Estimation of flow in Gulf of Alaska [with bibliography; by] Felix Favorite. [1970.] p. 23-29, il. 4° [From July 1970 issue.] † I 49.10/a: 878
- Special scientific report: Fisheries.
- 17568 614. Sled-mounted suction sampler for benthic organisms [with list of literature cited]; by Donald M. Allen and J. Harold Hudson. Aug. 1970. iii+5 p. il. 4° † ● Item 614-B I 49.15/2: 614

COMMUNITY HEALTH SERVICE, Health, Education, and Welfare Dept. Washington, DC 20201

- 17569 Medical Care Section, abstracts of contributed papers, American Public Health Association, 98th annual meeting, Houston, Tex., 1970. [1970.] xi+201 p. 4° † ● Item 512-E-1 HE 20.2552: M 46/970
- L.C. card 70-609705
- 17570 Working with older people, guide to practice: v. 3, Aging person, needs and services [with bibliographies]. Apr. 1970. v+90 p. 4° ([Public Health Service publication 1459, v. 3]; Division of Health Care Facilities.) [Prepared from materials developed by Projects Division, Gerontological Society, under contract PH 86-63-184.] * Paper, \$1.00. ● Item 512-E-2 HE 20.2558: O1 1/v.3
- L.C. card 73-603071

COMMUNITY SERVICES ADMINISTRATION, Health, Education, and Welfare Dept., Washington, DC 20201

NOTE.—In Sept., 1969 a new organizational unit, the Community Services Administration, was established within the Social and Rehabilitation Service, by transfer of staff from several units including the Division of Work and Training Programs from the Children's Bureau.

- 17571 Services to AFDC families, annual report to Congress. Aug. 25, 1970. [8] +100 p. il. 4° † ● Item 532-B-2 HE 17.709: 970

CONGRESS

- Congressional record, proceedings and debates of 91st Congress, 1st session, v. 115. [Permanent edition.] 1969. ● Item 993 X.91/1: 115/pt. (nos.)
- L.C. card 12-36438
- NOTE.—In the permanent bound edition, the paging differs from that of the daily numbers, the text being revised, rearranged, and printed without break.
- 17572 pt. 24. Oct. 29–Nov. 5, 1969. [1]+32005-33254 p. 4° * Cloth, \$6.00.
- 17573 Memorial services held in House of Representatives and Senate of United States, together with tributes presented in eulogy of William L. St. Onge, late Representative from Connecticut, 91st Congress, 2d session. 1970. vii+[1]+68 p. 1 por. † ● Item 1005 Y 71: Sa 24
- L.C. card 79-609536

Congressional serial set

NOTE.—During each session of Congress the House and Senate documents and reports are accumulated into bound volumes comprising the Congressional serial set. No catalog entry is made for the volumes of the Serial set since the documents and reports contained therein have been previously listed in the Monthly catalog. The following bound volumes were sent to depository libraries during the period of this catalog:

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

House documents:

17574 nos. 113-196, with exceptions, 90th Congress, 1st session, House miscellaneous documents III [Serial 12765-3]. ● Item 995-G

House reports:

17575 nos. 12, 26-27, 82, 172, 207, 219, 329, 362, 460, 90th Congress, 1st session, House special reports I [Serial 12755-2]. ● Item 1007-A

Laws

NOTE.—The Federal laws are first published separately and in this form are known as "slip laws". Later, these laws are compiled, edited, indexed, and published in the volumes of the Statutes at large.

Private laws, 91st Congress. † House or Senate Document Rooms, Capitol.

- 17576 161. S. 1087, act for relief of Vernon Louis Hoberg. Approved Sept. 25, 1970. 1 p.
- 17577 182. S. 2976, act for relief of Margarita Anne Marie Baden (Nguyen Tan Nga). Approved Sept. 25, 1970. 1 p.
- 17578 163. H.R. 11060, act for relief of Victor L. Ashley. Approved Sept. 25, 1970. 1 p.
- 17579 164. H.R. 1747, act for relief of Jose Luis Calleja-Perez. Approved Sept. 26, 1970. 1 p.
- 17580 165. H.R. 5365, act to provide for conveyance of certain public land held under color of title to Miss Adelaide Gaines of Mobile, Ala. Approved Sept. 26, 1970. 1 p.
- 17581 166. H.R. 10149, act for relief of Jack W. Herbstreit. Approved Sept. 26, 1970. 1 p.
- 17582 167. H.R. 17734, act for relief of Sherman Webb and others. [Approved Sept. 26, 1970.] 2 p.
- 17583 168. S. 3138, act for relief of Ruth E. Calvert. Approved Oct. 14, 1970. 1 p.
- 17584 169. S. 378, act for relief of Peter Rudolf Gross. Approved Oct. 15, 1970. 1 p.
- 17585 170. S. 732, act for relief of Nimet Weiss. Approved Oct. 15, 1970. 1 p.
- 17586 171. S. 1123, act for relief of Ah Mee Locke. Approved Oct. 15, 1970. 1 p.
- 17587 172. S. 3167, act for relief of Kimoko Ann Duke. Approved Oct. 15, 1970. 1 p.
- 17588 173. S. 3263, act for relief of Marie Pierotti Lenci. Approved Oct. 15, 1970. 1 p.
- 17589 174. S. 3265, act for relief of Anita Ordillas. Approved Oct. 15, 1970. 1 p.
- 17590 175. S. 2661, act for relief of Kathryn Talbot. Approved Oct. 16, 1970. 1 p.
- 17591 176. S. 3212, act for relief of Curtis Nolan Reed. Approved Oct. 16, 1970. 1 p.
- 17592 177. S. 3600, act for relief of Kyung Ae Oh. Approved Oct. 16, 1970. 1 p.
- 17593 178. S. 3675, act for relief of Ming Chang. Approved Oct. 16, 1970. 1 p.
- 17594 180. S. 4073, act for relief of Hyun Joo Lee and Myung Joo Lee. Approved Oct. 16, 1970. 1 p.
- 17595 181. H.R. 12960, act to validate conveyance of certain land in California by Southern Pacific Company. [Approved Oct. 16, 1970.] 10 p.
- 17596 182. H.R. 2043, act for relief of Keum Ja Franks. Approved Oct. 21, 1970. 1 p.
- 17597 183. H.R. 13601, act to release and convey reversionary interest of United States in certain real property known as McNary Dam townsite, Umatilla County, Oreg. Approved Oct. 21, 1970. 1 p.
- 17598 184. S. 3529, act for relief of Johnny Mason, jr. (Johnny Trinidad Mason, jr.). Approved Oct. 21, 1970. 1 p.
- 17599 185. H.R. 17146, act, supplemental to act of Feb. 9, 1821, incorporating Columbian College, now known as George Washington University, in District of Columbia and acts amendatory or supplemental thereof. Approved Oct. 22, 1970. 1 p.
- 17600 186. H.R. 16997, act for relief of Colie Lance Johnson, jr. Approved Oct. 23, 1970. 1 p.

Public laws, 91st Congress. ● Item 575

NOTE.—Public laws in slip form in the first prints may be obtained from the Superintendent of Documents, Washington, DC 20402, at a subscription price of \$20.00 per session, \$5.00 additional for foreign mailing; single copies vary in price.

- 17601 383. H.R. 14114, act to improve administration of national park system by Secretary of Interior, and to clarify authorities applicable to system, and for other purposes. [Approved Aug. 18, 1970.] 3 p. * Paper, 5c.
- 17602 390. H.R. 13971, act granting consent of Congress to Falls of Ohio Interstate Park compact. [Approved Aug. 28, 1970.] 3 p. * Paper, 5c.
- 17603 398. H.R. 15351, act to authorize additional funds for operation of Franklin Delano Roosevelt Memorial Commission. Approved Sept. 8, 1970. 1 p. * Paper, 5c.
- 17604 402. H.R. 13716, act to improve and clarify certain laws, affecting Coast Guard Reserve. [Approved Sept. 18, 1970.] 5 p. * Paper, 5c.
- 17605 405. H.R. 18725, act to establish Commission on Organization of Government of District of Columbia and to provide for Delegate to House of Representatives from District of Columbia. [Approved Sept. 22, 1970.] 10 p. * Paper, 10c.
- 17606 407. S.J. Res. 67, joint resolution granting consent of Congress to Maryland and West Virginia and Commonwealths of Virginia and Pennsylvania and District of Columbia, as signatory bodies, for certain amendments to compact creating Potomac Valley Conservancy District and establishing Interstate Commission on Potomac River Basin. [Approved Sept. 25, 1970.] 5 p. * Paper, 5c.

☛For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

Page 11

GOVERNMENT PUBLICATIONS

Public laws, 91st Congress—Continued

- 17607 417. S. 4033, act to provide for disposition of funds appropriated to pay judgment in favor of Chemehuevi Tribe of Indians. [Approved Sept. 25, 1970.] 2 p. * Paper, 5c.
- 17608 422. H.R. 16900, act making appropriations for Treasury and Post Office Departments, Executive Office of the President, and certain Independent Agencies, for fiscal year ending June 30, 1971, and for other purposes. [Approved Sept. 26, 1970.] 8 p. * Paper, 5c.
- 17609 424. S. 621, act to provide for establishment of Apostle Islands National Lakeshore in Wisconsin, and for other purposes. [Approved Sept. 26, 1970.] 3 p. * Paper, 5c.
- 17610 429. S. 3777, act to authorize Secretary of Interior to enter into contracts for protection of public lands from fires, in advance of appropriations therefor, and to twice renew such contracts. Approved Sept. 26, 1970. 1 p. * Paper, 5c.

ECONOMIC JOINT COMMITTEE Washington, DC 20510

- 17611 Acquisition of weapons systems, hearings before Subcommittee on Economy in Government, 91st Congress, 2d session.
pt. 2. May 20-23, 1970. 1970. x+281-568 p. * Paper, \$1.25. ● Item 1000
L.C. card 78-607685 Y 4.Ec 7: W 37/4/pt.2
- 17612 Foreign economic policy for 1970's, hearings before Subcommittee on Foreign Economic Policy, 91st Congress, 2d session.
pt. 4. Multinational corporation and international investment, July 27-30, 1970. 1970. iv+745-958 p. * Paper, \$1.00. ● Item 1000
L.C. card 78-606113 Y 4.Ec 7: F 76/3/970/pt.4
- 17613 1970 midyear review of state of the economy, hearings, 91st Congress, 2d session.
pt. 3. July 20-24, 1970. 1970. iv+379-669 p. il. * Paper, \$1.25. ● Item 1000
L.C. card 72-609360 Y 4.Ec 7/25/pt.3

HOUSE OF REPRESENTATIVES Washington, DC 20515

House documents

NOTE.—All House documents, entries for which are followed by a †, may be obtained from the House Document Room or from the issuing office.

House documents, 91st Congress.

- 17614 302. Annual report, Girl Scouts, 1969. [1970.] x+78 p. il. * Paper, 40c. (To be sent to depository libraries in Serial set binding.)
L.C. card 51-61149
- 17615 354. 3 pts. Foreign commerce and navigation of United States, 1965. June 1970.
pt. 1. Standard international trade classification (SITC) commodity by country, xxxiii+594 p. il. 4° * (Available in departmental edition, \$7.00, C 3.159:965/v.1, and sent to depositories in that form. See Entry no. 17539.)
pt. 2. Area and country by standard international trade classification (SITC), xxxiii+808 p. il. 4° * (Available in departmental edition, \$8.25, C 3.159:965/v.2, and sent to depositories in that form. See Entry no. 17539.)
pt. 3. Schedule A and schedule B commodity by country, xxxiii+926 p. 4° * (Available in departmental edition, \$9.00, C 3.159:965/v.3, and sent to depositories in that form. See Entry no. 17539.)
- 17616 391. Report on salaries of officers and employees of organizations funded under Economic opportunity act, for fiscal year 1970, message from President of United States; Sept. 28, 1970. 1970. [3]+640 p. † (To be sent to depository libraries in Serial set binding.)
L.C. card 77-601287
- 17617 399. Ocean dumping, a national policy, report to the President [with list of references], Oct. 1970. x+45 p. il. 4° * (Available in departmental edition, 55c., PrEx 14.2:Oc 2, and sent to depositories in that form. See Entry no. 17729.)

House reports

NOTE.—For titles of bills which these reports accompany, see Congressional record index.

House reports on private bills, 91st Congress. † House Document Room, Capitol. ● Item 1008-B

- 17618 1335. Drago Miklausic. Report from Committee on Judiciary to accompany H.R. 1508. July 28, 1970. 4 p.

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

- 17619 1370. David Z. Glassman. Report from Committee on Judiciary to accompany H.R. 13805. Aug. 4, 1970. 4 p.
- 17620 1481. Peter Rudolf Gross. Report from Committee on Judiciary to accompany S. 378. Sept. 29, 1970. 10 p.
- 17621 1496. Jyun Joo Lee and Myung Joo Lee. Report from Committee on Judiciary to accompany S. 4073. Sept. 29, 1970. 11 p.
- 17622 1528. Mrs. Rolando C. Dayao. Report from Committee on Judiciary to accompany H.R. 14543. Sept. 29, 1970. 6 p.
- 17623 1551. Comdr. Albert G. Berry, jr. Report from Committee on Judiciary to accompany H.R. 10233. Oct. 1, 1970. 8 p.
- 17624 1560. Thaddeus J. Pawlak. Report from Committee on Judiciary to accompany H.R. 15270. Oct. 6, 1970. 6 p.
- 17625 1564. Irene Sadowska Sullivan. Report from Committee on Judiciary to accompany S. 1785. Oct. 6, 1970. 6 p.

House reports on public bills, 91st Congress. † House Document Room, Capitol. ● Item 1008-A

- 17626 1352. Consideration of H.R. 18546. Report from Committee on Rules to accompany H. Res. 1165. July 29, 1970. 1 p.
- 17627 1391. Consideration of H.R. 17570. Report from Committee on Rules to accompany H. Res. 1180. Aug. 10, 1970. 1 p.
- 17628 1450. Group mortgage insurance for service-connected paraplegic and quadriplegic veterans. Report from Committee on Veterans' Affairs to accompany H.R. 18448. Sept. 15, 1970. 10 p.
- 17629 1582. Review of steel purchased for commercial barge construction program in Vietnam. 23d report by Committee on Government Operations; Oct. 8, 1970. 1970. v+12 p. il.
- 17630 1611. Federal boat safety act of 1970. Report from Committee on Merchant Marine and Fisheries to accompany H.R. 15041. Oct. 16, 1970. 50 p. il.
L.C. card 75-609543

Agriculture Committee, House Washington, DC 20515

[Committee hearings] serial, 91st Congress. † ● Item 1010

- 17631 GG. Egg inspection, hearings before Subcommittee on Dairy and Poultry, 91st Congress, 2d session, on H.R. 14678, H.R. 16092, H.R. 16159, H.R. 17338, and S. 2116, Sept. 14 and 15, 1970. 1970. iv+107 p. il.
L.C. card 75-609519 Y 4.Ag 8/1: Eg 3/5
- 17632 HH. Inspection of imported livestock products, hearings before Subcommittee on Livestock and Grains, 91st Congress, 2d session, on H.R. 17444 [and other bills], Sept. 16-25, 1970. 1970. iii+99 p.
L.C. card 74-609496 Y 4.Ag 8/1: L 75/9

Armed Services Committee, House Washington, DC 20515

Papers, 91st Congress. ● Item 1012 Y 4.Ar 5/2a: 969-70/(nos.)

NOTE.—These papers consist largely of hearings. They are paged continuously for binding at the end of session of Congress under title "Hearings before Committee on Armed Services of the House of Representatives on sundry legislation affecting the naval and military establishments." Title page, contents, and index are issued for each volume.

- 17633 64. Full committee consideration of H.R. 14373, to authorize Secretary of Navy to convey to Portsmouth, Va., certain lands situated within Crawford urban renewal project (VA-53) in city of Portsmouth in exchange for certain lands situated within proposed southside neighborhood development project. July 28, 1970. p. 9457-59. †
- 17634 72. Trip to Knolls Atomic Power Laboratory, Sept. 28, 1970, made by its Subcommittee on Antisubmarine Warfare, report by Subcommittee on Antisubmarine Warfare, 91st Congress, 2d session, Oct. 9, 1970. 1970. iii+12253-262 p. †
L.C. card 74-609516

Banking and Currency Committee, House Washington, DC 20515

- 17635 Penn Central failure and role of financial institutions: pt. 1, Effects of Penn Central's diversification program on railroad's cash position, staff report; Nov. 2, 1970. 1970. iii+7 p. (Committee print, 91st Congress, 2d session.) * Paper, 10c. ● Item 1013
L.C. card 78-609698 Y 4.B 22/1: P 38/pt.1

✦For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

Page 13

GOVERNMENT PUBLICATIONS

District of Columbia Committee, House Washington, DC 20515

- 17636 D.C. land in Prince William County, Va., hearings before subcommittee no. 4, 91st Congress, 1st session, on H.R. 664 and H.R. 18086, Apr. 30 and May 1, 1969. 1970. iv+87 p. il. † ● Item 1014
L.C. card 70-609523 Y 4.D 63/1: P 93/2

Education and Labor Committee, House Washington, DC 20515

- 17637 Allocation of 1971 appropriations to education, hearing before Ad Hoc Subcommittee on Oversight of Education Programs, 91st Congress, 2d session, Oct. 12, 1970. 1970. v+93 p. † ● Item 1015
L.C. card 78-609533 Y 4.Ed 8/1: Ed 8/37
- 17638 Emergency school aid act of 1970, hearings before General Subcommittee on Education, 91st Congress, 2d session, on H.R. 17846 and related bills, June 8-Sept. 23, 1970. 1970. vi+995 p. il. † ● Item 1015
L.C. card 75-609421 Y 4.Ed 8/1: Em 3
- 17639 Intergovernmental personnel act, hearings before Special Subcommittee on Education, 91st Congress, 1st session, on S. 11, H.R. 5546, and H.R. 13890, Nov. 17-20, 1969. 1970. iii+197 p. il. † ● Item 1015
L.C. card 78-609639 Y 4.Ed 8/1: In 8/8
- 17640 Kendall School for the deaf, hearing before Select Subcommittee on Education, 91st Congress, 2d session, on H.R. 18766 and S. 4083, Sept. 11, 1970. 1970. iii+72 p. il. † ● Item 1015
L.C. card 79-609430 Y 4.Ed 8/1: K 33
- 17641 Library services and construction amendments of 1970, hearing before Select Subcommittee on Education, 91st Congress, 2d session, on H.R. 16365 and S. 3318, Sept. 10, 1970. 1970. iv+115 p. il. † ● Item 1015
L.C. card 77-609522 Y 4.Ed 8/1: L 61/5/970
- Manpower act of 1969, hearings before Select Subcommittee on Labor, 91st Congress, 1st and 2d sessions, on H.R. 10908, H.R. 11620, and H.R. 13472. † ● Item 1015
L.C. card 70-609495 Y 4.Ed 8/1: M 31/4/969/pt. (nos.)
- 17642 pt. 1. Dec. 10, 1969-Mar. 31, 1970. vi+697 p. il. [Hearings held in Washington, D.C., Detroit, Mich., and Des Moines, Iowa.]
pt. 2. Apr. 1-May 6, 1970. 1970. viii+699-1426 p. il. [Hearings held in Seattle, Wash., Los Angeles, Calif., and Washington, D.C.]
- 17643 To authorize White House Conference on Education, hearings before General Subcommittee on Education, 91st Congress, 2d session, on H.R. 17772, Sept. 14 and 17, 1970. 1970. iii+36 p. † ● Item 1015
L.C. card 71-609534 Y 4.Ed 8/1: W 58/2

Foreign Affairs Committee, House Washington, DC 20515

- 17644 Aircraft hijacking, hearings, 91st Congress, 2d session, on resolutions referred to Committee on Foreign Affairs concerning aircraft hijacking and related matters, Sept. 17-30, 1970. 1970. iv+199 p. † ● Item 1017
L.C. card 77-609644 Y 4.F 76/1: H 53
- 17645 Report of 10th Conference of Mexico-United States Interparliamentary Group, Washington, D.C., May 1970, by Robert N. C. Nix, Chairman, of House of Representatives delegation, pursuant to Public law 86-420. 1970. v+19 p. (Committee print, 91st Congress, 2d session.) †
L.C. card 61-61194 Y 4.F 76/1: M 57/7/970

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

Government Operations Committee, House
Washington, DC 20515

- 17646 Communist strategy and tactics of employing peasant dissatisfaction over conditions of land tenure for revolutionary ends in Vietnam, study by Paul S. Taylor for Foreign Operations and Government Information Subcommittee; Aug. 1970. 1970. v+28 p. (Committee print, 91st Congress, 2d session.) †
L.C. card 74-609086 Y 4.G 74/7: V 67/2

Interior and Insular Affairs Committee, House
Washington, DC 20515

- [Committee hearing] serial, 91st Congress.
17647 29. North Loop Division, Missouri River Basin project, Nebr., hearing before Subcommittee on Irrigation and Reclamation, 91st Congress, 2d session, on recommended plan of development, July 17, 1970. 1970. v+82 p. †
● Item 1023
L.C. card 73-609497 Y 4.In 8/14: 91-29

Internal Security Committee, House
Washington, DC 20515

- 17648 Hearings relating to various bills to repeal Emergency detention act of 1950, hearings, 91st Congress, 2d session, Mar. 16-Sept. 10, 1970. 1970. vi+2887-3841+xxxi p. il. * Paper, \$4.00. ● Item 1026
L.C. card 71-609550 Y 4.In 8/15: Em 3

Interstate and Foreign Commerce Committee, House
Washington, DC 20515

- [Committee hearing] serial, 91st Congress.
17649 72. Horse protection act of 1970, hearing before Subcommittee on Public Health and Welfare, 91st Congress, 2d session, on H.R. 14151 and identical bills, Sept. 21, 1970. 1970. v+143 p. il. † ● Item 1019
L.C. card 71-609518 Y 4.In 8/4: 91-72

Judiciary Committee, House
Washington, DC 20515

- [Committee hearings] serial, 91st Congress.
17650 27. Organized crime control, hearings before subcommittee no. 5, 91st Congress, 2d session, on S. 30, and related proposals, May 20-Aug. 5, 1970. 1970. v+1539 p. * Paper, \$6.00. ● Item 1020
L.C. card 74-609697 Y 4.J 89/1: 91-27

Post Office and Civil Service Committee, House
Washington, DC 20515

- [Committee hearings] serial, 91st Congress.
17651 29. Extend early retirement provision to firefighters, hearings before Subcommittee on Retirement Insurance and Health Benefits, 91st Congress, 2d session, on S. 578 and H.R. 422, Sept. 29 and 30, 1970. 1970. iii+56 p. il. †
● Item 1022
L.C. card 73-609493 Y 4.P 84/10: 91-29

Small Business, Select Committee on, House
Washington, DC 20515

- 17652 Small business in Government procurement, before and after defense cut-backs, hearings before Subcommittee on Government Procurement, 91st Congress, 2d session, pursuant to H. Res. 66, Oct. 22, 1969-Apr. 9, 1970. 1970. vii+1393 p. il. [Hearings held in Los Angeles, Calif., Ogden, Utah, and Washington, D.C.] † ● Item 1031
L.C. card 70-609566 Y 4.Sm 1: P 94/3/969-70

GOVERNMENT PUBLICATIONS

Veterans' Affairs Committee, House Washington, DC 20515

- 17653 Veterans' educational benefits, hearings before Subcommittee on Education and Training, 91st Congress, 2d session, on H.R. 16597, H.R. 16761, H.R. 17264, S. 3657, and S. 3785, Sept. 29 and 30, 1970. 1970. v+3741-3896 p. il. † ● Item 1027
L.C. card 79-609422 Y 4.V 64/3: Ed 8/21

PRINTING JOINT COMMITTEE Washington, DC 20510

- 17654 Review of costs of electronic composition, prepared at direction of Federal Electronic Printing Committee under supervision of Joint Committee on Printing, 1969. 1970. v+137 p. il. 4° (Joint committee print, 91st Congress, 2d session.) * Paper, \$1.50. ● Item 1004
L.C. card 76-609538 Y 4.P 93/1: El 2

REDUCTION OF FEDERAL EXPENDITURES JOINT COMMITTEE Washington, DC 20510

- 17655 1971 budget scorekeeping report; (staff report no. 10), pursuant to sec. 601 of Revenue act of 1941 showing status of 1971 fiscal year Federal budget, cumulative to Sept. 10, 1970 with summary presentation. 1970. iii+28 p. 4° (Joint committee print, 91st Congress, 2d session.) †
Y 4.R 24/4: B 85/2/971/no.10
- 17656 —(staff report no. 11), pursuant to sec. 601 of Revenue act of 1941 showing status of 1971 fiscal year Federal budget, cumulative to Sept. 23, 1970, with summary presentation. 1970. iii+30 p. 4° (Joint committee print, 91st Congress, 2d session.) †
Y 4.R 24/4: B 85/2/971/no.11

SENATE Washington, DC 20510

Senate Reports

NOTE.—For titles of bills which these reports accompany, see Congressional record index.

Senate reports on private bills, 91st Congress. † Senate Document Room, Capitol. ● Item 1008-B

- 17657 1053. Edwin E. Fulk. Report from Committee on Judiciary to accompany H.R. 2950, July 30, 1970. 10 p.
- 17658 1067. Anthony P. Miller, Inc. Report from Committee on Judiciary to accompany H.R. 15354, July 30, 1970. 7 p.
- 17659 1106. Marcella Coslovich Fabretto. Report from Committee on Judiciary to accompany H.R. 13383, Aug. 12, 1970. 5 p.
- 17660 1110. Conferring U.S. citizenship posthumously upon Ryuzo Somma, Report from Committee on Judiciary to accompany H.R. 13997, Aug. 12, 1970. 3 p.
- 17661 1112. Mrs. Leonarda Buenavendura Ocariza and daughter, Lucila B. Ocariza. Report from Committee on Judiciary to accompany S. 3032, Aug. 12, 1970. 4 p.
- 17662 1119. Dr. Pio Albert Pol y Zapata. Report from Committee on Judiciary to accompany S. 3129, Aug. 12, 1970. 6 p.
- 17663 1166. For relief of certain corporations, associations, and individuals under Department of Army contract DA-36-109-ENG-7520, Sept. 23, 1963. Report from Committee on Judiciary to accompany S. 2229, Sept. 16, 1970. 17 p.
- 17664 1167. Dr. Hassan Chaharsough Vakil. Report from Committee on Judiciary to accompany S. 3420, Sept. 16, 1970. 6 p.
- 17665 1168. Dr. Jocelyn Tandoc-Juarez. Report from Committee on Judiciary to accompany S. 3771, Sept. 16, 1970. 5 p.
- 17666 1169. Albina Lucio Z. Manluco. Report from Committee on Judiciary to accompany S. 3899, Sept. 16, 1970.
- 17667 1170. Mrs. Joan Lagois Hicks. Report from Committee on Judiciary to accompany S. 3968, Sept. 16, 1970. 5 p.
- 17668 1172. Jose Luis Calleja-Perez. Report from Committee on Judiciary to accompany H.R. 1747, Sept. 16, 1970. 13 p.
- 17669 1174. Mrs. Nimet Weiss. Report from Committee on Judiciary to accompany S. 732, Sept. 16, 1970. 9 p.
- 17670 1175. Mrs. Anastasia Pertsosvitch. Report from Committee on Judiciary to accompany S. 3620, Sept. 16, 1970. 5 p.
- 17671 1177. Kim Julia and Park Tong Op. Report from Committee on Judiciary to accompany S. 3813, Sept. 16, 1970. 5 p.

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

- 17672 1178. Bruce M. Smith. Report from Committee on Judiciary to accompany S. 3858. Sept. 18, 1970. 5 p.
- 17673 1179. Hyun Joo Lee and Myung Joo Lee. Report from Committee on Judiciary to accompany S. 4073. Sept. 16, 1970. 11 p.
- 17674 1181. Sherman Webb and others. Report from Committee on Judiciary to accompany H.R. 17734. Sept. 16, 1970. 27 p.
- 17675 1182. Jack W. Herbstreit. Report from Committee on Judiciary to accompany H.R. 10149. Sept. 16, 1970. 9 p.
- 17676 1197. For relief of Robert J. Ebbert and Design Products Corp., Troy, Mich. Report from Committee on Judiciary to accompany S. 1008. Sept. 17, 1970. 7 p.
- 17677 1198. Bogdan Bereznicki. Report from Committee on Judiciary to accompany S. 1779. Sept. 17, 1970. 7 p.
- 17678 1199. Mr. and Mrs. Arvel Glinz. Report from Committee on Judiciary to accompany S. 1074. Sept. 17, 1970. 9 p.
- 17679 1283. Colle Lance Johnson, jr. Report from Committee on Judiciary to accompany H.R. 16997. Oct. 7, 1970. 7 p.
- 17680 1298. Supplemental to act of Feb. 9, 1821, incorporating Columbian College. Report from Committee on District of Columbia to accompany H.R. 17146. Oct. 8, 1970. 3 p.
- 17681 1308. H. & H. Manufacturing Co., Inc. Report from Committee on Judiciary to accompany S. Res. 19. Oct. 8, 1970. 7 p.
- 17682 1309. O'Brien Dieselectric Corp. Report from Committee on Judiciary to accompany S. Res. 20. Oct. 8, 1970. 7 p.

Senate reports on public bills, 91st Congress. † Senate Document Room, Capitol. ● Item 1008-A

- 17683 1160. Geothermal resource development. Report from Committee on Interior and Insular Affairs to accompany S. 368. Sept. 4, 1970. 30 p.
L.C. card 75-609184
- 17684 1195. Inspection of imported livestock products. Report from Committee on Agriculture and Forestry to accompany S. 3942. Sept. 17, 1970. 5 p.
- 17685 1204. Advertising under almond marketing orders. Report from Committee on Agriculture [and Forestry] to accompany H.R. 13978. Sept. 17, 1970. 4 p.

Aging, Special Committee on, Senate Washington, DC 20510

- 17686 Sources of community support for Federal programs serving older Americans, hearings, 91st Congress, 2d session.
pt. 1. Ocean Grove, N.J., Apr. 18, 1970. 1970. iv + 113 p. * Paper, 50c. ● Item 1009
L.C. card 79-609607 Y 4.Ag 4: O1 1/3

Appropriations Committee, Senate Washington, DC 20510

- 17687 Departments of Labor, and Health, Education, and Welfare, and related agencies appropriations, fiscal year 1971, hearings before subcommittee, 91st Congress, 2d session, on H.R. 18515. † ● Item 1033
L.C. card 78-609454 Y 4.Ap 6/2: L 11/971/pt. (nos.)
- [pt. 2]. [Cabinet Committee on Opportunities for Spanish-Speaking People, Corporation for Public Broadcasting, Federal Mediation and Conciliation Service, Federal Radiation Council, National Credit Union Administration, National Labor Relations Board, National Mediation Board, National Railroad Adjustment Board, Office of Economic Opportunity, President's Committee on Consumer Interests, President's Council on Youth Opportunity, Railroad Retirement Board, U.S. Soldiers' Home.] 1970. ii + 1-802 + ix p. il.
- [pt. 3]. [Department of Labor.] 1970. ii + 803-1746 + ix p.
- [pt. 4]. [Department of Health, Education, and Welfare, testimony of Elliot L. Richardson, Secretary, Food and Drug Administration, testimony of Roger O. Egeberg, Assistant Secretary for Health and Scientific Affairs, Environmental Health Service, Health Services and Mental Health Administration.] 1970. ii + 1747-2644 + xvii p.
- [pt. 5]. [Department of Health, Education, and Welfare, National Institutes of Health.] 1970. ii + 2645-3587 + xvii p. il.
- [pt. 6]. [Department of Health, Education, and Welfare, Social and Rehabilitation Service, Social Security Administration, special institutions, department management.] 1970. ii + 3589-4555 + xvii p. il.
- 17688 Military construction appropriations for fiscal year 1971, joint hearings before Subcommittees of Military Construction of Committee on Appropriations and Committee on Armed Services, 91st Congress, 2d session, on H.R. 17970. 1970. ii + 682 + xvi p. il. † ● Item 1033 & 1034
L.C. card 60-61661 Y 4.Ap 6/2: M 59/3/971

GOVERNMENT PUBLICATIONS

Armed Services Committee, Senate
Washington, DC 20510

- 17689 Military construction appropriations for fiscal year 1971, joint hearings. See Appropriations Committee, Senate.
- 17690 Operation of art. 7, NATO status of forces treaty, hearing before subcommittee, 91st Congress, 2d session, on to review for period Dec. 1, 1968–Nov. 30, 1969, operation of art. 7 of agreement between parties to North Atlantic Treaty, together with other criminal jurisdictional arrangements throughout world, Oct. 2, 1970. 1970. iii+47 p. il. † ● Item 1034
L.C. card 60-61696 Y 4.Ar 5/3: N 81/970

Banking and Currency Committee, Senate
Washington, DC 20510

- 17691 Credit in low-income areas, hearings before Subcommittee on Financial Institutions, 91st Congress, 2d session, on S. 2146 [and] S. 2259, Jan. 14 and 15, 1970. 1970. iv+218 p. † ● Item 1035
L.C. card 72-609423 Y 4.B 22/3: C 86/13
- 17692 Housing partnership, 1st annual report of National Corporation for Housing Partnerships, Dec. 16, 1968–June 30, 1970; Aug. 1970. 1970. v+22 p. (Committee print, 91st Congress, 2d session.) †
L.C. card 74-609670 Y 4.B 22/3: H 81/58/968-70

Commerce Committee, Senate
Washington, DC 20510

- [Committee hearings] serial, 91st Congress. † ● Item 1041
L.C. card 74-609532 Y 4.C 73/2: 91-(nos.)
- 17693 73. Effects of mercury on man and the environment, hearings before Subcommittee on Energy, Natural Resources, and the Environment, 91st Congress, 2d session.
pt. 1. May 8, 1970. 1970. iii+92 p.
- 17694 74. Public service time for legislative branch, hearings before Communications Subcommittee, 91st Congress, 2d session, on S.J. Res. 209, Aug. 4-6, 1970. 1970. iv+237 p.
L.C. card 79-609631
- 17695 Problems of Alaska, joint hearings. See Public Works Committee, Senate.

Equal Educational Opportunity, Select Committee on, Senate
Washington, DC 20510

- 17696 Equal educational opportunity, hearings, 91st Congress, 2d session.
● Item 1009
L.C. card 70-608401 Y 4.Eq 2: Eq 2/pt. (nos.)
- pt. 3A. Desegregation under law, June 15-17, 1970. 1970. iv+929-1308 p. il.
* Paper, \$1.50.
- pt. 3B. Desegregation under law, June 18-July 8, 1970. 1070. iv+1309-1607 p. il.
* Paper, \$1.25.

Finance Committee, Senate
Washington, DC 20510

- 17697 Material related to Administration revision of H.R. 16311 [Family assistance act of 1970], prepared by staff; July 1970. 1970. iv+58 p. il. (Committee print, 91st Congress, 2d session.) †
L.C. card 70-609113 Y 4.F 49: F 21/5
- 17698 Material related to work and training provisions of Administration revision of H.R. 16311 [Family assistance act of 1970], prepared by staff; Aug. 1970. 1970. ii+39 p. il. (Committee print, 91st Congress, 2d session.) †
L.C. card 77-609112 Y 4.F 49: F 21/6
- 17699 Skyjacking, hearing, 91st Congress, 2d session, on H.R. 19444, Oct. 6, 1970. 1970. iii+26 p. † ● Item 1038
L.C. card 70-609531 Y 4.F 49: Sk 9

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

- 17700 Social security amendments of 1970, hearings, 91st Congress, 2d session, on H.R. 17550.

pt. 3. Public witnesses, Sept. 22 and 23, 1970. xvii+925-1426 p. il. * Paper, \$2.25. • Item 1038
L.C. card 71-609002 Y 4.F 49 : So 1/8/970/pt.3

Foreign Relations Committee, Senate Washington, DC 20510

- 17701 United States security agreements and commitments abroad, hearings before Subcommittee on United States Security Agreements and Commitments Abroad, 91st Congress, 2d session.

pt. 8. Ethiopia, June 1, 1970. 1970. iii+1881-1958 p. † • Item 1039
L.C. card 70-604496 Y 4.F 76/2 : Se 2/pt.8

Interior and Insular Affairs Committee, Senate Washington, DC 20510

- 17702 Geothermal steam and resources, hearings before Subcommittee on Minerals, Materials, and Fuels, 91st Congress, 2d session, on S. 368, July 17 and 28, 1970. 1970. iv+140 p. il. † • Item 1040
L.C. card 77-609250 Y 4.In 8/13 : St 3/3

- 17703 Outer Continental Shelf, hearings before Special Subcommittee on Outer Continental Shelf, 91st Congress, 2d session, on issues related to establishment of seaward boundary of United States Outer Continental Shelf.

pt. 2. Apr. 1-May 27, 1970. 1970. iv+297-500 p. il. map. † • Item 1040
L.C. card 75-606698 Y 4.In 8/13 : C 76/2/970/pt.2

- 17704 Tar sands, hearing before Subcommittee on Minerals, Materials, and Fuels, 91st Congress, 2d session, on S. 581 [and] S. 582, July 13, 1970. 1970. iii+70 p. [Hearing held in Salt Lake City, Utah.] † • Item 1040
L.C. card 73-609521 Y 4.In 8/13 : T 17

- 17705 Water resources research, hearing before Subcommittee on Water and Power Resources, 91st Congress, 2d session, on S. 3553 [and] S. 1051, July 20, 1970. 1970. vi+198 p. † • Item 1040
L.C. card 70-609520 Y 4.In 8/13 : W 29/16/970

Judiciary Committee, Senate Washington, DC 20510

- 17706 Assaults on law enforcement officers, hearings before Subcommittee to Investigate Administration of Internal Security Act and Other Internal Security Laws, 91st Congress, 2d session, on S. 4325, S. 4348, S. 4359, and S. 4403. • Item 1042
L.C. card 71-609498 Y 4.J 89/2 : 41/4/pt. (nos.)

pt. 1. Oct. 6, 1970. 1970. iii+1-133+ii p. il. * Paper, 55c.
pt. 2. Oct. 7, 1970. 1970. iii+135-211+ii p. il. * Paper, 35c.
pt. 3. Oct. 8, 1970. 1970. iii+213-326+iii p. il. * Paper, 50c.

- 17707 Extent of subversion in "New Left", hearings before Subcommittee to Investigate Administration of Internal Security Act and Other Internal Security Laws, 91st Congress, 2d session. • Item 1042
L.C. card 73-606948 Y 4.J 89/2 : L 52/3/pt. (nos.)

pt. 4. Testimony of Charles Siragusa and Ronald L. Brooks, June 10, 1970. 1970. ii+237-759+iv p. il. * Paper, \$2.00
pt. 5. Falls River, Mass., June 11 and July 9, 1970. 1970. iii+761-881+v p. il. * Paper, 55c.

- 17708 Human cost of Soviet Communism, prepared [by Robert Conquest] at request of Thomas J. Dodd for Subcommittee to Investigate Administration of Internal Security Act and Other Internal Security Laws. 1970. ii+35+vi p. (Committee print, 91st Congress, 2d session.) †
L.C. card 72-609825 Y 4.J 89/2 : So 8/19

- 17709 Privacy, the census and Federal questionnaires, hearings before Subcommittee on Constitutional Rights, 91st Congress, 1st session, on S. 1791, Apr. 24-July 1, 1969. 1970. vii+1085 p. il. * Paper, \$4.50 • Item 1042
L.C. card 77-609242 Y 4.J 89/2 : P 93/17

GOVERNMENT PUBLICATIONS

Labor and Public Welfare Committee, Senate Washington, DC 20510

- 17710 Emergency school aid act of 1970, hearings before Subcommittee on Education, 91st Congress, 2d session, on S. 3883 [and] S. 4167, June 9-Aug. 27, 1970. 1970. vii+609 p. il. † ● Item 1043
L.C. card 77-609494 Y 4.L 11/2: Sch 6/18
- 17711 Enactments by 91st Congress concerning education and training, 1st session, 1969 (with related presidential recommendations, legislative histories of bills, and digests of enactments), prepared [by Charles A. Quattlebaum], Legislative Reference Service of Library of Congress; Aug. 1970. 1970. xiii+199 p. (Committee print, 91st Congress, 2d session.) †
L.C. card 73-609083 Y 4.L 11/2: Ed 8/18/969
- 17712 National digestive diseases and nutrition act, hearing before Subcommittee on Health, 91st Congress, 2d session, on S. 3063, Aug. 31, 1970. 1970. iv+263 p. il. † ● Item 1043
L.C. card 77-609549 Y 4.L 11/2: N 21 d1

Post Office and Civil Service Committee, Senate Washington, DC 20510

- 17713 Revenue and cost analysis, fiscal year 1969, Post Office Department, Bureau of Finance and Administration. Apr. 7, 1970. ii+[1]+21 leaves, oblong large 8° (Committee print table no. 1.) †
L.C. card 76-607919 Y 4.P 84/11: R 32/969/table 1

Public Works Committee, Senate Washington, DC 20510

- 17714 Disposal of junked and abandoned motor vehicles, hearings before Subcommittee on Air and Water Pollution, 91st Congress, 2d session, on S. 4197 [and] S. 4204, Aug. 19 and 26, 1970. 1970. iii+416 p. il. †
● Item 1045-
L.C. card 73-609643 Y 4.P 96/10: J 96
- 17715 National environmental policy act relative to highways, hearing before Subcommittee on Roads, 91st Congress, 2d session, on implementation of National environmental policy act as it relates to planning and construction of highways, Aug. 25, 1970. 1970. iii+59 p. il. † ● Item 1045
L.C. card 76-609424 Y 4.P 96/10: N 21 en
- 17716 Nominations of Stanley Womer and Chester M. Wiggin, jr., hearing, 91st Congress, 2d session, Sept. 17, 1970. 1970. iii+12 p. † ● Item 1045
L.C. card 78-609462 Y 4.P 96/10: W 84
- 17717 Problems of Alaska, joint hearings before Committee on Public Works and Committee on Commerce, Senate, 91st Congress, 2d session, July 6-10, 1970. 1970. vi+426 p. il. † ● Item 1045 & 1041
L.C. card 72-609632 Y 4.P 96/10: A1 1/7
- Small watershed program, hearings before Subcommittee on Flood Control, Rivers and Harbors, 91st Congress, 2d session.
- 17718 pt. 2. Nine projects located in Arkansas, Colorado, Illinois, Maine, Massachusetts, Michigan, Mississippi, Montana, and Oregon, also including McClellan Creek watershed, Tex., July 30, 1970. 1970. iv+43-113 p. †
● Item 1045
L.C. card 75-608215 Y 4.P 96/10: W 31/2/pt.2
- Water pollution, 1970, hearings before Subcommittee on Air and Water Pollution, 91st Congress, 2d session, on S. 3687 [and other bills].
- 17719 pt. 3. May 26-28, 1970. 1970. v+903-1379 p. il. * Paper, \$1.75. ● Item 1045
L.C. card 76-609006 Y 4.P 96/10: W 29/2/970/pt.3

CONSUMER AND MARKETING SERVICE, Agriculture Dept. Washington, DC 20250

C&MS (series).

- 17720 84. Foreign meat and poultry inspection program, fact sheet. Sept. 1970. 4 p. 4° † A 88.40/2: 84

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

- 17721 Dairy plants surveyed and approved for USDA grading service. Oct. 1970.
39 p. 4° (Dairy Division.) † ● Item 21-Q A 88.14/12: 970
- 17722 Mill margins report, cloth values, fiber prices and mill margins for unfinished carded and combed cotton cloth and blended fiber cloth, expanded series, 1966-69, v. 45, no. 13. Sept. 1970. cover title, 36 p. 4° (Cotton Division.) † A 88.11/10-2: 966-69

COPYRIGHT OFFICE, Library of Congress Washington, DC 20540

- Catalog of copyright entries, 3d series, v. 23. * Paper, \$50.00 (including semiannual issues of pts. 1-13); \$12.50 additional for foreign mailing.
L.C. card 6-35347 L.C.3.6/5: v.23/pt. (nos.)
- 17723 pt. 3-4. Dramas and works prepared for oral delivery, no. 2, July-Dec. 1969.
1970. ix+93-184 p. 4° ● Item 794
NOTE.—Parts 3-4 also sold separately on subscription. * Paper, \$5.00 a yr., \$1.25 additional for foreign mailing; single copy \$2.50.
- 17724 pt. 6. Maps and atlases, no. 2; July-Dec. 1969. 1970. ix+81-168 p. 4° ● Item 797
NOTE.—Part 6 also sold separately on subscription. * Paper, \$5.00 a yr., \$1.25 additional for foreign mailing; single copy, \$2.50.
- 17725 pt. 7-11A. Works of art, reproductions of works of art, scientific and technical drawings, photographic works, prints and pictorial illustrations, no. 1; Jan.-June, 1969. 1970. ix+159 p. 4° ● Item 798
NOTE.—Parts 7-11A also sold separately on subscription. * Paper, \$5.00 a yr., \$1.25 additional for foreign mailing; single copy, \$2.50.
- 17726 pt. 11B. Commercial prints and labels, no. 2; July-Dec. 1969. 1970. ix+43-84 p. 4° ● Item 799
NOTE.—Part 11B also sold separately on subscription. * Paper, \$5.00 a yr., \$1.25 additional for foreign mailing; single copy, \$2.50.
- 17727 pts. 12-13. Motion pictures and filmstrips, no. 2; July-Dec. 1969. 1970. ix+65-131 p. 4° ● Item 800
NOTE.—Parts 12-13 also sold separately on subscription. * Paper, \$5.00 a yr., \$1.25 additional for foreign mailing; single copy, \$2.50.
- Circular.
- 17728 38. Berne Union member countries as of July 1, 1970 [list]. Oct. 1970. 1 p. 4°
† ● Item 802-A LC 3.4: 38 B/2

COUNCIL ON ENVIRONMENTAL QUALITY, Executive Office of the President, 722 Jackson Pl. NW., Washington, DC 20013

- NOTE.—The Council on Environmental Quality was established by Public Law 91-190, approved Jan. 1, 1970.
- 17729 Ocean dumping, national policy report to the President [with list of references]. Oct. 1970. x+45 p. il. 4° [Also issued as H. doc. 399, 91st Cong. 2d sess.] * Paper, 55c. ● Item 856-E
L.C. card 79-609501 PrEx 14.2: Oc 2

DEFENSE DEPARTMENT Washington, DC 20301

- Cataloging handbook H (series). (Defense Supply Agency, Defense Logistics Services Center.) [Issued with perforations.]
- 17730 4-1. Federal supply code for manufacturers, United States and Canada: Name to code; prepared by Directorate of Item Identification. Oct. 1970. [860] p. 4° ([Army Dept. Supply bulletin SB-708-41; General Services Administration, FSS H 4-1.] [Supersedes SB 708-41, Oct. 1969, including C 11, Sept. 1970 supplement.] * Paper, \$13.00 (including basic handbook and cumulative monthly supplements); \$3.50 additional for foreign mailing. ● Item 314-A D 7.6/2: 4-1/11
- 17731 Court-martial reports, holdings and decisions of Judge Advocates General Boards of Review, Courts of Military Review, and United States Court of Military Appeals, v. 40, 1968-69. [1969.] lxxxiii+1068 p. † Cloth, \$7.50, Lawyers Co-operative Publishing Co., Rochester, N.Y.
L.C. card 52-61311 D 1.29: 40

GOVERNMENT PUBLICATIONS

- 17732 Defense demilitarization manual. Sept. 1970. cover title, [135] p. il. 4° (DoD 4160.21-M-1; Office of Assistant Secretary of Defense (Installations & Logistics).) [Issued in looseleaf form.] * Paper, \$1.25. ● Item 314-A D 7.6/4: D 39/2
- Defense Supply Agency manual DSAM (series). ‡ ● Item 314-A D 7.6/8: (nos.)
- 17733 4140.2. Supply operations manual: v. 1, Distribution system procedures, Change 11. Oct. 13, 1970. [125] p. 4° ([Army Dept.] AR 735-110; [Navy Dept.] NAVSUP Pub. 5003, ch. 11; [Marine Corps] MCO P4400.101, ch. 11; DASH-OP.) [Issued in looseleaf form.]
- 17734 7000.1. Accounting and finance manual, Change 26. Oct. 15, 1970. [152] p. 4° [Issued in looseleaf form.]
- 17735 Federal item identification guide: Cartridge and propellant actuated devices and components. Oct. 16, 1970. cover title, [89] p. 4° (INTERIM FIIG T190; Defense Supply Agency, Defense Logistics Services Center, Battle Creek, Mich.) [Issued with perforations.] * Paper, \$1.00. ● Item 314-A D 7.6/4: C 24/2
- 17736 — Cutlery and flatwear. Oct. 23, 1970. cover title, [23] p. il. 4° (INTERIM FIIG T290; Defense Supply Agency, Defense Logistics Services Center, Battle Creek, Mich.) [Issued with perforations.] * Paper, 40c. ● Item 314-A D 7.6/4: C 97
- 17737 — Launcher, and guided missile components. Oct. 30, 1970. cover title, [41] p. 4° (INTERIM FIIG T311; Defense Supply Agency, Defense Logistics Services Center, Battle Creek, Mich.) [Issued with perforations.] * Paper, 45c. ● Item 314-A D 7.6/4: L 37/2
- 17738 — Miscellaneous communication equipment. Oct. 16, 1970. cover title, [129] p. il. 4° (INTERIM FIIG T213; Defense Supply Agency, Defense Logistics Services Center, Battle Creek, Mich.) [Issued with perforations.] * Paper, \$1.25. ● Item 314-A D 7.6/4: C 73/3
- 17739 — Pumps and compressor components. Oct. 23, 1970. cover title, [150] p. il. 4° (INTERIM FIIG T103; Defense Supply Agency, Defense Logistics Services Center, Battle Creek, Mich.) [Issued with perforations.] * Paper, \$1.50. ● Item 314-A D 7.6/4: P 96/2
- 17740 — Rings-locking, pipe joint welding, and miscellaneous hardware. Oct. 16, 1970. cover title, [87] p. il. 4° (INTERIM FIIG T252; Defense Supply Agency, Defense Logistics Services Center, Battle Creek, Mich.) [Issued with perforations.] * Paper, \$1.00. ● Item 314-A D 7.6/4: R 47/2
- Military standard MIL-STD (series). [Issued with perforations.] ‡ ● Item 314-J D 7.10: (nos.)
- 17741 129E. Marking for shipment and storage, Change notice 1. Sept. 4, 1970. [48] p. il. 4° ([FSC PACK.])
- 17742 750B. Test methods for semiconductor devices, notice 2. Aug. 21, 1970. [6] p. il. 4° (FSC 5961.)
- 17743 869 (USAF). Flame spraying [with list of referenced documents]. Apr. 28, 1970. iv+13+[1] p. il. 4° (FSC MFFP.) [Supersedes DWG 66A32061.]
- 17744 1311A. Test methods for electron tubes, notice 1. Aug. 18, 1970. [23] p. il. 4° (FSC 5960.)
- 17745 1363. Measurement of wood moisture content. Aug. 14, 1970. iv+12 p. il. 4° (FSC 5500.) [Supersedes MIL-W-19463A (SHIPS), Mar. 15, 1967 and MIL-W-6110, Apr. 11, 1950.]
- 17746 Military standard transportation and movement procedures MILSTAMP [Joint regulations, Aug. 1, 1966, Change] 13. Nov. 1, 1970. [143] p. il. 4° (DoD 4500.32-R; Defense Supply Agency.) [Issued in looseleaf form. Incorporates changes developed by agreement among Military Departments, Coast Guard, and General Services Administration, in coordination with Defense Supply Agency. Supersedes Interim changes 13-1 and 13-2.] ‡ ● Item 309 D 1.6: M 59/ch.13

*For Sale by Superintendent of Documents

‡Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

- 17747 USAFI bulletin 1; Sept. 1970. [1970.] cover title, [1]+15+[22] p. il. 4°
 (United States Armed Forces Institute; RM 228.32.) [Includes changes
 to USAFI standard nomenclature list and insertion packet RM 106.97
 for USAFI catalog, 14th edition.] ‡ D 1.10/3: 970/no.1

DOMESTIC COMMERCE BUREAU, Commerce Dept. Washington, DC 20230

NOTE.—Department of Commerce organization order 40-1A, effective Sept. 15, 1970, abolished the Business and Defense Services Administration, and assigned the functions of the Administration to the Bureau of Domestic Commerce.

- 17748 Address by William A. Meissner, jr., Director, Copper Division, Bureau of Domestic Commerce, Department of Commerce, before annual meeting of Non-Ferrous Founders' Society, White Sulphur Springs, W. Va., Sept. 25, 1970. 1970. 9 p. 4° ‡ C 41.15: M 47/2
- 17749 What's ahead? address by James M. Owens, Bureau of Domestic Commerce, prepared for delivery at annual meeting of American Coke and Coal Chemicals Institute, White Sulphur Springs, W. Va., Oct. 29, 1970. [1970.] 5 p. 4° ‡ C 41.15: Ow 2/9

ECONOMIC DEVELOPMENT ADMINISTRATION, Commerce Dept. Washington, DC 20230

- 17750 EDA grants and loans for public works and development facilities. [Reprinted with revisions Sept. 1970.] 12 p. narrow 8° ‡ ● Item 130-D C 46.2: G 76/2/970

ECONOMIC OPPORTUNITY OFFICE, Executive Office of the President Washington, DC 20506

Community profiles. (Information Center.) ‡ Paper, each, \$3.00.

- | | |
|--|----------------------|
| 17751 Adams County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: Ad 1/9 |
| 17752 Antelope County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: An 8/2 |
| 17753 Arthur County, Nebr. [1968.] cover title, 45 p. 4° | PrEx 10.9/5: Ar 7 |
| 17754 Audrain County, Mo. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: Au 2/2 |
| 17755 Banner County, Nebr. [1968.] cover title, 46 p. 4° | PrEx 10.9/5: B 22 |
| 17756 Blaine County, Nebr. [1968.] cover title, 45 p. 4° | PrEx 10.9/5: B 57/2 |
| 17757 Boone County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: B 64/5 |
| 17758 Box Butte County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: B 69 b |
| 17759 Boyd County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: B 69 |
| 17760 Brown County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: B 81/3 |
| 17761 Buffalo County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: B 86/3 |
| 17762 Burt County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: B 95 |
| 17763 Butler County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: B 97/6 |
| 17764 Cape Girardeau County, Mo. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: C 17 g |
| 17765 Cedar County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: C 32/3 |
| 17766 Chariton County, Mo. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: C 37 |
| 17767 Cherry County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: C 42/7 |
| 17768 Clay County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: C 57/9 |
| 17769 Colfax County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: C 68 |
| 17770 Cuming County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: C 91/3 |
| 17771 Custer County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: C 96/2 |
| 17772 Dakota County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: D 14 |
| 17773 Dawson County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: D 32 |
| 17774 De Kalb County, Mo. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: D 36/3 |
| 17775 Dent County, Mo. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: D 43 |
| 17776 Deuel County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: D 48/2 |
| 17777 Dixon County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: D 64/2 |
| 17778 Dodge County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: D 66 |
| 17779 Douglas County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: D 74/4 |
| 17780 Dundy County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: D 91 |
| 17781 Fillmore County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: F 48 |
| 17782 Franklin County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: F 85/11 |
| 17783 Frontier County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: F 92 |
| 17784 Furnas County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: F 98 |
| 17785 Gage County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: G 12 |
| 17786 Garfield County, Nebr. [1968.] cover title, 48 p. 4° | PrEx 10.9/5: G 18/4 |
| 17787 Gosper County, Nebr. [1968.] cover title, 45 p. 4° | PrEx 10.9/5: G 69 |
| 17788 Grant County, Nebr. [1968.] cover title, 46 p. 4° | PrEx 10.9/5: G 76/10 |
| 17789 Greeley County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: G 81 |
| 17790 Hamilton County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: H 18/5 |
| 17791 Harlan County, Nebr. [1968.] cover title, 47 p. 4° | PrEx 10.9/5: H 22/2 |
| 17792 Hayes County, Nebr. [1968.] cover title, 45 p. 4° | PrEx 10.9/5: H 32 |

‡For Sale by National Technical Information Service,
 Springfield, VA 22151

●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

Community profiles—Continued

17793	Hitchcock County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: H 63
17794	Holt County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: H 74/2
17795	Hooker County, Nebr. [1968.] cover title, 45 p. 4°	PrEx 10.9/5: H 76
17796	Howard County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: H 83/5
17797	Jackson County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: J 13/8
17798	Jefferson County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: J 35/11
17799	Johnson County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: J 63/4
17800	Kearney County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: K 21
17801	Keya Paha County, Nebr. [1968.] cover title, 46 p. 4°	PrEx 10.9/5: K 52
17802	Kimball County, Nebr. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: K 56
17803	Knox County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: K 77/2
17804	Knox County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: K 77/3
17805	Laclede County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: L 11/2
17806	Lafayette County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: L 13/3
17807	Lancaster County, Nebr. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: L 22/2
17808	Lawrence County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: L 43/7
17809	Lewis County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: L 58/3
17810	Lincoln County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: L 63/6
17811	Lincoln County, Nebr. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: L 63/7
17812	Linn County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: L 64/2
17813	Livingston County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: L 76/2
17814	Loup County, Nebr. [1968.] cover title, 44 p. 4°	PrEx 10.9/5: L 93/2
17815	McDonald County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 14/2
17816	Macon County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 23/3
17817	McPherson County, Nebr. [1968.] cover title, 45 p. 4°	PrEx 10.9/5: M 24/2
17818	Madison County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 26/8
17819	Madison County, Nebr. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: M 26/9
17820	Maries County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 33/7
17821	Marion County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: M 33/8
17822	Mercer County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 53/4
17823	Merrick County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 55
17824	Miller County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 61/3
17825	Mississippi County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 69/1/2
17826	Monteau County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 74
17827	Monroe County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 75/9
17828	Montgomery County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 76/10
17829	Morgan County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: M 82/4
17830	Morrill County, Nebr. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: M 83/2
17831	Nance County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: N 15
17832	Nemaha County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: N 34
17833	New Madrid County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: N 42 m
17834	Newton County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: N 48/3
17835	Nodaway County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: N 67
17836	Nuckolls County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: N 88
17837	Oregon County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: O r 3
17838	Osage County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Os 1/2
17839	Otoe County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: O t 6
17840	Ozark County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Oz 1
17841	Pawnee County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 28/2
17842	Pemiscot County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: P 36/2
17843	Perry County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: P 42/7
17844	Pettis County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: P 45
17845	Phelp County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 51
17846	Pierce County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 61/3
17847	Pike County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 63/6
17848	Platte County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 69
17849	Platte County, Nebr. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: P 69/2
17850	Polk County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 75/6
17851	Polk County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 75/7
17852	Pulaski County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 96/2
17853	Putnam County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: P 98/3
17854	Ralls County, Mo. [1968.] cover title, 46 p. 4°	PrEx 10.9/5: R 13
17855	Randolph County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: R 15/4
17856	Ray County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: R 21
17857	Red Willow County, Nebr. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: R 24
17858	Reynolds County, Mo. [1968.] cover title, 46 p. 4°	PrEx 10.9/5: R 33
17859	Richardson County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: R 39/3
17860	Ripley County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: R 48
17861	Rock County, Nebr. [1968.] cover title, 46 p. 4°	PrEx 10.9/5: R 59/3
17862	St. Charles County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: Sa 2 c/2
17863	St. Clair County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Sa 2 c/3
17864	St. Francois County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Sa 2 f/2
17865	St. Louis County, Mo. [1968.] cover title, 49 p. 4°	PrEx 10.9/5: Sa 2 i/2
17866	St. Louis, Mo. [1968.] cover title, 38 p. 4°	PrEx 10.9/5: Sa 2 i/3
17867	Ste. Genevieve County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Sa 2 g
17868	Saline County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: Sa 3/2
17869	Saline County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Sa 3/3
17870	Sarpy County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Sa 7/3
17871	Saunders County, Nebr. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Sa 8
17872	Schuyler County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Sch 8/3
17873	Scotland County, Mo. [1968.] cover title, 47 p. 4°	PrEx 10.9/5: Sco 8/6
17874	Scott County, Mo. [1968.] cover title, 48 p. 4°	PrEx 10.9/5: Sco 8/5

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

- 17875 Scotts Bluff County, Nebr. [1968.] cover title, 48 p. 4° PrEx 10.9/5 : Sco 8/7
- 17876 Seward County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : Se 8/3
- 17877 Shannon County, Mo. [1968.] cover title, 48 p. 4° PrEx 10.9/5 : Sh 1/2
- 17878 Shelby County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : Sh 4/4
- 17879 Sheridan County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : Sh 5/3
- 17880 Sherman County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : Sh 5/2
- 17881 Sioux County, Nebr. [1968.] cover title, 45 p. 4° PrEx 10.9/5 : SI 7/3
- 17882 Stoddard County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : St 6/2
- 17883 Stone County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : St 7/4
- 17884 Sullivan County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : Su 5/4
- 17885 Taney County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : T 15/2
- 17886 Texas County, Mo. [1968.] cover title, 48 p. 4° PrEx 10.9/5 : T 31
- 17887 Thayer County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : T 33
- 17888 Thomas County, Nebr. [1968.] cover title, 45 p. 4° PrEx 10.9/5 : T 36
- 17889 Thurston County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : T 42/2
- 17890 Valley County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : V 24
- 17891 Vernon County, Mo. [1968.] cover title, 48 p. 4° PrEx 10.9/5 : V 59
- 17892 Warren County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : W 25/7
- 17893 Washington County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : W 27/11
- 17894 Washington County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : W 27/12
- 17895 Wayne County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : W 36/5
- 17896 Wayne County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : W 36/9
- 17897 Webster County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : W 38/2
- 17898 Webster County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : W 39/3
- 17899 Wheeler County, Nebr. [1968.] cover title, 44 p. 4° PrEx 10.9/5 : W 56
- 17900 Worth County, Mo. [1968.] cover title, 46 p. 4° PrEx 10.9/5 : W 89/2
- 17901 Wright County, Mo. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : W 93/2
- 17902 York County, Nebr. [1968.] cover title, 47 p. 4° PrEx 10.9/5 : Y 8/2

OEO pamphlet.

- 17903 1405-9. Legal, peaceful and responsible way. [Oct. 1970.] cover title, 4 p. narrow 8° [Summary of remarks of Donald Rumsfeld, Director, Economic Opportunity Office, St. Louis, Aug. 11, 1970.] † PrEx 10.23 : 1405-9

ECONOMIC RESEARCH SERVICE, Agriculture Dept. Washington, DC 20250

ERS (series). †

A 93.21 : (nos.)

- 17904 446. Marketing America's food. Aug. 1970. 5 p. 4°
L.C. card 73-609706
- 17905 451. Health care in rural America. July 1970. 4 p. 4°
L.C. card 75-609736

EDUCATION OFFICE, Health, Education, and Welfare Dept. Washington, DC 20202

- 17906 Advancing education through research, development, demonstration, dissemination, training, annual report fiscal year 1969, cooperative research. [May 1970.] vi+66 p. 4° ([OE-12051; National Center for Educational Research and Development.]) [Highlights on p. 2 of cover. Summary of educational research projects and programs administered by Office of Education, submitted under sec. 2(d) of Public law 83-531.] * Paper, 65c. ● Item 460-A-12
L.C. card 75-609752 HE 5.212 : 12051
- 17907 Brazilian education system, summary [with list of selected background readings]; by William A. Harrell. [1970.] vi+26 p. il. (OE-14150.) * Paper, 25c. ● Item 460-A-14
L.C. card 72-609691 HE 5.214 : 14150
- 17908 Current expenditures by local education agencies for free public elementary and secondary education; by Richard H. Barr and Betty J. Foster. Sept. 1970. [4] p. 4° (OE-22026-69; National Center for Educational Statistics.) * Paper, 10c. ● Item 460-A-22
L.C. card 77-602513 HE 5.222 : 22026-69
- 17909 ERIC products, 1967-68, bibliography of information analysis publications of ERIC clearinghouse, July 1967-June 1968; compiled by ERIC Clearinghouse for Library and Information Sciences, University of Minnesota. 1969. iv+18 p. 4° (Bureau of Research, Educational Resources Information Center.) †
L.C. card 70-608002 HE 5.77/2 : 967-68

☛For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

- 17910 It works series; summaries of selected compensatory education projects. [1970.] [2]+v+33 p. 4° ([OE-37069.]) * Paper, 35c. ● Item 460-A-37
L.C. card 71-609569 HE 5.237: 37069
- 17911 Numerical control of machine tools, point-to-point system, suggested guide for training course [with bibliography; prepared by Alun C. Thomas]. [1970.] viii+94 p. il. 4° (OE-87051; Bureau of Adult, Vocational, and Technical Education, Manpower Development and Training Program.) * Paper, \$1.00. ● Item 460-A-87
L.C. card 73-609678 HE 5.287: 87051
- 17912 Opening fall enrollment in higher education, 1969, report on preliminary survey; by George H. Wade. [1970.] vi+29 p. il. 4° (OE-54003-69-A; National Center for Educational Statistics.) [Highlights and related NCES publications on p. 2 and 3 of cover. At head of title on cover: Higher education.] * Paper, 40c. ● Item 460-A-54
HE 5.254: 54003-69-A
- 17913 Regional project research, guidelines for preparing a proposal. [1st edition Mar. 1969, revised Oct. 1970.] Oct. 1970. [3]+6+[1] p. 4° ([OE-12035-B]; Regional Research Program of National Center for Educational Research and Development.) † ● Item 460-A-12
HE 5.212: 12035-B
- 17914 State vocational education statistics, fiscal year 1969, preliminary report; prepared by Harold F. Duis. [1970.] v+20 p. 4° (OE-80071; Planning and Evaluation Branch, Division of Vocational and Technical Education.) * Paper, 35c. ● Item 460-A-80
HE 5.280: 80071

ENGINEERS CORPS (Army), Defense Dept.

NOTE.—Orders or requests for publications of the Engineers Corps, other than those sold by the Superintendent of Documents or by Division and District Engineers in other cities, should be addressed to Department of the Army, Office of Chief of Engineers, Publications Depot, 4300 Wheeler Ave., Alexandria, VA 22304.

- 17915 Cedar River flooding, Cedar Falls, Waterloo, and Evansdale, Iowa, how to avoid damage. [1970.] [2] p. il. oblong f° folded into narrow 8° size. [Prepared from data in Flood plain information, Cedar River, Black Hawk County, Iowa. Some illustrations are colored.] †
D 103.47/2: C 32
- 17916 Do you live in Coatesville-Modena area of Pennsylvania, then you should know about floods and flood plain management. Mar. 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, West Branch Brandywine Creek, Chester County, Pa.] †
D 103.47/2: C 63
- 17917 Do you live in Glenhall-Northbrook-Wawaset area of Pennsylvania, then you should know about floods and flood plain management. Mar. 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, West Branch Brandywine Creek, Chester County, Pa.] †
D 103.47/2: G 48
- 17918 Do you live in Laurel-Embreeville area of Pennsylvania, then you should know about floods and flood plain management. Mar. 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, West Branch Brandywine Creek, Chester County, Pa.] †
D 103.47/2: L 37
- Engineer manual EM (series).
- 17919 1110-2-1601. Engineering and design: Hydraulic design of flood control channels [with list of references]. July 1, 1970, cover title, [176] p. il. 4° [Issued with perforations.] † ● Item 338-A
D 103.6/3: 1110-2-1601
- 17920 Flood plain information: Albuquerque Arroyos, pt. 1, Albuquerque, N. Mex. June 1970, cover title, ii+34 p. il. 11 pl. 4° [Prepared for Albuquerque Metropolitan Arroyo Flood Control Authority by Corps of Engineers, U.S. Army, Albuquerque District, N. Mex.] †
D 103.47: A1 1/pt.1

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

- 17921 — Cedar River, Black Hawk County, Iowa. June 1970. cover title, [3] +ii+72 p. il. 25 pl. 4° [Prepared for State of Iowa and Iowa Natural Resources Council by Corps of Engineers, U.S. Army, Rock Island District. Some plates are colored.] ‡ D 103.47: B 56/2
- 17922 — East Fork Stones River, Woodbury, Tenn. Aug. 1970. cover title, [2] +ii+35 p. il. 9 pl. 4° [Prepared for town of Woodbury by Nashville District, Corps of Engineers, Nashville, Tenn.] ‡ D 103.47: W 85
- 17923 — Lemon Creek, Juneau, Alaska. June 1970. cover title, [3] +ii+22 p. 15 pl. 4° [Prepared for Greater Juneau Borough by Corps of Engineers, U.S. Army, Alaska District.] ‡ D 103.47: J 95/2
- 17924 — North Raccoon River, Sac County, Iowa. June 1970. cover title, [3] +iii+51 p. il. 11 pl. 4° [Prepared for the State of Iowa and Iowa Natural Resources Council by Corps of Engineers, U.S. Army, Rock Island District. Some plates are colored.] ‡ D 103.47: Sa 1
- 17925 — Ouachita River, Bayou LaFourche and tributaries at Monroe, La. [1970.] [2] p. il. f° folded into narrow 8° size. [Prepared for city of Monroe and Ouachita Parish Police Jury by Corps of Engineers.] ‡ D 103.47/2: M 75
- 17926 — San Jacinto River(San Jacinto to Railroad Canyon), Riverside County, Calif. May 1970. cover title, iv+31 p. il. 26 pl. 4° [Prepared for Riverside County by Corps of Engineers, U.S. Army Los Angeles District, Calif.] ‡ D 103.47: R 52
- 17927 Floods in Albuquerque, N. Mex.: pt. 1, Arroyos, how to avoid damage. June 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, Albuquerque Arroyos, pt. 1, Albuquerque, N. Mex.] ‡ D 103.47/2: A1 1/pt.1
- 17928 Floods in Cleveland, Tex., East Fork San Jacinto River, Reese & Tarkington Bayous, how to avoid damage. June 1970. [2] p. il. large 4° folded into narrow 8° size. [Prepared from data in Flood plain information, East Fork San Jacinto River, Reese and Tarkington Bayous in Cleveland, Tex.] ‡ D 103.47/2: C 59/2
- 17929 Floods in Granite Falls, Minn., how to avoid damage. [June 1970.] [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information report, Minnesota River at Granite Falls, Minn.] ‡ D 103.47/2: G 76/2
- 17930 Floods in Guthrie, Okla., Cottonwood Creek, how to avoid damage. May 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, Cottonwood Creek, Guthrie, Okla.] ‡ D 103.47/2: G 98
- 17931 Floods in Hutchinson, Minn., how to avoid damage. Apr. 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, South Fork of Crow River at Hutchinson, Minn.] ‡ D 103.47/2: H 97
- 17932 Floods in Kingsville, Tex., Tranquitas, Santa Gertrudis, & Escondido Creeks, how to avoid damage. Apr. 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, Tranquitas, Santa Gertrudis, and Escondido Creeks in Kingsville, Tex.] ‡ D 103.47/2: K 61
- 17933 Floods in La Crosse, Wis., how to avoid damage. [Apr. 1970.] [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, Mississippi River and tributaries at La Crosse, Wis.] ‡ D 103.47/2: L 11
- 17934 Floods in vicinity of Milwaukee, Oak Grove, and Lake Oswego, Oreg., how to avoid damage. May 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from Flood plain information, Willamette River and tributaries, Milwaukee-Oak Grove Lake, Oswego, Oreg.] ‡ D 103.47/2: M 64/2

GOVERNMENT PUBLICATIONS

- 17935 Floods in Waco, Tex., Brazos and Bosque Rivers, how to avoid damage. May 1970. [2] p. il. oblong f° folded into narrow 8° size. [Prepared from data in Flood plain information, Brazos and Bosque Rivers, Waco Tex.] ‡ D 103.47/2: W 11
- 17936 Floods in Woodbury, Tenn., how to avoid damage. Aug. 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, East Fork Stones River, Woodbury, Tenn.] ‡ D 103.47/2: W 85
- 17937 Floods in Yakima and Union Gap, Wash., how to avoid damage. May 1970. [2] p. il. oblong large 8° folded into narrow 8° size. [Prepared from data in Flood plain information, Yakima and Naches Rivers, Yakima-Union Gap, Wash.] ‡ D 103.47/2: Y 1
- 17938 Floods on Big Wills Creek, Gadsden, Ala., how to avoid damage. Apr. 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, Big Wills Creek, vicinity of Gadsden, Ala.] ‡ D 103.47/2: G 11
- 17939 Floods on Coyote Creek in Santa Clara County [Calif.]. Feb. 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, Coyote Creek, San Francisco Bay to Anderson Reservoir, Santa Clara County, Calif.] ‡ D 103.47/2: Sa 5 c
- 17940 Floods on Leman Creek in vicinity of Juneau, Alaska. June 1970. [2] p. il. f° folded into narrow 8° size. [Prepared from data in Flood plain information, Lemon Creek, Juneau, Alaska.] ‡ D 103.47/2: J 95
- 17941 Floods on Parker Creek, Marshall, Tex., how to avoid damage. Apr. 1970. [2] p. il. oblong f° folded into narrow 8° size. [Prepared from data in Flood plain information, Parker Creek, Marshall, Tex.] ‡ D 103.47/2: M 35
- 17942 North Raccoon River flooding Sac City, Iowa, how to avoid damage. June 1970. [2] p. il. oblong 8° folded into narrow 8° size. [Prepared from data in Flood plain information, North Raccoon River, Sac County, Iowa. Some illustrations are colored.] ‡ D 103.47/2: Sa 1
- 17943 Ohio River, floods in Clermont County, Ohio. Dec. 1968. [2] p. il. oblong f° folded into narrow 8° size. [Prepared from data in Flood plain information, Ohio River, Clermont County, Ohio.] ‡ D 103.47/2: C 59
- 17944 Ohio River, floods in Hamilton County, Ohio. Dec. 1968. [2] p. il. oblong f° folded into narrow 8° size. [Prepared from data in Flood plain information, Ohio River, Hamilton County, Ohio.] ‡ D 103.47/2: H 18/2
- 17945 [This entry number not used.]

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION, Commerce Dept., Washington, DC 20235

- ESSA technical memorandum. (Research Laboratories, National Severe Storms Laboratory, Norman, Okla.) C 52.15/2: ERLTM-NSSL (nos.)
- 17946 ERLTM-NSSL 47. Evaluation of roughness lengths at NSSL-WKY meteorological tower [with list of references; by] Leslie D. Sanders, Allen H. Weber. Aug. 1970. iii+24 p. il. 4° ‡ Paper, \$3.00.
- 17947 ERLTM-NSSL 48. Behavior of winds in lowest 1500 feet in central Oklahoma, June 1966-May 1967 [with list of references; by] Kenneth C. Crawford [and] Horace R. Hudson. Aug. 1970. viii+57+[2] p. il. 4° [Includes list of National Severe Storms Laboratory technical memoranda.] ‡ Paper, \$3.00.
- ESSA technical report. (National Environmental Satellite Center).
- 17948 NES 54. Estimating cloud amount and height from satellite infrared radiation data [with list of references; by] P. Krishna Rao. July 1970. iii+11 p. il. 4° * Paper, 25c. ● Item 208-B-7 C 52.15: NES 54

*For Sale by Superintendent of Documents

‡Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

ESSA technical report. (Research Laboratories, Atlantic Oceanographic and Meteorological Laboratories, Miami, Fla.)

- 17949 ERL 179-AOML 3. Magnetic and bathymetric profile in Pacific from Cocos Ridge to central California [with list of references; by] Albert J. Semtner, Paul J. Grim. Aug. 1970. iii+11 p. il. 4° * Paper, 25c. ● Item 208-B-7
C 52.15 : ERL 179-AOML 3

ESSA technical report. (Research Laboratories, Earth Sciences Laboratories, Boulder, Colo.)

- 17950 ERL 181-ESL 10. Convergence of iterative methods applied to large over-determined linear and nonlinear systems of equations using least squares [with list of references; by] Charles O. Stearns, Leroy R. Aldredge. Aug. 1970. iii+12 p. 4° * Paper, 25c. ● Item 208-B-7
C 52.15 : ERL 181-ESL 10

ESSA technical report. (Research Laboratories, Institute for Telecommunication Sciences, Boulder, Colo.) ● Item 208-B-7

- 17951 ERL 65-ITS 58-3. Tabulations of propagation data over irregular terrain in 230 to 9200 MHz frequency range: pt. 3, North Table Mountain-Golden [with list of references; by] P. L. McQuate [and others]. July 1970. v+238 p. il. 4° * Paper, \$1.75.
C 52.15 : ERL 65-ITS 58-3

- 17952 ERL 110-ITS 78. Predicting long-term operational parameters of high-frequency sky-wave telecommunication systems, by Alfred F. Barghausen [and others], errata 4. [1970.] [20] p. 4° †
C 52.15 : ERL 110-ITS 78/errata 4

- 17953 International Indian Ocean Expedition, USC&GS ship Pioneer, 1964 : v. 3, Bathymetry, geomagnetic, and gravity data [Feb. 11-Aug. 11, 1964], errata sheet. [Nov. 20, 1969.] 2 p. 4° † ● Item 192
C 4.2 : In 2/2/v.3/errata

Key to meteorological records documentation.

- 17954 5.321. Catalog of meteorological satellite data, ESSA 7 television cloud photography, Jan. 1-Mar. 31, 1969. [1970.] [2]+21 p. il. 180 p. of pl. 4° (Environmental Data Service.) * Paper, \$2.00. ● Item 275-C
L.C. card 70-609653 C 30.66/2 : 5.321

EXTENSION SERVICE, Agriculture Dept. Washington, DC 20250

- 17955 Food and nutrition, basic lessons for training extension aides [with lists of references for aids]. [Apr. 1970.] cover title, 626+[1] p. il. 4° †
A 43.16/2 : F 73

FARMER COOPERATIVE SERVICE, Agriculture Dept.

FCS information (series).

- 17956 68. Guidelines for cooperative alfalfa dehydrating plants [with list of literature cited; by Charles E. Reed]. [Oct. 1970.] cover title, iv+48 p. il. †
● Item 65-B A 89.15 : 68
L.C. card 77-609707

FEDERAL AVIATION ADMINISTRATION, Transportation Dept. Washington, DC 20553

- 17957 Airman's information manual: pt. 2, Airport directory, autumn-winter 1970. [1970.] cover title, [2]+v+285 p. il. 4° [Semiannual. Issued with perforations.] * Paper, \$4.00 a yr.; \$1.00 additional for foreign mailing. ● Item 431-C-5
L.C. card 78-602583 TD 4.12 : pt.2/970-2

- 17958 Catalog of approved headquarters FAA recurring reports, June 1970. [July 31, 1970.] 2+199 p. 4° (Order 1340.3F.) [Issued in looseleaf form. Cancels Order 1340.3E.] † ● Item 431-C-4 TD 4.8/2 : 1340.3 F

‡For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

Page 29

GOVERNMENT PUBLICATIONS

- 17959 Federal aviation regulations, v. 9. July 1970. cover title, [326] p. 4°
[Issued in looseleaf form.] * Paper, \$6.00 (including basic volume and
supplementary material for an indefinite period); \$1.50 additional for
foreign mailing. ● Item 431-C-13 TD 4.6/3: v.9

Includes: pt. 61, Certification, pilots and flight instructors—pt. 63, Certification,
flight crewmembers other than pilots—pt. 65, Certification, airmen other than
flight crewmembers—pt. 67, Medical standards and certification—pt. 141, Pilot
schools—pt. 143, Ground instructors—pt. 147, Aviation maintenance techni-
cian schools.

Handbooks. † ● Item 431-C-4 TD 4.8/2:(nos.)

- 17960 6790.5. Doppler VOR installation drawings. Aug. 7, 1970. cover title, [47]
leaves, il. oblong 8° [Cancels IM P 6790.6.]
17961 7400.2A. Procedures for handling airspace matters, pt. 700, Change 2. Oct. 1,
1970. [17] p. 4° [Issued with perforations.]

National Aviation Facilities Experimental Center, Atlantic City, N.J.:
Report FAA NA (series). TD 4.32:(nos.)

- 17962 69-42. Visual illusion problems, final report [with bibliographies; by] George E.
Rowland, Joseph F. Snyder. Sept. 1970. cover title, [51] p. il. 4° [Pre-
pared under contract DOT FA 69NA-357 by Rowland & Company, Inc.,
Haddonfield, N.J.; project 241-003-04X; report FAA-NA-69-42.]
Φ Paper, \$3.00.

- 17963 70-67. Index of NAFEC technical reports, 1967-69, final report. Oct. 1970. cover
title, v+58 p. 4° Φ Paper, \$3.00.

- 17964 Removal of disabled aircraft. Aug. 1970. cover title, [64] p. il. 4° ([Ad-
visory circular] AC 150/5200-13.) [Issued with perforations.] † De-
partment of Transportation, Distribution Unit, TAD-484.3, Washing-
ton, DC 20590. ● Item 431-C-4 TD 4.8: D 63/2

Report FAA-NS-(series).

- 17965 70-1. NAS-en route stage A, radar video data processor modifications, final
report; [by] O. D. Carlson. Aug. 1970. cover title, v+23+4+1 p. il. 4°
(National Airspace System Program Office.) [Prepared under project
119-325-93X by National Aviation Facilities Experimental Center, At-
lantic City, N.J. Issued by originator as report FAA-NA-70-42.]
Φ Paper, \$3.00. TD 4.32/3: 70-1

- 17966 United States civil aircraft register. July 1, 1970. (AC 20-6N; [Flight
Standards Technical Division] Aeronautical Center.) [Semiannual.]
* Paper, \$13.50 per set. ● Item 431-F-5

v. 1. cover title, iv+[75]+1-958 p. 4°
v. 2. cover title, iv+[75]+959-1917 p. 4° TD 4.18/2: 970-2/v.1,2

FEDERAL CROP INSURANCE CORPORATION, Agriculture Dept. Washington, DC 20250

- 17967 Texas coverages and rates, sorghum, cotton, wheat. [1970.] [1]+14 p. 4° †
A 62.2: T 31

FEDERAL HIGHWAY ADMINISTRATION, Transportation Dept. Washington, DC 20591

- 17968 Benefits of interstate highways [with list of references and notes]. June
1970. cover title, 37 p. il. 4° † TD 2.2: In 8

- 17969 Directory, urbanized area transportation planning programs. June 1970.
cover title, [1]+64 p. il. 4° (Office of Planning, Urban Planning
Division.) †
L.C. card 67-62698 TD 2.2: Ur 1

- 17970 Highways USA. May 1970. cover title, 32 p. il. 4° † TD 2.2: H 53

- 17971 2d annual report on status of equal employment opportunity program in
response to request from Subcommittee on Roads, Committee on Public
Works, United States Senate. July 1, 1970. cover title, iv+86 p. 4°
(Office of Civil Rights.) †
L.C. card 76-608790 TD 2.17: 970

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

FEDERAL HOME LOAN BANK BOARD
Washington, DC 20552

- 17972 Federal Savings and Loan Insurance Corporation, financial statements, Mar. 30, 1970. [1970.] [2] p. oblong 8° folded into narrow 8° size. †
FHL 1.2: F 31/2/970
- 17973 Savings and home financing source book, 1969. [July 1970.] 56 p. il. 12°
([Office of Economic Research.]) †
L.C. card 53-63519 FHL 1.11: 969
- 17974 Speech by Preston Martin, Chairman, Federal Home Loan Bank Board, fall dinner meeting, Association of U.S. Government Agency Traders, New York, N.Y., Oct. 30, 1970. [1970.] [1]+8 p. 4° †
FHL 1.23: M 36/9

FEDERAL HOUSING ADMINISTRATION, Housing and Urban
Development Dept., Washington, DC 20411

- 17975 Manufactured housing technically suitable for HUD housing programs; compiled and illustrated by Wilkes and Faulkner, Architects, Washington, D.C. Revised to July 1970. [1970.] [414] p. il. 4° [Includes supplements 1 and 2. Formerly Manufactured housing technically suitable for FHA mortgage insurance. Issued with perforations.] * Paper, \$3.25.
● Item 589 HH 2.2: M 31/970
- 17976 Manufactured housing technically suitable for HUD housing programs, supp. 2; [compiled and illustrated by Wilkes and Faulkner, Architects, Washington, D.C.]. [Revised to July 1970.] July 1970. cover title, [152] p. il. 4° (FHA 106.) [Formerly Manufactured housing technically suitable for FHA mortgage insurance. Issued with perforations.] *(Included in price of basic publication. See entry 17975. ● Item 589
HH 2.2: M 31/supp.2

FEDERAL MARITIME COMMISSION
Washington, DC 20573

- 17977 Approved conference, rate and interconference agreements of steamship lines in foreign commerce of United States. Reissue as of July 1, 1970. [1970.] [231] p. [Semiannual. Issued in looseleaf form.] * Paper, \$4.50 for 2 years; \$1.25 additional for foreign mailing. ● Item 432-L
FMC 1.11: 970-2
- 17978 Decisions of Federal Maritime Commission: v. 12, July 1968-June 1969. 1970. xii+[1]+415 p. * Cloth, \$3.25. ● Item 233-A
L.C. card 42-49992 FMC 1.10: 12
- FMC SP (series). † FMC 1.9: 70-(nos.)
- 17979 70-39. Remarks of Commissioner George H. Hearn of Federal Maritime Commission at 59th annual convention of Association of Water Transportation Accounting Officers, Cherry Hill, N.J., Oct. 16, 1970. [1970.] 8 p. 4°
- 17980 70-40. Remarks by Helen Delich Bentley, Chairman, Federal Maritime Commission, before 44th annual convention of Propeller Club of United States and American Merchant Marine Conference luncheon meeting, Portland, Oreg., Oct. 15, 1970. [1970.] 13 p. 4°
- 17981 70-41. Remarks by Mrs. Helen Delich Bentley, Chairman, Federal Maritime Commission, before 59th annual convention of American Association of Port Authorities luncheon meeting, Houston, Tex., Oct. 19, 1970. 1970. 12 p. 4°
- 17982 70-42. Remarks of Commissioner George H. Hearn of Federal Maritime Commission at annual fall luncheon of National Export Traffic League, New York City, Oct. 28, 1970. 1970. 8 p. 4°
- 17983 70-43. Remarks by Commissioner George H. Hearn before Maritime industries luncheon, San Pedro, Calif., Nov. 4, 1970. [1970.] 7 p. 4°

FEDERAL POWER COMMISSION
Washington, DC 20426

- 17984 Major natural gas pipelines, as of Dec. 31, 1969 [colored map]. Scale 1.8 in.=300 mi. 1970. 13 x 19 in. (FPC M-88.) * Paper, 15c.
L.C. card MAP 55-498 FP 1.13: G 21/2/969-2

‡For Sale by National Technical Information Service,
Springfield, VA 22151
●Sent to depository Libraries

Page 31

GOVERNMENT PUBLICATIONS

- 17985 Major natural gas pipelines as of June 30, 1970 [colored map]. Scale 1.8 in.=300 mi. 1970. 13 x 19 in. (FPC M-90.) * Paper, 15c.
L.C. card MAP 55-498 FP 1.13: G 21/2/970

National electric rate book, rate schedules for electric service in communities of 2,500 population or more, residential, commercial, and industrial services. [Issued with perforations.]

NOTE.—The complete rate book is made up of separate publications, each representing a State. They are sold on subscription basis by the Superintendent of Documents, \$12.50 a year, \$4.25 additional for foreign mailing; single copy, 25c.

- 17986 Minnesota. Sept. 1970. [2]+31 p. 4° [Supersedes issue of June 1969.] ● Item 437-A-21 FP 1.18: M 66/970
17987 Missouri. Aug. 1970. [2]+31 p. 4° [Supersedes issue of May 1969.] ● Item 437-A-23 FI 1.18: M 69 0/970

FEDERAL RAILROAD ADMINISTRATION, Transportation Dept. Washington, DC 20591

- 17988 Light-modulated accelerometer for pantograph measurements; [by Hector Medeck and Daniel E. Magnus]. [Mar. 1970.] cover title, [34] p. il. 4° ([FRA-RT-70-41]; Office of High Speed Ground Transportation.) [Prepared under contract DAT-FR-9-00010 by General Applied Science Laboratories, Inc.] Φ Paper, \$3.00. TD 3.2: Ac 2

FEDERAL RESERVE SYSTEM BOARD OF GOVERNORS Washington, DC 20551

- 17989 Central banking and economic development, record of innovation, remarks by Andrew F. Brimmer, Member, Board of Governors of Federal Reserve System, at 10th anniversary celebration of Bank of Jamaica, Kingston, Jamaica, Oct. 10, 1970. 1970. [1]+25 p. 4° †
FR 1.23: B 77/61
- 17990 Economic agenda for black Americans, remarks by Andrew F. Brimmer, Member, Board of Governors of Federal Reserve System, at Charter Day Convocation celebrating 105th anniversary of Atlanta University, Atlanta, Ga., Oct. 16, 1970. 1970. [1]+30 p. 4° † FR 1.23: B 77/62
- 17991 Federal Reserve policy and liquidity squeeze, remarks of George W. Mitchell, Member, Board of Governors of Federal Reserve System at Banking and Financial Research Committee Workshop of American Bankers Association, Miami, Fla., Oct. 13, 1970. [1970.] [1]+8 p. 4° †
FR 1.23: M 69/60
- 17992 Historical chart book, 1970. [1970.] [4]+123 p. il. oblong 8° [Contains long-range charts supplementing Federal Reserve chart book on financial and business statistics.] † Paper, 60c.
L.C. card 50-13379 FR 1.2: C 38
- 17993 Member bank income, 1969. [1970.] p. 564-572, 4° [Reprinted from Federal reserve bulletin, July 1970. Notice, 1 p. oblong 16°, dated Aug. 12, 1970, issued also.] †
FR 1.3/a: In 2/3

Regulation (series).

- 17994 D. [Reserves of member banks] amendments effective June 30-Nov. 9, 1970. [1970.] 1 p. 4° †
FR 1.6: D/970/amdt.-2

FEDERAL TRADE COMMISSION Washington, DC 20580

- 17995 Guides against debt collection deception, adopted June 30, 1965, as amended June 14, 1968. [1970.] [2]+4 p. * Paper, 10c. ● Item 535-A
FT 1.8/2: D 35/968

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

FEDERAL WATER QUALITY ADMINISTRATION, Interior Dept.
Washington, DC 20242

- 17996 Conference in matter of pollution of Lake Superior and its tributary basin, Minnesota, Wisconsin, Michigan, proceedings, 2d session, Apr. 29-30, 1970, Duluth, Minn. [1970.] † ● Item 473-A-1
v. 1. cover title, [22]+5-438 p. il. 4°
v. 2. cover title, 439-875 p. il. 4°
L.C. card 72-609537 I 67.2: Su 7/970/v.1-2
- 17997 Conference, pollution of Lake Michigan and its tributary basin, 3d session, Milwaukee, Wis., Mar. 31-Apr. 1, 1970, executive session, Chicago, Ill., May 7, 1970, proceedings. [1970.] † ● Item 473-A-1
L.C. card 77-609687
v. 1. cover title, 1-410 p. il. map 4°
v. 2. cover title, [1]+411-684+[11] p. il. 4°
v. 3. cover title, 233 p. il. 4° I 67.2: M 58/6/970/v.1-3
- 17998 Research, development, and demonstration projects, fiscal year 1970; prepared by Division of Process Research and Development, Office of Research and Development. [1970.] [1]+vi+[1]+111 p. 4° [Descriptions of grant and contract projects of Division of Process Research and Development awarded during fiscal year 1970.] † ● Item 473-A-1
L.C. card 70-607876 I 67.2: R 31/2/970
- 17999 Sewage and water works construction, 1968; [prepared by Kenneth H. Jenkins and Florence G. Simmons]. [1970.] iv+12 p. 4° ([WP-15.])
† ● Item 498-A
L.C. card 75-601998 I 67.11: 968
- 18000 Water pollution control, research, development, and demonstration projects, 1969 grant and contract awards, research grants, research contracts, demonstration grants, storm and combined sewer grants, storm and combined sewer contracts, advanced waste treatment grants, advanced waste treatment contracts, industrial waste treatment grants, [and] industrial waste treatment contracts. [1970.] iv+64 p. 4° (Office of Research and Development.) † ● Item 473-A-1
L.C. card 77-603502 I 67.2: G 76/2/969
- Water pollution control research series. ● Item 473-A-1
I 67.13/4: (nos.)
- 18001 11024 DSM 05/70. Engineering investigation of sewer overflow problem, detailed investigation into cause and effect of sanitary sewer overflows and recommended remedial measures for Roanoke, Va. [with bibliographies]; by Hayes, Seay, Mattern & Mattern, Architects-Engineers, Roanoke, Va. May 1970. xvii+250+[3] p. il. 4° (Program 11024 DMS; contract 14-12-200.) * Paper, \$2.00.
L.C. card 76-609483
- 18002 11034 FKL 07/70. Storm water pollution from urban land activity, development of analytical procedures for predicting storm water pollution from urban areas by use of selectively defined urban characteristics [with list of references]; by AVCO Economic Systems Corporation, Washington, D.C. July 1970. xvi+326 p. il. 4° (Program 11034 FKL, contract 14-12-187.) * Paper, \$2.50.
L.C. card 73-609138
- 18003 12000-07/70. Projects of Industrial Pollution Control Branch. July 1970. [233] p. il. 4° (Division of Applied Science and Technology, Office of Research & Development.) * Paper, \$1.75.
- 18004 14010-06/69. Oxygenation of ferrous iron [with lists of references]; by Harvard University, Cambridge, Mass. June 1970. xvii+[206] p. il. 4° (Contract PH 36-66-107.) * Paper, \$1.75.
L.C. card 79-609544

GOVERNMENT PUBLICATIONS

FOREIGN AGRICULTURAL SERVICE, Agriculture Dept. Washington, DC 20250

[Foreign Agricultural Service, miscellaneous] FAS-M (series). †
A 67.26: (nos.)

- 18005 184. New Zealand's livestock and meat industry; [by Q. Martin Morgan]. [Revised] Oct. 1970. [1970.] cover title, [2] + 21 p. il. 4° (Livestock and Meat Products Division.) [Supersedes FAS-M-184, May 1967.]
L.C. card 71-609735
- 18006 221. Food and agricultural export bibliography, 1970; [by Dennis White]. Nov. 1970. cover title, 44 p. 4° [Contents on p. 2 of cover.]
L.C. card 79-609832

FOREST SERVICE, Agriculture Dept. Washington, DC 20250

- 18007 Bass Lake Recreation Area, Sierra National Forest, Calif. [1970.] 1 sheet (with map on verso), il. f° folded into narrow 8° size. † A 13.2: B 29
- 18008 Camping & picnicking in Eldorado National Forest, Calif. 1970. [31] + 23 + [2] p. il. (California [region].) † A 13.2: El 2/970
- 18009 Illinois iron furnace, Shawnee National Forest. [1970.] 2 p. il. narrow 8° † A 13.2: Il 6
- 18010 Report of chief, Forest Service, 1969. [Sept. 1970.] iv + 85 p. 4° [Covers calendar year activities unless otherwise identified; records on fiscal year basis are so reported.] * Paper, \$1.00 • Item 80
L.C. card Agr 12-394 A 13.1: 969

Research note FPL-(series). (Forest Products Laboratory, Madison, Wis.)

- 18011 FPL-046. Forest Products Laboratory natural finish: by Forest Products Laboratory, Forest Service, Department of Agriculture. July 1970. 7 p. 4° [Revision of Forest Products Laboratory report 2096, of same title, originally issued in 1957 and revised in 1961 and 1964.] †
L.C. card 78-609734 A 13.79: FPL-046/2

Research note PNW-(series). (Pacific Northwest Forest and Range Experiment Station, Portland, Oreg.) † A 13.79: PNW-(nos.)

- 18012 PNW-122. Automatic photoelectric triggering mechanism for data-recording camera; by W. Y. Pong, R. M. Bass, and H. D. Claxton. July 1970. 11 p. il. 4°
L.C. card 70-609708
- 18013 PNW-123. Stabilization of newly constructed road backslopes by mulch and grass-legume treatments; by C. T. Dyrness. July 1970. 5 p. 4°
- 18014 PNW-128. Method for sampling yeasts and bacteria in sound wood; by Donald M. Knutson. Aug. 1970. 3 p. il. 4°

Research note PSW-(series). (Pacific Southwest Forest and Range Experiment Station, Berkeley, Calif.) † A 13.79: PSW-(nos.)

- 18015 PSW-202. Moisture contents of brushland fuels desiccated for burning; [by] Stanley B. Carpenter, Jay R. Bentley [and] Charles A. Graham. 1970. 7 p. il. 4°
- 18016 PSW-203. Perennial grasses reduce woody plant seedlings . . . on mixed conifer fuel-break; [by] Harry E. Schimke, Lisle R. Green [and] Danny Heavilin. 1970. 4 p. il. 4°
- 18017 PSW-205. Lignin staining, limited success in identifying koa growth rings; [by] Herbert L. Wick. 1970. 3 p. il. 4°
- 18018 PSW-206. Cantilever scales for measuring weight changes; [by] John R. Murray [and] Clive M. Countryman. 1970. 6 p. il. 4°
- 18019 PSW-207. Foliar spraying of sprouting tanoak plants best in late summer; [by] Kenneth M. Estes [and] David A. Blakeman. 1970. 4 p. 4°
- 18020 PSW-208. Toxicity of aerosols to larch casebearer larvae; [by] Robert L. Lyon [and] Margaret E. May. 1970. 3 p. 4°
- 18021 PSW-216. Experimental prescribed burn to reduce fuel hazard in chaparral; by Leslie R. Green. 1970. 6 p. il. 4°

Research paper FPL-(series). (Forest Products Laboratory, Madison, Wis.) † A 13.78: FPL-(nos.)

- 18022 FPL-139. Strength of multiple member structures [with list of literature cited; by John J. Zahn]. July 1970. cover title, 44 p. il. 4° [Accompanied by abstract cards. Text on p. 2 of cover.]
L.C. card 74-609733
- 18023 FPL-141. Evaluating quaking aspen of Wisconsin for site-quality to wood-quality relationship; [with list of literature cited; by Dimitri Pronin and L. E. Lassen]. Aug. 1970. cover title, 8 p. il. 4° [Text on p. 2 of cover. Accompanied by abstract cards.]

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

- 18024 FPL-143. Natural decay resistance of 30 Peruvian woods; [by T. L. Highley and T. C. Scheffer]. July 1970. cover title, 4 p. 4° [Text on p. 2 of cover. Accompanied by abstract cards.]

Research paper-PNW (series). (Pacific Northwest Forest and Range Experiment Station, Portland, Oreg.) † A 13.78: PNW-(nos.)

- 18025 PNW-102. Laminated root rot of Douglas-fir in western Oregon and Washington [with list of literature cited; by T. W. Childs]. 1970. cover title, 27+[1] p. ll. [Contents on p. 2 of cover.]
L.C. card 76-609073

- 18026 PNW-103. Mechanics of debris avalanching in shallow till soils of southeast Alaska [with list of literature cited; by] Douglas N. Swanston. 1970. cover title, [1]+17+[1] p. ll. 4° (Institute of Northern Forestry, Juneau, Alaska.)
L.C. card 73-609485

Research paper PSW-(series). (Pacific Southwest Forest and Range Experiment Station, Berkeley, Calif.) † A 13.78: PSW-(nos.)

- 18027 PSW-56. Local and regional variation in monoterpenes of ponderosa pine wood oleoresin [with list of literature cited; by] R. H. Smith, R. L. Peloquin, P. C. Passof. 1969. cover title, [2]+10 p. ll. 4° [Abstract cards inserted.]
L.C. card 77-609163

- 18028 PSW-59. Seed viability, germination and radicle growth of dwarf mistletoe in California [with list of literature cited; by] Robert F. Scharpf. 1970. cover title, [2]+18 p. ll. 4° [Abstract cards inserted.]
L.C. card 72-609151

- 18029 San Bernardino Mountain Area, San Bernardino National Forest, Calif. [Revised 1970.] [1970.] 1 sheet (with map on verso) oblong 8° folded into narrow large 8° size. [Map is colored.] † A 13.13: Sa 5be/970

- 18030 Tahoe National Forest, 1969. 1970. cover title, [16] p. ll. 4° (California Region.) † A 13.13/2: T 13/969

GENERAL ACCOUNTING OFFICE Washington, DC 20548

- 18031 Report to Congress: Examination of financial statements, Government National Mortgage Association for fiscal year 1969, Federal National Mortgage Association for 2-month period ended Aug. 31, 1968, Department of Housing and Urban Development; by Comptroller General of United States. Oct. 15, 1970. cover title, [1]+3+[4]+55 p. 4° (B-114828.) † Paper, \$1.00.
L.C. card 71-609700 GA 1.13: G 74/6

- 18032 — Government-wide service benefit plan, Blue Cross and Blue Shield for Federal employees, needs improved administration, Civil Service Commission; by Comptroller General of United States. Oct. 20, 1970. cover title, [1]+4+[3]+66 p. 4° (B-164562.) † Paper, \$1.00.
L.C. card 76-609503 GA 1.13: B 62

- 18033 — Improvement needed in administration of Iowa and Kansas medicare programs by fiscal agents, Social and Rehabilitation Service, Department of Health, Education, and Welfare; by Comptroller General of United States. Oct. 20, 1970. cover title, [1]+4+[2]+67 p. 4° (B-164031 (3).) † Paper, \$1.00.
L.C. card 75-609499 GA 1.13: M 46/15

- 18034 — Improvements needed in management of Department of Defense communications; by Comptroller General of United States. Oct. 19, 1970. cover title, [8]+56 p. 4° (B-169857.) † Paper, \$1.00.
L.C. card 76-609491 GA 1.13: C 73/30

- 18035 — Overstatement of contract target cost for 1st stage of Saturn V launch vehicle, National Aeronautics and Space Administration; by Comptroller General of United States. Oct. 26, 1970. cover title, [5]+29 p. 4° (B-161366.) † Paper, \$1.00.
L.C. card 72-609561 GA 1.13: Sa 8/4

‡For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

- 18036 — Savings from joint use of spectrometric oil analysis equipment by military departments, Department of Defense; by Comptroller General of United States. Oct. 27, 1970. cover title, [6]+29 p. 4° (B-162313 (1).) † Paper, \$1.00.
L.C. card 76-609562 GA 1.13 : Sp 3
- 18037 — Special impact program in Los Angeles is not meeting goal of providing jobs for disadvantaged, Department of Labor; by Comptroller General of United States. Oct. 7, 1970. cover title, [1]+4+[2]+60 p. il. 4° (B-168560.) † Paper, \$1.00.
L.C. card 74-609567 GA 1.13 : L 89/4

GEOGRAPHIC NAMES BOARD, Interior Dept. Washington, DC 20240

Gazetteer.

- 18038 42. U.S.S.R., v. 5, O-R, official standards names approved by United States Board on Geographic Names; prepared in Geographic Names Division, U.S. Army Topographic Command. 2d edition. June 1970. ix+705 p. il. oblong 8° † Army Topographic Command, 6500 Brooks Lane, Washington, DC 20315, Attn: Geographic Names Division, 53600 ● Item 617
L.C. card 78-608761 I 33.8 : 42/2/v.5

GEOLOGICAL SURVEY, Interior Dept. Washington, DC 20242

Bulletin.

- 18039 1313-C. Electrical resistivity sounding with L-shaped array [with list of references cited]; by Adel A. R. Zodhy. 1970. iii+20 p. il. [Mathematical criteria and field procedures for collecting, processing, and interpreting electrical sounding data obtained by means of an L-shaped array. New techniques in direct-current resistivity exploration.] * Paper, 20c. ● Item 620
L.C. card 74-608192 I 19.3 : 1313-C

Circular.

- 18040 635. Stratigraphic sections and chemical analyses of phosphatic rocks of Permian and Mississippian age in Weber County, Utah [with list of references cited]; by E. M. Schell and K. P. Moore. 1970. iii+11 p. 4° † ● Item 620-A
L.C. card 70-609547 I 19.4/2 : 635

Professional papers. ● Item 624

I 19.16 : (nos.)

- 18041 448-A. Availability of water in Mississippi embayment [with list of references cited]; by E. M. Cushing [and others]. 1970. v+13+[3] p. il. and portfolio of 7 pl. and tab. 4° [Summary of availability of water in Mississippi embayment. Water resources of Mississippi embayment. All plates are colored. Includes title page and table of contents to Professional paper 448.] * Paper, \$5.50.
L.C. card 70-606746
- 18042 529-H. Atlantic Continental shelf and slope of United States, gravels of north-eastern part [with list of references cited]; by John Schlee and Richard M. Pratt. 1970. iii+39 p. il. 5 pl. in pocket, 4° [Description of gravel on continental margin off New England, with emphasis on processes of dispersal and sources of gravel.] * Paper, \$2.00.
L.C. card 79-609623
- 18043 546. Alaska earthquake, Mar. 27, 1964, lessons and conclusions [with selected bibliography]; by Edwin B. Eckel. [1970.] vi+57 p. il. 4° [Summary of what was learned from a great earthquake about bearing of geologic and hydrologic conditions on its effects, and about scientific investigations needed to prepare for future earthquakes.] * Paper, 75c.
L.C. card 70-604792
- 18044 569-B. Geohydrologic significance of lithofacies of Cockfield Formation of Louisiana and Mississippi and of Yegua Formation of Texas [with selected bibliography]; by J. N. Payne. 1970. iii+14 p. il. and portfolio of 12 pl. 4° [Geohydrology of Claiborne group.] * Paper, \$6.25.
L.C. card 73-609548
- 18045 599-F. Summary of lunar stratigraphy, telescopic observations [with list of references cited]; by Don E. Wilhelms. 1970. iii+47 p. il. 4° [Prepared on behalf of National Aeronautics and Space Administration. Contributions to astrogeology.] * Paper, 60c.
L.C. card 77-608123

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

- 18046 646-D. Geologic implications of aeromagnetic data in Pend Oreille area, Idaho and Montana [with list of references cited]; by Elizabeth R. King, Jack E. Harrison, and Allan B. Griggs. 1970. iii+17 p. il. 1 pl. in pocket, 4° [Positive aeromagnetic anomalies identify granodiorite bodies intruded to various levels within a block-mosaic fault terrane. Geophysical field investigations. Plate is colored.] * Paper, 75c.
L.C. card 77-607394
- 18047 683-B. Early Cambrian fossil *Salterella conulata* Clark in eastern North America [with list of references cited]; by Ellis L. Yochelson. 1970. iii+10 +[2] p. il. 6 pl. 4° [Redescription of stratigraphically useful widespread Cambrian fossil. Contributions to paleontology.] * Paper, 55c.
L.C. card 79-608058
- 18048 Water resources data for Arizona, 1968: pt. 2, Water quality records [with list of selected references]. [1970.] iv+85 p. 4° (Water Resources Division.) [Prepared in cooperation with State of Arizona and with other agencies.] † District Chief, Water Resources Division, U.S. Geological Survey, P.O. Box 4070, Tucson, AZ 85717
L.C. card 68-61249 I 19.53/2: Ar 4 i/968/pt.2
- 18049 Water resources data for Nebraska, 1969: pt. 1, Surface water records. [1970.] viii+218 p. 2 maps 4° [Prepared in cooperation with Nebraska Department of Water Resources and with other State and federal agencies.] † District Chief, Water Resources Division, U.S. Geological Survey, Room 127 Nebraska Hall, 901 North 17th St., Lincoln, NB 68508
L.C. card 68-60775 I 19.53/2: N 27/969/pt.1
- 18050 Water resources data for Texas: pt. 1, Surface water records. [1970.] xix+593 p. 4° [Prepared in cooperation with State of Texas and with other agencies.] † District Chief, Water Resources Division, Geological Survey, Federal Building, 300 East 8th St., Austin, TX 78701
L.C. card 68-63308 I 19.53/2: T 31/969/pt.1
- Water-supply papers. ● Item 625 I 19.13: (nos.)
- 18051 1850-E. Summary of floods in United States during 1965 [with list of selected references]; by J. O. Rostvedt and others. 1970. vi+110 p. il. [Prepared in cooperation with Federal, State, and local agencies. Floods of 1965 in United States.] * Paper, 60c.
L.C. card GS 65-319
- 18052 1879-G. Dispersal of plating wastes and sewage contaminants in ground water and surface water, South Farmingdale-Massapequa area, Nassau County, N.Y. [with list of references cited]; by N. M. Perlmuter and Maxim Lieber. 1970. v+67 p. il. 5 pl. in pocket. [Prepared in cooperation with Nassau County Department of Public Works and Nassau County Department of Health. Contributions to hydrology of United States.] * Paper, \$1.75.
L.C. card 70-608309
- 18053 1899-A. Ground-water resource of Clatsop Plains sand-dune area, Clatsop County, Oreg. [with list of selected references]; by F. J. Frank. 1970. iv+41 p. il. 1 pl. in pocket. [Prepared in cooperation with Clatsop County. Contributions to hydrology of United States. Plate is colored.] * Paper, \$1.00.
L.C. card 71-607781
- 18054 1928. Surface water supply of United States 1961-65: pt. 11, Pacific Slope basins in California, v. 11, Basins from Tia Juana River to Santa Maria River. 1970. viii+501 p. il. 1 pl. in pocket. [Prepared in cooperation with State of California and other agencies.] * Paper, \$2.75.
L.C. card 76-608285
- 18055 2001-C. Effects of urban development on floods in northern Virginia [with list of references cited]; by Daniel G. Anderson. 1970. iv+22 p. il. [Prepared in cooperation with County of Fairfax and city of Alexandria, study of influence of urbanization peak discharges. Water in urban environment.] * Paper, 25c.
L.C. card 74-608062

HEALTH, EDUCATION, AND WELFARE DEPARTMENT Washington, DC 20201

- 18056 Health professions educational assistance program, report to the President and Congress. Sept. 1970. xvi+206 p. il. 4° † ● Item 445-D-1
L.C. card 79-609615 HE 1.40: 970
- 18057 Report to the President and Congress: Progress report on nurse training, 1970 [with list of references]. [Aug. 1970.] cover title, viii+88 p. 4° † ● Item 445-H-1
L.C. card 75-609535 HE 1.39: 970

♣For Sale by National Technical Information Service,
Springfield, VA 22151
●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION, Health, Education, and Welfare Dept., Bethesda, MD 20014

- 18058 Grants-in-aid and other financial assistance programs, Health Services and Mental Health Administration; prepared by Office of Grants Management, Office of Administrator. 1970 edition. [1970.] viii+82 p. 1 pl. ([Public Health Service publication 1945.]) * Paper, 45c. ● Item 483-P
L.C. card 78-604099 HE 20.2016: 970

HOUSING AND URBAN DEVELOPMENT DEPARTMENT Washington, DC 20410

- 18059 Address by Malcolm E. Peabody, jr., Deputy Assistant Secretary for Equal Opportunity, Department of Housing and Urban Development [to] Lower Income Housing Development Seminar, Non-Profit Housing Center of National Urban Coalition, Boston, Mass., Oct. 14, 1970. 1970. [1]+10 p. 4° † HH 1.7: P 31/3
- HUD guides.
- 18060 FHA G 4400.8. [Mortgagees' guide assistance payments under sec. 235 and interest reduction payments under sec. 236], Change 4, June 20, 1969. [3] leaves, 4° [Includes transmittal notice. Issued in looseleaf form.] † HH 1.6/7: FHA G 4400.8/ch.4
- 18061 FHA G 4400.8. [Mortgagees' guide assistance payments under sec. 235 and interest reduction payments under sec. 236], Change 6, Apr. 30, 1970. [70] p. [Includes transmittal notice. Issued in looseleaf form.] † HH 1.6/7: FHA G 4400.8/ch.6
- 18062 Questions and answers, Model cities program. [Sept. 1970.] 18 p. narrow 8° ([HUD-135-SP.]) * Paper, 15c. ● Item 582 HH 1.2: M 72/5

INDIAN HEALTH SERVICE, Health, Education, and Welfare Dept. Silver Spring, MD 20910

- 18063 Dental services for American Indians and Alaska natives, annual report, fiscal year 1970. [1970.] viii+52 p. il. oblong 8° ([Public Health Service publication 1870.]) † ● Item 486-F
L.C. card 75-604090 HE 20.2659: 970

INTERIOR DEPARTMENT Washington, DC 20240

NOTE.—Requests to the Interior Department for publications should give the full title and the date of the publication. Do not include Monthly Catalog entry numbers or Superintendent of Documents classification numbers, which should be used only when ordering from the Superintendent of Documents.

- 18064 Missouri River Basin progress, annual report, fy 1970. [1970.] cover title, iv+173 p. il. 1 pl. 4° ([Interior Missouri Basin Field Committee.]) [For administrative purposes. Discontinued with this issue. Notice, 1 p., issued also.] †
L.C. card 50-60596 I 1.80: 970-2
- 18065 Proceedings of 1st U.S.-Japan Conference on toxic micro-organisms, mycotoxins, botulism, under U.S.-Japan cooperative program in natural resources (UJNR) at Honolulu, Hawaii, Oct. 7-10, 1968 [with lists of references]; edited by Mendel Herzberg. [1970.] xxi+490 p. il. 4° [Published by UJNR joint panels on Toxic micro-organisms and U.S. Department of Interior.] * Cloth, \$5.75. ● Item 603
L.C. card 77-604719 I 1.2: T 66
- 18066 Remarks of Hollis M. Dole, Assistant Secretary, Mineral Resources, Department of Interior, to Defense Supply Association, Philadelphia, Pa., Oct. 21, 1970. 1970. 8 leaves, 4° † I 1.68: D 68

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

[Saline water] research and development progress report. (Office of Saline Water.) ● Item 604-A-1 I 1.88:(nos.)

- 18067 561. Saline ground-water resources of Tularosa Basin, N. Mex. [with list of selected references]; by Geological Survey, Albuquerque, N. Mex. July 1970. ix+128 p. il. 4° * Paper, \$2.75.
L.C. card 77-609660
- 18068 571. Scale control in high temperature distillation utilizing fluidized bed heat exchangers; by L. P. Hatch and G. G. Weth, Brookhaven National Laboratory, Upton, N.Y. (Contract 14-01-0001-1151.) * Paper, 65c.
- 18069 572. Assembly and evaluation of improved ppb oxygen analyser for sea water, by H. C. Behrens [and others], Dow Chemical Co., Freeport, Tex. [1970.] vii+60 p. il. 4° (Contract 14-01-0001-1832.) * Paper, 65c.
L.C. card 72-609659
- 18070 578. Multiple phase ejector pilot plant [with list of references]; by John H. Leigh, Joseph Kaye & Company, Inc. June 1970. ix+64 p. il. 4° (Contract 14-01-0001-2105.) * Paper, \$2.25.
L.C. card 73-609513
- 18071 579. Development of economical methods of boron removal from irrigation return waters [with list of references]; by R. M. Roberts and L. E. Gressingh, Aerojet-General Corporation, El Monte, Calif. July 1970. viii+115 p. il. 4° (Contract 14-01-0001-1775.) * Paper, \$1.50.
L.C. card 78-609620
- 18072 585. Effects of surface properties of water on evaporation and condensation [with bibliographies]; by Kenneth Hickman [and others], Rochester Institute of Technology, Rochester, N.Y. Dec. 1970. cover title, ix+124 p. il. 4° (Grant 14-01-0001-2119.) * Paper, \$1.25.
L.C. card 79-609658
- 18073 Symposium on enhanced tubes for desalination plants [with bibliographies]; by Office of Saline Water. July 1970. iv+365 p. il. 4° * Paper, \$2.75. ● Item 603
L.C. card 70-609650 I 1.2: T 79
- 18074 Water Resources Scientific Information Center. [1970.] [12] p. il. oblong 32° † I 1.2: W 29/3

INTERNAL REVENUE SERVICE, Treasury Dept. Washington, DC 20224

- 18075 Looseleaf regulations system: Service 3, Employment tax, transmittal 30, Oct. 2, 1970. [1970.] [4] p. 4° ● Item 961 T 22.19/3: 3/trans.30
NOTE.—Service 3 consists of pts. 31 and 36 of title 26 of Code of Federal regulations. It is sold on a subscription basis by the Superintendent of Documents, \$2.75 (including basic material and supplements issued irregularly for approximately 3 years); 75c. additional for foreign mailing.
- 18076 Looseleaf regulations system: Service 5, Procedure and administration, transmittal 54, Oct. 2, 1970. [1970.] [14] p. 4° ● Item 961 T 22.19/3: 5/trans.54
NOTE.—Service 5 consists of pts. 301-303 and 601 of title 26 of Code of Federal regulations. It is sold on a subscription basis by the Superintendent of Documents, \$8.00 (including basic material and supplements issued irregularly for approximately 3 years); \$2.00 additional for foreign mailing.
- 18077 Statistics of income 1967: Business income tax returns. [1970.] cover title, v+382 p. il. 4° (Publication 438 (8-70); [Statistics Division].) * Paper, \$3.50. ● Item 964 T 22.35/2: B 96/967
L.C. card 72-603340

INTERNATIONAL COMMERCE BUREAU, Commerce Dept. Washington, DC 20230

Foreign economic trends and their implications for United States, ET (series). * Paper, \$15.00 a yr., \$6.00 additional for foreign mailing.
● Item 231-I C 42.30:(nos.)

- 18078 70-98. Belgium. Aug. 31, 1970. 10 p. il. 4° [Semiannual.]
- 18079 70-99. Libya. July 30, 1970. 14 p. map. 4° [Semiannual.]
- 18080 70-103. Pakistan. Sept. 15, 1970. 18 p. 4° [Semiannual.]
- 18081 70-104. Thailand. Sept. 8, 1970. 12 p. il. 4° (American Embassy, Bangkok.) [Semiannual.]
- 18082 70-105. Democratic Republic of Congo. Sept. 15, 1970. 12 p. 4° [Semiannual.]
- 18083 70-106. Canada. Sept. 25, 1970. 12 p. il. 4° (American Embassy, Ottawa.) [Semiannual.]
- 18084 70-107. Colombia. Sept. 25, 1970. 8 p. il. 4° (American Embassy, Bogota.) [Semiannual.]

♠For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

- Foreign economic trends and their implications for United States—Con.
- 18085 70-108. Ghana. Sept. 1970. 9 p. map. [Semiannual.]
 - 18086 70-109. Philippines. Sept. 25, 1970. 11 p. ll. 4° (American Embassy, Manila.) [Semiannual.]
 - 18087 70-110. Dahomey. Oct. 1, 1970. 6 p., map, 4° (American Embassy, Cotonou.) [Annual.]
 - 18088 70-111. Yugoslavia. Sept. 25, 1970. 8 p. 4° [Semiannual.]
 - 18089 Semiannual checklist, international business publications. Mar. 1970. 21 p. 4° † ● Item 231-D C 42.15: C 41/970

INTERSTATE COMMERCE COMMISSION Washington, DC 20423

- Transport statistics in United States. [83d annual report on] transport statistics for year ended Dec. 31, 1969; prepared by Bureau of Accounts. [Issued in sections and parts, punched for binders. This 1969 report when completed will consist of pts. 1, 5, 6, 7, 8, and 9.]
- 18090 pt. 1. Railroads, their lessors and proprietary companies, Railway Express Agency, Inc., and electric railways, [release 1.] [1970.] [220] p. 4° * Paper, \$2.25. ● Item 699 IC 1.25: 969/pt.1/release 1

JOINT PUBLICATIONS RESEARCH SERVICE 1000 N. Glebe Rd., Arlington, VA 22201

NOTE.—When ordering Joint Publications Research Service publications from the National Technical Information Service, give the JPRS number in the order. Do not include Monthly Catalog entry numbers or Superintendent of Document classification numbers, which should be used only when ordering from the Superintendent of Documents.

Titles of JPRS serial reports listed below were issued during the month, but were not cataloged separately. †(Price upon application).

- 18091-1 Communist Chinese scientific abstracts, nos. 48-49; JPRS 51610, 51666.
- 18091-2 East European scientific abstracts: Bio-medical science, no. 191; JPRS 51557.
- 18091-3 Herald of communications, v. 30 nos. 7-8, 1970; JPRS 51569, 51672.
- 18091-4 Space biology and medicine, v. 4 no. 4; JPRS 51641.
- 18091-5 Soviet public health, USSR, v. 29, nos. 8-9, 1970; JPRS 51644, 51684.
- 18091-6 Translations from Kommunist, no. 13, 1970; JPRS 51580.
- 18091-7 Translations on Africa, nos. 953-960; JPRS 51551, 51564, 51584, 51600, 51608, 51638, 51652, 51687.
- 18091-8 Translations on Communist China, no. 121; JPRS 51611.
- 18091-9 Translations on Eastern Europe: Economic and industrial affairs, nos. 360-369; JPRS 51566, 51585, 51591, 51612, 51619, 51625, 51643, 51656, 51680, 51691.
- 18091-10 Translations on Eastern Europe: Political, sociological, and military affairs, nos. 271-280; JPRS 51561, 51572, 51593, 51617, 51629, 51630, 51639, 51653, 51679, 51690.
- 18091-11 Translations on Eastern Europe: Scientific affairs, nos. 137-140; JPRS 51563, 51601, 51627, 51696.
- 18091-12 Translations on Latin America, nos. 396-406; JPRS 51552, 51567, 51587, 51597, 51603, 51621, 51636, 51648, 51663, 51676, 51685.
- 18091-13 Translations on Mongolia, nos. 231-232; JPRS 51596, 51669.
- 18091-14 Translations on Near East, nos. 525-531; JPRS 51549, 51583, 51599, 51633, 51655, 51661, 51677.
- 18091-15 Translations on North Korea, nos. 182-183; JPRS 51620, 51651.
- 18091-16 Translations on North Vietnam, nos. 799-813; JPRS 51545, 51565, 51568, 51573, 51581, 51592, 51607, 51616, 51637, 51654, 51668, 51674, 51678, 51688, 51694.
- 18091-17 Translations on south and east Asia, nos. 271-272; JPRS 51562, 51642.
- 18091-18 Translations on USSR agriculture, nos. 419-423; JPRS 51555, 51559, 51602, 51646, 51695.
- 18091-19 Translations on USSR economic affairs, nos. 171-176; JPRS 51543, 51550, 51576, 51628, 51647, 51686.
- 18091-20 Translations on USSR industrial affairs, nos. 83-87; JPRS 51547, 51575, 51632, 51665, 51693.
- 18091-21 Translations on USSR military affairs, nos. 646-653; JPRS 51544, 51560, 51590, 51626, 51640, 51670, 51682, 51698.
- 18091-22 Translations on USSR political and sociological affairs, nos. 104-106; JPRS 51570, 51615, 51684.
- 18091-23 Translations on USSR resources, nos. 136-142; JPRS 51553, 51571, 51582, 51595, 51609, 51635, 51697.
- 18091-24 Translations on USSR trade and services, nos. 169-176; JPRS 51574, 51588, 51594, 51618, 51634, 51645, 51671, 51699.
- 18091-25 Translations on Western Europe, nos. 153-158; JPRS 51548, 51586, 51631, 51662, 51681, 51700.
- 18091-26 USA: Economics, politics, ideology, nos. 8-9; JPRS 51554, 51667.
- 18091-27 USSR Scientific abstracts: Bio-medical science, no. 88; JPRS 51623.
- 18091-28 Vestnik of the USSR Academy of Medical Sciences, v. 25, nos. 8-9, 1970; JPRS 51613, 51673.
- 18091-29 Vestnik of USSR Academy of Sciences, v. 40, no. 8; JPRS 51689.

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

JPRS (series).

- 18092 51546. Laser communications today and tomorrow, USSR; by R. Kazaryan et al. Oct. 12, 1970. cover title, 7 p. 4° [From Radio, no. 8, 1970.] Φ Paper, \$3.00.
- 18093 51558. Nuclear explosion subdues underground gas fire, USSR; by Vladimir Gubarev. Oct. 13, 1970. cover title, 17 p. 4° [From Komsomol' skaya pravda, Sept. 24, 1970.] Φ Paper, \$3.00.
- 18094 51577. Sodium line laser with NA⁺ and H⁻ recombination, USSR [with bibliography]; by A. M. Shukhtin, et al. Oct. 15, 1970. cover title, 25 p. il. 4° [From Fizika gazovykh lazerov, 1969.] Φ Paper, \$3.00.
- 18095 51578. Applications of space photography in geology, USSR [with bibliography]; by B. V. Vinogradov, et al. Oct. 15, 1970. cover title, 14 p. 4° [Izv. Ak. Nauk seriya geologicheskaya, no. 1, 1970.] Φ Paper, \$3.00.
- 18096 51579. Promise of neurobionic applications discussed, USSR; by K. A. Ivanov-Muromskiy. Oct. 15, 1970. cover title, 10 p. 4° [From Rabochaya gazeta, Aug. 30, 1970.] Φ Paper, \$3.00.
- 18097 51589. Epidemiology and prophylaxis of cholera, USSR; by A. Ponomarev. Oct. 18, 1970. cover title, 4 p. 4° [From Meditsinskaya gazeta, Sept. 22, 1970.] Φ Paper, \$3.00.
- 18098 51598. Automated system of medical data processing, USSR; by M. H. Zaytsev, et al. Oct. 19, 1970. cover title, 17 p. il. 4° [From Vestnik Akademii Nauk Ukrainy SSR, no. 8, 1970.] Φ Paper, \$3.00.
- 18099 51604. Studies in electrochemistry, USSR [articles with bibliographies]. Oct. 20, 1970. cover title, a+7 p. il. 4° [From Zhurnal vsesoyuznogo khimicheskogo obshchestva imeni D. I. Mendeleeva, no. 4, 1970.] Φ Paper, \$3.00.
- 18100 51605. Laboratory diagnosis of cholera, USSR; by Z. Yermol'yeva, et al. Oct. 20, 1970. cover title, 5 p. 4° [From Meditsinskaya gazeta, Moscow, Sept. 15, 1970.] Φ Paper, \$3.00.
- 18101 51606. First Congress of Moldavian Physicians meets in Kishinev, USSR [articles]. Oct. 20, 1970. cover title, a+29 p. 4° [From Sovetskaya Moldaviya, June 19 and 21, 1970.] Φ Paper, \$3.00.
- 18102 51614. Mammal reaction to hydrodynamic forces studies, USSR [with list of references]; by Yu. G. Alejev. Oct. 21, 1970. cover title, 10 p. il. 4° [From Zoologicheskii zhurnal, v. 49, no. 8, 1970.] Φ Paper, \$3.00.
- 18103 51622. Cybernetics and regulation theory, USSR [articles, with bibliographies]. Oct. 22, 1970. cover title, a+14 p. 4° [From Doklady Akademii Nauk SSSR, no. 4, 5, 1970.] Φ Paper, \$3.00.
- 18104 51624. Substructural hardening and gas extrusion of metals, USSR [articles, with bibliographies]. Oct. 22, 1970. cover title, a+28 p. il. 4° [From Fizika i Khimiya Obrabotki Materialov, no. 4, 1970.] Φ Paper, \$3.00.
- 18105 51649. Wave channel type antenna with modulated phase velocity, USSR [with bibliography]; by O. N. Tereshin, et al. Oct. 27, 1970. cover title, 7 p. il. 4° [From Radiotekhnika, no. 8, 1970.] Φ Paper, \$3.00.
- 18106 51650. Aspects of decision-making, USSR; by Ye. Manucharova, et al. Oct. 27, 1970. cover title, 11 p. 4° [From Nedelya, no. 36, Aug.-Sept. 1970.] Φ Paper, \$3.00.
- 18107 51658. Heat-resistant steels, USSR [excerpts]; by K. A. Lanskaya. Oct. 28, 1970. cover title, 91 p. il. 4° [From Zharoprochnyye stali, 1969.] Φ Paper, \$3.00.
- 18108 51659. Pulsed microwave therapy, USSR [with bibliography]; by L. A. Skurikhina. Oct. 28, 1970. cover title, 8 p. 4° [From Meditsinskaya tekhnika, no. 4, 1970.] Φ Paper, \$3.00.
- 18109 51660. Biomedical problems of space flight, USSR; by Uy. G. Grigor'yev, et al. Oct. 28, 1970. cover title, a-n+321 p. 4° [From Materialy 3d nauchnoy konferentsii molodykh spetsialistov, 1969.] Φ Paper, \$3.00.
- 18110 51675. Optimization of basic electronic characteristics of high-efficiency low-noise antennas, USSR [with bibliography]; by S. M. Verevkin, et al. Oct. 30, 1970. cover title, 12 p. il. 4° [From Antenny no. 5, 1969.] Φ Paper, \$3.00.
- 18111 51683. Influence of solid surface on relaxation, crosslinking processes in polymer boundary layers, USSR [with bibliography]; by Yu. M. Malinskii. Oct. 30, 1970. cover title, 36 p. il. 4° [From Uspekhi khimii, v. 39, no. 8, Aug. 1969.] Φ Paper, \$3.00.
- 18112 51692. Clinical symptoms and etiology of botulism, USSR [with bibliography]; by A. P. Gladkovskiy et al. Nov. 2, 1970. cover title, 7 p. 4° [From Klinicheskaya meditsina, no. 9, 1970.] Φ Paper, \$3.00.

LABOR DEPARTMENT
Washington, DC 20210

- 18113 U.S. manpower in 1970's, opportunity & challenge. [1970.] [27] p. il. 4° [Prepared in office of Assistant Secretary of Labor for Policy, Evaluation, and Research in cooperation with Manpower Administration and Bureau of Labor Statistics. Text on p. 2 of cover.] *Paper, 55c.
● Item 745 L 1.2: M 31/58/970

Φ For Sale by National Technical Information Service,
Springfield, VA 22151
●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

LABOR STATISTICS BUREAU, Labor Dept. Washington, DC 20210

BLS report.

- 18114 372. Labor law and practice in Belgium [with selected bibliography; prepared by Carol Reynolds with technical and editorial assistance by Constance S. McEwen]. 1970. vi+85 p. il. 4° * Paper, \$1.00. ● Item 768-G
L.C. card 71-609672 L 2.71: 372

Bulletins.

L 2.3: (nos.)

- 18115 1650-80. Employment outlook: Air-conditioning, refrigeration, and heating mechanics. [1970.] [4] p. il. 4° [Reprint from Occupational outlook handbook, 1970-71 edition.] * Paper, 10c.
- 18116 1650-81. Employment outlook: Appliance servicemen. [1970.] [4] p. il. 4° [Reprint from Occupational outlook handbook, 1970-71 edition.] * Paper, 10c.
- 18117 1650-82. Employment outlook: Bowling-pin-machine mechanics. [1970.] [4] p. il. 4° [Reprint from Occupational outlook handbook, 1970-71 edition.] * Paper, 10c.
- 18118 1650-85. Employment outlook: Electric sign servicemen. [1970.] [4] p. il. 4° [Reprint from Occupational outlook handbook, 1970-71 edition.] * Paper, 10c.
- 18119 1650-92. Employment outlook: Boilermaking occupations. [1970.] [7] p. 4° [Reprint from Occupational outlook handbook, 1970-71 edition.] * Paper, 10c.
- 18120 1650-96. Employment outlook: Foremen. [1970.] [7] p. il. 4° [Reprint from Occupational outlook handbook, 1970-71 edition.] * Paper, 10c.
- 18121 1650-122. Employment outlook: Telephone industry, central office craftsmen, central office equipment installers, linemen and cable splicers, telephone and PBX installers and repairmen. [1970.] [13] p. il. 4° [Reprint from Occupational outlook handbook, 1970-71 edition.] * Paper, 15c.
- 18122 1650-123. Employment outlook: Restaurants. [1970.] [5] p. il. 4° [Reprint from Occupational outlook handbook, 1970-71 edition.] * Paper, 10c.
- 18123 1680. Indexes of output per man-hour selected industries, 1939 and 1947-69; [prepared by Edwin Adelman and others]. 1970. viii+112 p. il. 4° ([Office of Productivity Technology.]) [Includes list of other recent BLS publications on productivity and automation.] * Paper, \$1.00.
● Item 768
L.C. card L60-63
- 18124 1685-1. Area wage survey: Little Rock-North Little Rock, Ark., metropolitan area, July 1970. Oct. 1970. iii+27 p. oblong 8° * Paper, 35c.
● Item 768
- 18125 1685-2. Area wage survey: Manchester, N.H., metropolitan area, July 1970. Oct. 1970. iii+26 p. oblong 8° * Paper, 35c. ● Item 768
L.C. card L66-30
- 18126 1685-3. Area wage survey: Scranton, Pa., metropolitan area, July, 1970. Oct. 1970. iii+27 p. oblong 8° * Paper, 35c. ● Item 768
L.C. card L66-32
- 18127 1685-4. Area wage survey: Green Bay, Wis. metropolitan area, July 1970. Oct. 1970. iii+26 p. oblong 8° * Paper, 35c. ● Item 768
L.C. card L66-57
- 18128 1685-5. Area wage survey: Oklahoma City, Okla., metropolitan area, July 1970. Oct. 1970. iii+18 p. oblong 8° * Paper, 30c. ● Item 768
L.C. card L66-31

Monthly labor review reprints.

- 18129 2685. See below, Special labor force report 122.
- 18130 2686. See below, Special labor force report 123.
- 18131 2687. Technological changes in printing and publishing industry; [by] Robert V. Critchlow. [1970.] p. 3-9. 4° [From Aug. 1970 issue.] †
L 2.6/a: 2687

- 18132 Publications of Bureau of Labor Statistics, July-Dec. 1969; [prepared in Office of Publications.]. [1970.] cover title, ii+34+[10] p. 4° † ● Item 768-E
L.C. card 14-10111 L 2.34: 969/2

Special labor force reports. †

L 2.98: (nos.)

- 18133 122. Education of adult workers, projections to 1985; [by] Denis F. Johnston]. [1970.] cover title, p. 43-56, il. 4° [Reprinted from Monthly labor review, Aug. 1970, Reprint 2685.]
- 18134 123. Multiple jobholders in May 1969 [1970.] cover title, 57-64+A12 p. 4° [Reprinted from Monthly labor review, Aug. 1970 with supplementary tables, Reprint 2686.]

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

LAKE SURVEY (Army), Defense Dept. 630 Federal Bldg., Detroit, MI 48226

Research report RR (series).

- 18135 2-1. Bottom stability and sedimentary processes at Little Lake Harbor, Lake Superior [with list of references]; by J. H. Saylor and S. B. Upchurch. Aug. 1970. [2]+18+[2] p. 36 pl. 2 p. of pl. 4° ‡
L.C. card 78-609627 D 103.209 : 2-1

LIBRARY OF CONGRESS Washington, DC 20540

- 18136 Classification, class K, Law, draft outline; by Werner B. Ellinger. 1970. x+63 p. 4° (Processing Department, Subject Cataloging Division.)
‡ Paper, \$1.50, Card Division, Library of Congress, Building 159, Navy Yard Annex, Washington, DC 20541 LC 26.9 : K/draft
L.C. card 70-607960
- 18137 Talking books and multiple sclerosis. [1970.] [4] p. narrow 8° ([Division for Blind and Physically Handicapped.]) ‡ ● Item 806 LC 19.2 : T 14/11

MARINE CORPS (Navy), Defense Dept. Washington, DC 20350

Marine Corps historical reference pamphlet. (Historical Division.)

- 18138 United States Marine Corps ranks and grades, 1775-1969; by Bernard C. Nalty [and others]. 1st printing 1962, revised 1969. 1970. vi+62 p. il. 4° ‡
L.C. card 78-609193 D 214.14/2 : R 16

MATERNAL AND CHILD HEALTH SERVICE, Health, Education, and Welfare Dept., Bethesda, MD 20014

- 18139 Maternal nutrition and course of pregnancy, summary report. 1970. [5]+23 p. il. ([Public Health Service publication 2114.]) [Committee on Maternal Nutrition, Food and Nutrition Board, National Research Council, National Academy of Sciences.] * Paper, 25c. ● Item 483-V-1
L.C. card 71-609648 HE 20.2752 : N 95

MEDICINE AND SURGERY BUREAU (Navy), Defense Dept. Washington, DC 20350

- 18140 Manual of Medical Department [1952], Change 60. Oct. 15, 1970. [14] p. 4° [Issued in looseleaf form.] ‡ D 206.8/2 : 952/ch.60
- U.S. Naval Submarine Medical Center, Submarine Base, Groton, Conn. : Report.
- 18141 590. Electromyographic analysis of biceps muscle following standard air dives using frequency analysis, feasibility study [with list of references]; by Phillip J. Whelan and Thomas N. Markham. July 24, 1969. cover title, iii+9+2 p. il. 4° (Research work unit MR011.01-5003.01.) ‡
D 206.10 : 590

MINES BUREAU, Interior Dept. Washington, DC 20240

- 18142 Chromium; [by John L. Morning]. [1970.] [2]+10 p. [Preprint from Minerals yearbook, 1969.] * Paper, 10c. I 28.37/a : C 468/969
- 18143 Cobalt; [by Gilbert L. DeHuff]. [1970.] [2]+6 p. [Preprint from Minerals yearbook, 1969.] * Paper, 10c. I 28.37/a : C 632/969
- 18144 Columbium and tantalum; [by Meherwan C. Irani]. [1970.] [2]+10 p. [Preprint from Minerals yearbook, 1969.] * Paper, 10c. I 28.37/a : C 723/969
- 18145 Ferroalloys; [by Horace T. Reno]. [1970.] [2]+9 p. [Preprint from Minerals yearbook, 1969.] * Paper, 10c. I 28.37/a : F 417/969

GOVERNMENT PUBLICATIONS

- Information circulars. ● Item 637-A I 28.27:(nos.)
- 18148 8487. United States position and outlook in potash [with list of references]; by staff, Bureau of Mines. [1970.] [2]+11+47 p. il. 4° *Paper, 50c.
L.C. card 76-809625
- 18147 8492. Research and technologic work on explosives, explosions, and flames, fiscal year 1969; by Staff, Safety Research Center. [Oct. 1970.] [2]+11+28 p. il. 4° †Mines Bureau, Pittsburgh, PA 15213
L.C. card 58-25417
- 18148 Iron oxide pigments; [by Frank L. Fisher]. [1970.] [2]+4 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c. I 28.37/a: Ir 6/6/969
- 18149 Mineral industry of Algeria; [by Agnes J. Doughman]. [1970.] [2]+7 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: Al 35/969
- 18150 Mineral industry of Angola, Mozambique, and Portuguese Guinea; [by Eugene R. Slatick]. [1970.] [2]+8 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: An 47/969
- 18151 Mineral industry of Bolivia; [by Frank E. Noe]. [1970.] [2]+9 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: B 638/969
- 18152 Mineral industry of Colombia; [by Gordon W. Koelling]. [1970.] [2]+10 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: C 717/969
- 18153 Mineral industry of Hawaii; [by Roy Y. Ashizawa]. [1970.] [2]+5 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: H 31/969
- 18154 Mineral industry of Iowa; [by Guy A. Johnson and Don N. West]. [1970.] [2]+15 p. il. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: Io 9/969
- 18155 Mineral industry of Kuwait, Kuwait-Saudi Arabia Neutral Zone and Saudi Arabia; [by David A. Carleton]. [1970.] [2]+10 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c. I 28.37/a 2: K 969/2/969
- 18156 Mineral industry of Maine; [by Robert E. Ela]. [1970.] [2]+7 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: M 28/969
- 18157 Mineral industry of Massachusetts; [by George C. Evans]. [1970.] [2]+6 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: M 38/969
- 18158 Mineral industry of New Hampshire; [by William Cochran]. [1970.] [2]+4 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: N 42 h/969
- 18159 Mineral industry of Puerto Rico, Panama Canal Zone, Virgin Islands, Pacific Island Possessions, and Trust Territory of Pacific Islands; [by Henry F. Robertson, Eduardo Aguilar, and Roy Y. Ashizawa]. [1970.] [2]+7 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: P 96 r/969
- 18160 Mineral industry of South Carolina; [by Robert C. Johnson and Norman K. Olson]. [1970.] [2]+8 p. il. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: So 8 c/969
- 18161 Mineral industry of South Korea; [by R. A. Pense]. [1970.] [2]+8 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: K 841/2/969
- 18162 Mineral industry of United Arab Republic; [by Henry E. Stipp]. [1970.] [2]+6 p. [Preprint from Minerals yearbook, 1969.] *Paper, 10c.
I 28.37/a 2: Un 34 ar/969
- 18163 Molybdenum; [by John J. Morning]. [1970.] [2]+10 p. [Preprint from Mineral yearbook, 1969.] *Paper 10c. I 28.37/a: M 739/969

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

18164 Pumice; [by John G. Parker]. [1970.] [2]+4 p. [Preprint from Minerals yearbook, 1969.] * Paper, 10c. I 28.37/a: P 968/969

Report of investigations. • Item 637-A I 28.23:(nos.)

18165 7436. Plates with rows of holes considered as anisotropic soft-inclusion models of 3-dimensional room-and-pillar mining systems [with list of references]; by Clarence O. Babcock. [Oct. 1970.] [3]+28 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18166 7437. Phase relations in alkaline earth fluoride-yttria systems, in 3 pts.: 1. $\text{CaF}_2\text{-Y}_2\text{O}_3$ phase diagram [with list of references]; by Laurence L. Oden [and others]. [Oct. 1970.] [3]+10 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18167 7438. Phase relations in alkaline earth fluoride-yttria systems (in 3 pts.): 2. $\text{BaF}_2\text{-Y}_2\text{O}_3$ phase diagram [with list of references]; by Laurence L. Oden [and others]. Oct. 1970. [3]+7 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18168 7439. Radiant heating of coal dust clouds by flames in coal mine galleries; by J. M. Singer and E. B. Cook. [Oct. 1970.] [2]+11+15 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18169 7442. Structural models for design of mining systems: Encasement of strain gage networks in epoxy [with list of references]; by John R. Zelonka, R. J. Kline and D. W. Mitchell. [Oct. 1970.] [2]+11+31 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18170 7443. Optimization of carbon deposition experiments in thermal oil recovery by statistical analysis [with list of references]; by A. W. Effinger and L. A. Schrider. [Nov. 1970.] [3]+17 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18171 7444. Improved method and apparatus for analysis of impurities in helium [with list of references]; by David E. Emerson, C. A. Hoffman and G. W. Weems. [Nov. 1970.] [3]+10 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18172 7445. Dawsonite and nahcolite analyses of Green River formation oil-shale sections, Piceance Creek basin, Colo. [with list of references]; by Nell B. Young and John Ward Smith. Nov. 1970. [3]+22 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18173 7446. Control of dust explosion hazard in coal mine shuttle-car runways; by John Nagy, Edward M. Kawenski, and Edward A. Barrett. [Nov. 1970.] [3]+16 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18174 7447. Photographic calibration for emission spectrography using small computer [with list of references]; by R. J. Heemstra. [Nov. 1970.] [3]+12 p. il. 4° † Mines Bureau, Pittsburgh, PA 15213

18175 Titanium; [by John W. Cole]. [1970.] [2]+10 p. [Preprint from Minerals yearbook, 1969.] * Paper, 10c. I 28.37/a: T 53/969

MOTOR CARRIER SAFETY BUREAU, Transportation Dept. Washington, DC 20591

Motor carrier accident investigation report.

18176 70-4. Maislin Bros. Transport, Ltd., accident of Mar. 10, 1970, Selkirk, N.Y. [1970.] [1]+10 p. il. 4° † TD 2.309: 70-4

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION Washington, DC 20546

NASA contractor report CR (series). NAS 1.26:(nos.)

18177 1306. MCDIT-21, computer code for one-dimensional elastic wave problems, by Richard W. Mortimer and James F. Hoburg. Apr. 1969, errata. [Oct. 30, 1970.] [1]+12 p. 4° †

18178 1608. Determination of weldability and elevated temperature stability of refractory metal alloys: 2. Long-time temperature stability of refractory metal alloys [with list of references]; by G. G. Lessmann and R. E. Gold. Sept. 1970. cover title, viii+164 p. il. 4° [Prepared under contract NAS 3-2540 by Westinghouse Astronuclear Laboratory, Pittsburgh, Pa.] • Paper, \$3.00.

18179 1609. Determination of weldability and elevated temperature stability of refractory metal alloys: 3. Effect of contamination level on weldability of refractory metal alloys [with list of references]; by D. R. Stoner. Sept. 1970. cover title, ix+103 p. il. 4° [Prepared under contract NAS 3-2540 by Westinghouse Astronuclear Laboratory, Pittsburgh, Pa.] • Paper, \$3.00.

18180 1611. Determination of weldability and elevated temperature stability of refractory metal alloys: 5. Weldability of tungsten base alloys [with list of references]; by G. G. Lessman and R. E. Gold. Sept. 1970. cover title, viii+103 p. il. 4° [Prepared under contract NAS 3-2540 by Westinghouse Astronuclear Laboratory, Pittsburgh, Pa.] • Paper, \$3.00.

•For Sale by National Technical Information Service,
Springfield, VA 22151

•Sent to depository libraries

Page 45

GOVERNMENT PUBLICATIONS

NASA contractor report CR (series)—Continued

- 18181 1613. Quasi-optimum design of control systems for moving base simulators [with list of references]; by Bernard Friedland and Chong K. Ling. Oct. 1970. cover title, [1]+ii+89 p. il. 4° [Prepared under contract NAS 2-3636 by Singer-General Precision, Little Falls, N.J.] Φ Paper, \$3.00.
- 18182 1626. New approach to aerial combat games [with list of references]; by Sheldon Baron [and others], Oct. 1970. cover title, viii+95 p. il. 4° [Prepared under contract NAS 1-8296 by Eolt Beranek and Newman Inc., Cambridge, Mass. Issued by originator as report 1916.] Φ Paper, \$3.00.
- 18183 1630. Coupled computer code for transient thermal response and ablation non-charring heat shields and nose tips [with list of references]; by Carl B. Moyer, Larry W. Anderson, and Thomas J. Dahm. Oct. 1970. cover title, xviii+94 p. il. 4° [Prepared under contract NAS 1-8501 by Aerotherm Corporation, Mountain View, Calif. Issued by originator as report 69-60.] Φ Paper, \$3.00.
L.C. card 75-609657
- 18184 1655. Probing solar corona with spacecraft radio signals [with list of references]; by W. Wells, R. Marquedant and H. Hodara. Oct. 1970. cover title, v+156 p. il. 4° [Prepared under contract NAS 1-9167 by Tetra Tech, Inc., Pasadena, Calif. Issued by originator as report TC-163.] Φ Paper, \$3.00.
L.C. card 74-609709
- 18185 1658. Research and development study of peristaltic action microinch actuator [with list of references]; by Carlo La Mandra. Sept. 1970. cover title, vi+116+A2 p. il. 4° [Prepared under contract NAS 12-2012 by Perkin-Elmer Corporation, Norwalk, Conn.] Φ Paper, \$3.00.
- 18186 1663. Design for space qualified laser, phase 1 [with list of references]; by W. B. Bridges. Oct. 1970. cover title, vii+115 p. il. 4° [Prepared under contract NAS 12-579 by Hughes Aircraft Company, Malibu, Calif.] Φ Paper, \$3.00.
L.C. card 79-609710
- 18187 1666. Improved ultraviolet interferometer [with one reference]; by Richard A. Day. Oct. 1970. cover title, [1]+11 p. il. 4° [Prepared under contract NGH-37-003-047 by University of Oklahoma, Norman, Okla.] Φ Paper, \$3.00.
- 18188 1673. Design and fabrication of gallium phosphide rectifiers [with list of references]; by Arnold S. Epstein. Oct. 1970. cover title, ix+58 p. il. 4° [Prepared under contract NAS 3-12972 by Monsanto Research Corporation, St. Louis, Mo.] Φ Paper, \$3.00.
- 18189 1680. Investigation of high speed turbulent boundary layer with heat transfer and arbitrary pressure gradient: pt. 2, Compressibility transformation, general considerations [with list of references]; by Constantino Economos. Oct. 1970. cover title, viii+35 p. il. 4° [Prepared under contract NAS 1-8424 by General Applied Science Laboratories, Inc., Westbury, L.I., N.Y.] Φ Paper, \$3.00.
- 18190 1681. Investigation of high speed turbulent boundary layer with heat transfer and arbitrary pressure gradient: pt. 3, Computer program manual [with list of references]; by Jesse Schneider and John Boccio. Oct. 1970. cover title, v+90 p. il. 4° [Prepared under contract NAS 1-8424 by General Applied Science Laboratories, Inc., Westbury, L.I., N.Y. Issued by originator as report TR-719, pt. 3.] Φ Paper, \$3.00.
L.C. card 28-26826
- 18191 1685. Particles and fields near Jupiter [with list of references]; by James W. Warwick. Oct. 1970. cover title, v+123 p. il. 4° [Prepared under contract NAS 7-100 by Jet Propulsion Laboratory, California Institute of Technology, Pasadena, Calif.] Φ Paper, \$3.00.
L.C. card 77-609731
- 18192 1699. Characteristics of thermionic converter with chloride vapor deposited tungsten emitter (110) and collector of molybdenum deposited on niobium [with list of references]; by V. C. Wilson and S. P. Podkulski. Oct. 1970. cover title, vi+44 p. il. 4° [Prepared under contract NAS 3-8511 by General Electric Company, Schenectady, N.Y.] Φ Paper, \$3.00.

NASA EP (series).

- 18193 59. [America in space, first decade]: Spacecraft power; by William R. Corliss. [1970.] [6]+18 p. il. 4° * Paper, 35c. ● Item 830-G
L.C. card 77-609652 NAS 1.19: 59

NASA SP (series).

- 18194 5091. New aluminum sand casting alloy of high toughness (M-45), report [with list of references]; by R. A. Wood. 1970. v+29 p. il. 4° (Technology utilization); Technology Utilization Division, Office of Technology Utilization.) * Paper, 40c. ● Item 830-I
L.C. card 76-604566 NAS 1.21: 5091

NASA technical memorandum TM (series).

- 18195 X-2101. Flight test results pertaining to space shuttlecraft, symposium held at Flight Research Center, Edwards, Calif., June 30, 1970. Oct. 1970. cover title, vi+159 p. il. 4° Φ Paper, \$3.00. NAS 1.15: X-2101

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

NASA technical note TN (series).

NAS 1.14: D-(nos.)

- 18196 D-5893. Model wind-tunnel and flight investigation of parawing-lifting-body landing system [with list of references]; by Rodger L. Naeseth. Oct. 1970. cover title, [1] + 92 p. il. 4° Φ Paper, \$3.00.
- 18197 D-5925. Transient characteristics of voltage regulator and parasitic speed controller on 14.3-kilovolt-ampere, 1200-Hertz modified Lundell alternator [with list of references]; by Heinz L. Wimmer and Bill D. Ingle. Oct. 1970. cover title, [1] + 25 p. il. 4° Φ Paper, \$3.00.
- 18198 D-5936. Low-speed wind-tunnel investigation of series of twin-keel all-flexible parawings [with list of references]; by Rodger L. Naeseth. Oct. 1970. cover title, [1] + 102 p. il. 4° Φ Paper, \$3.00.
- 18199 D-5942. Wind-tunnel investigation of V/STOL transport model with 4 pod-mounted lift fans, by William A. Newsom, jr., Aug. 1970, errata. [Oct. 16, 1970.] [2] leaves, il. 4° $\uparrow$
- 18200 D-5946. Si(n,p) and Si(n,a) reaction cross sections at 14.5 MeV neutron energy [with list of references]; by Jag J. Singh. Oct. 1970. cover title, [1] + 20 p. il. 4° Φ Paper, \$3.00.
- 18201 D-5958. Derivation of Newtonian-type integration coefficients and some applications to orbit calculations [with reference list]; by C. E. Velez and J. L. Maury. Oct. 1970. cover title, iii + 50 p. 4° Φ Paper, \$3.00. L.C. card 70-609512
- 18202 D-5963 Approach guidance method using single onboard optical measurement [with list of references]; by Harold A. Hamer and Katherine G. Johnson. Oct. 1970. cover title, [1] + 80 p. il. 4° Φ Paper, \$3.00.
- 18203 D-5964. Equation for vortex motion including effects of buoyancy and sources with application to tornadoes [with list of references]; by Robert C. Costen. Oct. 1970. cover title, iv + 62 p. il. 4° Φ Paper, \$3.00. L.C. card 76-609511
- 18204 D-5973. Effect of strain-gage attachment by spotwelding and bonding on fatigue behavior of Ti-6Al-4V, René 41, and Inconel X [with list of references]; by L. A. Imig. Oct. 1970. cover title, [1] + 21 p. il. 4° Φ Paper, \$3.00.
- 18205 D-5982. Simulation study of 3 instrument displays to assist in airplane thrust management [with list of references]; by Milton D. McLaughlin. Oct. 1970. cover title, [1] + 43 p. il. 4° Φ Paper, \$3.00.
- 18206 D-5988. Ground-effects investigation of STOL air-sea transport model with blowing over canard and wing flaps [with list of references]; by Raymond D. Vogler. Oct. 1970. cover title, [1] + 43 p. il. 4° Φ Paper, \$3.00.
- 18207 D-6005. Spectroscopic analysis of electron beam induced fluorescence in hyper-sonic helium flow [with list of references]; by Mervin E. Hillard, jr., Stewart L. Ocheltree, and Richard W. Storey. Oct. 1970. cover title, [1] + 21 p. il. 4° Φ Paper, \$3.00.
- 18208 D-6008. Comparative in-flight thrust measurements of SERT II ion thruster [with list of references]; by William C. Nieberding, Daniel J. Lesco, and Frank D. Berkopce. Oct. 1970. cover title, iii + 22 p. il. 4° Φ Paper, \$3.00.
- 18209 D-6011. Aerodynamic characteristics of air cushion models at very low ground clearances and at free-stream dynamic pressures exceeding cushion pressure [with list of references]; by Kalman J. Grunwald and William G. Johnson, jr. Oct. 1970. cover title, [1] + 127 p. il. 4° Φ Paper, \$3.00. L.C. card 73-609619
- 18210 D-6025. Evaluation of moving-graph instrument display for landing approaches with helicopter [with list of references]; by R. Earl Dunham, Jr. and Robert W. Sommer. Oct. 1970. cover title, [1] + 21 p. il. 4° Φ Paper, \$3.00.
- 18211 D-6028. Heat-transfer rate and pressure measurements obtained during Apollo orbital entries [with list of references]; by Dorothy B. Lee, John J. Bertin, and Winston D. Goodrich. Oct. 1970. cover title, vii + 84 p. il. 4° Φ Paper, \$3.00.
- 18212 D-6033. Analysis of rocket-powered ejectors for pumping liquid oxygen and liquid hydrogen [with list of references]; by Leo C. Franciscus. Oct. 1970. cover title, [1] + 31 p. il. 4° Φ Paper, \$3.00.
- 18213 D-6034. Application of modern network theory to analysis of manned systems [with list of references]; by John C. Fakan. Oct. 1970. cover title, [1] + 41 p. il. 4° Φ Paper, \$3.00.
- 18214 D-6035. Instrument bearing performance in space and laboratory vacuum [with list of references]; by E. J. Devine, Harold E. Evans, and William A. Leasure. Oct. 1970. cover title, iv + 27 p. il. 4° Φ Paper, \$3.00. L.C. card 75-609831
- 18215 D-6036. Frequency responses and other characteristics of 6 fast-decay phosphors applicable to flying-spot scanners [with list of references]; by Charles A. Wagner. Oct. 1970. cover title, [1] + 41 p. il. 4° Φ Paper, \$3.00.
- 18216 D-6037. Theory of anisotropic Heisenberg ferromagnet [with list of references]; by Lawrence Flax. Oct. 1970. cover title, [1] + 52 p. il. 4° Φ Paper, \$3.00. L.C. card 78-609655
- 18217 D-6040. Plane elastostatic analysis of V-notched plates [with list of references]; by Bernard Gross and Alexander Mendelson. Oct. 1970. cover title, [1] + 29 p. 4° Φ Paper, \$3.00.
- 18218 D-6041. Tests of full-scale annular ram-induction combustor for Mach 3 cruise turbojet engine [with list of references]; by Jerrold D. Wear, Porter J. Perkins, and Donald F. Shultz. Oct. 1970. cover title, [1] + 45 p. il. 4° Φ Paper, \$3.00. L.C. card 71-609656

GOVERNMENT PUBLICATIONS

NASA technical note TN (series)—Continued

- 18219 D-6042. Thermal feasibility of using methane or hydrogen fuel for direct cooling of 1st-stage turbine stator [with list of references]; by Raymond S. Colladay. Oct. 1970. cover title, [1]+24 p. il. 4° Φ Paper, \$3.00.
- 18220 D-6043. Velocity, intermittency, and turbulence intensity measurements in boundary layer of accelerated flow [with list of references]; by Donald R. Boldman, Harvey E. Neumann, and Robert C. Ehlers. Oct. 1970. cover title, [1]+34 p. il. 4° Φ Paper, \$3.00.
- 18221 D-6047. Experimental investigation of single particle behavior in axisymmetric magnetic field [with list of references]; by Ronald J. Schertler. Oct. 1970. cover title, [1]+25 p. il. 4° Φ Paper, \$3.00.
L.C. card 72-609833
- 18222 D-6048. Laser-generated plasma as spectroscopic light source [with list of references]; by Francisco P. J. Valero [and others]. Oct. 1970. cover title, [1]+17 p. il. 4° Φ Paper, \$3.00.

NASA technical report R (series).

NAS 1.12:(nos.)

- 18223 346. Control and use of libration-point satellites [with list of references]; by Robert W. Farquhar. Sept. 1970. cover title, vii+125 p. il. 4° Φ Paper, \$3.00.
L.C. card 79-609682
- 18224 349. Diffusion model study in chemically reacting air couette flow with hydrogen injection [with list of references]; by Randolph A. Graves, Jr. Oct. 1970. cover title, [1]+51 p. il. 4° Φ Paper, \$3.00.

NASA technical translation TT (series).

NAS 1.13/2: F-(nos.)

- 18225 F-605. Problems of space biology v. 10. Nerve mechanisms of vestibular reactions [with bibliography]; by A. N. Razumeyev and A. A. Shipov. Oct. 1970. cover title, x+328 p. il. 4° [Nauka Press, Moscow, 1969.] Φ Paper, \$3.00.
L.C. card 77-13497
- 18226 F-607. Stress distribution around holes [with lists of references]; by G. N. Savin. Nov. 1970. cover title, ix+997 p. il. 4° [Translation of Raspredeleniye napryazheniy okolo otversty, Naukova Dumka Press, Kiev, 1968.] Φ Paper, \$10.00.
L.C. card 70-609618
- 18227 F-639. Problems of space biology: v. 13, Prolonged limitation of mobility and its influence on human organism [with lists of references]; by A. M. Genin and P. A. Sorokin, editors. Oct. 1970. cover title, ix+262 p. il. 4° [Translation from Nauka Press, Moscow, 1969.] Φ Paper, \$3.00.
L.C. card 77-13497
- 18228 Opportunities in space flight investigations, NHB 8030.1A: Memorandum change 30, July 13, 1970. 6 p. 4° [Change 27 is cancelled.] * Paper, \$1.75 (including basic handbook and supplementary material for an indefinite period); 50c. additional for foreign mailing. $\bullet$ Item 830-F
NAS 1.18: Sp 1/2/ch.30

NATIONAL AIR POLLUTION CONTROL ADMINISTRATION, Health, Education, and Welfare Dept., Washington, DC 20204

National Air Pollution Control Administration publication APTD (series).

- 18229 0583. Chattanooga, Tenn.-Rossville, Ga. interstate air quality study, 1967-68 [with list of references; by] Grady T. Helms [and others]. Oct. 1970. vi+120 p. il. 4° $\dagger$ Office of Technical Information and Publications, 1033 Wade Ave., Raleigh, N.C. 27605 $\bullet$ Item 483-E
L.C. card 77-809514 HE 20.1309/2: 0583

NATIONAL ARCHIVES AND RECORDS SERVICE, General Services Administration, Washington, DC 20408

General information leaflets. $\dagger$

GS 4.22:(nos.)

- 18230 9. Compiled military service records in National Archives. [1970.] [2]+4+[2] p. narrow 8° ([70-17.]) $\bullet$ Item 569
- 18231 16. Select picture list, Negro art from Harmon Foundation. [1970.] [2]+6 p. il. narrow 8° ([71-1.])

NATIONAL BUREAU OF STANDARDS, Commerce Dept. Gaithersburg, MD 20760

Building science series.

- 18232 0. Building research at National Bureau of Standards [with list of references; by] Paul R. Achenbach. Oct. 1970. v+55 p. il. 4° * Paper, 60c. $\bullet$ Item 241-A
L.C. card 76-605161 C 13.29/2: 0

*For Sale by Superintendent of Documents

$\dagger$ Distribution Made by Issuing Office

Φ Official Use. Not Available

DECEMBER 1970

Monograph.

- 18233 25. Standard X-ray diffraction powder patterns: sec. 8 [Data for 81 substances, with lists of references; by] H. E. Swanson [and others]. Sept. 1970. iv+167 p. il. 4° (Institute for Materials Research.) [Includes cumulative index to Circular 539, v. 1-10, and Monograph 25, sec. 1-8.] * Paper, \$1.50. ● Item 247-A
L.C. card 53-61386 C 13.44 : 25/sec.8
- 18234 Postdoctoral research associateships, 1971 tenable at National Bureau of Standards, Washington, D.C. and Boulder, Colo., in association with National Research Council, National Academy of Sciences, National Academy of Engineering. [1970.] vii+93 p. il. † C 13.2 : R 31/6/971

Special publication.

- 18235 332. Spectrum formation in stars with steady-state extended atmospheres, proceedings of International Astronomical Union colloquium no. 2, commission 36, Munich, Germany, Apr. 16-19, 1969 [with lists of references]; edited by H. G. Groth and P. Wellmann. Aug. 1970. x+332 p. il. * Paper, \$1.75. ● Item 247
L.C. card 70-609732 C 13.10 : 332

Technical notes. ● Item 249-A

C 13.46 : (nos.)

- 18236 365-1. Survey of electrical resistivity measurements on 8 additional pure metals in temperature range 0 to 273 K [with lists of references; by] L. A. Hall and F. E. E. Germann. Aug. 1970. iii+85 p. il. 4° [Issued with perforations.] * Paper, \$1.00.
L.C. card 75-609614
- 18237 526. Tabulation of published data on electron devices of U.S.S.R. through Mar. 1970; [by] Charles P. Marsden. Oct. 1970. xiii+102+[8] p. il. 4° [Updates Technical note 441.] * Paper, \$1.25.
L.C. card 74-609654
- 18238 557. Brake pedal force capability of adult females [with list of references; by] Richard W. Radlinski and James I. Price. Oct. 1970. ii+23 p. il. 4° * Paper, 35c.

NATIONAL CAPITAL PLANNING COMMISSION Washington, DC 20576

- 18239 Downtown Urban Renewal Area landmarks, Washington, D.C. [with bibliography]. [1970.] [6]+118 p. il. oblong 8° [Prepared in cooperation with District of Columbia Redevelopment Land Agency, Summer 1970.] * Paper, \$1.50. ● Item 831-A
L.C. card 73-609564 NC 2.2 : L 23/2

NATIONAL CENTER FOR HEALTH STATISTICS, Health, Education, and Welfare Dept., Washington, DC 20201

Vital and health statistics: Series 4, Documents and committee reports.

- 18240 13. Report of 20th anniversary conference of United States National Committee on Vital and Health Statistics. Sept. 1970. vi+42 p. il. 4° ([Public Health Service publication 1000, series 4, no. 13; Office of Health Statistics Analysis.]) * Paper, 50c. ● Item 500-E
L.C. card 79-605825 HE 20.2210 : 4/13

NATIONAL CENTER FOR SOCIAL STATISTICS, Health, Education, and Welfare Dept., Washington, DC 20201

- 18241 Social services for families and children. [1970.] 6+[4] p. 4° (NCSS report E-6 (12/69).) [Issued with perforations.] † HE 17.618 : 969

NATIONAL CLEARINGHOUSE FOR SMOKING AND HEALTH, Health, Education, and Welfare Dept., Rockville, MD 20852

- 18242 Facts about smoking and health. [Revised Jan. 1970.] [1970.] cover title, 12 p. il. narrow 8° ([Public Health Service publication 1712.]) * Paper, \$11.25 per 100; single copy, 15c. ● Item 483-L-1
HE 20.2602 : Sm 7/4

✦For Sale by National Technical Information Service,
Springfield, VA 22151
●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

NATIONAL CREDIT UNION ADMINISTRATION 1325 K St. NW., Washington, DC 20256

NOTE.—The National Credit Union Administration was established by P1 91-206, approved Mar. 10, 1970.

- 18243 Federal credit union bylaws. Aug. 1970. [3]+21 p. 4° (FCU 535.) [Issued with perforations.] * Paper, 55c. • Item 526 NCU 1.2: B 99/970

NATIONAL HEART AND LUNG INSTITUTE, Health, Education, and Welfare Dept., Bethesda, MD 20014

- 18244 Dietary management of hyperlipoproteinemia, handbook for physicians [with bibliography]. [Revised July 1970.] [1970.] viii+91 p. [Table 1, suggested weights for heights on p. 4 of cover.] † Office of Heart and Lung Information, National Heart and Lung Institute, Building 31, Room 4A10, National Institutes of Health, Bethesda, MD 20014 • Item 507-E-2
L.C. card 78-606637 HE 20.3208: H 99/970-3

NATIONAL HIGHWAY SAFETY BUREAU, Transportation Dept. Washington, DC 20591

NOTE.—As a result of reorganization within the Department of Transportation effective Mar. 22, 1970 the National Highway Safety Bureau has been removed from the Federal Highway Administration and established as a separate operating administration within the Department of Transportation.

- 18245 Contract research reports, July 1, 1970; prepared by Information, Storage, and Distribution Branch, General Services Division. July 1, 1970. [1]+iii+43 p. 4° † TD 8.13: C 76

Multidisciplinary accident investigation, DOT HS (series).

TD 8.11:(nos.)

- 18246 600 019. Case 55, Head on collision; prepared by Georgia Institute of Technology [School of Civil Engineering, Vehicular Collision Research, Team], Atlanta, Ga. May 1970. cover title, [44] p. il. 4° [Includes copyright material.] • Paper, \$3.00 (PB 190 344).
L.C. card 76-608959
- 18247 600 027. Case 62, Single vehicle striking fixed object, rollover; prepared by Georgia Institute of Technology, Atlanta, Ga. May 1970. cover title, 31 p. il. 4° * Paper, \$3.00 (PB 190 510).
L.C. card 76-608959
- 18248 600 120. Multidisciplinary accident investigation summaries, v. 1, no. 2. [June 1970.] [3]+iv+139 p. il. 4° [Pages numbered 96 and 97 have duplicate text.] • Paper, \$3.00.
L.C. card 76-608959
- 18249 600 160. Case U.C. 1000D, Vehicle impact with fixed object; [prepared by] UCLA Collision Investigation Program, University of California, Los Angeles, Calif. July 1970. cover title, [1]+46 p. il. 4° ([Contract FH-11-6690; Vehicle collision report.]) [Includes copyright material.] • Paper, \$3.00.
L.C. card 76-608959
- 18250 600 172. Case 31, Two car headon; prepared by [Cornell Aeronautical Laboratory, Inc.], Cornell University, Buffalo, N.Y. Aug. 1970. cover title, [1]+46 p. il. 4° ([NHSB contract FH-11-7098; AMA contract CAL 6903-C129; Tri-level field accident study, level 3, in-depth studies.]) [Includes copyright material.] • Paper, \$3.00.
L.C. card 76-608959
- 18251 600 173. Case 32, Two car rear-end front-end; prepared by [Cornell Aeronautical Laboratory, Inc.], Cornell University, Buffalo, N.Y. Aug. 1970. cover title, [1]+51 p. il. 4° ([NHSB contract FH-11-7098; AMA contract CAL 6903-C129, Tri-level field accident study, level 3, in-depth studies.]) [Includes copyright material.] • Paper, \$3.00.
L.C. card 76-608959
- 18252 600 176. Case 35, Two car headon; prepared by [Cornell Aeronautical Laboratory, Inc.], Cornell University, Buffalo, N.Y. Aug. 1970. cover title, [1]+50 p. il. 4° ([NHSB contract FH-11-7098; AMA contract CAL 6903-C129; Tri-level field accident study, level 3, in-depth studies.]) [Includes copyright material.] • Paper, \$3.00.
L.C. card 76-608959
- 18253 600 178. Case 38, Truck rollover; prepared by [Cornell Aeronautical Laboratory, Inc.], Cornell University, Buffalo, N.Y. Aug. 1970. cover title, 54 p. il. 4° ([NHSB contract FH-11-7098; AMA contract CAL 6903-C129; Tri-level field accident study, level 3, in-depth studies.]) [Includes copyright material.] • Paper, \$3.00.
L.C. card 76-608959

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

- 18254 600 181. Case 40, Fixed object impact; prepared by [Cornell Aeronautical Laboratory, Inc.], Cornell University, Buffalo, N.Y. Aug. 1970. cover title, 48 p. il. 4° ([NHSB contract FH-11-7098; AMA contract CAL 6903-C129; Tri-level field accident study, level 3, in-depth studies.]) Φ Paper, \$3.00.
L.C. card 76-608959
- 18255 600 182. Case 41, Two car/right angle collision; prepared by [Cornell Aeronautical Laboratory, Inc.], Cornell University, Buffalo, N.Y. Aug. 1970. cover title, 52 p. il. 4° ([NHSB contract FH-11-7098; AMA contract CAL 6903-C129; Tri-level field accident study, level 3, in-depth studies.]) [Includes copyright material.] Φ Paper, \$3.00.
L.C. card 76-608959
- 18256 600 183. Case 42, Two truck headon sideswipe; prepared by [Cornell Aeronautical Laboratory, Inc.], Cornell University, Buffalo, N.Y. Aug. 1970. cover title, 42 p. il. 4° ([NHSB contract FH-11-7098; AMA contract CAL 6903-C129; Tri-level field accident study, level 3, in-depth studies.]) [Includes copyright material.] Φ Paper, \$3.00.
L.C. card 76-608959
- 18257 600 197. Case MCR-69-10, Interstate bus/car, sideswipe & rollover; prepared by Indiana University, Bloomington, Ind. Aug. 1970. cover title, 131 p. il. 4° ([Contract FH-11-7244.]) [Pages 1 and 2 are front and inside cover of publication.] Φ Paper, \$3.00.
L.C. card 76-608959
- 18258 600 199. Case MCR-69-12, 3 cars, rear-end & sideswipe (intersection); prepared by Indiana University, Bloomington, Ind. Aug. 1970. cover title, 74 p. il. 4° ([Contract FH-11-7244.]) [Pages 1 and 2 are front and inside cover.] Φ Paper, \$3.00.
L.C. card 76-608959
- 18259 600 200. Case MCR-69-13, 5 cars, rear-end & headon; prepared by Indiana University, Bloomington, Ind. Aug. 1970. cover title, 104 p. il. 4° ([Contract FH-11-7244.]) [Pages 1 and 2 are front and inside cover.] Φ Paper, \$3.00.
L.C. card 76-608959
- 18260 600 201. Case MCR-69-14, Car pole, rollover; prepared by Indiana University, Bloomington, Ind. Aug. 1970. cover title, 1-12A+13-64 p. il. 4° ([Contract FH-11-7244.]) [Pages 1 and 2 are front and inside cover of publication.] Φ Paper, \$3.00.
L.C. card 76-608959
- 18261 600 202. Case MCR-69-15, Car/slide & rollover; prepared by Indiana University, Bloomington, Ind. Aug. 1970. cover title, 67 p. il. 4° ([Contract FH-11-7244.]) [Pages 1 and 2 are front and inside cover.] Φ Paper, \$3.00.
L.C. card 76-608959
- 18262 1969 report on activities under National traffic & motor vehicle safety act. June 1970. ix+170+[191] p. il. 4° $\dagger$ $\bullet$ Item 982-D-7
L.C. card 71-609830 TD 8.12: 969

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES, Health, Education, and Welfare Dept., Bethesda, MD 20014

- 18263 Catalog of tissue typing antisera, 1970; edited by John G. Ray, jr. [and others]. [1970.] [1]+xiii+589 p. 4° (Transplantation and Immunology Branch, Collaborative Research.) [Issued with perforations.] $\dagger$ $\bullet$ Item 505-A-1
L.C. card 72-603052 HE 20.3252: An 8/970

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT, Health, Education, and Welfare Dept. Bethesda, MD 20014

- 18264 Child health and human development, progress 1963-70, report; [scientific editors, Frank Falkner and Georgia Perkins Reaser]. iv+60 p. il. oblong 8° * Paper, \$1.00. $\bullet$ Item 506-D-2
L.C. card 70-609677 HE 20.3352: C 43/963-70

NATIONAL INSTITUTE OF MENTAL HEALTH, Health, Education, and Welfare Dept., Chevy Chase, MD 20015

- 18265 Federal grants for comprehensive community alcoholism treatment and rehabilitation services; prepared by Division of Alcohol Abuse and Alcoholism. Oct. 1970. [2]+5 p. 4° $\dagger$ $\bullet$ Item 507-B-5 HE 20.2402: A1 1/3

GOVERNMENT PUBLICATIONS

NATIONAL INSTITUTES OF HEALTH, Health, Education, and Welfare
Dept., Bethesda, MD 20014

- 18266 Clinical Center, patient admission procedures. [1970.] [6] p. il. narrow 8°
([Public Health Service publication 500.]) † ● Item 507
HE 20.3002: C 61/2
- 18267 How medical students finance their education, results of survey of medical
and osteopathic students, 1967-68 [with list of references]; by Louis C.
Remund Smith and Anna R. Crocker. Jan. 1970. viii+76 p. il. oblong 12°
([Public Health Service publication 1336-1]; Division of Physician
Manpower.) *Paper, \$1.00. ● Item 507
L.C. card 73-609694 HE 20.3002: M 46
- 18268 Progress against cancer 1970, report by National Advisory Cancer Council
[with list of selected references]. [1970.] viii+98 p. il. 4° *Paper,
\$1.75. ● Item 507-G
L.C. card 76-609834 HE 20.3024: 970

NATIONAL LABOR RELATIONS BOARD
Washington, DC 20570

- 18269 First impressions, remarks of Edward B. Miller, Chairman, National
Labor Relations Board, at 9th annual Corporate Counsel Institute of
Northwestern University School of Law, Chicago, Ill., Oct. 8, 1970.
[1970.] [1]+21 p. 4° (R-1174.) † LR 1.7: M 61
- 18270 Implications of true collective bargaining in postal service, remarks of
Edward B. Miller, Chairman, National Labor Relations Board, at Na-
tional Postal Forum, Washington, D.C., Oct. 27, 1970. [1]+14 p.
4° (R-1178.) † LR 1.7: M 61/2
- ✓✓ 18271 Trends in important labor issues and legislation [address] by John H.
Fanning, Member, National Labor Relations Board, before annual meet-
ing of Connecticut Bar Association, New Haven, Conn., Oct. 19, 1970.
[1]+38 p. 4° (R-1177.) † LR 1.7: F 21/23

NATIONAL PARK SERVICE, Interior Dept.
Washington, DC 20242

- 18272 Quartering, disciplining, and supplying Army at Morristown, 1779-80
[with bibliography]; by George J. Svejda. Feb. 23, 1970. [2]+vi+237
leaves, il. 4° (Division of History, Office of Archeology and Historic
Preservation.) † I 29.2: Ar 5/779-80
L.C. card 70-609259

NATIONAL SCIENCE FOUNDATION
Washington, DC 20550

- 18273 1971 NSF programs for secondary school teachers of science and mathe-
matics, summer institutes, academic year institutes, in-service institutes,
cooperative college-school science program. [Oct. 1970.] [8] p. il. nar-
row 8° (E70-P-18.) † ● Item 834-C NS 1.2: T 22/5/971
- 18274 Science resources studies highlights: Impact of changes in Federal science
funding patterns on academic institutions; [Prepared in Science Edu-
cation Studies Group, Office of Economic and Manpower Studies].
Oct. 15, 1970. 8 p. il. 4° (NSF 70-39.) † NS 1.31: Ac 1

NATIONAL TECHNICAL INFORMATION SERVICE, Commerce Dept.
Springfield, VA 22151

NOTE.—On Sept. 2, 1970 the Secretary of Commerce established the National
Technical Information Service (NTIS). The Clearinghouse for Federal Scientific
and Technical Information has been transferred to NTIS.

- 18275 Environmental pollution, selective bibliography, information for business
and industry. May 1970. [4]+32 p. 4° (Clearinghouse for Federal Sci-
entific and Technical Information.) † C 51.11: En 8
L.C. card 72-609703

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

NATIONAL TRANSPORTATION SAFETY BOARD, Transportation Dept. Washington, DC 20590

- Aircraft accident report. (Bureau of Aviation Safety.) * Paper, \$12.00 a yr.; \$3.00 additional for foreign mailing; single copy, \$3.00.
- 18276 Air France, Boeing 747-128, F-BPVD, St. Jean, P.Q., Canada, Aug. 17, 1970, adopted Oct. 7, 1970. [1970.] iii+9+[2] p. il. 4° (SA-none, File C-001; Report no. NTSB-AAR-70-26.) TD 1.112: Sa 2 i
- 18277 Mack Truck, Inc., Lear Jet 23A, N 1021B, Horlick-Racine Airport, Racine, Wis., Nov. 6, 1969, adopted Sept. 9, 1970. [1970.] [3]+12+2+[1] p. 4° (SA-none; File 3-3766; Report no. NTSB-AAR-70-21.) TD 1.112: R 11
- 18278 Pittston Company, Aero Commander 1121, N236JP, Rural Retreat, Va., Oct. 31, 1969, adopted Sept. 9, 1970. [1970.] [3]+17+[1] p. 4° (SA-none; File 3-4110; Report no. NTSB-AAR-70-22.) TD 1.112: R 88
- 18279 Remarks by John H. Reed, Chairman, National Transportation Safety Board, prepared for delivery at Delaware County Safety Council, 7th annual dinner, Muncie, Ind., Oct. 8, 1970. [1970.] [1]+8 p. †
TD 1.110: R 25/15

NAVAL FACILITIES ENGINEERING COMMAND, Defense Dept. Washington, DC 20360

- 18280 Pavement evaluation data for Naval and Marine Corps air stations, July 1970. v+33 p. il. 4° (NAVFAC P-18.) * Paper, \$1.00. ● Item 418
D 209.2: P 28

NAVAL OBSERVATORY, Defense Dept. Washington, DC 20350

- 18281 Air almanac, 1971, Jan.-Apr. 1970. 242+F4+A82 p. il. 4° [Text on p. 2-4 of cover. The F4 pages of collation consist of Navigational star chart mounted on cloth, with Stars, Jan.-Apr. 1971, Interpolation of G.H.A., Interpolation of moonrise, moonset, and Star index on verso. Produced jointly by H. M. Nautical Almanac Office, Royal Greenwich Observatory, and by Nautical Almanac Office, U.S. Naval Observatory. Printed separately in England and United States.] * Stiffboard, \$3.75. ● Item 393
L.C. card 52-61239 D 213.7: 971/1
- 18282 Astronomical papers prepared for use of American ephemeris and nautical almanac: v. 20, pt. 1, Determination of equinox and equator from meridian observation of minor planets; [prepared by Edward S. Jackson]. [1970.] 131 p. 4° (Nautical Almanac Office.) * Paper, \$1.50.
● Item 396
L.C. card 6-1412 D 213.9: 20/pt.1

NAVAL OCEANOGRAPHIC OFFICE, Defense Dept. Washington, DC 20390

- 18283 Bibliography on meteorology, climatology, and physical/chemical oceanography; prepared by American Meteorological Society. [1970.] (National Oceanographic Data Center; [Cooperative Investigation of Caribbean and Adjacent Regions].) [Issued with cardboard dividers with marginal index tabs.]
v. 1. viii+1-380 p. † Paper, \$7.00.
v. 1, indexes. 381-614 p. † Paper, \$6.00.
L.C. card 72-609667 D 203.24/3: M 56/v.1 & ind.

Publications.

- 18284 31. Change 12, Oct. 10, 1970, loose leaf change pages for correcting Sailing directions for South Coast of England, 4th edition, 1952. [1970.] [205] p. il. 4° [Formerly No. 144. Includes list of effective pages.] † Paper, \$1.75. ● Item 378 (Rev. 1957)
D 203.22: (nos.)
- 18285 249, v. 2. Sight reduction tables for air navigation: v. 2, Latitudes 0°-39°, declinations 0°-29°. 1963 reprint. xii+242 p. [Tables on p. 2 and 3 of cover.] * Cardboard, \$2.50.
L.C. card 64-61947
- 18286 249, v. 3. Sight reduction tables for air navigation: v. 3, Latitudes 40°-89°, declinations 0°-29°. 1965 reprint. xiii+338 p. il. 4° [Tables on p. 2 and 3 of cover.] * Cardboard, \$2.50.
L.C. card 52-60158

†For Sale by National Technical Information Service,
Springfield, VA 22151
●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

NAVAL PERSONNEL BUREAU, Defense Dept. Washington, DC 20390

- 18287 Air controlman 1 & C [with reading list; prepared by Navy Training Publications Center, Millington, Tenn.]. [1970 edition.] [1970.] cover title, iv+149 p. il. 4° (Rate training manual; NAVPERS 10368-D.) * Paper, \$1.50. ● Item 404
L.C. card 63-62029 D 208.11: Ai 7/15/970
- 18288 Aviation boatswain's mate F 1 & C [with reading list]; prepared by Navy Training Publications Center. [1970 edition.] [1970.] cover title, iv+257 p. il. 4° (Rate training manual; NAVPERS 10304-B.) [Some illustrations are colored.] † ● Item 404
L.C. card 72-609490 D 208.11: Av 5/34/970
- 18289 Electronics administration and supply [with list of references]; prepared by [Training Publications Division, Naval Personnel Program Support Activity]. [1st edition 1959, major revision 1970.] [1970.] cover title, iii+228 p. il. 4° (NAVPERS 10835-C.) * Paper, \$2.25. ● Item 404
L.C. card 65-60890 D 208.11/2: El 2/4/970
- 18290 Supervisor's guide for Naval Reserve functional individual training system, DC 3 & 2. Aug. 1970. [1]+iii+118+[1] p. il. 4° (NAVPERS 94066(S); 0500-999-4510.) [Issued with perforations.] † ● Item 403-A D 208.6/3: R 24/2

NAVAL RESEARCH OFFICE, Defense Dept. Washington, DC 20390

- 18291 Naval Training Device Center, index of publications. Revised July 1970. 1970. cover title, [149] p. 4° (NAVTRADEV P-1480.) [Issued with perforations. Supersedes NAVTRADEV P-1480, Sept. 1969.] †
D 210.14/2: P 96/970

NRL reports. (Naval Research Laboratory.)

D 210.8:(nos.)

- 18292 7102. Accuracy studies of differential Omega technique [with list of references; by] K. Luken, J. W. Brogden and W. D. Meyers. June 29, 1970. cover title, ii+38 p. il. 4° ([NRL problem R04-11, project SS 161-001-6154.]) ● Paper, \$3.00 (AD 709555).
- 18293 7122. Two-dimensional point resolution; [by] M. E. B. Owens and J. H. Kullback. Sept. 11, 1970. cover title, 12 p. il. 4° ([NRL problem B01-06; project NAVELEX XR008-05-01, task 50501.]) [Text on p. 2 of cover.] ● Paper, \$3.00 (AD 712508).
- 18294 7128. Probability density function for future position of vessel at sea [with list of references; by] M. E. B. Owens. Aug. 26, 1970. cover title, ii+12 p. il. 4° ([NRL problem B01-06, project NavElex XR008-05-01, task 50501.]) ● Paper, \$3.00 (AD 712506).
- 18295 7133. Proceedings of 1970 ultralow temperature symposium, sponsored by Office of Naval Research and Naval Research Laboratory, edited by R. A. Hein, D. U. Gubser, and E. H. Takken, Apr. 23-24, 1970 [papers with bibliographies]. [1970.] vi+138 p. il. 4° ● Paper, \$3.00 (AD 712061).
- 18296 7159. Standard method for 5/8 inch dynamic tear test [with list of references; by] E. A. Lange, P. P. Puzak, and L. A. Cooley. Aug. 27, 1970. cover title, iii+38 p. il. 4° ([NRL problem M01-25, projects RR 007-01-46-5432, SF 51-541-012-14628, Y-F 38.534.010.02.001 and ENGNAV 70.1.]) ● Paper, \$3.00 (AD 712494).
- 18297 7181. Some information processes for arrays of sensors [with lists of references; by] David Swick, F. Mansfield Yound and William Finney. Oct. 1, 1970. cover title, ii+48 p. 4° ([NRL problem S02-35, project RF 05-552-403-6079.]) †

NAVY DEPARTMENT, Defense Dept. Washington, DC 20350

- 18298 Handbook of electromagnetic propagation in conducting media; by Martin B. Kraichman. [1970.] [123] p. il. 4° ([NAVMAT P-2302; Naval Materiel Command.]) * Cloth, \$3.00. ● Item 370-A
L.C. card 77-609679 D 201.6/12: El 2/2

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

OUTDOOR RECREATION BUREAU, Interior Dept.
Washington, DC 20240

- 18299 Upper Iowa River, wild and scenic river study. Aug. 1970. vi+105+[3]
p. il. map 4° †
L.C. card 71-609751 I 66.2: Io 9

PATENT OFFICE, Commerce Dept.
Washington, DC 20231

- 18300 Getting more mileage out of technology, text of address by William E. Schuyler, jr., Commissioner of Patents, for delivery before Licensing Executive Society, San Diego, Calif., Oct. 15, 1970. 1970. 7 p. 4° †
O 21.20: Sch 8/7

POST OFFICE DEPARTMENT

NOTE.—The Post Office Department has been reorganized and renamed United States Postal Service.

PRESIDENT OF UNITED STATES
Washington, DC 20501

- 18301 Consumer legislative monthly report; issued by Office for Legislative Affairs, President's Committee on Consumer Interests. Oct. 1, 1970. [1] +x+97 p. 4° † Office for Legislative Affairs, President's Committee on Consumer Interests, Room 6020 New Federal Office Building 7, Washington, DC 20506. ● Item 851-J Pr 36.8: C 76/L 52/970
- 18302 Report of President's Commission on Campus Unrest. 1970. x+[1]+537 p. il. [Contains copyright material.] * Paper, \$2.50. ● Item 851-J L.C. card 74-608779 Pr 37.8: C 15/R 29

PUBLIC DEBT BUREAU, Treasury Dept.
Washington, DC 20220

- 18303 U.S. savings bonds, series E, redemption values by denomination, Dec. 1970, revised table based on improved rates effective June 1, 1970. [1970.] [2] p. f° † ● Item 970-A (Rev.) T 63.209: 970-2/rev.pages

PUBLIC DOCUMENTS DIVISION, Government Printing Office
Washington, DC 20402

- 18304 For the reader on your holiday gift list. [1970.] [2] p. il. narrow f° folded into oblong 48° size. † ● Item 552 GP 3.22: G 36/970
- Price list PL (series). † ● Item 554 GP 3.9: (nos.)
- 18305 36. Government periodicals and subscription services; Nov. 1970. 140th edition. [1970.] [2]+42 p. L.C. card 26-26170
- 18306 64. Scientific tests, standards, mathematics, physics; Sept. 1970. 47th edition. [1970.] [2]+23 p. L.C. card 26-26256
- 18307 67. Immigration, naturalization, and citizenship; Oct. 1970. 49th edition. [1970.] [2]+4 p. L.C. card 26-26387

PUBLIC HEALTH SERVICE, Health, Education, and Welfare Dept.
Washington, DC 20201

Health information series. ● Item 486 HE 20.10: (nos.)

- 18308 33. Tuberculosis; [prepared by Center of Disease Control, State and Community Services Division, Tuberculosis Branch]. [Revised Aug. 1970.] [1970.] [1]+7+[1] p. narrow 8° ([Publication 30; Health Services and Mental Health Administration.]) * Paper, \$6.50 per 100; single copy, 10c.
- 18309 53. Hearing loss, hope through research; [prepared by Information Office, National Institute of Neurological Diseases and Stroke, National Institutes of Health]. [Revised 1970.] [1970.] 36 p. il. narrow 8° ([Publication 207.]) * Paper, \$18.75 per 100; single copy, 25c.

✦For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

GOVERNMENT PUBLICATIONS

PUBLIC ROADS BUREAU, Transportation Dept. Washington, DC 20591

BPR program (series).

- 18310 HY-2. [Electronic computer program for] hydraulic analysis of pipe-arch culverts; developed by Engineering Services Division, Office of Development in cooperation with Bridge Division, Office of Engineering. Revised Oct. 1970. [1970.] iv+48 p. il. 4° [Cover incorrectly reads BPR program HY-1.] ‡ TD 2.117: HY-2/3
- 18311 Explorative freeway cost earnings study; by John C. Oehmann and Joseph M. Davis. [1970.] iv+50 p. il. 4° ‡ TD 2.102: F 87/2
- Highway research and development news, plant ecology and esthetics, progress and implementation.
- 18312 3. Natural regeneration. May 1970. [7] p. il. narrow large 8° ‡ TD 2.113/2: 3
- 18313 Merging control systems. July 1970. 8 p. il. 4° (Office of Research and Development.) ‡ TD 2.102: M 54

RADIOLOGICAL HEALTH BUREAU, Health, Education, and Welfare Dept., Rockville, MD 20852

- 18313A Facts about microwave oven radiation. [1970.] [8] p. oblong 48° ([Bureau of Radiological Health.]) [Text on p. 2 of cover.] ‡ ● Item 499-E-2 HE 20.1502: M 58
- 18314 Laser fundamentals and experiments [with list of references; by] W. F. van Pelt [and others]. May 1970. xi+117+[2] p. il. 4° (BRH SWRHL 70-1; Radiation Medical Program, Southwestern Radiological Health Laboratory, Las Vegas, Nev.) * Paper, \$1.25. ● Item 498-B-1 HE 20.1508: L 33
L.C. card 71-609664

RECLAMATION BUREAU, Interior Dept. Washington, DC 20240

- 18315 Federal reclamation projects, water & land resource accomplishments, 1969, statistical appendix. [1970.] vii+244 p. il. 4° ‡ ● Item 663-A L.C. card 53-63671 I 27.55: 969/app.
- 18316 Pa Mong stage one feasibility report: app. 1, Land resources [with bibliography]; prepared by Reclamation Bureau. 1970. cover title, [304] p. il. 29 p. of pl., maps and tab. 4° [Prepared for Committee for Coordination of Investigations of Lower Mekong Basin and Agency for International Development. Some illustrations are colored.] ‡ I 27.2: P 19/3/app.1
L.C. card 70-607045
- 18317 — Appendix 4, Geology, v. 1; prepared by Reclamation Bureau. 1970. [263] p. il. 4° [Prepared for Committee of Coordination of Investigations of Lower Mekong Basin and Agency for International Development.] ‡ I 27.2: P 19/3/app.4/v.1
L.C. card 70-607045

REC-OCE (series). (Office of Chief Engineer, Denver, Colo.)

I 27.60: (nos.)

- 18318 70-20. Evaluation of concrete and related materials for desalination plants, 4th annual progress report [with lists of references]; by J. R. Graham [and others]. June 1970. [2]+vii+114+[14] p. il. 4° (Concrete and Structural Branch, Chemical Engineering Branch, Division of Research.) [Text on p. 2 of cover.] ‡
- 18319 70-23. Foundation instrumentation at Pleasant Valley pumping plant; by William H. Roth. July 1970. [4]+32+[4] p. il. 1 pl. 4° (Structural and Architectural Branch, Division of Design.) [Text on p. 2 of cover.] ‡ Paper, \$3.00.
- 18320 70-36. Glass-fiber reinforced polyester lining, preliminary report of laboratory and field investigations on glass fiber reinforced polyester canal lining, open and closed conduit systems program; by Michael E. Hickey. Aug. 1970. [3]+12+[4] p. il. 4° (Chemical Engineering Branch, Division of Research.) [Text on p. 2 of cover.] ‡ Paper, \$3.00.

*For Sale by Superintendent of Documents
‡Distribution Made by Issuing Office
‡Official Use. Not Available

SMALL BUSINESS ADMINISTRATION
Washington, DC 20416

- 18321 Excerpts of remarks by Einar Johnson, Deputy Administrator of Small Business Administration, at National Score Conference, Atlanta, Ga., Oct. 28, 1970. 1970. 10 leaves, 4° (SBA 4001.) † SBA 1.17: J 63
- 18322 Selected advances in insulation technology. [1970.] iv+36 p. oblong 8° (1970 technology utilization.) [Text on p. 2 of cover.] † ● Item 901-B
L.C. card 76-609676 SBA 1.2: In 7/2
- Small business bibliography.
- 18323 67. Manufacturers' sales representative; by John C. Warren. [Revised June 1970.] [1970.] 11 p. 4° † ● Item 901-K
L.C. card 75-609500 SBA 1.3: 67/3
- Small business management series.
- 18324 30. Insurance and risk management for small business [with list of publications for further information]; by Mark R. Greene. [1st edition, 1963], 2d edition 1970. [1970.] iii+72 p. ([Procurement and management assistance].) * Paper, 40c. ● Item 901-C
L.C. card 70-609696 SBA 1.12: 30/2

SMITHSONIAN INSTITUTION
Washington, DC 20560

- Atoll research bulletin.
- 18325 136. Coral islands of western Indian Ocean [with lists of references]; edited by D. R. Stoddart. Aug. 28, 1970. [2]+x+224 p. 1l. 24 p. of pl. 4° †
● Item 910-C SI 1.25: 136
- 18326 Smithsonian Institution, opportunities for research and advanced study, 1971-72. 1970. [1]+xvi+234 p. 9 pl. (Office of Academic Programs.) [Text on p. 2 of cover.] † ● Item 910
L.C. card 77-605050 SI 1.2: R 31/971-72

SOCIAL AND REHABILITATION SERVICE, Health, Education, and Welfare Dept., Washington, DC 20201

- 18327 Social and Rehabilitation Service, mission, structure, programs. [Oct. 1970.] [8] p. narrow 8° ([SRS-154.]) † ● Item 512-A-1
HE 17.2: M 69

SOCIAL SECURITY ADMINISTRATION, Health, Education, and Welfare Dept., Washington, DC 20201

- 18328 Monthly benefit statistics: Old-age, survivors, disability, and health insurance, fiscal year benefit data. Aug. 26, 1970. [2] p. 4° (Office of Research and Statistics.) † HE 3.28/6-3: 970
- Research and statistics note, 1970 (series). (Office of Research and Statistics.) † HE 3.28/2: 970/(nos.)
- 18329 16. Railroad retirement amendments of 1970; prepared in Interprogram Studies Branch, Division of Economics and Long-Range Studies. Oct. 16 1970. [3] p. 4°
- 18330 20. Health insurance for aged: number of hospital and extended care facility admissions by state, fiscal years 1967-69. Oct. 15, 1970. 8+[2] p. 4°
- SSI (series).
- 18331 95. Birth defects and social security disability benefits. [Sept. 1970.] 4 p. narrow 8° † ● Item 523-B HE 3.52: 95

SOIL CONSERVATION SERVICE, Agriculture Dept.
Washington, DC 20250

- 18332 1970 fall water supply summary [western United States]; by Water Supply Forecasting Branch, Portland, Oreg. [1970.] [4] p. il. 4° †
A 57.46/8: 970
- 18333 Soil survey: Lake County, Ill. [with list of literature cited; by John E. Paschke and John D. Alexander]. Sept. 1970. cover title, i+82 p.+[3] leaves il. 88 p. of pl. and maps 4° [Prepared in cooperation with Illinois Agricultural Experiment Station. Text on p. 2 of cover. One map is colored.] * Paper, \$5.00. ● Item 102 (Rev. 1957)
L.C. card 78-609517 A 57.38: L 14/2

GOVERNMENT PUBLICATIONS

- 18334 Soil survey: Wicomico County, Md. [by Richard L. Hall, Jan. 1970.], Errata. [1970.] 1 p. 4° † ● Item 102 (Rev. 1957)
A 57.38: W 63/errata
- 18335 Summary of snow survey measurements for Arizona and pertinent portions of New Mexico, 1938-70, report; prepared by Richard W. Enz. [1970.] [18]+73 p. il. 4° [Data included were obtained by Soil Conservation Service, Agriculture Department, Salt River Valley Water Users Association and Arizona Agricultural Experiment Station in cooperation with Federal, State and private organizations.] †
L.C. card 71-609699 A 57.2: Sn 6/3/938-70
- 18336 Water supply outlook for Montana and Federal-State-private cooperative snow surveys [snow pillow records, 1970 water year]; prepared by P. E. Farnes. [1970.] [2]+36 leaves [2] p. il. 4° [Prepared in cooperation with Montana Agricultural Experiment Station.] †
L.C. card 68-61825 A 57.46/3-2: 970
- 18337 Water supply outlook for Nevada and Federal-State-private cooperative snow surveys, [as of Oct. 1, 1970]; prepared by Donald W. McAndrew and John D. Roda. [1970.] [1]+4 leaves 4° [Prepared in cooperation with Nevada Department of Conservation and Natural Resources, Division of Water Resources. Title on cover is: Fall water supply summary for Nevada.] †
A 57.46/14: 970
- 18338 Water supply summary and outlook for Oregon and Federal-State-private cooperative snow surveys, [as of Oct. 1, 1970]; prepared by Tommy A. George and Howard M. Vance. [1970.] [7] p. 4° [Prepared in cooperation with Oregon State University and State Engineer of Oregon.] †
A 57.46/5-2: 970

SOLICITOR, OFFICE OF, Interior Dept. Washington, DC 20240

- 18339 Decennial index-digest, tables of decisions and opinions reported, over-ruled and modified cases, suits for judicial review, cumulative index to suits for judicial review and U.S. Code, U.S. Statutes at large and revised Statutes of Department of Interior; Jan. 1955-Dec. 1964, pt. 2; prepared and edited by Vera E. Burgin. [1970.] iii+212 p. * Cloth, \$2.50. ● Item 602
L.C. card 60-62417 I 1.69/2: 955-64/pt.2

SOLID WASTE MANAGEMENT BUREAU, Health, Education, and Welfare Dept., Rockville, MD 20852

- 18340 Mathematical analysis of solid waste collection [with bibliography]; by David H. Marks and Jon C. Liebman. 1970. viii+196 p. il. 4° ([Public Health Service publication 2104.]) [This final report (SW-5rg) was performed under research grant EC-00309 (formerly UI-00828) to John Hopkins University.] * Paper, \$1.50. ● Item 487-A-1
L.C. card 73-608768 HE 20.1402: M 42/2

SPORT FISHERIES AND WILDLIFE BUREAU, Interior Dept. Washington, DC 20240

Resources publication.

- 18341 86. About nutria and their control [with bibliography]; by James Evans. Aug. 1970. vi+65 p. il. 4° [Illustrated by the author.] * Paper, 65c. ● Item 613-B I 49.66: 86

Special scientific report: Wildlife.

- 18342 133. Woodcock status report, 1969 [with list of references; by] Eldon R. Clark. June 1970. iv+35 p. il. 4° * Paper, 45c. ● Item 614-C I 49.15/3: 133

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

STATE DEPARTMENT
Washington, DC 20520

Background notes. ([Office of Media Services, Bureau of Public Affairs.])
[Issued with perforations.] * Paper, \$3.50 per yr., \$3.00 additional for
foreign mailing; single copies, each 10c. ● Item 862-B

- 18343 Canada [with reading list]. [Revised Sept. 1970.] [1970.] 8 p. il. 4° ([Publication 7769.])
L.C. card 66-61561 S 1.123 : C 16/970

- 18344 Socialist Federal Republic of Yugoslavia [with reading list]. [Revised Sept.
1970.] [1970.] 8 p. il. 4° ([Publication 7773.])
L.C. card 66-61561 S 1.123 : Y 9/970

International organization and conference series.

- 18345 94. World interest, generation of peace, address to United Nations by Richard
Nixon, President of United States, Oct. 23, 1970. [Oct. 1970.] [3]+12
p. il. 1 por. ([Publication 8557; Office of Media Services, Bureau of Public
Affairs.]) * Paper, 20c. ● Item 882-B
L.C. card 72-609683 S 1.70 : 94

Treaties and other international acts series. * Paper, \$15.00 a yr. (ap-
proximately 150 issues), \$7.00 additional for foreign mailing; single
copies vary in price. (Issues of \$1.00 or more are not furnished as part
of the subscription). ● Item 899 S 9.10 : (nos.)

- 18346 6919. International Agency for Research on Cancer, amendments to statute,
adopted at 23d World Health Assembly, Geneva, May 19, 1970; [entered
into force May 19, 1970]. [1970.] [2]+ 3 p. [English and French.]
* Paper, 10c.
L.C. card 74-609437

- 18347 6923. Protection of industrial property, convention between United States and
other Governments done Stockholm July 14, 1967 [proclaimed by Presi-
dent of United States Aug. 12, 1970; entered into force with respect to
United States except for articles 1-12, Sept. 5, 1970]. [1970.] [2]+94 p.
[French and English.] * Paper, 40c.
L.C. card 77-609435

- 18348 6934. Extradition, continued application to Swaziland of United States-United
Kingdom treaty of Dec. 22, 1931, agreement between United States and
Swaziland, effected by exchange of notes done Mbabane May 13, and
July 28, 1970; [entered into force July 28, 1970]. [1970.] [2]+2 p.
* Paper, 10c.
L.C. card 78-609438

- 18349 6935. Air transport services, agreement between United States and Democratic
Republic of Congo, signed New York Aug. 14, 1970; [entered into force
Aug. 14, 1970]. [1970.] [2]+28 p. [English and French.] * Paper, 20c.
L.C. card 78-609446

- 18350 6938. Agricultural commodities, agreement between United States and Israel,
amending agreement of May 7, 1970, effected by exchange of notes, signed
Washington Aug. 27, 1970; [entered into force Aug. 27, 1970]. [1970.]
[2]+2 p. * Paper, 10c.
L.C. card 73-609450

- 18351 6939. Agricultural commodities, agreement between United States and Liberia,
signed Monrovia June 24, 1970; [entered into force June 24, 1970].
[1970.] [2]+3 p. * Paper, 10c.
L.C. card 71-609447

- 18352 6942. Extended validity of passports issued by Trinidad and Tobago, agreement
between United States and Trinidad and Tobago, effected by exchange
of notes dated Port of Spain Oct. 28 and Nov. 12, 1969; [entered into
force Nov. 12, 1969]. [1970.] [2]+3 p. * Paper, 10c.
L.C. card 76-609440

- 18353 6944. Investment guaranties, agreement between United States and Swaziland,
continuing in force agreement of Sept. 29, 1967, effected by exchange of
notes dated Mbabane Apr. 3 and July 28, 1970; [entered into force
July 28, 1970]. [1970.] [2]+2 p. * Paper, 10c.
L.C. card 70-609436

- 18354 6945. Atomic energy, cooperation for civil uses, agreement between United States
and Venezuela, amending agreement of Oct. 8, 1958, signed Washington
Nov. 14, 1969; [entered into force Aug. 3, 1970]. [1970.] [2]+19 p.
[English and Spanish.] * Paper, 15c.
L.C. card 73-609442

- 18355 6946. Air transport services, agreement between United States and Portugal,
amending agreement of Dec. 6, 1945, as amended, effected by exchange
of notes signed Lisbon May 30, 1970; [entered into force May 30, 1970].
[1970.] [2]+5 p. [Portuguese and English.] * Paper, 10c.

- 18356 6947. Trade in cotton textiles, agreement between United States and Hungary,
effected by exchange of notes dated Washington Aug. 13, 1970; [entered
into force Aug. 13, 1970, effective Aug. 1, 1970]. [1970.] [2]+5 p.
* Paper, 10c.

- 18357 6948. Agricultural commodities, agreement between United States and Lebanon,
signed Beirut June 11, 1970; [entered into force June 11, 1970]. [1970.]
[2]+12 p. * Paper, 10c.
L.C. card 75-609448

◆For Sale by National Technical Information Service,
Springfield, VA 22151

●Sent to depository Libraries

Page 59

GOVERNMENT PUBLICATIONS

Treaties and other international acts series—Continued

- 18358 6949. Agricultural commodities, agreement between United States and Jordan, signed Amman Aug. 20, 1970; [entered into force Aug. 20, 1970]. [1970.] [2]+3 p. * Paper, 10c.
L.C. card 79-609449
- 18359 6950. Trade, meat imports, understanding between United States and Guatemala, effected by exchange of notes signed Guatemala July 23 and Aug. 13, 1970; [entered into force Aug. 13, 1970]. [1970.] [2]+3 p. [English and Spanish.] * Paper, 10c.
L.C. card 76-609432
- 18360 6951. Air transport services, understandings between United States and Lebanon, effected by exchange of notes signed Beirut Aug. 27, 1970; [entered into force Aug. 27, 1970]. [1970.] [2]+3 p. * Paper, 10c.
L.C. card 74-609445
- 18361 6952. International Poplar Commission Convention, as amended, between United States and other governments, done Rome Nov. 19, 1959, as amended Oct. 30, 1967; [acceptance of United States deposited with Director-General of Food and Agriculture Organization, Rome, Aug. 13, 1970; entered into force with respect to United States, Aug. 13, 1970.] [1970.] [2]+16 p. [English, French, and Spanish.] * Paper, 15c.
L.C. card 75-609578
- 18362 6953. Trade in cotton textiles, agreement between United States and Malaysia, effected by exchange of notes signed Washington Sept. 8, 1970; [entered into force Sept. 8, 1970, effective Sept. 1, 1970]. [1970.] [2]+7 p. * Paper, 10c.
L.C. card 74-609540
- 18363 6954. Trade in wool and man-made fiber textile products, agreement between United States and Malaysia, effected by exchange of notes signed Washington Sept. 8, 1970; [entered into force Sept. 8, 1970, effective Sept. 1, 1970]. [1970.] [2]+6 p. * Paper, 10c.
L.C. card 70-609539
- 18364 United States treaties and other international agreements, v. 20, pt. 2, 1969. [1970.] vi+1395-2774+vii-ix p. large 8° [Includes treaties and other international acts series 6708-6747. Text in English and other languages.] * Cloth, \$12.50. ● Item 899-A
L.C. card 53-60242 S 9.12:20/pt.2

STATISTICAL REPORTING SERVICE, Agriculture Dept. Washington, DC 20250

- 18365 Peanut stocks and processing, seasonal reports, Aug. 1969-July 1970, revised. Oct. 1970. [7] p. 4° (GrLg 11-2-1 (10-70); Crop Reporting Board.) † A 92.14/2:969-70

SUPREME COURT Washington, DC 20543

- 18366 Members of Supreme Court of United States, Oct. 12, 1970. [1970.] 1 p. il. [Insert for Supreme Court of United States, 1961.] † ● Item 738
Ju 6.2: Su 7/2/961/insert-2

SYSTEMS RESEARCH AND DEVELOPMENT SERVICE, Transportation Dept., Washington, DC 20553

- 18367 Civil aviation background material for national plan for navigation, letter report, [with bibliographies; by] Alton B. Moody and Christopher S. Barrett. Apr. 1970. cover title, iii+50 p. 4° (Navigation Development Division.) [Compiled by Federal Aviation Agency (FAA) National Plan for Navigation Working Group.] † TD 4.502: C 49
- Report FAA-RD-(series). TD 4.509: (nos.)
- 18368 70-9. Instrument landing system improvement program, interim report [with bibliography; by] R. W. Redlich, R. H. McFarland [and] J. T. Gorman. Jan. 1970. cover title, [1]+115 p. il. 4° [Prepared under contract FA69WA-2066 by Avionics Research Group, Department of Electrical Engineering, Ohio University, Athens, Ohio. Issued by originator as report EER 5-10.] † Paper, \$3.00.
- 18369 70-10. Evaluation of Loran-C/D airborne systems, final report; [by] George H. Quinn, Apr. 1970. cover title, ix+28+1-46+2-7 p. il. 4° [Project 330-014-03X.] † Paper, \$3.00.
- 18370 70-12. ATS-1 VHF communications experimentation, final report; [by] F. W. Jefferson. June 1970. cover title, [92] p. il. 4° [Contract 221-160-02X; report FAA-NA-70-22.] † Paper, \$3.00.

*For Sale by Superintendent of Documents
†Distribution Made by Issuing Office
‡Official Use. Not Available

DECEMBER 1970

- 18371 70-22. Development of base techniques for ceiling and visibility prediction, interim report [with list of references; by] John Keaty and Roger A. Allen. Feb. 1970. cover title, iv+21 p. il. 4° [Prepared under contract FA67 WAI-131 by Techniques Developmental Laboratory, Systems Development Office, Weather Bureau, Environmental Science Services Administration.] Φ Paper, \$3.00.
- 18372 70-28. Test and evaluation of advanced integrated landing system for all-weather landing, final report; [by] Vincent L. Bencivenga. Aug. 1970. cover title, [154] p. il. 4° [Contract 320-204-01X; report FAA-NA-70-26.] Φ Paper, \$3.00.
- 18373 70-36. Turboclar fog dispersal method, development and testing of underground blower unit (1965-69), final report; by R. Fabre, edited by John K. Marut. Aug. 1970. cover title, [81] p. il. 4° [Translated from original French by Joint Publications Research Service, Department of Commerce.] Φ Paper, \$3.00.
- 18374 70-46. Engineering survey and analysis of en route ATC radar/display system errors, final report [with bibliographies; by] Reuben H. Hollday. Oct. 1970. cover title, ix+33+1-3+2-1 p. il. 4° [Project 187-623-01X; report FAA-NA-70-14.] Φ Paper, \$3.00.
- 18375 70-47. Weather effects on approach and landing systems, final report [with lists of references; by] C. A. Samson, B. A. Hart, and R. E. Skerjanec. July 1970. cover title, iii+70 p. il. 4° [Prepared under contract FA 65 WAI-86 by Institute for Telecommunication Sciences, Environmental Science Services Administration, Department of Commerce.] Φ Paper, \$3.00.
- 18376 70-52. Altimetry, literature review and bibliography, final report, phase 1; [by] Jack J. Shrager. Sept. 1970. cover title, iii+102 p. 4° [Prepared under project 560-103-05X; report FAA-NA-70-19 by National Aviation Facilities Experiment Center.] Φ Paper, \$3.00.
L.C. card 73-609418
- 18377 70-53. Graphic simulation study of 2 sites for a 2d major airport in Atlanta area, final report [with one reference; by] Sidney B. Rossiter. Oct. 1970. cover title, [57] p. il. 4° [Prepared under project 154-006-01X by National Aviation Facilities Experimental Center, Atlantic City, N.J. Issued by originator as report FAA-NA70-48. Some illustrations are colored.] Φ Paper, \$3.00.
- 18378 Visibility measurement for aviation use [with list of references]; by Edmund Bromley, jr. [1970.] [1]+8 p. 5 plates 4° [Presented by 3d Annual R and D report to industry.] $\dagger$ TD 4.502: B 78

TARIFF COMMISSION Washington, DC 20436

- 18379 Certain dairy products, report on investigation no. 332-64 under sec. 332 of Tariff act of 1930 pursuant to resolution of Committee on Ways and Means of House of Representatives adopted June 23, 1970. Oct. 1970. cover title, iv+124 p. il. 4° (TC publication 340.) $\dagger$ TC 1.2: D 14/6
- 18380 Economic factors affecting use of items 807.00 and 806.30 of tariff schedules of United States, report to President on investigation 332-61 under sec. 332 of Tariff act of 1930. Sept. 1970. cover title, viii+233+A-91 p. il. 4° (TC publication 339.) $\dagger$ TC 1.2: Ec 7
- 18381 Synthetic organic chemicals, United States production and sales of dyes, 1969, preliminary. Oct. 1970. cover title, [1]+37 p. $\dagger$ TC 1.33/2: D 98/969
- 18382 Synthetic organic chemicals, United States production and sales of elastomers, 1969, preliminary. Oct. 1970. cover title, [1]+5 p. 4° $\dagger$ TC 1.33/2: El 1/969
- 18383 Synthetic organic chemicals, United States production and sales of rubber-processing chemicals, 1969, preliminary. Oct. 1970. cover title, [3]+[1]+9 p. 4° $\dagger$ TC 1.33/2: R 82/969

TRANSPORTATION DEPARTMENT Washington, DC 20590

Automobile insurance and compensation study.

- 18384 Driver behavior and accident involvement, implications for tort liability. Oct. 1970. v+213 p. * Paper, \$1.00. $\bullet$ Item 982-C-1 TD 1.17: D 83
L.C. card 72-609545
- 18385 The first three years, why there is a Department of Transportation and how it was organized; by Alan L. Dean. [June 1970.] [1]+7 p. 4° $\dagger$ TD 1.2: T 68/8

Φ For Sale by National Technical Information Service,
Springfield, VA 22151

$\bullet$ Sent to depository Libraries

Page 61

GOVERNMENT PUBLICATIONS

- 18386 Regulations of Office of Secretary. Includes transmittal 4. [new and revised pages]. [1970.] [88] p. 4° [Issued in looseleaf form.] * Paper, \$2.00 (including basic manual and supplementary material for an indefinite period); 50c. additional for foreign mailing. ● Item 982-C-3
TD 1.6/2: 967/trans.4

TREASURY DEPARTMENT Washington, DC 20220

- 18387 Address by Charls E. Walker, Under Secretary of Treasury before 43d annual convention of National Bankers Association meeting, St. Louis, Mo., Oct. 16, 1970. [1970.] 11 p. 4° † T 1.31: W 151/8
- 18388 Impact of Federal government on market for State and local securities, remarks of Bruce K. MacLaury, Deputy Under Secretary of Treasury for Monetary Affairs at Municipal Conference of Investment Bankers Association of America, San Antonio, Tex., Oct. 16, 1970. [1970.] 8 p. (K-502.) † T 1.31: M 22/4
- 18389 Remarks of David M. Kennedy, Secretary of Treasury before American Life Convention, Washington, D.C. Oct. 19, 1970. [1970.] 6 p. 4° (K-513.) † T 1.31: K 38/35
- 18390 Remarks of David M. Kennedy, Secretary of Treasury before Annual Sponsors' Day Dinner, Graduate School of Business Administration, University of Virginia, Charlottesville, Va., Oct. 23, 1970. 7 p. 4° (K-515.) † T 1.31: K 38/36
- 18391 Telling it like it really is, remarks by Charls E. Walker, Under Secretary of the Treasury before Georgetown University's 17th annual bankers' forum, Washington, D.C., Oct. 31, 1970. [1970.] 7 p. 4° (K-519.) † T 1.31: W 151/9

UNITED STATES POSTAL SERVICE Washington, DC 20260

NOTE.—The United States Postal Service was established by Public Law 91-375, approved Aug. 12, 1970.

[Commemorative stamp posters.]

NOTE.—Commemorative stamp posters, which will be issued irregularly, are available on a subscription basis from the Superintendent of Documents, \$1.50 a yr.; 50c. additional for foreign mailing.

- 18392 6-cent United Nations commemorative postage stamp will be issued Nov. 20 with first day ceremonies in New York City. 1970. 10.5 x 8 in. P 1.26/2: Un 3
- 18393 Directory of post offices (with ZIP codes); [prepared by Bureau of Planning and Marketing]. [July 1970.] xvi+488 p. 4° ([Publication 26.]) [Revised annually.] * Paper, \$4.25. ● Item 839
L.C. card 55-61389 P 1.10/4: 970

Facilities handbook series S.

- 18394 10. Fire extinguishing equipment; [prepared by Bureau of Facilities]. Aug. 1970. cover title, [3]+26 p. * Paper, 25c. ● Item 848 P 1.31/3: 10/2
- 18395 International mail; Oct. 1, 1970. [1970.] [574] p. il. (Publication 42.) [Includes transmittal letter 76. Issued in looseleaf form. Supersedes chap. 2, International mail, Postal manual and all previous issues of Directory of international mail.] * Paper, \$2.50 (including basic book and changes for an indefinite period); 75c. additional for foreign mailing. ● Item 839
L.C. card 28-26826 P 1.10/5: 970
- 18396 Postal service manual. [Includes chap. 1-8. Issued in looseleaf form. Replaces Postal manual.] * Paper, \$14.50 (including supplementary material for an indefinite period, set of 7 dividers and index); \$3.75 additional for foreign mailing. P 1.12/5: (issue nos.)
Issue 1— Oct. 1, 1970—

*For Sale by Superintendent of Documents

†Distribution Made by Issuing Office

‡Official Use. Not Available

DECEMBER 1970

UNITED STATES TRAVEL SERVICE, Commerce Dept.
Washington, DC 20230

- 18397 United States conventions and trade shows, 1971-72 [list]. [1970.] [1]+62
p. 4° [Prepared from questionnaire sent to associations by United
States Travel Service.] † ● Item 271-A-1 C 47.2: C 76/971-72

VETERANS ADMINISTRATION
Washington, DC 20240

- 18398 Transactions of 29th VA-Armed Forces Pulmonary Disease Research Conference held Jan. 26-28, 1970, Cincinnati, Ohio by Veterans Administration [and] Armed Forces with cooperation of National Tuberculosis and Respiratory Disease Association [with lists of references; prepared and edited by VA Department of Medicine and Surgery, Central Office, Washington, D.C. and VA Hospital, Cincinnati, Ohio]. [1970.] cover title, xviii+90 p. il. 4° [Formerly Conference on Chemotherapy of Tuberculosis.] † ● Item 988-A
L.C. card 49-47044 VA 1.40/2: 970

VA pamphlets. † ● Item 988 VA 1.19: (nos.)

- 18399 05-49. Technical, clerical & trades careers, opportunities at high school and junior college levels, VA hospitals and offices, nationwide. [Oct. 1970.] [2] +8+[2] p. il. 4° ([Office of Personnel].)
- 18400 29-1. United States Government life insurance, information and premium rates, K policies. Revised July 1970. [1970.] cover title, vi+44 p. narrow 8° (Department of Veterans Benefits Insurance Service.) [Rescinds VA Pamphlet 90-1, revised Oct. 1959.]

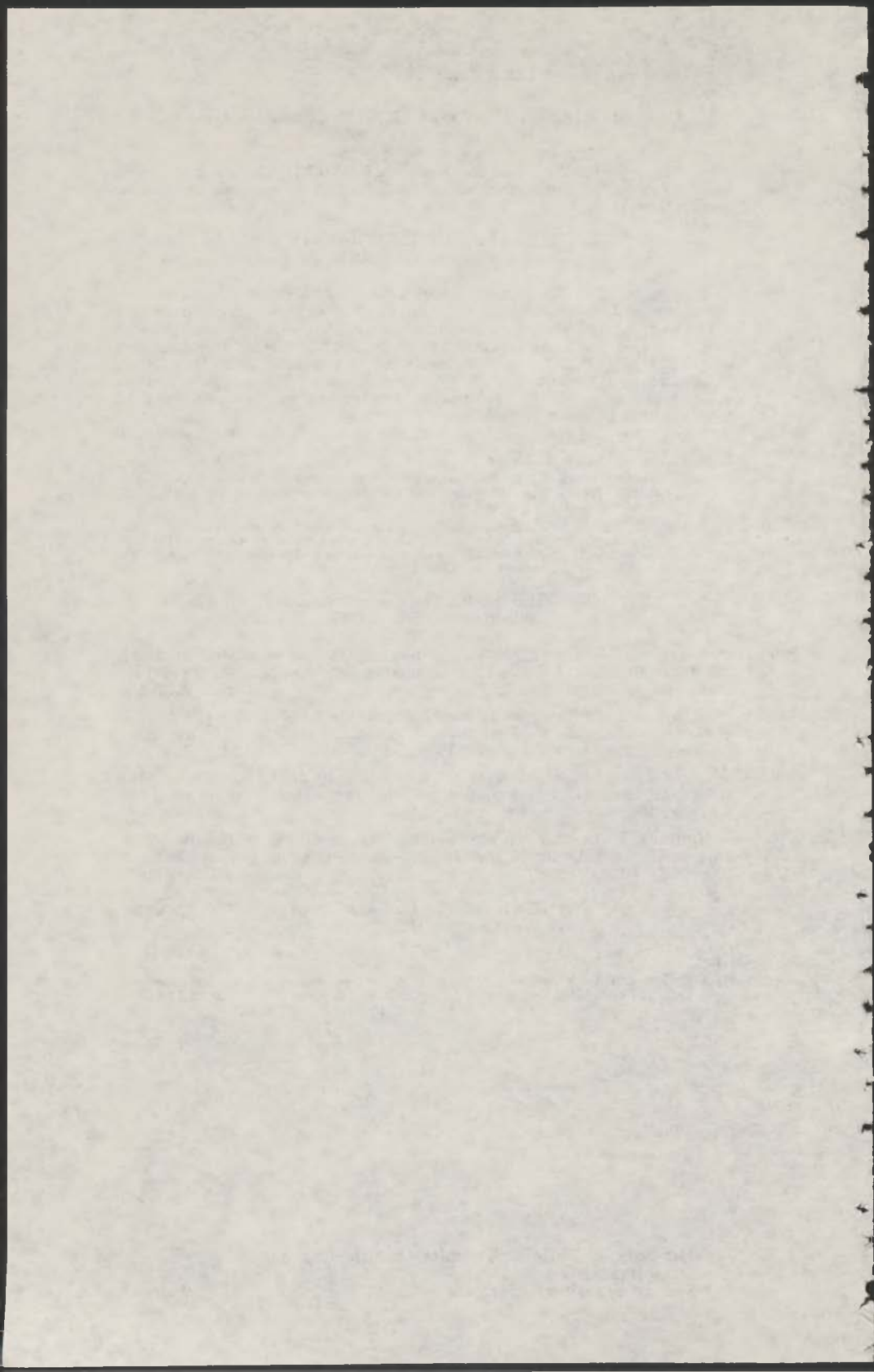
WEATHER BUREAU, Commerce Dept.
Washington, DC 20235

- 18401 Key to aviation weather reports [and Key to aviation weather forecasts]. [Revised May 1970.] [1970.] [2] p. oblong 32° * Paper, \$2.50 per 100; single copy, 5c. ● Item 275 C 30.2: Av 5/970
- 18402 Marine weather services chart: Eastport, Maine to Montauk Point, N.Y. Scale 50 naut. m=2.3 in. June 1970. 19 x 12 in. [Lambert conformal conic projection. Text on reverse.] * Paper, 15c. C 30.22/6: Ea 7/970
- 18403 — Great Lakes, Superior & Michigan. Scale 50 naut. m=1.5 in. May 1970. 19 x 12 in. [Lambert conformal conic projection. Text on reverse.] * Paper, 15c. C 30.22/6: G 79
- 18404 — Montauk Point, N.Y. to Manasquan, N.J. Scale 10 naut. m=1.5 in. June 1970. 12 x 19 in. [Lambert conformal conic projection. Text on reverse.] * Paper, 15c. C 30.22/6: M 76

WOMEN'S BUREAU, Labor Dept.
Washington, DC 20210

Leaflet.

- 18405 37. Who are the working mothers? [with list of suggested references]. Revised Oct. 1970. [1970.] [4] p. 4° * Paper, 10c. ● Item 788 L 13.11: 37/9



Index

MONTHLY CATALOG, JANUARY-DECEMBER 1970

NOTE.—Entries appear in this Index under subjects or titles. Bulletins, circulars, etc., having no specific subjects are entered under the issuing office only. Index citations are to entry numbers in the catalog.

A

A.C.D.A., *see* Arms Control Disarmament Agency.
 A.I.D., *see* International Development Agency.
 A.M.C., *see* Army Materiel Command.
 Aafedt, Donna A., tobacco, drug, and alcohol unit, grade 6, Great Falls District no. 1, Great Falls, Mont., 14947.
 Aagaard, Fern C., temperature of surface waters in Montana, 4256
 Aase, James H., transportation of iron ore, limestone, and bituminous coal on Great Lakes waterway system, 11575
 Abandoned Lands, Refugees, and Freedmen Bureau, *see* Refugees, Freedmen and Abandoned Lands Bureau.
 Abbe, Elizabeth N., experimental comparison of Monte Carlo sampling techniques to evaluate multivariate normal integral, 107
 Abbott, Geraldine W., Japan's farm commodity market, view of U.S.-Australian competition, 6999
 Abbreviations:
 airborne equipment use, military standard, 4028
 contractions used by FAA, air traffic control, etc., handbook, 61, 3446, 6340, 13030
 Czechoslovak Press reference aid, English translation, 16737
 Federal aviation regulations, 2570
 Abdellah, Faye G., overview of nursing research, 17048
 Abel, Irving, evaluation of technique for determining airplane alleron effectiveness and roll rate by using aeroelastically scaled model, 933
 Abel transforms *see* Transformations (mathematics).
 Abele, Gunars, deformation of snow under rigid plates at constant rate of penetration, 8534
 Abell, Joseph M., design of digital control unit for NRL receiving system, 6098
 Aberdeen, S. Dak., Indian vital statistics, 7294
 Abernathy, Edward J., soil survey, Sequoyah County, Okla., 11872
 Ability:
 human resources development, with emphasis on the poor—
 Ozark region, 9969
 rural Mississippi Delta, 1785
 industrial services handbook, 12948
 low-ability airmen, comparative performance, 9332
 low aptitude airmen, method for determining job types, 7954
 measurement of functional capacity limitations, measurement of disability, 15169

Ability—Continued
 patterns of physiological activity accompanying performance on perceptual-motor task, 3518
 see also Aptitude tests.
 Ablating materials:
 composite ablation material with silicone-resin base, investigation of char formation and surface recession, 16999
 flash X-ray technique for recession measurements, evaluation, 5960
 Ablation:
 and transient thermal response of non-charring heat shields and nose tips, coupled computer code, 18183
 carbon-phenolic ablation material, experimental study, 16968
 performance of charring ablators during atmospheric entry, simulation in ground-test facilities, 12788
 radiation transport in ablation-product contaminated boundary layers, advanced methods for calculating, 16942
 shock wave shapes and surface pressures on hemisphere- and cone-cylinders in low-density hypersonic flow, 11633
 Ablators:
 ablation performance of charring ablators, during atmospheric entry, stimulation in ground-test facilities, 12788
 Apollo ablator thermal performance at superorbital entry velocities, 16979
 Ables, Jackson H., jr., spillway and outlet works, Rowlesburg Dam, Cheat River, W. Va., 11257
 ABM, *see* Missiles.
 Abmeyer, Walter, soil survey, Shawnee County, Kans., 10571
 Abortion, laws, 11937
 About nutria and their control, 18341
 Abrahams, Albert E., nomination, hearing, 8434
 Abramovich, Arle, relief, 13609
 Abramson, Paul D., jr., simultaneous estimation of state and noise statistics in linear dynamical systems, 7555
 Abrasives:
 census of manufactures, 1967, industry statistics, 15604
 Federal item identification guide, 5302
 Federal item identification guides for supply cataloging supplements, 2596
 flat grinding wheel mounting, student reference, 7420
 Abridged index medicus, 4571
 Absorbent materials, some new amines as regenerative carbon dioxide absorbents, investigation, 6100
 Absorbers:
 resonance, spatial capture distributions in estimation, 12783
 solar, titanium alloy honeycomb having blackened walls, preliminary analysis, errata, 10376

INDEX 1970

- Absorption:**
 cupricion, through denuded epithellum, 14761
 far infrared absorption in liquefied gases, 8988
 gold by plants, 10161
 infrared absorption used in determination of oxygen concentration in silicon and germanium, 10438
 normal ionospheric absorption measurements obtained from radio and pulse reflections, survey and analysis, 16433
 trapping agents of $^{14}\text{CO}_2$ metabolic studies, comparative study, 15502
Absorption coefficients, opacity probability distribution functions for carbon monoxide at elevated temperatures, 5977
Absorption spectra, see Spectra.
Abstracts, see names of departments, bureaus, etc. issuing abstracts.—also subjects.
 Abutan, Josefina P., *see* Fullar, Josefina P.A.
 Acacia koa, *see* Koa.
 Academy of Agricultural Sciences, USSR, meeting, 5741
 Academy of Medical Sciences, USSR: vestnik (periodical), 3328
 work reviewed, 7361
 Academy of Sciences, Armenian SSR, after 25 years, 1985
 Academy of Sciences, Belorussian SSR, meeting held, 4332
 Academy of Sciences, Kirgiz, SSR, development, 16740
 Academy of Sciences, Moldavian SSR, general information, 8837
 Academy of Sciences, Ukrainian SSR: general activities and programs, 1969 report, 5739
 Lenin Centennial, statements by Ukrainian Academicians, 12648
 research, mathematics, past 50 years, 5773
 Academy of Sciences, USSR: biological series, news, 7369
 general meeting, 11491
 vestnik (periodical), 3329
 Acanthopleura granulata Gmelin, *see* Chitons.
Acceleration:
 angular, influence of specific and nonspecific graviceptors on nystagmic responses, adaptation to vestibular disorientation, 8040
 electrostatic acceleration system for hypervelocity microparticles with selected kinematic properties, 8946
Accelerators:
 accelerator dosimetry and experience, conference proceedings, 13067
 electron linear, beam handling techniques, 7580
 glass-coated, accelerator grid on 15-centimeter-diameter Kaufman thruster, 1000-hour endurance test, 14859
 particle, radiological safety in design and operation, 10425
 photon activation analysis using NRL Linac, survey, 15091
 transformer-type high-current accelerator, USSR study, 7368
Accelerometers:
 and photographic measurements of surface motion on Buggy cratering experiment, 6384
 calibration with earth's field dynamic calibrator, 6010
 light modulated for pantograph measurements, 17988
Acceptors, see Induced reaction.
Access openings, see Closures.
Accessions index, lists, etc., see Library accessions.
Accessories (dress), see Clothing.
- Accidents:**
 accident and injury data, collection and utilization, hearing, 415
 accident cost control, 4371
 causes, occupational safety aids, 813
 elad O_2 under reactor accident conditions, physical-chemical studies, 9378
 explosions, accidental, structures to resist effects, Army technical manual, 3480
 financial protection for Federal employees, 4969
 how to investigate, 14658
 industrial safety accident prevention handbook, Air Force manual, 10719
 nautical accident prevention, Fathom (periodical), 6079
 pipeline accident report, 15040
 preventing office accidents, occupational safety aid, 12658
see also Aircraft accidents—Injuries—
 Mine accidents—Motor vehicle accidents—Railroad accidents—Safety of life—Spacecraft accidents.
- Accountants:**
 careers with Civil Aeronautics Board, 15672
 employment outlook, 12664
 examination announcement, 6118, 15684
 pay, national survey, 5822
Accounting, see Accounts and accounting.
Accounting machines, census of manufactures, 1967, industry statistics, 17528
Accounts and accounting,
 accounting and finance manual, DSA, change, 539, 6855, 17734
 accounting and reporting procedures manual for Project Prime under resource management systems, Army pamphlet, 3470
 accounting improvements, need at National Bureau of Standards, inequitable charges for calibration services, GAO report, 12576
 accounting periods and methods, tax information, 5874
 accounting systems for operations in Defense Dept., implementation, GAO report, 10146
 accounting system for sanitary landfill operations, 12930
 air carriers, certificated, uniform system, 3308
 Air Force Stock Fund, comptroller activities, procedures in support of, Air Force manual, 15458
 Alaska remote housing handbook, 11432
 career opportunities in Government Printing Office for college graduates in accounting, 14557
 code of Federal regulations, 7106
 cost and balance-of-payments advantages of replacing foreign-made buses with American-made buses, GAO report, 5528
 delinquent borrower accounts, need to strengthen procedures, GAO report, 1897
 District of Columbia Government, adjustments between appropriations, procedure—
 hearings, 15903
 report, 15357
 feasibility of uniform cost-accounting standards applied to negotiated defense contracts, GAO report, 11027
 Federal agency systems, improvement, progress and problems, GAO, annual report, 8299
 Federal property, mechanized supply and accounting procedures in office of United States property and fiscal officers (USPFO), change, 2145
 flow of funds accounts, 1945-68, annual total flows and year-end assets and liabilities, 11325
 GAO review (periodical), 2686

Accounts and accounting—Continued

- General Accounting Office policy and procedures, manual for guidance of Federal agencies, 2888
- improved accounting control over equipment at Kennedy Space Center, GAO report, 14500
- joint financial management improvement program, annual report, 7206
- low-rent housing, accounting handbook, HUD, 1941, 10211, 18673
- natural gas companies, uniform system of accounts prescribed for, 16503
- Post Office Department, revenue and cost analysis, 7699
- public utilities and licensees uniform system, 11315
- publications, price list, 15125
- revenue-cost system of lead-zinc mining operation, relative effects of grouped physical variables, 871
- uniform system of accounts, FCC rules and regulations—
 - natural gas companies, 3309
 - radiotelegraph carriers, 2586
 - telephone companies, 2585
 - wire-telegraph and ocean-cable carriers, 2586
- United States Government central accounting system regulations, 11919
- used in establishing fees for reimbursable testing and related services, improvements suggested, Food and Drug Administration, GAO report, 1891

Accumulators:

- photo-electronic signal selection included, USSR study, 5756
- wind vector component accumulator, description, 1833

ACDA, *see* Arms Control and Disarmament Agency.

ACE, Active Corps of Executives, 9100

- Acetylene, interaction of methane, ethane, ethylene, and acetylene with iron (001) surface and their influence on adhesion studies with LEED and auger, 11666

Achenbach, Paul R., building research at National Bureau of Standards, 18232

Achievement, urgency of excellence (lecture), 6401

- Achievement tests, school achievement of children 6–11 years, as measured by reading and arithmetic subtests of wide range achievement test, 14935

Acid-mine-drainage, *see* Mine drainage.

- Acids, effect on survival of bluegills and largemouth bass, 4716
- see also* Organic acids—also names of acids.

ACIR, *see* Advisory Commission on Intergovernmental Relations.

Ackerman, Franklin S., soil survey, Berks County, Pa., 17305

Acorns, nuttall oak, field germination, 11361

Acoustics, *see* Noise—Sound.

ACP, *see* Agricultural conservation program.

Acreage allotments, *see* names of products.

Acreage marketing guides, 525, 1746, 5234, 6820–26, 13762

Acrothoracica, *see* Barnacles.

Acrylonitrile-butadiene-styrene (ABS) plastic pipe, voluntary product standard, 11745–46

Actinides, synthetic, from discovery to manufacture (remarks), 146

Action for progress for the Americas (address), 1145

Actions at law:

- automobile accident litigation, report of Federal Judicial Center, 9231
- Class action jurisdiction act, hearings, 9919
- litigation, HUD handbook, 16664
- litigation releases, Securities and Exchange Commission, 2843

Actions at law—Continued

- medical radiation information for litigation, conference proceedings, 1052
- status of Indian claims litigation, hearing, 16060

see also Appeals.

Activation, *see* Heat of activation.

Activation analysis, *see* Radioactivation analysis.

Activation Analysis Section, summary of activities, 12846

Activism, but what kind (address), 10752

Activity coefficients, reaction rate constants in ESSA flowing afterglow system to Aug. 1969, compilation, 4088

Activity programs, activities supervisor's guide, handbook for long-term facilities, 5016

Actors, employment outlook, 12687

Actresses, employment outlook, 12687

Acts of Congress, *see* Law.

Actuarial cost estimates for hospital insurance program, 15167

Actuarial notes, 1100, 4668, 6165–66, 7744–45, 10551, 11855–856, 12919–920, 15164–167

Actuaries, employment outlook, 14678

Actuators:

- nonlinear actuator disk theory and flow field calculations, including nonuniform loading, 16950
- peristaltic action microinch actuator, research and development study, 18185

Acuity:

- auditory sensitivity of goldfish within near acoustic field, 14766
- electro-optical aids to night vision, effect of vibration on performance, 2044
- visual acuity in viewing scaled objects on television compared with that in direct viewing, 931
- visual acuity of children, health statistics, 6015

Adair County, Iowa, community profile, 13826

Adair County, Mo., community profile, 16168

Adams, A. N., Washington meridian observations of moon, 6-inch transit circle results, 11809

Adams, G. W., SIXBIT, generalized reaction kinetics program, 16463

Adams, John G.:

- remarks—
- May 1, 1970, 8111
- Sept. 16, 1970, 17545

Adams, John Q., life portraits, 17164

Adams, William M., Jr., dynamics of 2 slowly rotating point-mass vehicles connected by massless tether and in circular orbit, 4514

Adams County, Iowa, community profile, 13827

Adams County, Miss., community profile, 16169

Adams County Nebr., community profile, 17751

Adams County, N. Dak., community profile, 13828

Adams County, Ohio, community profile, 13829

Adams County, Pa., community profile, 16170

Adams County, Wash., community profile, 6890

Adaptation coping and adaptation, behavioral sciences, bibliography, 15013

Adaptation (biology):

- adaptation to vestibular disorientation influence of specific and non-specific gravi-receptors on nystagmic responses to angular acceleration, 8040

Adapters, sets, kits, and outfits, Federal item identification guide, 13792

Adaptions, *see* Dark adaptation.

Adaptive control systems, *see* Control systems.

Addicott, W. O., Miocene gastropods and biostratigraphy of Kern River area, Calif., 13615

INDEX 1970

Addicts. *see* Narcotic habit.

Additives:

- antiwear and extreme-pressure additives in synthetic paraffinic lubricant on ball spinning torque, effects, 12797
- chemical additive X-78, effects on ginning and processing performance and cotton quality, 15436
- feed, used to improve tubular cellulose acetate membranes, 10224
- high molecular weight, influence on flashing process, screening study, 5626
- mineral, asphalt coatings on organic felt, natural weathering stabilized, 953
- pharmacy department intravenous additive incompatibilities, 979
- static dissipator, effect on charging tendency of jet fuels, 6104

Addresses (mail matter), *see* Mail matter.

Addresses, lectures, etc., by—

- Adams, John G., 8111, 17545
- Agnew, Spiro T., 10512
- Allen, James E., jr., 577, 589, 591-592, 1790, 5346, 5349, 5354, 7024, 8516, 8525, 8528, 8531, 9982, 9996, 11201, 11208, 11236, 12500, 12507
- Alterman, Jack, 822
- Bates, Carlos G., 9079
- Bell, Terrel H., 11209, 16399-400
- Bentley, Helen D., 640-645, 1854, 4142-43, 5425-29, 7096-97, 8621, 10052, 10054, 10056, 11310, 12526, 14372-373, 16493-494, 17980-981
- Blackwell, Robert J., 832, 8879-80, 8882, 10309, 16878
- Blount, Winton M., 1039 2194, 12902, 15113, 17211
- Braceland, Francis J., 10513
- Braman, J. D., 9243
- Branscomb, Lewis M., 10439
- Brimmer, Andrew F., 652, 1858, 4154, 5464, 7151, 8660, 10080, 11324, 12530-531, 14388, 16509, 17989-990
- Brown, George H., 9457, 15657, 17540
- Brown, Gilbert L., 7728
- Browne, Secor D., 234-235, 3652, 3654, 8108-10, 12042, 15675, 15677-679, 17546
- Burch, Dean, 4125-27, 11293, 16478-479
- Burgess, Isabel A., 10483, 12884, 15041
- Burns, Arthur F., 10078-79, 12532, 11322-323, 11331
- Campbell, J. Phil, 10, 3391-92, 3426, 7912, 7915, 7936, 7939, 9283
- Cheraskin Emanuel, hearing, 15916
- Clarke, Thomas H., 638
- Close, William H., 9242
- Cohen, Edwin S., 2269, 2275, 6273
- Condon, Lester P., 759-760
- Cox, Lawrence M., 10212
- Daane, J. Dewey, 655, 16506
- Davis, Kenneth N., jr., 3686, 3688, 3695, 6517, 9513
- Day, James V., 7094, 10055, 14374
- Dole, Hollis M., 18066
- Dougherty, James E., 7175
- Dubois, Rene, 11854
- Dunne, Thomas P., 5326, 9492, 9968
- Fagan, Charles A., III, 6889
- Fanning, John H., 987, 18271
- Fanseen, James F., 5424, 7098, 10057, 16496
- Fiedler, Edgar R., 15736
- Fiero, Charles E., 5480
- Finger, Harold B., 4269, 5590
- Florey, Quentin L., 7722
- Gibson, A. E., 831, 4395-96, 5838, 7444-45, 8881, 8883-84, 10307-308, 10310, 11560-563, 12728, 14757, 16877
- Gilbert, Carl J., 11876, 17312
- Gillies, Roderick M., 9512
- Gilliland, Whitney, 237, 239, 9459, 15676
- Hamrick, Joseph G., 11186-187, 11189, 16158-159, 16167

Addresses, lectures, etc.—Continued by—continued

- Hardin, Clifford M., 43, 3390, 7911, 7940, 12973
- Hauser, Rita E., 2241
- Hay, George C., 6341
- Hearn, George H., 7095, 10053, 10058, 16495, 17979, 17982-83
- Hickel, Walter J., 4296, 7303, 16694
- Hodgson, James D., 12657, 16823
- Homes, E. H., 7086
- Hyde, Floyd H., 744, 1922, 1942, 5610
- Jackson, Samuel C., 761, 5595, 5608
- Johnson Elmar, 18321
- Johnson, Nicholas, 7077, 7079-80
- Johnson, Wilfrid E., 137
- Kennedy, David M., 1178, 2270-72, 6270-72, 9244, 9251-55, 10653-656, 11921-922, 11924, 17390-391, 18389-390
- Kingman, Woodward, 748, 4272
- Koontz, Elizabeth D., 11938
- Laird, Melvin R., 5323
- Laird, Wilson M., 768
- Larson, Clarence E., 1278, 3512, 9409
- Lindbergh, Jon M., 2219
- Lyng, Richard E., 3380, 12972
- MacInnis, Joseph B., 2219
- MacLaury, Bruce K., 6269, 7878, 18388
- McLellan, Robert, 268-269, 271, 4983, 4986-87, 6503, 8142-43, 9490, 9495, 15713, 15716, 15737
- Mair, Andrew J., 9323
- Maisel, Sherman J., 1860, 10081, 12533
- Martin, Preston, 1852, 5418, 5420, 17974
- Mathews Charles W., 5890
- Meissner, William A., jr., 17748
- Middleton, John T., 7558, 10418
- Miller, Edward B., 18269-270
- Mitchell, George W., 654, 7153, 11326, 14391, 17991
- Mohler, Stanley R., 9412
- Moore, Geoffrey H., 11548
- Morin, Donald A., 7718
- Morrison, Elting E., 13009
- Murane, William E., 15735
- Murphy, Robert T., 1343, 13186
- Nehmer, Stanley, 4988, 9511, 9514, 15739
- Owens, Hugh F., 9099
- Owens, James M., 3523, 9413, 17749
- Padrick, Jack D., 10242
- Palmby, Clarence D., 3407, 7945, 13004
- Passer, Harold C., 279, 3689, 3696, 5003, 5005, 8152, 9494, 9499, 9501, 10868, 15717, 15738, 15740
- Paullin, Robert L., 7870
- Peabody, Malcolm E., jr., 746, 5592, 18059
- Podesta, Robert A., 5325, 6886-87, 8490-92, 16161
- President Johnson, 1141, 5461-62
- President Nixon, 1140, 1145, 3775, 7711, 9191-92, 10605, 17330, 18345
- Propps, Herbert F., 17313
- Ramey, James T., 4899, 13087
- Reed, John H., 1006-7, 4593, 7659-60, 7662, 11805, 15042, 17169, 18279
- Reese, Aaron, W., 11309
- Richardson, Elliot L., 4726, 14566
- Robertson, J.L., 659, 10085, 11330, 16507
- Rogers, William P., 2236, 2238, 4731, 9185, 9194, 15294
- Romney, George, 745, 762, 1923-24, 4270, 4285-87, 4290, 5591, 7270, 7289, 10199
- Rossides, Eugene T., 6267, 9248-49, 10657
- Rumsfeld, Donald, 1784, 4039, 12491, 17903
- Russell, Harold, 11831
- Schnellbacher, E. E., 5716, 8826, 10241, 10243-244, 11460-461, 16714-718
- Schuyler, William E., jr., 6117, 7696, 15104, 18300

Addresses, lectures, etc.—Continued
by—continued

Scott, Harold B., 15720
Seaborg, Glenn T., 138-139, 141, 143,
146-147, 1274-75, 4895, 6401, 8031,
8033, 9407-8, 9411, 10752, 10773,
10775-776, 10778-779
Shaffer, John H., 7059
Shultz, George P., 804, 7406
Siciliano, Rocco C., 280, 3697, 5004,
8141, 9491, 9493, 9510, 10867, 10881
Simmons, Samuel J., 4271, 4281, 5605,
5609, 7271
Simmons, Will M., 8507
Simpson, Richard O., 6516
Sinnott, Richard L., 16160
Stakem, Eugene P., 8620
Stans, Maurice H., 265-267, 1360-62,
3687, 4979-80, 8139-40, 9487-89,
9496-98, 10862-866, 10880, 13216,
15707-711, 15734, 17560
Szent-Gyorgyi, Albert, 7908
Thompson, Theos J., 1276-77, 10772,
10777
Train, Russell E., 766
Tremmel, Ernest B., 145
Trezise, Philip H., 9193
Tribus, Myron, 282-283, 1364, 4982,
4985, 8151, 10869-871, 15712, 15715
Unger, Sherman, 4283
Van Dusen, Richard C., 747, 1943, 4284,
4289, 5593-94
Vaughan, Richard D., 15259
Venn, Grant, 11239
Volcker, Paul A., 2273-74, 7877, 9250,
17392
Walker, Charles E., 7873, 7876, 10648,
11925, 15365, 18387, 18391
Wallich, Henry C., 1179, 2277, 17385
Washburn, C. Langhorne, 4780, 7884,
11929, 17395
Weidenbaum, Murray L., 1180, 2268,
4777-78, 6266, 9245, 9247, 10651,
11920, 11923, 17386-389
FMC SP series, 640-645, 1854, 4142-43,
5424-29, 7094, 8620-21, 10052-58,
11309-310, 12526, 14372-374, 16493-
496, 17979-983
Harmon memorial lectures in military his-
tory (series), 13009
inaugural addresses of Presidents of
United States from George Washington
to Richard Milhous Nixon, 328
MA SP series, 831-832, 4395-96, 5838,
7444-45, 8879-84, 10307-309, 11560-
563, 12728, 14757, 16877-878
modular forms, lectures, 4547
public speeches of former President
Dwight D. Eisenhower, 12161
print as House document, report, 12194
suggested drug abuse speech, closer look
at drug abuse, 10456
Adelaida quadrangle, Calif., complete Bou-
guer gravity and general geology, 10181
Adelfang, S. L., further study of jimsphere
wind profiles as related to space vehicle
design and operations, 14832
Adelman, Edwin, indexes of output per man-
hour, selected industries, 7425, 18123
Adhesion:
clean iron, effect of sulfur, oxygen, and
hydrogen sulfide surface films, 7535
clean iron (001) and (011) surfaces,
LEED and Auger studies of effect of
oxygen on, 8943
how iron (011) surface adhesion is ef-
fected by adsorption of ethylene oxide
and vinyl chloride, 16996
interaction of methane, ethane, ethylene,
and acetylene with iron (001) surface
and their influence on adhesion studies
with LEED and auger, 11666

Adhesives:

Federal item identification guides for sup-
ply cataloging, supplements, 2495
flexibilized epoxy adhesive films, tensile
stress-strain behavior, 10127
gap-filling, in finger joints, 16574
resorcinol and phenol-resorcinol, cure rate
in joints of ammonium salt-treated
southern pine, 8700
Adjusting to technology on railroads, 4389
Adjutant General's Office:
Army Library selected current acqui-
sitions, 3186
general correspondence, 1890-1917, index,
microcopy, pamphlet to accompany,
11726
indexes to letters received, main series,
1846, 1861-89, pamphlet to accompany
microcopy, 8976
letters received 1881-89, main series,
microcopy, pamphlet to accompany,
5995
ADMATCH, *see* Computer programs/pro-
gramming.
Administration, *see* Administrative manage-
ment.
Administration of Federal Meat Inspection
Act Joint Committee, *see* Federal Meat In-
spection Act, Joint Committee on Ad-
ministration of.
Administrative agencies, *see* Government
offices.
Administrative Conference of United States:
States:
annual report, 6285
appropriations, 1971—
hearings, 6693, 13710
law, 17608
report, 16009
appropriations, raise ceiling, amend U.S.
Code—
law, 3740
report, 1670
Administrative management:
administration deficiencies in Federal in-
secticide, fungicide, and rodenticide
act, report, 1463
administration of—
insured mortgages, mortgagees guide,
11419
negotiated pension, health, and in-
surance plans, major collective bar-
gaining agreements, 11529
administrative management and super-
visory occupations, curriculum guide,
8530
AFROTC management control system,
1969 updating of data file, 13013
Air Force officer management activities,
survey and evaluation of professional
military educational requirements, 9330
analyzing manpower requirements using
statistical estimates, 8044
are you creative with people? forward-look-
ing program for business, 4360
Army National Guard management struc-
ture, financial administration, pamphlet,
9005
automatic data processing equipment at
NASA, 7505
career opportunities in Government Print-
ing Office for college graduates in print-
ing and personnel administration, 14557
civilian manpower management (periodi-
cal), 2784
Coast Guard auxiliary administrative
handbook, 12053
Commerce has management internship for
you, 6502
contractor data and reports, list, 49, 7960
cost, source of funds, expended for public
assistance payments, 11761, 17056
decision-making in operations research,
USSR study, 16760
Defense Department communications, im-
provement needed, GAO report, 18034

INDEX 1970

Administrative management—Continued
 economy in Government, property management and procurement of data processing equipment, hearing, 15815
 employee-management relations in Federal Service, improve, hearing, 1744
 equal employment opportunity policies, supervisors and personnel management guide, 9065
 executive management bulletin (series), 8044
 federally financed research, by University of Michigan, case study, GAO report, 16591
 financial management of Mint Bureau, operations needs improvement, GAO report, 4220
 fish and resident wildlife on Federal lands, by States, report, 1643
 Forest Service organization and management systems, summary from manual, 14455
 forms management office functions, AFM manual, 4830
 Government industrial plant equipment kept by Defense Department for possible future use, management should be improved, GAO report, 10147
 grants administration manual, 2697-98
 handling airspace matters, procedures, FAA handbook, 11285, 17961
 housing code administration and enforcement, 11259
 human equation, working in personnel for Federal Government, 3668
 improvement of State and local personnel administration—
 hearings, 17639
 report, 1608
 in-house and contractor management data, NASA data requirement descriptions (DRD) for acquisition, 8930
 integrated logistics support (ILS)—
 management guide, Army technical manual, 10743
 procedural guide, Army technical manual, 10745
 support integration, Army technical manual, 10744
 interim management control systems list, DoD handbook, 1771
 introduction to supervision—
 guide for instructors, 4972
 participant print-outs for use with course guide for instructors, 6476
 inventory management, bibliography, 7732
 Leninist principles of management in age of scientific and technical revolution, 11505
 logistics airlift system contracted for by Air Force, management, GAO report, 1893
 long-term care facility administration, case study manual, 6527
 loose administration and questionable justification of special cost of living allowance paid to certain civilian employees in Republic of Vietnam, by State Dept., GAO report, 10152
 low-rent housing, administration of program, HUD handbook, 1930
 management—
 facility management handbook, change, 13052
 improvements needed in U.S. financial participation in United Nations development program, State Department, GAO report, 7211
 literature survey, bibliography, 14844
 of magnetic tapes by Goddard Space Flight Center, National Aeronautics and Space Administration, further improvement needed, GAO report, 8723

Administrative management—Continued
 management—continued
 of military-owned household furnishings overseas, opportunities for improvement, GAO report, 717
 operating facility handbook, change, 63
 manpower, improved management in Federal Government, reports, 1565, 10992
 manpower, procedures handbook, 7990
 mental health systems, application of Operations Research, administrator's handbook, 7607
 military personnel, Air Reserve Forces personnel administration, 3433, 9333
 military personnel office management and administrative procedures, Army pamphlet, 17464
 modern court management, trends in role of court executive, 16817
 Monte-Carlo sampling techniques to evaluate multivariate normal integral, experimental comparison, 107
 NASA management issuances, master list, 8920
 national conference of Statistical Reporting Service, 17267
 national park system, policies, improve—
 law, 17601
 reports, 13409, 13660
 Navy management review (periodical), 2945
 Navy manpower and personnel management information system, improvement needed in reliability, GAO report, 11375
 new careers, National Center for Health Services Research and Development, 11753
 opportunities for improvement in administrative and financial operations of United States District Courts, Judicial Branch, GAO report, 16594
 opportunities for improvement in management of Government materials provided to overseas contractors, GAO report, 12580
 personnel bibliography series, 9476, 13205, 15696-697
 personnel, code of Federal regulations, 7107
 personnel literature, 3016
 personnel management—
 bibliography, 4662
 PACAF basic bibliography, 13029
 pay, national survey, 5822
 personnel management series, 12051, 13206, 14592
 personnel policies and practices, personnel bibliography series, 15697
 perspectives in defense management (periodical), 3017
 President's Commission on Personnel Interchange, report, 7709
 public management sources, 3109
 resources and work force management, civil engineering, Air Force manual, change, 9335
 radiological health programs, personnel responsible directory, 15139
 role of management and control systems, USSR study, 12851
 SIMPO-1 model development, summary of results, 9365
 small business management series, 12914, 18324
 small business, starting and managing series, 6154, 15159, 9104
 staff development, public welfare agencies, 1969 fiscal year, progress report, 17054
 staffing patterns in mental health facilities, 15017
 State operating budget, National Guard, financial administration in—
 formulation, 9004, 17062
 reviewing, 9003, 17061

Administrative management—Continued
supervisors and personnel administration
(series), 9065
technical publications acquisition manage-
ment, Air Force manual, 6332
transportation and traffic management,
Defense Supply Agency handbook, 8461
unit personnel officer's guide, Army pam-
phlet, 3475
Administrative Office of United States, an-
nual report, 12956
Administrative procedure, Government of-
fices, investigation, expenses, report, 5218
Administrators:
Federal tax guide for survivors, executors
and administrators, 5642
manpower, MDTA facts about good train-
ing, good jobs, 12501
representatives, Federal aviation regula-
tions, 621, 2571
see also Hospital administrators.
Admiral's House, quarters of chiefs of naval
operations, history, 2172
Admiralty, claims, Secretaries of military
departments to settle administratively,
report, 6676
Admiral, John R., nonlinear fluid oscillations
in partially filled axisymmetric container
of general shape, 11657
Adolescents, see Youth.
Adoption:
definition of term "child" in veterans'
laws, amend—
law, 10922
report, 8365
District of Columbia proceedings, amend
D.C. Code, report, 5128
ADP Management Training Center, manage-
ment of automatic data processing in Fed-
eral Government training programs, 13194
Adsorbents, sorbent regeneration of acti-
vated carbon, 16933
Adsorption:
effect of sulfur, oxygen and hydrogen sul-
fide surface films on adhesion of clean
iron, 7535
ethylene oxide and vinyl chloride on iron
(011) surface and effect of these films on
adhesion, 16996
new-ion-adsorption electrodes for demin-
eralization of saline water, research,
8804
physical, of nitrogen gas on polished sur-
face of 347 stainless steel at very low
pressures, 8944
prescaling deposition of scale forming
compounds on controlled surfaces,
tracer study, 5629
SO₂ sorption-regeneration reactions with
alkalized alumina, mathematical evalua-
tion, 14793
trace contaminant and sorbent regenera-
tion of activated carbon, 16933
Adult Development and Aging Branch, ex-
tramural activities, research grants, fel-
lowships, etc., 17135
Adult education, see Education.
Adult, Vocational, and Technical Education
Bureau, facts about, 12499
Adults:
adult development and aging abstracts,
2295
in District of Columbia, relieve from statu-
tory requirement of providing support
for parent who wilfully neglected to
provide support, etc., during child's
minority, report, 9679.
need for dental care, health statistics,
6014
public assistance programs—
improve—
bill form, 11117
brief summary of act, 13548
hearings, 8319, 9905
reports, 8227, 8252
related material, 13727

Adults—Continued
public assistance programs—continued
improve—continued
revision as resubmitted by Adminis-
tration, 1118
material related to Administration re-
vision, 17697
work and training provisions 17698
skinfolts, body girths, biacromial diam-
eter, and selected anthropometric in-
dices, 8013
Advanced figure sensors, 16944
Advanced Research Projects Agency:
ARPA-NBS program of research on high
temperature materials and laser ma-
terials, 7576
program of research on high temperature
materials and laser materials, 11737
Adventures in research, history of Ames Re-
search Center, 1940-65, 16953
Adverse action, law and regulations, an-
notated 2609
Advertising:
advertising alert, 2298
almond advertising under Federal market-
ing orders, report, 12227
broadcasting of advertising of cigarettes,
prohibit—
hearing, 496
law, 8181
reports, 1652, 6614
Cigarette labeling and advertising act,
amend—
hearing, 496
law, 8181
reports, 1652, 6614
housing, discrimination in sale and rental
property, new trend (remarks), 5609
salacious advertising, prohibit transporta-
tion by interstate facilities, including
mails, report, 13439
used in contracting for military construc-
tion, survey, GAO report, 14516
workers, employment outlook, 12665
see also Signs (advertising)—also names
of subjects advertised.
Advisory Commission on Federal Pay, estab-
lish, hearings, 13537
Advisory Commission on Freight Rates, es-
tablish, hearings, 13718
Advisory Commission on Intergovernmental
Relations:
annual report, 4795
appropriations, 1971—
hearings, 6693, 13710
law, 17608
general information, 1
State legislative program, 1970 cumula-
tive ACIR, 2
Advisory Commission on International Edu-
cational and Cultural Affairs, annual re-
port, 9622
Advisory Committee for Management of
Coastal Zone, establish, hearings, 16043
Advisory Committee on Drug Abuse Educa-
tion, see Drug Abuse Education Advisory
Committee.
Advisory Committee on Early Childhood
Programs, establish, hearings, 11031
Advisory Committee on Environmental
Quality Education:
create—
hearings, 13503
report, 15852
Advisory Committee on Federal Salaries, es-
tablish, hearings, 13537
Advisory Committee on Intergovernmental Re-
lations, appropriations 1971, report, 16009
Advisory Committee on the Arts, report on
cultural presentations, USA, 4729
Advisory Committee to High Commissioner
of Ryukyu Islands, abolish, agreement with
Japan, 15308
Advisory committees:
National Institutes of Health, public ad-
visory groups, authority, structure,
functions, 9022, 17143

Advisory committees—Continued
 Presidential, management and control, hearings, 9744, 13521
 public, Health Services and Mental Health Administration, roster of members, 1921, 8777
see also names of committees.
 Advisory Council on American Folklore, establish, hearing, 11136
 Advisory Council on Environmental Quality Education, establish, report, 18015
 Advisory Council on Historic Preservation :
 annual report, 17152
 membership, increase—
 law, 9607
 reports, 6612, 8363
 Advisory Council on Intergovernmental Personnel Policy, appoint, hearings, 17639
 Advisory Council on Spanish-Speaking Americans :
 establish—
 hearings, 1553
 law, 3751
 Advisory Council on State Departments of Education, Federal-State partnership for education, annual report, 14284
 Advisory Panel Against Armed Violence, report, 8390
 AE—CL series, 2402
 AEC, *see* Atomic Energy Commission.
 AEC—NASA tech briefs, 2921
 Aeration, aerobic treatment of fruit processing wastes, study of aerated lagoon, activated sludge, and activated sludge re-aeration, 10103
 Aerial mapping, cartographic photography, Army technical manual, 4865
see also Aerial photography.
 Aerial photography :
 ASCS maps, status, 17429
 change detection in aerial photo coverage as influenced by methods of comparison, 106
 color, evaluates mortality from impact of Douglas-fir tussock moth, 16582
 forester's guide to aerial photo interpretation, 4807
 image interpretation errors, large numbers, method for quantifying subjective costs, 15495
 image points on aerial photographs, electronic computer program to help in stereocomparator coordinate reduction, 15137
 look of our land, airphoto atlas of rural, U.S., 3394, 17431
 television cloud photography, meteorological satellite data, catalogs, 4095, 10030-31, 11277, 17954
 Aerial reconnaissance, *see* Reconnaissance (aerial).
 Aerial surveys :
 aerial sensing and photographic study of El Verde rain forest, P.R., 4067
 geologic interpretation of reconnaissance aeromagnetic survey of northeastern Alaska, 5539
see also Aerial photography.
 Aerial vehicles, *see* Aircraft.
 Aerobic treatment of fruit processing wastes, study of aerated lagoon, activated sludge, and activated sludge re-aeration, 10103
 Aerodynamic heating, thin radiating shock layer about blunt body, 7517
 Aerodynamics :
 acoustic and aerodynamic performance of 6-foot-diameter fan for turbofan engines, 14856
 aerodynamic decelerators, structural merit function, 2091
 aerodynamic load, design of light aircraft, study of published information, 7508
 axisymmetric bodies at zero and small angles of attack, discontinuous flows and free streamline solutions, 5942

Aerodynamics—Continued
 characteristics—
 air-cushion models at very low ground clearances and at free-stream dynamic pressures exceeding cushion pressures, 18209
 hypersonic, of 2 delta-wing X-15 airplane configurations, 911
 static, of attached inflatable decelerator models at Mach 3.0, 11662
 static, of systematic series of wings determined from subsonic wind-tunnel study, 11656.
 vehicle bodies at crosswind conditions in ground proximity, 16970
 X-24A lifting body aircraft, full-scale wind-tunnel investigation, 14874, 16969
 coupled roll-spiral mode effects on lateral-directional handling qualities, simulator study, 12769
 equivalent solid bodies to represent jets exhausting into Mach 2.20 external stream, experimental determination, 2099
 flight test results pertaining to space shuttlecraft, 18195.
 ionospheric, USSR study, 2004
 Mars entry probe-lander configurations at Mach 10 number, 5931
 nacelle aerodynamic effects on fan-jet transport model, flutter studies to determine for 2 mount systems and 2 wind tunnels, 16998
 noise, basic research, conference proceedings, 7526
 nonfriction braking systems for high-speed trains, 14381
 physics of aerodynamic noise, 949
 propulsion induced effects on aerodynamics of jet/STOL aircraft, review, 5936
 slender body decending through atmosphere, effects of nonrigidly support ballast on dynamics, 4522
 spinning slight cone with slight aerodynamic and mass asymmetries (reentry F), angle of attack analysis, 16972
 turbine aerodynamic and cooling requirement for turbojet powered Mach 3 transport using methane fuel, 14871
see also Air speed—Aircraft—Boundary layer—Drag (aerodynamics)—Flow—Heat transfer—Load (mechanics)—Propellers—Spacecraft—Stability of Aircraft—Wings (aircraft).
 Aeroelasticity :
 helicopter rotors in forward flight, method for determining characteristic functions associated with aeroelastic instabilities, 11615
 use of aeroelastically scaled model in technique for determining airplane aileron effectiveness and roll rate, evaluation, 933.
 Aeroembolism :
 disseminated intravascular coagulation in decompression sickness, discussion, 5844
 naval decompression concepts, Hills' alternative, critical review, 16883
 Aerogels, silica aerogel, wheat protectant against lesser grain borer attack in small bins, evaluation, 7924
 Aerology, aerological radar receiver, increasing sensitivity, USSR study, 7384
 Aeromagnetism, *see* Terrestrial magnetism.
 Aeronautical and associated equipment, *see* Aeronautical supplies.
 Aeronautical and Space Sciences Committee, Senate :
 calendar, 2814
 hearing, 481, 5257, 6780, 8375, 9883-84, 13705

Aeronautical and Space Sciences Committee, Senate—Continued
 investigations and studies, aeronautics and space activities, authorization, report, 5243
 reports, 8373, 9817, 16012
 Aeronautical charts, *see* Maps and charts.
 Aeronautical instruments:
 flight computer and language processor study, 14809
 VTOL flight-director concept during constant-speed instrument approaches, evaluation, 11684
 Aeronautical supplies:
 abbreviations for use on airborne equipment, military standard, 4028
 aeronautical and space systems, equipment and associated components, packaging, handling, and transportation requirements, 5982
 aircraft type certificate data sheets and specifications, 2322, 8588
 maintenance engineering analyses control numbers (MEACNS) and work unit codes for aeronautical equipment, uniform numbering system, military standard, 6877
see also Military supplies.
 Aeronautics:
 activities of Federal departments, etc., investigation, authorization, report, 5243
 adventures in research, history of Ames Research Center, 1940-65, 16953
 aeronautic navigation equipment, USSR study, 16784
 aeronautical research and development—
 hearings, 5182
 issues and directions, subcommittee report, 6844
 aeronautical science course of study, 4101
 aeronautics and space report, 1969—
 departmental edition, 4534
 document edition, 3774
 air commerce, effect of cargo loss and theft, report, 3925
 air service—
 lease of equipment, agreement with Germany, Federal Republic, 15321
 remarks, 8111
 air traffic patterns for IFR and VFR aviation, 11282
 airman's information manuals, 2324-26, 4102, 8589, 11283, 17957
 Alaska airman's guide and chart supplement (periodical), 2328
 America in space, first decade, 14836
 Army aviation digest, 3311
 Army aviation, meteorology applicable to, technical manual, change, 9357
 aviation battalion, group, and brigade, Army field manual, 4853
 aviation facilities expansion act of 1969, reports, 389, 1449
 aviation forecasts, 1970-81 fiscal years, 7057
 aviation maintenance technician schools, certification, Federal aviation regulations, 17959
 aviation news (periodical), 2557
 aviation operations, severe thunderstorm radar echo motion and related hazardous weather events, 11268
 aviation radio services, FCC rules and regulations, 2582, 8606
 aviation safety field trip, report, 3877
 aviation, where career opportunities are bright, student's handbook for filmstrip, 7006
 chronology on science, technology, and policy, 10374
 civil aeronautics promotion and encouragement (remarks), 3654

Aeronautics—Continued
 civil aviation—
 accidents, briefs (periodical), 2375
 accidents, preliminary analysis of data, 6077
 background material for national plan for navigation, 18367
 employment outlook, 14723
 world survey, Canada, 10783
 code of Federal regulations, 7117-18, 10069
 distance measuring equipment system at Plaisance Airfield, agreement with Mauritius, 7830
 FAA statistical handbook of aviation, 16472
 Federal aviation act—
 amend—
 hearing, 424, 8308, 12278, 13722
 reports, 12200, 13474, 15993
 enforcement procedures, Federal aviation regulations, 2571
 rule making procedures, Federal aviation regulations, 2571
 Federal aviation regulations, 620-624, 1842, 2570-75, 3242-43, 4105-7, 5403-6, 7061-63, 8592-99, 10042-44, 14357, 16473-474, 17959
 status, 5412
 flight procedures and airspace, 11287
 general aviation accidents—
 analysis data, 2168
 annual summary, 2169
 general aviation public airport financial 1969 survey, FAA's report, 6342
 inspection aids, general aviation, summary, 16526
 international notams, 2763
 key to aviation weather reports, etc., 18401
 memorandum for aviators, 2877
 National aeronautics and space act of 1958, amend report, 16012
 national aviation system—
 FAA policy summary, 5411
 FAA 10 year plan, 5410, 7069
 planning review conference, Apr. 14-17, 1970, summary report, 14362
 naval aviation in World War I, 1022
 naval aviation news, 2937
 naval aviation safety review, 2340
 Pacific chart supplement (periodical), 3003
 pilots and mechanics in civil aviation, 1967-77, study of manpower requirements, 12707
 plane sense, general aviation information, 12517
 reliability program provisions for aeronautical and space system contractors, 8956
 roll of general aviation in national transportation system, hearings, 8381
 safety is our business (remarks), 1006
 SRDS program, goals, achievements, trends, 9217
 visibility measurement for aviation use, 18378
 where we stand in aviation safety (remarks), 1007
see also Air navigation—Aircraft—*also* certain headings beginning Air.
 Aeronomy Laboratory, ESSA technical report ERL-AL series, 1818, 4088
 Aerophotography, *see* Aerial photography.
 Aeroradioactivity survey—
 and areal geology of Minnesota-Saint Paul area, Minn.-Wis., 8011
 and related surface geology of Chicago area, Ill. and Ind., 17472
 Aerosols.
 revaccination of experimental animals, USSR study, 12640
 sodium chloride aerosols used in respirator filter penetration, 11588
 toxicity to larch casebearer larvae, 18020

INDEX 1970

- Aerospace, *see* Outer space.
 Aerospace food technology, 14837
 Aerospace industries, aerospace companies, backlog of orders, current industrial reports, 15624
 Aerospace maintenance safety, 2299
 Aerospace medicine, *see* Medicine.
 Aerospace Research Office:
 index of research results, 54
 OAR progress 1969, 1210
 OAR series, 54, 1210
 research review (periodical), 2978
 Aerospace safety (periodical), 2301
 Aerospace science, *see* Science.
 Aerospace vehicles, *see* Spacecraft.
 Aerothermodynamics, heat-transfer rate and pressure measurements obtained during Apollo orbital entries, 18211
 AFICRL, *see* Air Force Cambridge Research Laboratories.
 AFDC, *see* Children—Families—Public welfare.
 Afghanistan:
 Afghanskiy Badakhshan, geologic structure of Sheva River basin, USSR study, 16766
 economic trends and their implications for United States, 14623
 economy, basic data, 17564
 labor law and practice, 814
 Rudikarokh River, geological structure, USSR study, 16756
 technical cooperation, agreements, 6246, 17344
 tectonic zoning, USSR study, 16762
 AFHRL, *see* Air Force Human Resources Laboratory.
 AFQOT, *see* Air Force.
 AFOSR, *see* Air Force Office of Scientific Research.
 Africa:
 Africa and U.S. in 70's, 9185
 African countries' economic development plans, digest, 4993
 African series, 8185, 11894
 agricultural production, 1960-69, indices, 6997
 agricultural situation, 1969 review and 1970 outlook, 8503
 civil divisions, geographic report, 2240
 contributions to hydrology of Africa and Mediterranean region (series), 8758
 Eastern, accessions list, Library of Congress, Nairobi, Kenya, 14751
 foreign relations of U.S.—
 departmental edition, 1143
 document edition, 324
 market profiles, 17562
 mineral industry, minerals yearbook chapter, 7468
 northwest, sailing directions, change, 7672
 southeast coast, sailing directions, change, 4606
 southern, special study mission, reports, 390, 3863
 print additional copies, reports, 9696, 13634
 Sub-Saharan Africa, guide to serials, 16875
 this new dialogue, 11894
 translations, 3269
 west coast—
 feasibility of monitoring oceanic front from satellites, 3709
 lights and fog signal, list, change, 10488
 tide tables, 10853
 West, nautical charts and publications, catalog, 7670
 Afro-Americans in Far West, handbook for educators, 11200
 AFSC, *see* Air Force Systems Command.
 Aftereffect, *see* Spiral aftereffect.
 Afterglow, ESSA flowing afterglow system, reaction rate constants measured compilation, 4068
 Agar, medium, alkali sacaton seedlings, germination and survival, 5504
 Age:
 and sex characteristics of civil service annuitants in relation to social security, 17279
 average, at death of scientists in various specialties, 10317
 discrimination in employment act, 15386
 population, estimates of States, 3639
 Aged:
 aging (periodical), 2302
 beneficiaries, interstate migration, 7750
 designs for action for older Americans, 12959
 food guide for older folks, 12980
 health insurance—
 amounts reimbursed, by—
 State and county, list, 4670
 State, lists, 9111-12
 number of hospital and extended care facility admissions by State, 18330
 participating health facilities, 11857
 people 65 or older, brief explanation of medicare, 12924
 persons insured, July 1, 1968, list, 9113
 health insurance for the aged, 7748, 9109-10
 hospital utilization and average daily costs as indicated by data from hospital insurance program and American Hospital Association, 15165
 housing, rental and co-op, loans for senior citizens in rural areas, 10696
 income tax overpayments by the elderly, hearing, 16033
 legal problems affecting older Americans, working paper, 12357
 mortality before and after medicare, 15164
 nutrition and the aged, hearings, 3984
 older Americans—
 Federal programs, sources of community support hearings, 17686
 tax benefits, 5667
 older persons, feet first, foot care booklet, 14569
 outlays for medical care, 1966-69, fiscal years, 11860
 project report on countywide information and referral, designs for action for older Americans, 15395
 project report on employment referral, designs for action for older Americans, 5
 senior centers, national directory, 9274
 senior citizens, HUD programs of interest, 757
 statewide community organization, 12959
 toward a brighter future for the elderly, report of President's Task Force on Aging, 11832
 usefulness of model cities program to the elderly, hearings, 6784
 working with older people—
 biological, psychological and sociological aspects of aging, guide to practice, 9568
 guide to practice, aging person, needs and services, 17570
 young girl scout, older American, service to each other, 9275
 see also Aging—Gerontology.
 Agency for International Development, *see* International Development Agency.
 Agents, *see* Reagents.
 Aging:
 adult development and aging abstracts, 2295
 Adult Development and Aging Branch, National Institute of Child Health and Human Development, extramural activities, research grants, fellowships, etc., 17135
 basic concepts, programmed manual, 12958

Aging—Continued

- development in 1969, report, 9871
- print additional copies, report, 11071
- economics of aging, toward a full share in abundance—
 - hearings—
 - central suburban area, 9885
 - conference of national organizations, Washington, D.C., 13706
 - consumer aspects, 1697
 - employment aspects, 13706
 - health aspects, 3947
 - homeownership aspects, 6781
 - international aspects, 12356
 - pension aspects, 16032
 - working paper, 8376
 - employment aspects of economics of aging, paper, 482
 - every 10th American is an older American, program of Aging Administration, 9273
 - facts on aging, 15396
 - long term-care under medical, trends, hearings, 8783
 - maturation and aging program, progress 1963-70, report, 18264
 - publications, price list, 8132
 - White House Conference on Aging, 1961, toward a national policy on aging, fact sheet, 17414
 - see also* Aged
- Aging Administration, program, every 10th American, is an older American, 9273
- Aging, President's Task Force on, *see* President's Task Force on Aging
- Aging, Special Committee on, Senate:
 - committee prints, 482, 8376, 12357
 - continuing authority, etc., report, 5236
 - developments in aging, 1969, report, print additional copies, report, 11071
 - hearings, 1697, 3947, 6781-84, 9885, 12356, 13706, 16032-33, 17686
 - investigations and studies, expenses, report, 456
 - report, 9871
- Aging, White House Conference on, *see* White House Conference on Aging
- Agnew, Spiro T., remarks, Apr. 23, 1970, 10512
- Agrall, Selman N., Turkish graded reader, 11904
- Agrico Chemical Co., motor carrier accident, 887
- Agricultural adjustment act, *see* Agriculture
- Agricultural attache:
 - his history and his work, 16531
 - role in maximizing U.S. farm product export (remarks), 9323
- Agricultural commodities, *see* Agricultural products
- Agricultural commodity graders, *see* Graders
- Agricultural conservation program:
 - Arkansas, 1970 program, State program handbook, 6297
 - 1969 accomplishments, 6295
 - South Carolina, handbook, 15411
 - Virginia, 17430
- Agricultural credit:
 - Bankhead-Jones farm tenant act amend—
 - hearing, 11018
 - law, 13318
 - report, 6772
 - export credit sales program—
 - general information, 8580
 - how it works, 8170
 - regulations covering export financing of sales of agricultural commodities, 8581
 - farm and credit, 1970 outlook, 11279
 - farm credit system—
 - functions and organization, 4099
 - in 70's appendix, 8583
- Agricultural economics, *see* Agriculture
- Agricultural experiment stations:
 - Hatch experiment station act, administrative manual, 15414

Agricultural experiment stations—Continued
regional cotton variety tests, results, 10677

- States—
 - funds for research, 8449
 - professional workers, list, 6298
- Agricultural finance, *see* Agriculture
- Agricultural implements, *see* Farm implements and machinery
- Agricultural insurance, economic considerations in crop insurance, 12493
 - see also* Hall insurance
- Agricultural lands, *see* Land
- Agricultural machinery, *see* Farm implements and machinery
- Agricultural marketing (periodical), 2304
- Agricultural marketing agreement act, *see* Agricultural products
- Agricultural outlook, *see* Agriculture
- Agricultural policy, *see* Agriculture
- Agricultural processing, agricultural handling and processing industries evaluation of overtime exemptions available under Fair labor standards act, data, 9263
- Agricultural products:
 - Africa and Near East, 1960-69, indices, 6997
 - agricultural commodities, agreement with—
 - Congo (Kinshasa), 4734, 17354
 - Dominican Republic, 12939, 12360-361
 - Ecuador, 15305
 - Ghana, 15323
 - Guinea, 4750
 - India, 6226, 15302, 17349
 - Indonesia, 6237, 7831, 9201, 15333
 - Israel, 12941, 18350
 - Jordan, 18358
 - Korea, Republic, 10614, 10626
 - Lebanon, 18357
 - Liberia, 18351
 - Morocco, 4754
 - Pakistan, 4737, 6245, 6252
 - Philippines, 10625, 15318
 - Tunisia, 6249
 - Turkey, 1151, 4752, 6240, 10627
 - Uruguay, 15306
 - Vietnam, 1156, 4745, 4749, 6241-42, 7823, 9202, 10628, 15310, 15320, 15325
 - agricultural commodities imported, economic poison standards, report, 12253
 - agricultural commodity programs, hearings, 6785
 - agricultural imports, Japanese efforts to diversify sources, 8506
 - agricultural marketing (periodical), 2304
 - Agricultural marketing agreement act, amend—
 - hearings, 396, 15882
 - laws, 5055, 13316, 13337, 15774
 - reports, 383, 1623, 3841, 3844, 5110, 5113, 5197, 6773, 12223, 12225, 12227, 12247, 17685
 - agricultural prices (periodical), 2306
 - agricultural production trends, Sakon Nakhon, Thailand, preliminary analysis, 16412
 - agricultural productivity, Colombia, 16387
 - ASCS commodity fact sheets, 2353
 - can marketing order help? 7934
 - Canada's agricultural trade and production, 1959-69 trends, statistical look at Canadian-U.S. competition, 16383
 - CCC monthly sales list, 2393
 - commodities containing economic poisons, prohibit importation, hearing, 11017
 - Commodity exchange act, as amended, general regulations, 5015
 - commodity futures statistics, monthly summary, 2909
 - commodity operations, glossary of terms used in ASCS and related programs, 13

INDEX 1970

Agricultural products—Continued

Egg product inspection act, Federal-State cooperation in administration—
hearings, 1699, 17631
report, 6198
exports, bibliography, 18006
Federal stockpile inventories, report, 2293
food and agricultural exports directory, 10111
forecasting warehouse produce movement, 15398
foreign trade—
by commodities, 9981
by countries, 7005, 8508, 11198
export credit sales program, how it works, 8170
monthly, 2655
guarding our agricultural resources in jet age, 15442
handbook of agricultural charts, 14, 17432
improved procedures for determining malathion residues, 4800
Japan's farm commodity market, view of U.S.-Australian competition, 6999
labor disputes interfering with flow of agricultural commodities to consumers, settling, hearings, 9886
license fees under Perishable commodities act of 1930, increase, law, 3721
Marketing act of 1946 and regulations thereunder, 3992
marketing bulletins, 7922-23, 11953, 12988, 15433
marketing research reports, 1199, 3408-9, 4819-21, 7924-25, 9301-7, 10688-691, 12989-993, 15434-438, 17442-445
orderly liquidation of stocks of agricultural commodities held by Commodity Credit Corporation and expansion of markets for surplus agricultural commodities, 10694
Perishable agricultural commodities act—
fair trading in fruit and vegetable industry, 4824
text and regulations under act, 5293
what food retailers should know, 6311
preharvest research for certain commodities, authorize, reports, 383, 5110, 5113
price supports Commodity Credit Corporation program data, 2429
prices, 1969 annual summary, 11905.
production research reports, 4825, 9322, 10702-703, 13002-3
production research under marketing agreement and order programs, authorize—
law, 12118
report, 9845
regional wholesale distribution facilities for Blair County, Pa., 4820.
regulations covering export financing of sales, under CCC export credit sales program, 8581
stored-product insects, toxicity of new insecticides, 17442
tropical products, foreign agriculture circulars, 2657
U.S. agricultural exports to Jamaica, prospects, 574
U.S. import duties, 3393
USDA grades to help you choose, 1747
posters, 12391
USDA standards, list, 4808
value of farm products sold per acre of land in farms, by counties—
1964, map, 15664
percent change, 1939-64, map, 15665
vegetable products, trade and tariff information summaries, 4766
Western Hemisphere, excluding United States and Cuba, revised, 1960-68, preliminary, 1969, indices, 6996
world agricultural production and trade, statistical reports 3365, 4176

Agricultural products—Continued

world demand prospects in 1980 for agricultural exports of less developed countries, 9979
see also animal products.
Agricultural research, *see* Agriculture.
Agricultural Research Laboratory, University of Tennessee, research progress report, 1263
Agricultural research scientists, examination announcement, discontinuance notice, 8121
Agricultural Research Service:
appropriations, 1970—
law, 1392
report, 1482
appropriations, 1971, hearings 8266
ARS series, 6, 1187-92, 3371A-79, 4797-4803, 6287-39, 7902-7, 9276-81, 10677-680, 12960-962, 15397-402, 17419-424
Easter Experiment Station collaborators conference on human nutrition abstracts and summaries, 7905
pesticides registration authority, transfer functions to Environmental Protection Agency—
hearings, 15911, 16057
report, 15374
Plant Protection Division, Western Region cooperative programs, 12965
poster, 15404
profile of scientists in research activities, grade, education, etc., 17428
Stored-Products Insects Research Branch publications available, 7909
utilization research and development, 1969 summary, report, 12966
Agricultural residues, *see* Waste products.
Agricultural science review, 2308
Agricultural situation, *see* Agriculture.
Agricultural Stabilization and Conservation Service:
aerial photography status maps, 17429
annual reports—
Caribbean area, 4805
Massachusetts, 12967
Montana, 12971
Nevada, 3385
Pender-New Hanover Counties, N.C., 11945
West Virginia, 12968
appropriations, 1970—
law, 1392
report, 1482
appropriations, 1971, hearings, 9724,
ASCS and related programs, glossary of terms, production adjustment, price support, commodity operations, export operations, conservation and land use, 13
ASCS background information BI series, 12969
ASCS commodity fact sheets, 2353
press releases, 3035
subsidy payments under U.S. sugar program, procedures to be improved for determining what constitutes farm for purpose of, GAO report, 7216
Agricultural statistics, *see* Agriculture.
Agricultural supplies, Federal item identification guides for supply cataloging, supplement, 2495
Agricultural trade development and assistance act of 1954
amend, reports, 369, 6586, 15844, 16007, 17626
Library of Congress project newsletter, 2834
Library of Congress Public Law 480 project accessions list—
Ceylon, 2286
India, 2287
Indonesia, 2288
cumulative, list of serials, supplement, 14752
Israel, 2289
Middle East, 2290

Agricultural trade development and assistance act of 1954—Continued
Library of Congress Public Law 480 project accessions list—Continued
Nepal, 2291
Pakistan, 2292
Agricultural workers, *see* Farm labor.
Agriculture:
Academy of Agricultural Sciences, USSR, meeting, 5741
Africa and west Asia, situation, 1969 review and 1970 outlook, 8503
Agricultural act of 1949, amend law, 9598
Agricultural act of 1956, amendments, hearings, 3846
Agricultural act of 1970—
hearings, 6785
reports, 15844, 16007, 17626
Agricultural adjustment act, amend—
hearings, 396, 15883
laws, 1387, 5055, 8179, 12112, 13316
reports, 1624, 3835, 3841, 3844, 5197, 5207, 6615, 9685, 11084, 12223
agricultural aircraft operations, Federal aviation regulations, 14357
agricultural chemicals, census of manufactures, 1967, industry statistics, 15600
agricultural conditions and prospects (address), 12973
agricultural economic reports, 1785, 4040-42, 5337-38, 6989-93, 8496-97, 9969-71, 11190-194, 14265-267, 16378-380
agricultural economics, reports issued by Economic Research Service and Statistical Reporting Service, checklist, 2402
agricultural economics research (periodical), 2303
agricultural finance review, 4043, 11195 supplement, 5339
agricultural labor legislation, hearings, 16071
Agricultural marketing and bargaining act of 1969, hearings, 3948
agricultural outlook digest, 2305
agricultural prices (periodical), 2306
agricultural prospects in Chile, report, 8502
agricultural provisions of Fair labor standards act, farmers' guide, 9264
agricultural quarantines for science fair participants, guide, 1193
agricultural research (address), 10
agricultural research (periodical), 2307
agricultural research, toward the new, report on better foods and nutrition, report, 7913
agricultural sciences—
professional careers with Federal Government, 17556
review, 2308
agricultural situation (periodical), 2309
agricultural situation in Communist areas, review and outlook, 7001
agriculture handbooks, 11-14, 3393-95, 4806-8, 6298-6301, 11946, 10682-683, 12974-978, 15412-414, 17431-32
agriculture information bulletins, 15, 3396-98, 7913-14, 10684, 11947, 12979
Algeria's agricultural economy in brief, 16382
Arkansas River multiple-purpose project, agricultural aspects, annual report, 10562
balance sheet, farming sector, 3398
bibliography, 2368
business potentials for agriculture in Tennessee Valley region, 1174
Caribbean prospects, 7003
census, 1969—
brief information, 153
publication program, 9417
census publications, price list, 11836
child labor, requirements under Fair labor standards act, 11935

Agriculture—Continued
civil rights, management, automation, multiple frame, program evaluation, research, Statistical Reporting Service, national conference, 17367
code of Federal regulations, 5436-41, 7108-15, 8638, 10064-65
conservation agronomy technical notes, 17286
contour farming, general information, 9133
corporation farming, impact on small business, report, 3931
decisions, 2310
document retrieval subject index, Foreign Agricultural Service, 8678
domestic and international agricultural activities (address), 3389
Eastern Europe's agricultural development and trade, patterns and perspectives, 14273
economic progress in developing nations, 9978
economics, reports and publications, list, 4045
employment outlook, 14715
European Community's common agricultural policy, implications for U.S. trade, 573
exemptions related to agriculture under Fair labor standards act, 17408
experimental agricultural watersheds, hydrologic data, 12996
facts for prospective farmers, 7917
fair practices act of 1967, amend, hearings, 3948
Far East and Oceania situation, 1969 review and 1970 outlook, 8505
finance outlook, 4047
food costs and farm prices, compilation of related information, 15884
foreign agricultural economic reports, 573-574, 5341, 7003, 9978-79, 11197, 12495-496, 14273, 16386-387
Foreign Agricultural Service, miscellaneous FAS-M series, 666, 5477, 8679-81, 10110-11, 11340-342, 14424, 16531-532, 18005-6
foreign agriculture (periodical), 2656
foreign agriculture circulars, 2657
foreign agriculture report, 1873
Guam, agricultural services, extend, report 9846
guarding our agricultural resources in jet age, 15442
Haiti's agriculture and trade, 6998
handbook of agricultural charts, 14, 17432
Hong Kong's expanding agricultural imports, projections, 9975
industry, machinery, trade and tariff information summaries, 6262
market oriented agricultural policy (remarks), 3407
maximum production, program to attain in An Giang Province, Viet-Nam, 5373
Minute Man National Historical Park, Mass., farming and land uses, general study, 12868
miscellaneous bills, hearings, 3847
operating loans for better farming, better living 7931
opportunity (address), 3390
outlook (talk), 8507
production and efficiency, statistical series of Agriculture Dept., 6300
prospects in 1970's (address), 7912
Puerto Rico, general agriculture industry, data pertinent to review of minimum wage rates, 4787
rethink and re-assess special role (address), 7911
role, changes must include entire farming community (address), 3391
scientific research in Soviet agricultural institutes, USSR study, 7353
statistical summary, 3229

INDEX 1970

Agriculture—Continued

- statistics, 9284
- technical assistant, examination announcement, 15699
- United States—
 - fact book, 6307
 - statistical comparison with Soviet Union, study, 8501
- Upper Volta's agricultural economy in brief, 8500
- Uruguay, survey, 7002
- USSR, translations, 3280
- western Europe situation, 1969 review and 1970 outlook, 7000
- western Hemisphere, 1969 review and 1970 outlook, 8504
- Western Region Agronomy Workshop, summary, 10572
- who shall reap? film on pest control, announcement, 3429
- world agricultural production and trade, statistical reports, 3365, 4176
- world situation, 1969 review and 1970 outlook, 5341
- yearbook, 1969—
 - departmental edition, 18
 - document edition, 325
- see also Agricultural products—Farm labor—Farmers' cooperative organizations.
- Agriculture and Forestry Committee, Senate:
 - calendar, 2815
 - hearings, 483-484, 1698-99, 3948-49, 6785, 9886-87, 11103, 13707
 - reports, 1623-24, 3841, 3933, 5197-98, 5200, 5207, 5251, 6772-73, 9844-46, 11084, 11086, 11100, 15991, 16007, 16021, 16035, 17684-685
- Agriculture Committee, House:
 - calendar, 2796
 - committee prints, 3848, 15884
 - hearings, 396, 1568-69, 3846-47, 8265, 9723, 11017-19, 12257, 13490-491, 15882-883, 17631-632
 - history, print as House document, reports, 9700, 13632
 - investigation and studies, expenses, report, 8233
 - 150th anniversary, brief history, 13364
 - reports, 369-370, 382-383, 1480, 3781-83, 3830, 3835, 5110, 9685, 12209, 12223-227, 12247, 12253, 12255, 13418, 13425, 13646, 13479, 15844
- Agriculture Department:
 - acceptance service for meat and meat products, 12988
 - annual report, 13005
 - appropriations, 1970—
 - law, 1392
 - report, 1482
 - appropriations, 1971—
 - amendment, proposal, report, 13570
 - hearings, 8266, 9724, 11104
 - reports, 10983, 12342, 12254, 13645
 - budget, 1970, amendments, proposal, 3898
 - budget, 1971, amendments, hearings, 9724
 - chemical compounds authorized for use under USDA poultry, etc., inspection programs, lists, 528, 11154
 - color filmstrips and slide sets, lists, 12994
 - employees, planning your retirement, guide, 17446
 - field staff, Foreign Service list, 2662
 - food donation programs, 11954
 - food inspection role, need to reassess, GAO report, 11377
 - food stamp program, more food, better diets, for low income families, 38
 - guide to understanding, 15106
 - how it serves people on farm and in community, Nation, world, 9317
 - institutional meat purchase specifications approved—
 - edible by-products, 1748
 - fresh beef, 5288

Agriculture Department—Continued

- institutional meat purchase specifications approved—continued
 - fresh lamb and mutton, 12386
 - portion-cut meat products, 5289
 - sausage products, 6829
- lamb, USDA yield grades, 11953
- land conveyance to Board of Education of Lee County, S.C., law, 3724
- leaflets, 21-25, 1197-98, 4817-18, 7918-21, 9299-9300, 10687, 12985-987, 15430-432, 17440-441
- marketing agreement and order programs, administrative costs, payment by handler assessments, hearings, 396
- marketing bulletins, 7922-23, 11953, 12988, 15433
- marketing research reports, 26-28, 1199, 4819-21, 7924-25, 9301-7, 10688-691, 12989-993, 17442-445
- meat inspection procedures manuals, 2866, 5290
- meat inspection regulations, 3136
- miscellaneous publications, 29-32, 1200, 3410-16, 4822, 6307-8, 7926-30, 9308-12, 10692-693, 12944-997, 15439, 17446
- need to strengthen procedures for managing certain delinquent borrower accounts, GAO report, 1897
- nutrition and human needs, progress report, hearings, 16082
- Organic act of 1944, amend, reports, 13418, 16021
- PA [program aid] series, 33-42, 1201-2, 3417-25, 4823-24, 6309-13, 7931-35, 9313-21, 10695-701, 11954-959, 12998-13000, 15441-445
- plants under continuous inspection, processed fruit and vegetables, etc., list, 16094
- poultry and egg inspection and grading programs, plants operating, list, 8444
- press releases, 3036
- production research reports, 4825, 6315, 9322, 10702-703
- publications and motion pictures, bi-monthly list, 2369
- registered agricultural pesticide chemicals, insecticides, repellants, acaricides, summary of uses, 3383
- service, USDA's report to consumers (periodical), 3195
- slaughter swine and feeder pigs, USDA grades, 15433
- statistical bulletins, 44, 3427, 4826-27, 6316-18, 7942-44, 9324-25, 10704-708, 13006-7, 15446, 17447
- statistical series, how constructed and used, 12, 6300, 11946, 15412
- technical bulletin, 45, 1204, 3428, 4828-29, 6319, 7946-47, 9326-28, 10709, 13008, 15447
- telephone directory, 7948
- U.S. financial participation in Food and Agriculture Organization of United Nations, GAO report, 724
- USDA employee newsletter, 3316
- USDA grades to help you choose agricultural products, 1747
- posters, 12391
- USDA standards for food and farm products, list, 4808
- Youth Conservation Corps, establish, law, 13345
- Agriculture trade development and assistance act of 1954, P.L. 480, concessional sales, history, procedures, negotiating and implementing agreements, 16386
- Agronomy, see Agriculture.
- Agua Tibia Primitive Area, Calif., mineral resources, 12588
- Ah Mee Locke, see Locke, Ah Mee.
- Ahmed, Paul I., changes in cigarette smoking habits, between 1955-66, 10448

AIB series, 15, 3396-98, 7913-14, 10684, 11947, 12979
 AID, *see* International Development Agency.
 Aid to families with dependent children, *see* Children—Families—Public welfare.
 Aid to the blind, *see* Public welfare.
 Aid to the permanently and totally disabled, *see* Public welfare.
 Aides, Internal Revenue Service, begin your professional career, 5634
 Aids to navigation, *see* Navigation.
 Aiello, Paolo, PEC reactor, 114
 AIF, *see* Atomic Industrial Forum.
 Allerons, techniques for determining airplane alleron effectiveness and roll rate by using aeroelastically scaled model, evaluation, 933
 Air:
 air tower pressure gages in suburban Washington, D.C., accuracy, 2139, 7575
 doped with SF₆, as condition for thermal defocusing of CO₂ laser beam, 17193
 exploratory heat-transfer measurements at Mach 10 on 7.5° total-angle cone downstream of region of air and helium transpiration cooling, 2100
 Federal plan for clear air turbulence, 4094
 forced-air precooling of citrus fruit on moving conveyor, 9279
 friction and wear of steels in air, 16966
 hydrogen-air constant-pressure combustion, analytical chemical kinetic study of effects of carbon dioxide and water vapor, 10402
 inviscid radiating shock layers about spheres traveling at hyperbolic speeds, errata, 17008
 louvered devices as air mixers, performance, 8979
 moist, thermodynamic properties, skeleton tables, 5998
 nocturnal air temperature on forested mountain slope, 5514
 open air testing of lethal chemicals, environmental dangers, report, 392
 permeability studies of lightweight coated fabric subjected to uniaxial tensile loads with and without prior cycling, 14873
 sealing coal mines to reduce water pollution, 5885
 stratospheric air sample volumes, calculation of, 123
 thermophysical properties of air from 0 to 300K, bibliography, 962
 turbine air cooling methods, analysis of capabilities and limitations, 16991
 see also Air pollution—Atmosphere.
 Air almanacs, *see* Almanacs.
 Air brakes, *see* Brakes.
 Air carriers:
 air service (remarks), 8111
 air taxi operators and commercial operators of small aircraft, Federal aviation regulations, 5406, 7063, 8598, 14357
 air transport services, agreement with—
 China, Republic, 4743
 Congo (Kinshasa), 18349
 Iceland, 15326
 Jamaica, 4740
 Japan, 6229
 Lebanon, 18360
 Malaysia, 9199
 Mexico, 17351
 Morocco, 15311
 Netherlands, 7819
 Portugal, 18355
 Thailand, 7834
 air transportation—
 industry (remarks), 234
 problems in America, message from the President, 326
 airline service in U.S.A., 4779
 airline statistics handbook, 10837
 airworthiness certification and related approvals, change, 8600

Air carriers—Continued
 analytical charts and summaries, including supplemental air carrier statistics, 2311
 antihijacking proposal, revenue aspects, hearing, 15946
 aviation safety field trip, report, 3877
 cargo shipments, effect of loss and theft, report, 3925
 certificated—
 accounts and reports, uniform system, 3308
 route and supplemental, accidents, accident rates and fatalities, 6072
 subsidy, 240
 certification and operations, Federal aviation regulations, 620, 5404, 7061, 8596, 10043, 16474
 certified route, airport activity statistics, 617, 16469
 Civil Aeronautics Board role (remarks), 15678
 commercial, supersonic boom, high altitude and public interest aspects (remarks), 7660
 extending scheduled airline service to smaller communities (remarks), 1343
 financial statistics—
 quarterly and 12-month, 2312
 supplement, 2311
 foreign operations, Federal aviation regulations, 16474
 guards, training and salary financing of guards to prevent skyjacking, hearing, 17699
 how flying gets better (remarks), 237
 international, convention on offenses committed on board aircraft—
 implement—
 hearings, 424, 9901
 report, 13889
 multilateral agreement, 2245
 local air transport, overview (remarks), 15675
 local service, unit costs, 3653, 8106
 maintenance certification procedures, FAA handbook changes, 5407A, 8601
 operations inspector's handbook, 7067
 opportunity for savings by improved selection of air carriers for transporting military cargo, Defense Dept., GAO report, 11378
 possible merger agreements between trunk and local service carriers as means of providing better public service (remarks), 239
 prevent hijacking (remarks), 15677
 rural communities role (address), 13186
 safeguarding classified information, industrial security manual, carrier supplement, 8457
 safety of air travel (remarks), 7660
 scheduled air carriers, certification and operations, Federal aviation regulations, change, 5405, 7062, 8597, 16474
 supplemental, inclusive tours, CAB special regulations, 10838
 tariffs, filing with Civil Aeronautics Board required, hearings, 9757
 taxiways design standards for airports served, 14358
 traffic statistics—
 monthly and 12-month, 2313
 supplement, 2311
 transportation of dangerous articles, etc., Federal aviation regulations, 2573
 trunk line, air transportation developments in the 70's (remarks), 17545
 U.S. accidents, 1968 annual review, 9035
 U.S. carriers, list, 15674
 U.S. operations, 1968 analysis of aircraft accident data, 10480
 Washington, D.C., air routes play important role (remarks), 8110
 Air commerce, *see* Aeronautics.

INDEX 1970

Air conditioning:
 equipment, Federal item identification guides for supply cataloging, supplements, 2593
 special trade contractors, census of construction industry, 1967, statistics, 13124
 standard equipment, if better houses can be built less expensively (remarks), 759
see also Cooling systems.
 Air conditioning mechanics, *see* Mechanics (persons).
 Air controlmen, *see* Airport-control tower operators.
 Air crews, *see* Flight crews.
 Air-cured tobacco, *see* Tobacco.
 Air cushion vehicles, air cushion models at very low ground clearances and at free-stream dynamic pressures exceeding cushion pressure, aerodynamic characteristics, 18209
 Air drop operations, airdrop of supplies and equipment, Army manuals, 101-104, 3464, 4567, 6362, 13058
 Air ducts, *see* Pipe and pipe fittings.
 Air flow, *see* Flow.
 Air Force:
 A-7D brake problem, hearing, 8192
 aeronautical charts, latest editions, 2792
 air defense of southeastern United States, report of subcommittee, 5143
 Air Force civil engineer (periodical), 2314
 Air Staff, organization chart, 2318
 aircraft, lithographic series, 7965
 airman, official magazine of Air Force, 2323
 airmen, occupational handbook, manual for guidance counselors, 9342
 all the way from the ground up, ROTC program, career information, 13025
 armed services procurement regulations supplements, 2721, 5315-17, 6870-74, 8479, 9956-87
 biomedical sciences, career opportunities, 9339
 career indications among junior officers, 10711, 15452
 challenge for the bold in Air Force, 11961, 15460
 combat squadrons, World War II, 1209
 comptroller (periodical), 2315
 decorations, service awards, etc., manual, 48
 dental activities administration, manual, 4836
 design manual, design policy and procedures, facility design and planning, 4832
 driver, traffic safety magazine, 2515
 educational opportunities, 11962
 enlisted personnel, airman classification manual, Air Force manual, 1205-6, 9334
 equipment maintenance management, manual, 4831
 foreign military sales, logistics, manual, 4837
 general information on strategic, tactical, and defensive power, 6337
 illegal expenditure of funds for construction of research facilities, GAO report, 5530
 instructors journal, 3315
 job inventories, construction and administration, 7952
 line officers, graduate education, 10712
 lithograph series, 7964-65, 10724-725
 manpower determinants, 3432, 10714-715
 medical airman's manual, Air Force manual, 4835
 medical planning for disaster preparedness, medical service, manual, 13018
 military supply system, concepts, methods and operations, hearings, 3866, 15907

Air Force—Continued

officer management activities, survey and evaluation of professional military education requirements, 9330
 officer training school, start at the top, 6335
 officers, general information, 3444
 officers, qualifying test—
 development and standardization of form K, 13014
 equivalence of AFQOT scores for different educational levels, 10710
 Pacific, PACAF basic bibliographies, 13026-29, 15462-463
 personnel, casualty services, manual, 15453
 procurement instruction, revisions, 2316
 propulsion units, logistics management, policy and guidance, manual, 3438
 register—
 departmental editions, 6330-31
 document editions, 6567-68
 scientific research, 1965, bibliography, 47
 Tachikawa Air Base, Japan, employees, relief, 1603, 5043
 technical publications acquisition management, 6332
 Thailand, servicemen's clubs, activities, allegations of kickbacks and other irregularities, hearing, 13714
 tower cabs, in-service improvements, 4115
 travel regulations, 2781
 who says men don't listen when a woman talks, women officers in Air Force, 6338
 women—
 discover the world, 10722
 in Air Force, that special look, 60
see also Armed Forces—Military education.
 Air Force Academy, Colo.:
 administration of training, uniform policy, create, report, 10965
 Assembly, 1970, final report, 15451
 basic cadet training, 46, 17448
 cadets, lithographic series, 7964
 special bibliography series, 3430, 15450
 Air Force Cambridge Research Laboratories:
 AFRL series, 7950-51
 geophysics and space data bulletin, 2692
 technical notes, 9329
 Air Force Department:
 AFRL series, 7950-51
 AFRL technical notes, 9329
 AFOSR series, 47, 6321
 Air Force manuals, 48, 1205-8, 3432-38, 4830-37, 6322-27, 7956-57, 9333-35, 10713-719, 13015-19, 15453-458, 17449
 Air Force pamphlets, 3439-40, 6328-29, 7958-59, 9336, 10720-721, 13020-21, 15459
 aircraft maintenance, potential for savings, GAO report, 11380
 annual report, 8463
 appropriations, 1970—
 hearings, 3950
 military construction, reports, 1461, 1650, 3832
 appropriations, 1971, military construction, hearings, 9729
 Assistant Secretary, Manpower and Reserve Affairs, nomination of Richard J. Borda, hearing, 16038
 forms management office functions, manual, 4830
 industrial facilities construction at Government-owned plants without disclosure to Congress, GAO report, 5527
 logistics airlift system contracted for by Air Force, management, GAO report, 1893
 OAR series, 54, 1210
 opportunities for improvement in management of Government materials provided to overseas contractors, GAO report, 12580

Air Force Department—Continued
 real property conveyance to Okaloosa
 County Board of Public Instruction—
 law, 13322
 reports, 372, 13652
 Strategic Air Command combat readiness,
 GAO review, 7203
 supervisors appointment book, 58
 technical orders, 59, 6336
 Air Force hospitals:
 more than 100 Air Force hospitals around
 the world, waiting for you! careers for
 physicians, 4839
 nursing service, pamphlet, 15459
 Air Force Human Resources Laboratory, tech-
 nical reports, 3431, 7952-55, 9330-32,
 10710-712, 13011-14, 15452
 Air Force installations, *see* Installations
 (military).
 Air Force Medical Service, digest, 3310
 Air Force Office of Scientific Research:
 advance propulsion concepts symposium,
 proceedings, 6321
 AFOSR series, 47
 Air Force Reserve:
 air reservist (periodical), 2317
 all the way from the ground up, 4838
 military personnel, personnel administra-
 tion, 3433, 9333
 your opportunities and rewards, 11963
 Air Force ROTC, *see* Reserve Officers Train-
 ing Corps, Air Force.
 Air Force Stock Fund, procedures in sup-
 port of, comptroller activities, Air Force
 manual, 15458
 Air Force supplies, *see* Military supplies.
 Air Force Systems Command:
 manuals, 49, 3441, 6332, 7960
 procurement, work statement preparation,
 manual, 3441
 Air frames, *see* Airframes.
 Air France, accident report, 18276
 Air freight forwarders, *see* Freight for-
 warders.
 Air-ground operations system, field manual,
 4856
 Air inlets (aircraft):
 additive-drug coefficient and mass-flow
 ratio for inlets utilizing right circular
 cones at zero angle of attack, approxi-
 mate solution, 2092
 axisymmetric mixed-compression inlet,
 automatic restart control system, 2121
 choked inlet flow, XB-70 compressor-
 noise reduction and propulsion-system
 performance, 7537
 digital simulation of XB-70 inlet and its
 application to flight experienced free-
 stream disturbances as Mach numbers
 2.4-2.6, investigation, 12798
 inlet-guide-vane configuration and relative
 blade velocity, effects on noise from
 axial-flow compressors, 5922
 mixed-compression inlets, digital electronic
 normal shock position sensor for, design
 and performance, 2126
 short length turbojet combustor insensi-
 tive to radial distortion of inlet air-
 flow, performance, 5924
 XB-70 flight test data comparisons with
 simulation predictions of inlet unstart
 and buzz, 11625
 XB-70-1 inlet pressure fluctuations during
 takeoff and prior to compressor stall
 at Mach 2.5, dynamic analysis, 11669
 Air jets, *see* Jets.
 Air lines, *see* Air carriers.
 Air lock, *see* Airlock.
 Air mail, Civil Aeronautics Board authority
 to establish rates by filing of tariffs, hear-
 ings, 9757
 Air National Guard, *see* National Guard.

Air navigation:
 air traffic control service for area naviga-
 tion equipped aircraft operating in
 United States national airspace system,
 handbook, 7066
 approach guidance method using single
 onboard optical measurement, 18202
 evaluation, in Northeast Corridor, 14361
 expenditure of Federal funds for nonmili-
 tary airports or air navigation facilities
 thereon, Federal aviation regulations,
 624, 2575
 national plan for navigation, civil aviation
 background material, 18367
 navigator (periodical), 2943
 non-Federal facilities, Federal aviation
 regulations, 624, 2575, 4107
 Pacific chart supplement (periodical),
 3003
 sight reduction tables—
 latitudes and declinations, 18286
 stars, 18285
 vector analog computer, model 5A, area
 navigation equipment, evaluation, 10637
see also Distance measuring equipment—
 Navigation.
 Air pilots, *see* Aviators.
 Air piracy:
 air crews training to prevent hijacking
 (remarks), 15677
 aircraft hijacking, hearings, 17644
 anti skyjacking program, financing, hear-
 ing, 17699
 antihijacking proposal, revenue, aspects,
 hearing, 15946
 convention on offenses committed on board
 aircraft—
 implement—
 hearings, 424, 9901
 report, 13689
 multilateral agreement, 2245
 crimes against aircraft (remarks), 17546
 seeking solutions to international hijack-
 ing problem (remarks), 12042
 Air pollution:
 abatement by Federal facilities, report,
 13561
 print as Senate document, report, 12353
 air pollutants affecting performance of
 domestic animals, literature review,
 15413
 air pollution potential forecast program,
 1826
 air quality control regions—
 Federal facilities—
 Baltimore, Md., 12834
 Boston, Mass., 10419
 Chattanooga, Tenn., 12833
 Chicago, Ill., 8957
 Cleveland, Ohio, 10420
 Denver, Colo., 8958
 Detroit, Mich., 12835
 Hartford, New Haven, Springfield,
 11712
 Indianapolis, Ind., 10421
 Los Angeles, Calif., 8959
 National capital interstate, 8960
 New Jersey, New York, Connecticut,
 8961
 Niagara frontier, 10423
 Phoenix-Tucson, Ariz., 12838
 Pittsburgh, Pa., 12836
 Providence, R.I., 12837
 Puget Sound, 12839
 St. Louis interstate, 10422
 San Francisco Bay area, 8962
 Toledo, Ohio, 14901
 interstate designation, 8963
 manual for development of State rec-
 ommendations, 4535
 report for consultation—
 Atlanta intrastate, 8967
 Birmingham intrastate, 5994
 Chattanooga, interstate, 5993

INDEX 1970

Air pollution—Continued

air quality control regions—continued
 report for consultation—continued
 Chicago interstate, 14904
 Memphis interstate, 8968
 Miami intrastate, 6969
 Oklahoma City intrastate, 8970
 Omaha interstate (Nebraska and Iowa), 8971
 Portland interstate, 8972
 San Antonio intrastate, 1071
 Toledo interstate, 7566
 Virgin Islands, 8973
 Wasatch Front intrastate, 8974
 air quality criteria—
 Carbon monoxide, 5986, 11713
 hydrocarbons, 7563, 11714
 photochemical oxidants, 5987, 11715
 air quality data, National Air Surveillance, networks and contributing State and local networks, 5992
 Air quality improvement act, hearings, 11143, 12380, 16084
 America the beautiful, collection of Nation's trashiest humor, 17307
 atmospheric dispersion estimates, workbook, 8567
 anti-pollution 6-cent postage stamp (poster), 17207
 automobile exhaust pollutants, kryptonate-based instrumentation development, for detection, feasibility, 15517
 bibliography of translations, 7564
 carbon monoxide, calculating future emissions and concentrations from urban traffic data, 17016
 Chattanooga, Tenn.-Rossville, Ga. interstate air quality study, 18229
 city problem (address), 9968
 Clean air act, amend—
 hearings, 9754-55, 11143, 12380, 16084
 laws, 1402, 12139
 reports, 1507, 10974, 12188, 12327, 16020
 Clean air act as amended, highlights, 5984
 comparative emissions from some leaded and prototype lead-free automobile fuels, 8913
 conservation vs. pollution, 15201
 control—
 active research grants for fiscal year 1970, 17019
 aspects of brass and bronze smelting and refining industry, 2134
 hearings, 9754-55, 11143, 12380, 16084
 manpower and training needs, report, print as Senate document, report, 13681
 message from the President, 5082
 Mid-Atlantic States interstate compact, consent of Congress, report, 13643
 Ohio and West Virginia interstate compact, consent of Congress, report, 5203
 problem, etc., 11261
 problems and programs, hearing, 5279
 some lessons learned in United States (remarks), 10418
 cost of clean air, report, 448 8345
 print as Senate document, report, 9824
 danger in air, sulfur oxides and particulates, 17013
 emissions, 1968, nationwide inventory, 17018
 environmental effects of producing electric power, hearings, 3761 15812
 environmental health engineering handbook, 7958
 environmental health series, 8567
 environmental pollution—
 bibliography, 18275
 study in USSR, 8850
 free films on loan for group showing, 1058
 ice fog, low temperature air pollution, 11250

Air pollution—Continued

incineration, good practice at Federal facilities, interim guide, 2133
 interstate effects surveillance network 1966 data, 11716
 investigations and studies, authorization, report, 5240
 Kanawha Valley, study, 7565
 large power plant effluent study [LAPPES] instrumentation procedures, and data tabulations, 14903
 National air quality standards act of 1970, report, 16020
 national emission standards study report—
 appendixes, 11717
 print as Senate document, report, 12319
 nuclear energy underground uses, study, hearings, 6817
 particulate patterns, characteristics, 7562
 plume rise, effluents from nuclear plants, dispersion, control, etc., 15530
 pollution analysis bibliography of literature of activation analysis, 11738
 prevention and control, amend act, reports, 10974, 12188
 prevention, control and abatement, Federal facilities, Executive order, 8964
 progress in prevention and control, HEW report, 9779
 print as Senate document, report, 9825
 reduction, from gas burner flames, including related reaction kinetics, 10319
 research effects, report, 16020
 research grants, highlights, 8966
 research projects active in 1969, guide, 8965
 restructure methods available to attack critical and growing national problem, report, 16020
 slash fire atmospheric pollution, description, etc., 14475
 training courses, 1970-71, bulletin 17012
 vehicular, emission control—
 hearings, 8386
 report, 8349
 where are we going? (remarks), 7558
 who should pay for the cleanup? (address), 15740
 Air Pollution Control Administration, *see* National Air Pollution Control Administration.
 Air Pollution Technical Information Center, bulletin, 2342
 Air pumps, *see* Pumps.
 Air quality act, *see* Air pollution.
 Air Quality Advisory Board establish, report, 16020
 Air reservist (periodical), 2317
 Air routes, *see* Airways.
 Air safety, *see* Safety of life.
 Air samplers, water pump, for use at remote sites, 16585
 Air sampling pumps, *see* Pumps.
 Air service, *see* Aeronautics.—Air carriers.
 Air speed :
 convective heat-transfer rates on large-angle conical bodies at hypersonic speeds, 925
 hypersonic aerodynamics characteristics of 2 delta-wing X-15 airplane configurations, 911
 instrument landing approach of heavy subsonic jet transport with external-flow jet-flap system used for additional lift, simulator study, 11686
 jet in subsonic crosswind, analysis, symposium, 897
 minimum flying speed for large, subsonic jet transport, flight comparison of several techniques for determining, 12793
 VTOL flight-director concept during constant-speed instrument approaches, evaluation, 11684
 Air taxi operators, *see* Air carriers.
 Air terminals, *see* Terminals (transportation).

Air traffic:

- activity, FAA report—
 - 1969 calendar year, 7060
 - 1970 f.y., 16471
- air carrier statistics—
 - monthly and 12-month, 2313
 - supplement, 2311
- airspace matters, procedures for handling, FAA handbooks, 11285, 17961
- airspace utilization over Federal buildings, authorize GSA to transfer for housing purposes, hearing, 1596
- ATCBI-3 altitude and identity readout modifications, final report, 4119
- control—
 - certification procedures, FAA handbook, 16476
 - contractions used by FAA, etc., handbooks, 61, 3446, 6340, 13030
 - en route ATC radar/display system errors, engineering survey and analysis, 18374
 - en route, handbooks, 62, 4840, 9343, 13031
 - facility management handbooks, 63, 4841, 7966, 13032
 - interrogation repetition frequency sets nonsynchronous for n interrogations, methods for calculating and analyzing, 15081
 - national airspace system (NAS) enroute stage A, maintenance, 7065
 - service for area navigation equipped aircraft operating in United States national airspace system, handbook, 7066
 - special military operations handbooks, 3453, 10726, 11965
 - system and crews, in these hands, story, 11208
 - system for 1970's, problems confronting FAA in development—
 - hearing, 8298
 - report, 11016
 - terminal, handbooks, 66, 1212, 4842, 7969
 - training, 6339
 - Transportation Department, Air Traffic Control Advisory Committee, report, 7866
 - enroute IFR air traffic survey, peak day, 12515
 - flight procedures and airspace, 11287
 - holding patterns, 3448
 - NAS en route stage A, radar video data processor modifications, 17965
 - national aviation system—
 - FAA policy summary, 5411
 - 10 year plan, 5410, 7069
 - navigable airspace, objects affecting, Federal aviation regulations, 624, 2575
 - Northeast corridor air traffic and high speed ground transportation, 8604
 - patterns for IFR and VFR aviation, 11202
 - security control, Federal aviation regulations, 2573
 - special rules, and airport traffic patterns, Federal aviation regulations, 623, 2573
 - special use airspace, Federal aviation regulations, 624, 2575
 - standards, review and validation, Steering Committee report, 9241
- Air Traffic Control Advisory Committee:
 - report, 7866
 - appendixes, 7867
- Air traffic controllers:
 - additional 1,000, approval, 1441
 - control specialists, examination announcement, 9487
 - employment outlook, 14723
 - retirement, include within provisions of United States Code relating to hazardous occupations—
 - hearing, 3985
 - report, 11102
 - shortage, hearing, 8298

- Air transportation, *see* Aeronautics—Air carriers—Transportation—Travel.
- Air University Library:
 - index to military periodicals, 2319
 - research reports, abstracts, 6333
 - selected acquisitions, 17451
 - selected documents accession list, 17452
- Air University review, 2320
- Air Weather Service:
 - pamphlets, 7961
 - technical reports, 50, 3442, 9337-38, 13022-24, 17450
- Airborne foreign trade, 2672
- Airborne infrared Fourier spectrometer, USSR, 16805
- Airborne laser-radar studies of lower atmosphere, 2104
- Airborne operations:
 - abbreviations for use on airborne equipment, military standard, 4023
 - legends for use on airborne equipment, and in aircrew stations, military standard, 4024
- Aircraft:
 - aerial combat games, new approaches, 18182
 - aerodynamic characteristics of hypersonic transport configuration at Mach 6.86, 11695
 - aeromedical research, the new generation aircraft (address), 9412
 - agricultural, operations, Federal aviation regulations, 14357
 - Air Force A-7D brake problem, hearing, 8192
 - Air Force lithographic series, 7965, 10725
 - air traffic control service for area navigation equipped aircraft operating in United States national airspace system, handbook, 7066
 - aircraft and aircraft engines, current industrial reports, 2475, 15627
 - aircraft and parts—
 - census of manufactures, 1967, industry statistics, 17531
 - commodity transportation survey, 1967
 - census of transportation, shipper group, 1319
 - aircraft and related products, identification and registration marking, Federal aviation regulations, 2571
 - aircraft noise and sonic boom, bibliography, 4776
 - aircraft system performance and pilot ratings, relationships, 14833
 - airworthiness—
 - certification and related approvals, 8600
 - FAA directives, 2571
 - alterations, acceptable methods, techniques and practices, 2284, 11281
 - attitude instrument flying, 11973
 - automatic piloting, and flight control systems, problem of operational reliability, 14897
 - aviation forecasts, 1970-81 fiscal years, 7057
 - aviation safety is the art of flying (remarks), 15041
 - C-7A (Caribou), airdrop of supplies and equipment, Army technical manual, change, 101
 - C-141A, flight test data, analysis, 11611
 - certification procedures for products and parts, Federal aviation regulations, 621, 2571, 4106
 - civil aircraft register, United States, 631, 10046, 17966
 - civil supersonic aircraft development, appropriations, 1970—
 - hearings, 398
 - proposal, 339
 - civil, technical standard order authorization, Federal aviation regulations, 621, 2571

INDEX 1970

Aircraft—Continued

civil, United States, Dec. 31, 1968, census, 4104
 Coast Guard, authorization for procurement—
 hearings, 5172, 8382
 law, 10921
 reports, 6605, 6616, 9848
 commercial, report of Industry Committee on Commercial Aircraft, 15718
 compass systems described, USSR study, 7388
 components and accessories, Federal item identification guides for supply cataloging, supplements, 2598
 criteria for aircraft installation and utilization of extinguishing agent concentration recorder for fires, final report, 7970
 disabled, removal, 17964
 duty treatment of certain previously exported aircraft, report, 13406
 economics of supersonics (address), 7059
 electric and electronic wiring, installation practices, organizational, DS, GS, and depot maintenance manual, 17469
 electrical systems, assessment of high-voltage DC electrical power, 17197
 emergency procedures over water, 259
 engine and systems failure and human error types of accidents, improvements required to reduce, data report on general aviation accident acquisition and analysis, 7058
 excess, reclaiming usable parts, improvements needed, GAO report, 14504
 exchange, agreement with Canada, 17348
 export aircraft worthiness approval procedures, 618
 FAA aircraft program data feedback (periodical), 2556
 Federal item identification guides for supply cataloging, supplements, 2598
 flight tests of spiral divergence and bank angle control of executive jets, 9346
 free-wing, gust-alleviation characteristics and handling qualities, evaluation, 11603
 fuselage, effect of ground crash fire on integrity, 14360
 general aviation, pilot heart rate during in-flight simulated instrument approaches, 13089
 general operating and flight rules, Federal aviation regulations, 623, 2573
 hypersonic, flutter design of stiffened-skin panels, 2101
 IFR altitudes, Federal aviation regulations, 624, 2575
 IL-18 aircraft, angular distribution of reflected radiation on basis of data obtained during flights in 1964, USSR study, 7399
 imported, certificates of airworthiness, agreement with New Zealand, 10624
 improving use of cargo space on aircraft operated by contract with Defense Dept., GAO report, 14482
 industry, standard classification system for indirect costs of defense contractors, 6320
 inspection aids, general aviation, 2689, 16526
 inspection and repair, acceptable methods, techniques, and practices, 2285, 14355
 integrity, modern surveillance (paper), 7175
 international transportation, convention on offenses committed on board—
 implement, hearings, 424, 9901
 multilateral agreement, 2245
 jet, analysis in subsonic crosswind, symposium, 897
 jet/STOL, propulsion-induced effects on aerodynamics, review, 5936

Aircraft—Continued

jet transport, heavy subsonic with external-flow jet-flap system used for additional lift, simulator study of instrument landing approach, 11886
 large—
 airworthiness directives, summary, 3242, 11290
 supplements, 627, 4122
 commercial operators, certification and operations, Federal aviation regulations, 620, 5404, 7061, 8596, 10043, 16474
 subsonic jet transport, flight comparison of several techniques for determining minimum flying speed, 12793
 light aircraft—
 ice prevention and removal, development of improved method (paper), 6341
 study of published information—
 aerodynamics and aerodynamic loads, 7508
 structures, 7507
 maintenance—
 certification procedures, FAA handbook, 5407A, 8601
 potential for savings, GAO report, 11380
 preventive maintenance, rebuilding, and alteration, Federal aviation regulations, 2572
 rebuilding, and alteration, Federal aviation regulations, 622
 manufacturing industry, employment outlook, 14117
 marine aircraft wing, Fleet Marine Force manual, 11558
 marking parts fabricated from critical high temperature alloys and stainless steels, military standard, 547
 military, air evacuation of patients, subsistence without charge, authorize—
 bearing, 404
 report, 1510
 military, procurement appropriations, 1970, authorization—
 law, 1386
 report, 1450
 military, procurement appropriations, 1971, authorization—
 hearings, 11107
 report, 12352
 hearings, 8275
 reports, 9657, 9662
 modifications, improvements needed in management of aircraft, GAO report, 4222
 national aviation system—
 FAA policy summary, 5411
 10 year plan, 5410, 7069
 naval, maintenance, and servicing, Mech (periodical), 2876
 noise abatement—
 plan, 1969-70 Federal programs, 9240
 technology, public law and rules, FAA noise abatement programs, 8603
 noise evaluation, technical report, 4120
 noise, flyover, from various aircraft, judgment tests, 16936
 noise in vicinity of aerodromes (remarks), 235
 nondestructive testing techniques, 625
 nuclear aircraft reactor, parametric study of frangible-tube energy-absorption system for its protection, 12781
 offensive mine laying, campaign against Japan, U.S. strategic Bombing Survey, 2186
 Omega aircraft receivers, precipitation effects, 12886
 operating cost and performance report, 236, 17544
 organizational mechanic/repairman course, 4857

Aircraft—Continued

pilot scanning and control behavior during simulated instrument approaches, measurement and analysis, 12759
 propulsion, elements, AMC engineering design handbook, 80
 propulsion subsystems, performance, stability and control, propellers, and flight safety, list of published information, 5894
 registration, Federal aviation regulations, 621, 2571
 rocket launchers, procurement—
 hearings, 3867
 report, 1553
 sales in Latin America, hearings, 13507
 scaling of VTOL recirculation effects, 14827
 shooting animals from aircraft, prohibit, provide Federal criminal penalty, hearing, 12280
 six-jet V/STOL model, 0.16 scale, in transition, induced interference effects on aerodynamic characteristics, 11635
 small
 air taxi operators and commercial operators, Federal aviation regulations, 6406, 7063, 8598, 14357
 airworthiness directives, summary, 628-629, 3243, 4123, 11291
 SST, United States supersonic transport program, general information, 7071
 STOL, airworthiness considerations, 5930
 STOL transport aircraft noise certification, conference proceedings, 4121
 stretch jets at National Airport, permit use, hearings, 16047
 structural members with electronic strain-level counter, 16971
 stubb and frame antennas for flight vehicles, USSR study, 11499
 subsonic jet flyover noise and sonic booms, effects on skeletal muscle tension and paced tracing task, 5902
 subsonic noise and simulated sonic booms, awakening effects on 6 subjects, 7-12 yrs. of age, 10362
 supersonic cruise, analytical heat transfer investigation of insulated liquid methane wing tanks, 4531
 supplemental type certificates, 3246
 tires, vertical and lateral stiffness characteristics, 4494
 titles and security documents, recording, Federal aviation regulations, 2571
 turbulence-penetration performance, procedure for assessing, 7513
 twin-turboprop subsonic transport with nacelles mounted under wings, longitudinal aerodynamic characteristics, 16980
 type certificate data sheets and specifications, 2322, 8588
 type certification, noise standards, Federal aviation regulations, 11284
 V/STOL—
 conditions limiting testing in wind tunnels with solid floor, theoretical study, 11664
 jet, empirically determined wind and scale effects on hot gas recirculation characteristics, 891
 mode descriptions, 8635
 tilt-wing transport investigation of lateral-directional dynamic stability, 5945
 transport model with—
 four pod-mounted lift fans, wind-tunnel investigation, 14881, 18199
 six wing-mounted lift fans, wind-tunnel investigation, 14848, 16957
 VOR/DME error model, survey of general coverage nav aids for, 10359
 wind tunnels, use of variable geometry in design of minimal-correction, theoretical study, 948

Aircraft—Continued

VTOL—

flight-director concept during constant-speed instrument approaches, evaluation, 11684
 jet research, reaction attitude control, 7545
 jet-transport model with powered lift engines in pods at wing midspan or inboard, wind-tunnel investigation, 10403
 large-scale jet fighter-type models, generalized hot-gas ingestion investigation, 4511
 war risk insurance, extend coverage time, report, 15993
 X-24A lifting body aircraft aerodynamic characteristics, full-scale wind-tunnel investigation, 14874, 16969
 XB-70—
 flight test data comparisons with simulation predictions of inlet unstart and buzz, 11625
 inlet and its application to flight-experienced free-stream disturbances at Mach numbers of 2.4-2.6, investigation, 12798
 see also Aircraft accidents—Fighter planes—Sonic boom—also names of aircraft parts, e.g. Propellers.
 Aircraft accidents:
 aircraft, engine, and systems failure and human error types of accidents, improvements required to reduce data report on general aviation accident data acquisition and analysis, 7058.
 analysis of data, U.S. air carrier operations, 10480
 briefs, accidents by make and model of aircraft—
 Aero Commander Beechcraft, CESSNA 310, Piper PA-23 and PA-30, 11803
 Aeronca 7 and 11, Ercoupe, Globe GC-1A Navion, Luscombe 8, Mooney MK 20/21, Stinson 108, and Talorcraft, 11804
 Beech 23 and 35, Piper 13/PA-11, PA-12, PA-16, PA-18, PA-20, PA-22, PA-24, PA-25, PA-28, and PA-32, 11801
 CESSNA 120/140, 140A, 150, 170, 172, 175, 180, 182, 185, 190/195, 205/210, 11802
 briefs, accidents involving—
 alcohol, cause/factor, 9036
 amateur built (home-built) aircraft, 9307
 corporate/executive aircraft, 9038
 missing aircraft, 9039
 rotorcraft aircraft, 10481
 civil aviation—
 briefs (periodical), 2375
 data, 1969, preliminary analysis, 6077
 collision-hazard warning system techniques in terminal area, phase 2, statistical evaluation, 2066
 general aviation—
 analysis of data, 2168
 annual review, 2169
 post mortem findings, safety significance, 8038
 rates and fatalities, U.S. certificated route and supplemental air carriers, 6072
 reports, 2167, 7851-54, 170477-470, 11799-800, 12881, 15036-39, 17168, 18276-278
 rules of National Transportation Safety Board, investigations, etc., 12882
 U.S. air carrier accidents, 1968 annual review, 9035
 Aircraft automatic pilots, automatic piloting of aircraft and flight control systems, problem of operational reliability, 14897
 Aircraft carriers:
 CVAN-70 attack carrier study—
 hearings, 9893
 subcommittee report, 13713

INDEX 1970

- Aircraft Development Service, report FAA DS series, 3454, 7970
- Aircraft dispatchers, employment outlook, 14723
- Aircraft engines, *see* Engines (aircraft).
- Aircraft fuel, *see* Motor fuel.
- Aircraft instruments, *see* Aeronautical instruments.
- Aircraft mechanics, *see* Mechanics (persons).
- Aircraft repair stations, Federal aviation regulations, 622, 2572
- Aircraft survival equipment, organizational and DS maintenance manual for survival kits on Army aircraft, technical manual, 6364
- Aircrews, *see* Flight crews.
- Airdrop operations, *see* Air drop operations.
- Airfields, *see* Airports—Aviation fields—Pavements.
- Airflows, *see* Flow.
- Airfoils, V/STOL transport model with 4 pod-mounted lift fans, wind-tunnel investigation, 14881, 18199
see also Wings (aircraft).
- Airframes:
structural components, Federal item identification guides for supply cataloging, supplements, 2598
XB-70 structural mode control system design and performance analyses, 14810
- Airlift, *see* Transportation.
- Airlift service:
logistics airlift system contracted for by Air Force, management, GAO report, 1893
military airlift, subcommittee report, 11024
- Airline routes, *see* Maps and charts.
- Airline stewardesses, *see* Stewardesses.
- Airlines, *see* Air carriers.
- Airlock, simulated lightweight spacecraft air lock, vacuum leakage tests, 12808
- Airmen:
active occupations, study, 8035
airmen's information manuals, 2324-26, 4102, 8589, 11283, 17957
airmen other than flight crewmembers certification, Federal aviation regulations, 4105, 8595
Alaska airman's guide and chart supplement (periodical), 2328
enlisted personnel, airman classification manual, Air Force manual, 1205-6, 9334
low-ability, comparative performance, 9332
low-aptitude, method for determining job types, 7954
maintenance certification procedures, FAA handbook, change, 5407A
Navy airmen enlistees, military effectiveness, 14763
Navy rate training manual, 4612
occupational handbook, manual for guidance counselors, 9342
promotion, weighted promotion system—extension to grades E-8 and E-9, 9331
field test, validation for E-4 through E-7 grades, 3431
see also Air Force—Aviators—Flight crews—Notices to airmen.
- Airplane tires, *see* Tires.
- Airplanes:
airplane model with 4 propellers and rotating cylinder flaps, large-scale wind-tunnel tests, 10391
commercial jet transport pilots, their vibration isolation during turbulent air penetration, 14811
complex airplane model, sonic-boom characteristics in extreme near field, at Mach numbers of 1.5, 1.8, and 2.5, 11644
fan-jet transport model, flutter studies to determine nacelle aerodynamic effects for 2 mount systems and 2 wind tunnels, 16998
- Airplanes—Continued
forebody, some turbulent boundary layer measurements obtained at Mach numbers up to 1.72, 11674
4-engine turbojet transport analysis of VGH data, collected from 1 type, 4516
instrument displays to assist in thrust management, simulation study, 18205
jet routes, establishment, Federal aviation regulations, 624, 2575
large launch vehicles utilizing X-15 airplane and flight simulators, study of display systems for manual guidance, 5940
light, normal load factor just prior to ground contact, statistical study, 12787
light single-engine—
low-wing, static longitudinal and lateral characteristics, wind-tunnel investigation, 11681
static longitudinal and lateral characteristics, full-scale wind-tunnel investigation, 7539
normal, utility, and acrobatic category airplanes, airworthiness standards, Federal aviation regulations, 11284
plane sense, general aviation information, 12517
pylon-mounted dummy ramjet engine on X-15-2 airplane, local flow field at Mach numbers from 2.0-6.7, 5946
supersonic transport—
anticollision lights, 17477
certificate, physiological tolerable decompression profiles, 17478
development, hearings, 10936
operations, information requirements, 12764
summary of current economic studies, 630
technique for determining aileron effectiveness and roll rate by using aerodynamically scaled model, evaluation, 933
TFX contract investigation, hearings, 8411, 9913, 13739
transport category, airworthiness standards, Federal aviation regulations, 11284
transport in cruising flight, flight investigation of roll requirements, 16973
turbojet powered Mach 3 transport using methane fuel, turbine aerodynamic and cooling requirement, 14871
turbojet, response to runway roughness, 11640
turbojets designed for supersonic application, effects of variable turbine area on subsonic cruise performance, 16976
twin-engine, effect of yaw-rate damper on flying qualities, evaluation, 12817
typical subsonic jet-transport, analytical study of effects of severe turbulence on flight motions, 2109
X-15 airplane configurations, hypersonic aerodynamic characteristics, 911
XB-70—
compressor-noise reduction and propulsion-system performance for choked inlet flow, 7537
handling qualities in landing approach, 5967
structural mode control system design and performance analyses, 14810
theoretical frequency response functions and power spectra response atmospheric turbulence, 14824
XB-70-1, inlet pressure fluctuations during take off and prior to compressor stall at Mach 2.5, dynamic analysis, 11669
see also Aircraft—Fighter planes—Stability of aircraft.
- Airport-control tower operators:
air controlman 1 & C, rate training manual, 18287
air controlman 8 & 2, Navy rate training manual, 7684

Airport industrial parks *see* Industrial parks.
Airports:
 activity statistics of certified route air carriers, 617, 16469
 air user taxes increase, summary of recommendations, 9906
 airport/airways development, determining appropriate course of Federal action for coming years, hearings, 493
 Airport and airways development act of—
 1969, report, 479
 1970—
 law, 10918
 summary of recommendations, 9906
 Airport and airway development and revenue act of 1970, report, 9687
 Airport and airway revenue act of 1970—
 report, 5250
 summary of Senate amendments, 13554
 airport and airway trust fund, establish—
 law, 10918
 reports, 389, 5250
 airport system, expansion and improvement—
 reports, 389, 479
 summary of recommendations, 9906
 airports and airways congestion, capacity, community noise (remarks), 3652
 Atlanta, Ga., graphic simulation study of 2 sites for 2d major airport, 18377
 capacity criteria used in long-range planning, 7056
climatological summaries—
 Bradley International (Windsor Locks) Airport, Hartford, Conn., 2256
 Clarence E. Hancock Airport, Syracuse, N.Y., 7849
 Detroit-Metropolitan-Wayne County Airport, Detroit, Mich., 2255
 Dulles International Airport, Washington, D.C., 7849
 General Mitchell Field, Milwaukee, Wis., 4764
 Greater Pittsburgh International Airport, Pittsburgh, Pa., 4764
 International Airport, Los Angeles, Calif., 2259
 International Airport, Miami, Fla., 2261
 James M. Cox Airport, Dayton, Ohio, 2254
 John F. Kennedy International Airport, New York, N.Y., 4764
 La Guardia Airport, New York, N.Y., 4764
 Lambert-St. Louis Municipal Airport, St. Louis, Mo., 7849
 Love Field, Dallas, Tex., 2253
 Metropolitan Airport, Nashville, Tenn., 4764
 Metropolitan Oakland International Airport, Oakland, Calif., 4764
 Minneapolis-St. Paul International Airport, Minneapolis, Minn., 4764
 New Orleans International Airport, New Orleans, La., 4764
 Newark Airport, Newark, N.J., 4764
 O'Hare International Airport, Chicago, Ill., 2251
 Philadelphia, Pa., International Airport, 4764
 Port Columbus International Airport, Columbus, Ohio, 2252
 Portland International Airport, Portland, Oreg., 4764
 Rochester-Monroe County Airport, Rochester, N.Y., 7849
 Salt Lake City, Utah, Municipal Airport No. 1, 7849
 San Francisco, Calif., International Airport, 7849
 Seattle-Tacoma International Airport, Seattle, Wash., 7849
 Standiford Field, Louisville, Ky., 2260
 Weir Cook Airport, Indianapolis, Ind., 2258

Airports—Continued
climatological summaries—continued
 William P. Hobby Airport, Houston, Tex., 2257
 community noise problem (remarks), 15679
 construction, procedures guide for using standard specifications, 626
 design standards, site requirements for terminal navigational facilities, 4103
 directory, airman's information manuals, 2325, 8589, 17957
 environs, land use controls, environmental planning paper, 16659
 expenditure of Federal funds for nonmilitary airports or air navigation facilities thereon, Federal aviation regulations, 624, 2575
 Federal aid program, Federal aviation regulations, 1843, 2574
 Federal airport act—
 amendments, report, 389
 repeal, reports, 389, 1449
 general aviation public airport financial 1969 survey, FAA's report, 6342
 international, three-track runway and taxiway profiles measured, 7540
 location identifiers, handbook, 2851
 metropolitan airport system, planning, 15464
 national airport system plan, formulation, report, 9687
 national aviation system—
 FAA policy summary, 5411
 FAA 10 year plan, 5410, 7069
 National Capital, Federal aviation regulations, 1843, 2574
 National Capital region, utilization and future, hearings, 3970, 16047
 Naval and Marine Corps air stations, pavement evaluation data, 18280
 notice of construction, alteration, activation, and deactivation, Federal aviation regulations, 624-2575
 planning airport industrial park, 11289
 property, release from surplus property disposal restrictions, Federal aviation regulations, 2574
 public, acquisition of U.S. land, Federal aviation regulations, 2574
 public, affected by agreements with Federal Government, list, 14358
 so you want to build, types, specifications, etc., 7070
 taxiways design standards, airports served by air carriers, 14356
 terminal instrument procedures, TERPS, U.S. standard, 11286
 three-track runway elevation profiles measured at 2 U.S. Government installations, 938, 10379
 used airfield landing mat, criteria for inspection, evaluation, classification and reuse, 11254
 user charges, imposition of tax—
 law, 10918
 reports, 389, 1449, 5250, 9687
 summary of Senate amendments, 13554
 Wake Island code, Federal aviation regulations, 2574
 Washington National and Dulles International Airport, 1970-81 forecasts, 7075
see also Air traffic—Pavements—*also* names or places where located.
Airspace reservations, special use airspace, Federal aviation regulations, 624, 2575
Airspace utilization, *see* Air traffic.
Airspaces (streets, highways, etc.):
 use of airspace in District of Columbia, authorize leases—
 hearings, 8388
 report, 13670
Airstream:
 hypersonic, water injection from 9° hemisphere-cone into, 7563

INDEX 1970

Airstream—Continued

Mach 2 airstream, sonic and supersonic jet penetration from flat plate, optical study, 12778

Airways:

airport/airways development, determining appropriate course of Federal action for coming years, hearings, 493

Airport and airway development act of 1970, law, 10918

Airport and airway development and revenue act of 1970, report, 9687

Airport and airway revenue act of 1970—report, 5250

summary of Senate amendments, 13554

airport and airway trust fund, establish—law, 10918

reports, 389, 5250

summary of recommendations, 9906

airways and airports congestion, capacity, community noise (remarks), 3652

controlled airspace and reporting points, designation, Federal aviation regulations, 624, 2775

enroute IFR altitudes over particular routes and intersections, minimum, 3451, 17464

facilities, national system, FAA policy summary, 5411

inspecting, 5408

instrument flight rules, off-airway routes, 3449

jet routes, establishment, Federal aviation regulations, 624, 2575

navigable airspace, objects affecting, Federal aviation regulations, 624, 2575

system, expansion and improvement, report, 389

user charges, imposition of tax—law, 10918

reports, 389, 1449, 5250, 9687

summary of Senate amendments, 13554

Airworthiness, *see* Aircraft—Airplanes.

Akey, Norman D., radio blackout alleviation and plasma diagnostic results for 25,000 foot per second blunt-body reentry, 5934

Akhtar, Sayeed, interstitial compounds as fuel cell catalysts, their preparative techniques and electrochemical testing, 7454

Akima, Hiroshi:

modulation studies for IGOSS, 18458

required signal-to-noise ratios for HF communication systems, 1839

Akron, Ohio:

area wage survey, 2022

census of transportation, 1967, commodity transportation survey, 8067

high schools, Students for a Democratic Society, plans, hearings, 6716

AL, *see* Aeronomy Laboratory.

Alabama:

census of business, 1967—

major retail centers, standard metropolitan areas, 8052

retail trade, merchandise line sales, 11986

selected services, area statistics, 155

wholesale trade, area statistics, 165

census of construction industries, 1967, statistics, 15550

census of governments, 1967, State reports, 3551

census of manufactures, 1967, statistics, 15569

climatological data, 2409

coastal area, fishery products, wholesale dealers, list, 12081

county business patterns, 3611, 12017

Cumberland Plateau and Mountains and Southern Appalachian Ridges and Valley, soil survey interpretations for woodlands, 7781

electric rate book, 647

landings, fish and shellfish, 284, 2327

mineral industry, minerals yearbook chapter, 855

Alabama—Continued

minority construction contractors located in selected cities, list, 8793

Mississippi River and tributaries, fishery products, wholesale dealers, list, 9559

Nashville Basin and Highland Rim areas, soil survey interpretations for woodlands, 7779

northwest, forest inventory statistics, Marion County unit, 9223

pollution of interstate waters of Escambia River basin, conference proceedings, 12538, 14401, 16516

potatoes, marketing summary, 3993

precipitation data, hourly, 2718

sand and gravel operations, recovery of heavy minerals, 12749

Sand Mountain area, soil survey interpretations for woodlands, 7780

sesquicentennial of statehood, 1819-1969, exhibition in Library of Congress, 4391

soil and water conservation, 1969 highlights, 9144

Southern Coastal Plain and coastal flatwoods, soil survey interpretations for woodlands, 9158

Southern Piedmont area, soil survey interpretations for woodlands, 4696

travel costs less than you think, please come, invitation from people of U.S., 7885

Dutch edition, 7882

German edition, 7880

Japanese edition, 7886

Portuguese edition, 7883

Spanish edition, 7881

Alabama River, Millers Ferry Lock and Dam, change name to William "Bill" Dannelly Reservoir, report, 9878

Alamance County, N.C., community profile, 12401

Alarm systems:

Federal item identification guide, 16115

Federal item identification guides for supply cataloging, supplements, 2594

Alaska:

alrman's guide and chart supplement (periodical), 2328

census of business, 1967,—

retail trade, merchandise line sales, 11987

selected services, 156

census of governments, 1967, 3552

census of manufactures, 1967 statistics, 15570

central, probable Permian age of Rampart Group, 4231

climatological data, 2409

coast pilot, Pacific and Arctic Coasts, Cape Spencer to Beaufort Sea, supplement, 6483

coastal, forest fires, analysis and summary, 8683

county business patterns, 191, 13158

earthquake, 1964—

effects on Alaska Railroad, 11394

lessons and conclusions, 18043

regional effects (series), 7242

tectonics, 7242

fisheries—

1967, annual summary, 287

role of international agreements, 9526

geology along Taylor Highway, 1908

giant Alaskan prawn, experimental trawling and pot fishing, 12067

ground water in permafrost regions, 11399

interior, effects of large scale forest fires on water quality, 10100

Kanuti River region, preliminary geologic investigations, 1911

management and uses of quaking Aspen, 12926

Matanuska-Susitna Borough area—

development of new lands, 10727

possibilities of new land development, 7971

Alaska—Continued

- military personnel of U.S. Army ordered to, helpful hints, 95
 - mineral industry, minerals yearbook chapter, 4415
 - national fire-danger rating system fine-fuel moisture content tables, 4184
 - national wildlife refuges, general information, 1119
 - native land claims, settle—
hearings, 511, 5161
 - report, 9882
 - natives, dental services, annual report, 18063
 - northeastern, geologic interpretation of reconnaissance aeromagnetic survey, 5539
 - northern, Umiat region, water resources, review, 16611
 - northwestern, DeLong Mountains, carbonate facies and lithostrotionid corals of Mississippian Kogruk Formation, 16619
 - oceanography and future of Coast Guard, hearings, 17717
 - oil and gas leases, reinstate, report, 8358
 - Omnibus act, amend—
law, 15766
 - reports, 1669, 12230
 - Pacific slope basins, surface waters, quality, 5567
 - Prince of Wales Island, Mississippian rugose corals, Peratovich formation, 16614
 - principal electric facilities, map, 8629
 - reconstruction grants—
law, 15766
 - reports, 1669, 12230
 - regional tsunami warning system, 4097
 - shrimp explorations, 9520
 - snow surveys, 2626
 - South Korean vessels fishing off coast, hearing, 16044
 - southeast—
bumper western hemlock, sitka spruce seed crop, ripening and dispersal, 5500
 - early Silurian graptolites and their correlation with graptolitic sequences in North America and Arctic, 10183
 - effects of clearcutting on salmon habitat in 2 streams, 4206
 - effects of shade cover on steam temperature, 8695
 - mechanics of debris avalanching in shallow till soils, 18026
 - northwest coastal area of Prince of Wales Island, paleozoic stratigraphy, 11387
 - species of Aquilapollenites and Fibularpollis from 2 upper Crustaceous localities, 4247
 - toward economic development for native American communities, compendium of papers, 3766
 - trans-Alaska pipeline—
construction, appropriations, increase, hearings, 13534
 - construction plans, status, etc., hearings, 512
 - waterborne commerce, 1968 calendar year, 8554
 - wilderness, designate certain lands, hearings, 5268
- Alaska, Gulf of:
- Cape Spencer westward to Kodiak Island, coastal weather and marine data summary, 1817
 - flow estimation, fishery oceanography, 17567
 - Soviet trawlers observed, fishing vessel and gear developments, 9518
- Alaska Highway, appropriation for construction, reconstruction etc., hearings, 1599

Alaska Native Commission:

- establish—
hearings, 511, 5161
 - report, 9882
 - Alaska Native Development Corporation, establish, hearings, 511, 5161
 - Alaska Native Foundation, create, report, 9882
 - Alaska Native National Corporation, establish, report, 9882
 - Alaska Native Services and Development Corporation, establish, report, 9882
 - Alaska Native Urban Corporation, establish, report, 9882
 - Alaska Power Administration:
appropriations, 1970—
hearings, 486
 - law, 3734
 - appropriations, 1971, hearings, 11022, 13709
 - Alaska Railroad, earthquake, 1964, effects on, 11394
 - Albacore, *see* Tuna fish.
 - Albany, N.Y.:
area wage survey, 10298
 - census of transportation, 1967, commodity transportation survey, production, area series, 6423
 - New York State Education Department, sociological health problems, 14946
 - Albany County, N.Y., community profile, 13830
 - Albedo:
normal, of moon, photoelectric-photographic study, 11396
 - snow albedo modification, review of literature, 1802
 - Albers, Lynn U., spatial bias correction for sporadic meteors photographed in New Mexico, 16958
 - Albert, Edward G., improved TIROS operational satellite, 605
 - Albright, John, seven firefights in Vietnam, 11572
 - Albuquerque, N. Mex.:
Albuquerque Arroyos, flood plain information, 17920
 - area wage survey, 11537
 - daily weather and river bulletin, 2484
 - floods, how to avoid damage, arroyos, 17927
 - grasses of public schools outdoor education center, 9142
 - Indian vital statistics, 7295
 - land conveyance for recreational purposes, report, 13414
- Alcohol:
- Alcohol abuse and alcoholism prevention, treatment, and rehabilitation act of 1970, hearings, 12372
 - alcohol cause/factor in aircraft accidents, briefs of reports, 9036
 - blood concentrations as affected by combinations of alcoholic beverage dosages and altitudes, 11981
 - effects on complex performance, 6404
 - industries, 1969 statistics, 8809
 - revenue rulings, etc., internal revenue bulletin, cumulative, index-digest supplement system, 2731, 7316, 16704
 - varying levels, effects on dark adaptation time, 15754
 - see also* Alcoholism.
- Alcohol, Tobacco and Firearms Division, public use forms, 14605
- Alcoholic beverages, *see* Liquors.
- Alcoholics, comprehensive community services for, Williamsburg papers, 11775
- Alcoholism:
- Alcohol abuse and alcoholism prevention, treatment, and rehabilitation act of 1970—
hearings, 12372
 - report, 13677

INDEX 1970

Alcoholism—Continued

- alcohol, alcoholism and drug abuse, review of VA sponsored research projects and published articles, 4784
- alcohol and alcoholism, 10454
- alcohol safety countermeasures program, 14957
- alcoholism and Federal employee, 8771
- anticholinesterase intoxication, pathophysiology, signs and symptoms, and management, Army technical bulletin, 17465
- Detoxification and Diagnostic Evaluation Center, St. Louis, Mo., treatment program, LEAA project report, 4359
- District of Columbia, motor vehicle operators to be given test for alcohol content, hearings, 501, 3968
- Federal grants for comprehensive community alcoholism treatment and rehabilitation services, 18265
- guidance in handling the problem, 10501
- problem, hearings, 5275, 6810, 11135
- program for Federal civilian employees, substantial cost savings from establishment, GAO report, 16597
- Alcona County, Mich.:
 - Black River harbor improvement, engineers report—
 - departmental edition, 14303
 - document edition, 13368
- Alcorn County, Miss., community profile, 16171
- Alder, red, economics of converting to Douglas-fir, 4207
- Aldicarb residues in apples, pears, sugarbeets, and cottonseed, performance in apples and pears, 9276
- Aldon, Earl F.:
 - alkali sacaton seedlings, germination and survival in agar and soil medium, 5504
 - fourwing saltbush survival after inundation, 11355
 - growing fourwing saltbush transplants for field planting, 11356
- Aldrich, John W., problem of birds contaminated by oil and their rehabilitation, 12934
- Aldridge, Melvin D., investigation of optimum detection scheme for star-field mapping system, 14890
- Alert WMEC-630 (Coast Guard cutter):
 - general information, 8137
- Aleutian Islands, vegetation of Amchitka Island, Alaska, 4250
- Aleutian Islands National Wildlife Refuge, birds, list, 4708
- Alewives, Lake Michigan, 1968 State-Federal die-off control investigation, 15753
- Alexander, B. A., publications of Bureau of Sport Fisheries and Wildlife, 3113
- Alexander, Charles P., Bredin-Archbold-Smithsonian survey of Dominica, Crane flies (Diptera, Tipulidae), 15161
- Alexander, Robert R., seedfall and establishment of Engelmann spruce in clearcut openings, case history, 5515
- Alexander, Violet M.:
 - letters received by Office of Adjutant General, 1881-89, main series, 5995
 - returns from Regular Army Coast Artillery Corps Companies, Feb. 1901-June 1916, 4539
- Alexander County, N.C., community profile, 12402
- Alexandria, Va.:
 - Fourmile Run, flood protection, engineers report—
 - departmental edition, 14327
 - document edition, 13367
- Alfalfa:
 - cooperative dehydrating plants, guidelines, 17956
 - dehydration, separation, and storage, costs and capital requirements, 9307
 - dodder control, 17
 - potato leafhopper, control, 12986

Alfalfa—Continued

- spotted alfalfa aphid, how to control it, 1198
- xanthophyll, carotene, and α -tocopherol stability as affected by pilot- and industrial-scale dehydration, 4829
- Algae, marine, of Dominica, 11849
- Algebra:
 - abstract analysis, introduction, 4502
 - decision-making in fuzzy environment, 10360
 - linear, homogeneous systems, conservation laws determined by using Lie groups, 12779
- Alger, Donald L., proposed method for regeneration of neutron producing targets, within an accelerator, by ion sputtering techniques, 4513
- Algeria:
 - agricultural economy in brief, 16382
 - economic trends and their implications for United States, 16718
 - Mauritania boundary, study, 15296
 - mineral industry, minerals yearbook chapter, 18149
 - Spanish Sahara boundary, study, 15295
- Algorithms, *see* Mathematics.
- Alice, Tex.:
 - flood plain information, 4079
 - Lattas Creek and San Diego Creeks floods, how to avoid damage, 4081
- Alienation, *see* Social isolation.
- Aliens:
 - admission of certain aliens on giving bond or cash deposit, amend act—
 - law, 12136
 - reports, 1494, 12329
 - amateur radio operators, agreement with Guatemala, 4738
 - code of Federal regulations, 7116
 - departures by port, statistical summary, 3230
 - deportation suspension, report, 15982
 - Federal employment of noncitizens, 17553
 - foreign visitor arrivals and non-U.S. citizen departures, statistical summary and analysis, 3230
 - immigration to U.S., in professional and related occupations, annual indicator, 16683
 - nonresident and foreign corporations, withholding of tax, 5695
 - resident, foreign tax credit, 5644
 - United States tax guide, 5693
 - worker certification program, 11914
- Alignment, portable alignment gyrocompass system, repeatability, accuracy, portability and errors, 14846
- Alimony, payments, income tax deduction, 1959
- Alkali sacaton, *see* Grasses.
- Alkalies:
 - alkalized-alumina, sorption of SO_2 and regeneration—
 - fluidized-bed reactors, 14792
 - mathematical evaluation, 14793
 - calc-alkali series, hydration, oxidation, and origin, 901
 - effect on survival of bluegills and largemouth bass, 4716
 - lower E-layer-alkali-plasma-cloud releases, instabilities observed and their implications regarding sporadic E, 17192
- Alkaline earths, phase relations in alkaline earth fluoride-yttria systems, 18166-67
- Alkaloids, *see* Camptothecin.
- Alkyl cycloalkyl sulfide, *see* Sulfides.
- All hands, Naval Personnel Bureau career publication, 2329
- All the way from the ground up, 4038, 13025
- All things are changing and we are changing with them, 3900
- All-Union:
 - NOTE.—For headings beginning All-Union, *see* Union of Soviet Socialist Republics.
- Allamakee County, Iowa, community profile, 13831

Alleghany, N.Y.

Allegheny River and Fivemile Creek flood plain information, 14308

floods how to avoid damage, 14321
Alleghany County, N.Y., community profile, 13832

Alleghany County, N.C., community profile, 12403

Alleghany County, Pa., community profile, 16172

Allegheny Airlines, Inc. accident reports, 7651, 12881, 17168

Allegheny National Forest:

Highland Hills Scenic Drive, general information, 16548.

just for the fun of it, on the waters of the Allegheny, 16550

Allegheny River and Valley:
Alleghany, N.Y., flood plain information, 14308

just for the fun of it, on the waters of the Allegheny, 16550

Allen, Donald M., sled-mounted suction sampler for benthic organisms, 17568

Allen, Fernando M., relief, 12169

Allen, George C., national and State livestock-feed relationships, 6317

Allen, Harold B., technology's role in seafood industry, 12066

Allen, Howard E., floods in Marengo South quadrangle, northeastern Illinois, 7238

Allen, James E., jr.:

addresses, etc.—

Nov. 10, 1969, 577, 592

Nov. 17, 1969, 591

Nov. 21, 1969, 589

Dec. 9, 1969, 1790

Jan. 23, 1970, 5349

Feb. 10, 1970, 5346

Feb. 14, 1970, 5354

Mar. 24, 1970, 12500

Mar. 30, 1970, 7024

Apr. 1, 1970, 8525

Apr. 14, 1970, 9996 12507

Apr. 19, 1970, 8528

Apr. 21, 1970, 8516

Apr. 29, 1970, 8531

May 11, 1970, 9982

May 22, 1970, 11236

May 25, 1970, 11201

June 7, 1970, 11208

Allen, R. E. stress effects of high noise levels on lower body negative pressure experiments, 16978

Allen, R. M.:

development of year's height growth in longleaf pine saplings, 703

morphology and length correlated in terminal flushes of longleaf pine saplings, 11365

Allen, R. W., research on display scanning, sampling, and reconstruction using separate main and secondary tracking tasks, 14814

Allen Richard C., legal rights of the disabled and disadvantaged, 6164

Allen, Robert E., radiation surveillance networks, 6391

Allen County, Ohio, community profile, 12404

Allentown, Pa.:

area wage survey, 16849

census of transportation, 1967, commodity transportation survey, production area series, 6421

Allergy, allergenic products, licensing requirements under Public Health Service act, include, hearing, 8307

Alliance for progress, *see* Latin America.

Allied health manpower supply and requirements, 1950-80, 10197

Alligator juniper, *see* Cedar

Aling, Edwin S. single cell rectangular conduits criteria and procedures for structural design, 9168

Allison, Lewis J., monthly global atmospheric circulation characteristics as reflected in TIROS VII radiometric measurements, 14845

Allocation, radio, etc., Federal Communications Commission reports, 16480

Allotments (Army), *see* Pay, allowances etc.

Allowances, *see* Cost-of-living allowances—Pay, allowances, etc.

Alloys:

aluminide-coated Ta-10W for heat-shield applications, 923

heat resistant, evaluation of plastic fatigue properties, 17473

marking of aircraft and missile propulsion system parts fabricated from critical high temperature alloys, military standard, 547

nonferrous smelting and refining, census of manufactures, 1967, industry statistics, 15605

precision alloys, selections, USSR book, 1994

procedures for analysis of metals, alloys, and other materials of research, 4625, 15081

refractory metal—

contamination level effect, on weldability 18179

determination of weldability and elevated temperature stability, 18178-180

long-time temperature stability determined, 18178

potassium corrosion test loop development program, 11602

structural, failure by slow crack growth, in steels and titanium, 2181

superalloy scrap, chemical reclaiming, 874

tantalum-8 tungsten-2 hafnium, survey of properties, 12810

transmission and backscatter coefficients of 1.0-to 3.0 MeV electrons incident on some metals and alloys, 8942

see also names of metals etc.

Allsman, Paul L.:

lime, 4414

sand and gravel, 8914

stone, 4484

Alluviums:

alluvial stream, error analysis of stream-flow data, 7249

alluvial valleys in western Mora County, N. Mex., geophysical study, 10168

alluvium-covered copper deposits in Pima County, Ariz., geochemical study, 7224

sediment transport in alluvial channels (series), 7243, 10177

Almanacs:

air, 6080, 10485, 18281

clothing, for southwest Asia, 1218

National Institutes of Health, 7621

nautical calendar year, 7665

nautical, 1971, American ephemeris and nautical almanac, 4597

Almonds:

almond advertising under Federal marketing orders, report, 17685

marketing orders to include paid advertising

hearings, 15882

report, 12227

Alouette satellite, *see* Satellites.

Alpha particles:

alpha-gamma angular correlations in reaction—

carbon-12, 2107

nickel-58, 5928

tin-120 (a, γ 118MeV), 2108

bibliography, 11577, 16896

employee exposure to alpha radiation in underground uranium mines, controlling, 11573

42-MeV, interaction with helium-3, 928

magnetospherically trapped particles, sources, losses and transport, 16464

INDEX 1970

- Alpha rays, *see* Alpha particles.
- Alphine County, Calif.:
lands, held in trust for Washoe Indians—
law, 13336
report, 9859
- Alter, Amos J. sewerage and sewage disposal
in cold regions, 1803
- Alterman, Jack, paper, Sept. 8-18, 1969,
822
- Alternating currents, *see* Electric currents.
- Alternators, *see* Electric generators.
- Althouse, E. L., computer simulation of
structural details of high-frequency over-
the-horizon earth backscatter, 4630.
- Altimeters:
isotopic altimeter setting indicator, design
and development, 10636
spaceborne laser altimeter, optical altim-
eter receiver systems, study and de-
sign, 5901
- Altimetry:
literature review and bibliography, 18376
space geodesy altimetry, pulse, compres-
sion radar study, 14822
- Altitude:
ATCBI-3 readout modifications, 4119
blood alcohol concentrations as affected by
combination of alcoholic beverage dos-
ages and altitudes, 11981
distribution of trapped particles at 900
km, near south Atlantic geomagnetic
anomaly, 9061
enroute IFR altitudes over particular
routes and intersections, minimum,
3451, 17454
operation of aircraft under IFR, Federal
aviation regulations, 624, 2575
- Alton Jones Farm, make part of Eisenhower
National Historic Site, law, 1398
- Alumina:
alkalized alumina, sorption of SO₂ and re-
generation—
fluidized-bed reactors, 14792
mathematical evaluation, 14793
alumina columns for selective removal of
phosphorus from wastewater, operating
parameters, 14406
alumina-to-silica mole ratio, role in lime-
soda slinter process, 16922
- Aluminum:
alloys, relationship between fracture
toughness and estimated plastic zone
size, 6107
aluminide-coated Ta-10W for heat-shield
applications, 923
aluminum chlorine battery, 10349
anode materials for reduction, evaluation
of lignite as carbon source, 7493
commercial secondary aluminum industry,
impact of technology, 7457
electrowinning aluminum from aluminum
chloride, operation of single-compart-
ment cell, 5884
exposure test, 1964, of porcelain enamels,
3 year inspection, 7569
fatigue-crack growth under simple vari-
able-amplitude loading. Investigation,
12775
hot-pressed Al₂O₃, fabrication and charac-
terization, 15093
industry—
employment outlook, 12705
mineral industry survey, monthly, 2331
ingot and mill products, current indus-
trial reports, 2475, 4934, 8077
metal supply and shipments of products to
consumers, 9414
minerals yearbook chapter, 840, 12738
polycrystalline aluminum oxide, pheno-
menological and statistical analysis of
fracture, 14851
sand casting alloy of high toughness (M-
45), report, 18194
- Aluminum—Continued
system Al₂Ca-AlN-Al₂O₃, powder forming
and sintering behavior, phase identifica-
tion, and refractory composition proper-
ties, 878
tubing with various amounts of unidirec-
tional boron/epoxy reinforcement, com-
pressive and column strengths, 14877
wire and cable, foreign free world pro-
ducers, directory, 13093
see also names of articles manufactured
from aluminum.
- Aluminum chloride, electrowinning alumi-
num from aluminum chloride, operation
of single-compartment cell, 5884
- Aluminum foil, converted, current industrial
reports, 6438
- Aluminum oxide, *see* Alumina.
- Alvarez, J. M., statistical analysis of meteo-
roid penetration data including effects of
cutoff, 5959
- Alvarez, Ray, foreign trade regulations of
Netherlands Antilles, 8146
- AM series, 1283, 3516-18, 6402-5, 8335-41,
10780, 11976-981, 13088-89, 17476-478
- Amalgams:
amalgam electrodes, use to measure activ-
ity coefficients of metal salts in multi-
component salt solutions, 1953
amalgam electrorefining, used for high-
purity zinc and tin, 872
- Amargosa project, water resource develop-
ment proposals, Interior Dept. to investi-
gate feasibility, law, 297
- Ambassadors, U.S., despatches, German
States and Germany, 1799-1801, 1835-
1906, pamphlet accompanying micro-
copy, 14909
- Ambrosia Lake, structure of district, and
stratigraphy of Morrison formation, 11386
- Ambulance attendants:
basic training program, concepts and
recommendations, 7602
emergency medical technician-ambulance
basic training program, instructor's les-
son plans, 14958
training ambulance personnel and others
responsible for emergency care of sick
and injured at scene and during trans-
port, 8775
- Ambulances:
design criteria, 6032
medical requirements for design and
equipment, 8774
- AMC, *see* Army Material Command.
- Amchitka Island, Alaska, vegetation, 4250
- Amend, Donald F., approved procedure for
determining absence of infectious pan-
creatic necrosis (IPN) in certain fish and
fish products, 15260
- Amerasia papers, clue to catastrophe of
China, 8414-15
- America, *see* United States.
- America the beautiful, collection of nation's
trashiest humor, 17307
- American Apollo (S.S.):
launching (remarks), 12728
- American Battle Monuments Commission:
appropriations, 1970—
law, 3738
report, 472
appropriations, 1971—
hearings, 8270
reports, 9686, 15990
waive points of order, report, 9688
- American Bicentennial Commission, joint
resolution establishing, amend to limit au-
thorization, hearings, 9760
- American economy in 1970 (remarks), 9245
- American education (periodical), 2332
- American-flag vessels, *see* Merchant marine.
- American Folklife Foundation, establish,
hearing, 11136

- American Historical Association :
annual report—
departmental edition, 67
document edition, 338
American Indians, *see* Indians.
American Institute of Marine Underwriters,
President Dale Taylor, introduction (re-
marks), 4395
American Instructors of the Deaf, Conven-
tion of, *see* Convention of American In-
structors of the Deaf.
American Legion :
convention, 1969, proceedings, 9615
legislative recommendations, 1970, hear-
ings, 6726
American memorials and overseas military
cemeteries, 17456
American Meteorological Society, meteorolo-
gical and geostrophysical abstracts, 2969
American Motors Corp., automotive soft
trim, how imports might affect certain
workers, Tariff Commission report, 15343
American National Cattlemen's Association :
resolutions adopted in 1969 relating to Na-
tional Forest System, Forest Service
comments, 1877, 5488
American Nuclear Society :
international conference, special session on
radioactivity calibration standards, pro-
ceedings, 14923
safeguards papers from ANS/AIF winter
meeting, 9405
American policy, *see* International relations.
American Printing House for the Blind, ap-
propriations, 1971, hearings, 17687
American Public Health Association :
Medical Care Section, 97th annual meet-
ing, abstracts of papers, 1047
98th annual meeting, Medical Care Sec-
tion, abstracts of contributed papers,
17569
American Republics :
alliance for success (remarks), 7884
foreign relations of U.S. diplomatic
papers—
departmental edition, 2237
document edition, 1431
Inter-American series, 1145
American Revolution Bicentennial Commis-
sion :
appropriations, 1970, law, 314
appropriations, 1971—
amendment, reports, 10990, 13644
hearings, 8268
law, 13335
reports, 9702, 12254, 13645
joint resolution establishing, amend to ex-
tend 1st reporting date and authoriza-
tion for appropriations, law, 300
newsletter, bicentennial era, 9347
report, 11065
report from Secretary of Interior, 16695
American Samoa :
annual report, 11439
banks, eligible for Federal deposit insur-
ance, report, 12347
corporation ownership, citizenship require-
ments, law, 15777
county business patterns, 4933, 13174
nautical chart catalog, 9485
territorial highway study, 8344
print as Senate document, report, 9828
American science manpower, 1968 report,
7649
American ships of the line, 4611
American soldier posters, 4850
American States, *see* American Republics.
American Veterans of World War II, legis-
lative recommendations, 1970, hearings,
6726
America's 200th anniversary, report of
American Revolution Bicentennial Com-
mission, 11065
Americum, americum-beryllium source en-
closed in beryllium spheres, analysis of
1.4-eV flux in water for, as means of test-
ing evaluated beryllium (n,2n) cross sec-
tions, 16993
Ames, L. L., alumina columns for selective
removal of phosphorus from wastewater,
14406
Ames Research Center :
adventures in research, 1940-65, history,
16953
Ames M-50 helium tunnel, 8948
AMG, *see* Acreage marking guides.
Amherst County, Va., Roseland district rutile
and ilmenite placer deposits of area, 5544
Amides, polyimides from diaminoanthra-
quinones and pyromellitic dianhydride,
12800
Amidon, Robert H., Mexican-Americans and
administration of justice in Southwest,
6468
Amines, new, as regenerative carbon dioxide
absorbents, investigation, 6100
see also Cysteamines.
Aminoacetic acid, *see* Glycine.
Amite County, Miss., community profile,
16173
Amity, *see* Friendship.
Ammonia :
economics of seawater desalting in com-
bination with ammonia production, 1948
gaseous, temperature dependence of self-
diffusion coefficients, 2110
removal from agricultural runoff and sec-
ondary effluents by selected ion ex-
change, 4168
Ammonites :
from Buchia zones in northwestern Cali-
fornia and southwestern Oregon, 10182
Jurassic, from central Saudi Arabia, de-
scription, 5558
Ammonium perchlorate and propellant, ther-
mal decomposition and explosion up to 50
kilobars (5.0×10^8 N/m²), 17001
Ammonium salts, ammonium salt-treated
southern pine, cure rate of resorcinol and
phenol-resorcinol adhesives in joints, 8700
Ammunition :
engineering design handbook series, 3459
Federal item identification guides for sup-
ply cataloging, supplements, 2598
importation of ammunition, internal reve-
nue regulations, 11458
production for Vietnam, impact on south-
east Kansas, 10729
see also Cartridges.
Amortization, *see* Mortgages.
Amperes, volt-ampere loading and output
distortion for turboalternator with multi-
ple load phase-controlled parasitic speed
controller, 4518
Amphetamines, why 8 billion? crime in
America, hearings, 5152
Amphibians :
endangered species, prevent importation
and interstate shipment of—
law, 1400
report, 475
Amphibious operations :
amphibious training, manual, 16876
operator training course, tactical and sup-
port vehicles, LARC 5, 4858
Amphipods, sublttoral gammaridea (am-
phipoda) of Hawaiian Islands, 7736
Amphisbaenians, *see* Lizards.
Amplifiers :
amplifying electromagnetic radiation
through use of averaged high fre-
quency field forces, study of possibility,
4872
semiconductor amplifiers and oscillators
at microwave frequencies, tabulation of
data, 7577

INDEX 1970

- Amplitude and time statistics of atmospheric and man-made radio noise, 10024
- Amputation, lower-extremity amputations, surgery, immediate postsurgical prosthetic fitting, patient care management, 4786
- Amputees, lower-extremity, physical therapy, 17468
- Amusements, entertainment expenses, rules for deducting from income tax, 788
- AMVETS, *see* American Veterans of World War II
- An Giang Province, Vietnam :
program to attain maximum agricultural production, 5373
resources inventory, 14301
soils, EARI development research report, 5367
- Thanh Quoi, Viet-Nam, pilot drainage and irrigation project, feasibility study, 5368
- Anadromous fish, *see* Fish and fisheries.
- Anaheim, Calif., area wage survey, 12708
- Anahola Stream, flood plain information, 4075
- Anahuac National Wildlife Refuge, birds, list, 11887
- Analog computers, *see* Electronic computers.
- Analysis, *see* Inspectional analysis—Thermogravimetric analysis—*also* names of substances or subjects analyzed.
- Analysis (mathematics), *see* Mathematics.
- Analysis centers, *see* Information services.
- Analysts, *see* Transportation analysts.
- Analytic calculation of launch vehicle response to winds and calculations of optimal biased pitch programs, 11667
- Analytical Coordination Chemistry Section, National Bureau of Standards, summary of activities, 17040
- Analytical Mass Spectrometry Section, summary of activities, 8993
- Analytical method for determining melt-layer thickness and regression rates for hybrid or tribrid rocket motor, 10387
- Analytical Reference Service :
report, 11262
studies, 1815, 7046, 8566
- Analyzers, *see* Pulse height analyzers.
- Anatomy :
Anatomical gift act—
hearing, 6794
law, 10928
reports, 6766, 9684
gift of all or part of human body after death for specified purposes, authorize, in District of Columbia—
hearing, 6794
law, 10928
reports, 6766, 9684
lateral (+Gy), rearward-facing (+Gx) and forward-facing (-Gx) body orientations, experimental comparison of trauma when restrained by lap belt only, 10780
- Anatomy of East-West cooperation, US-USSR public health exchange program, 969
- Anatomy of inflation, 815
- Anchorage, Alaska :
aircraft accident report, 2167
principal electric facilities, map, 8629
stability of west slope of Government Hill port area, 725
- Anders, John B., wedge-induced laminar boundary layer separation on flat plate in low-density, hypervelocity flow, 10408
- Anderson, D. B., floods of Mar.-May 1965 in upper Mississippi River basin, 10188
- Anderson, Daniel G., effects of urban development on floods in northern Virginia, 18055
- Anderson, David B., floods of Apr.-May 1969 in upper Midwestern U.S., 14528
- Anderson, Douglas, analysis of effect of design and measurement errors on pump performance parameters, 14868
- Anderson, Duwayne M., phase boundary water in frozen soils, 11251
- Anderson, Gerald W., sweetfern rust on hard pines, 14445
- Anderson, Herbert G., jr., annotated list of parasites of bluefish *Pomatomus saltatrix*, 11893
- Anderson, J., interactive specification of data displays, 14828
- Anderson, John L., PERTRAN, transport-perturbation program, 12823
- Anderson, John T., relief, 350, 13272, 13591
- Anderson, L. O. :
designs for low-cost wood homes, 1876
house plans, 5481-85
wood-frame house construction, 12974
- Anderson, Lillian I., land conveyance, amend law, 3784, 11069, 12093
- Anderson, Maynard E., automating fluid milk processing line, equipment and procedures, 4801
- Anderson, Melvin S., structural merit function for aerodynamic decelerators, 2091
- Anderson, Nell A., eastern gall rust, 12548
- Anderson, R. E., controlled atmosphere storage of eastern-grown peaches and nectarines, 1199
- Anderson, Ralph K., application of meteorological satellite data in analysis and forecasting, 14346
- Anderson, Theodore, bilingual schooling in United States, 8509
- Anderson, Walter C., determinants of southern pine pulpwood prices, 702
- Anderson, Willard W. :
adaptive controller for space base spin plane orientation, 14878
computerized onboard expeditious monitor and maintenance analyst (EMMA) for spacecraft systems, 11634
- Anderson, William W., life histories of several penaeid shrimps along south Atlantic coast of U.S., 13243
- Andersonville National Historic Site, establish, report, 13458
- Anderton, David A., America in space, first decade, aeronautics, 14836
- Andreassen, Gordon E., magnetic fields for 4 x 6 prismatic model, 5560
- Andreuzzi, Frank C., method for extinguishing and removing burning coal refuse banks, 16894
- Andrew County, Mo., community profile, 16174
- Andrews, Edith W., scientific and technical personnel in industry, 14741
- Andrews, George W., late Miocene nonmarine diatoms from Kilgore area, Cherry County, Nebr., 16622
- Andrews, Henry N., jr., index of generic names of fossil plants, 1820-1965, 10159
- Andrews, R. A., computer program to analyze optical parametric up-conversion processes in nonlinear crystals, 2179
- Androscooggin River and Valley :
flood plain information, 1804
New Hampshire-Maine, pollution of interstate waters, conference proceedings, 8668
- Anemia, sickle cell anemia, general information, 985
- Anemometers, heated thermopile anemometer compared with sensitive-cup anemometer in natural airflow, 679
- Aneth, Utah, soil survey of area, special report, 10570
- Angiotensin, *see* Peptides.
- Angle of attack :
analysis of spinning slender cone with slight aerodynamic and mass asymmetries (reentry F), 18972
angle of attack and bluntness, effects on hypersonic flow over 15° semiapex cone in helium, 14862

Angle of attack—Continued

- angle of attack plane of conical flows, approximation of distribution of flow properties, 14883
- blunt lifting body at Mach 3.71, experimental heat-transfer distributions, 5935
- computer program for prediction of ducted fan performance, 5395
- convective heat-transfer rates on large-angle conical bodies at hypersonic speeds, 925
- evaluation of instrumentation in training of student pilots to private pilot certification, 3454
- zero and small, discontinuous flows and free streamline solutions for axisymmetric bodies, 5942
- zero, approximate solution of additive-drag coefficient and mass-flow ratio for inlets utilizing right circular cones, 2092

Angles:

- measuring angles with carpenter's folding ruler, 684
- spiral after effect, some influences of visual angle and retinal speed on duration and intensity of illusory motion, 8036
- vector azimuth angles for unguided rockets, wind-weighting technique to predict velocity, 13038

Angola, *see* Portuguese West Africa.

Angular distribution:

- Kaufman ion thruster beams, 10412
- reflected radiation on basis of data obtained during flights on an Il-18 aircraft in 1964, USSR study, 7399

Anhydrators, *see* Dryers (industrial).

Animal industry, *see* Livestock.

Animal products:

- growth in world demand for feed grains related to meat and livestock products, 12496
- imported livestock products, inspection—hearings, 17632
- report, 17684
- monitoring animal byproducts for presence of salmonella, 6289
- rendering animal byproducts, 6289
- trade and tariff information summaries, 4766

Animal vectors, *see* Vectors (biological).

Animals:

- care of animals used for research, experimentation, exhibition, or held for sale as pets, hearings, 13491
- ecology, radiotelemetry, radio tracking of animals, USSR study, 1999
- experimental, aerosol revaccination, USSR study, 12640
- fish-front management in raceways, guide, 6177
- gold content, 5547
- hazards from Bureau-constructed canals, open and closed conduit systems program, 9091
- live, Federal item identification guides for cataloging, supplements, 2597
- man and animal, changing concepts, 11879
- myeloproliferative disorders, symposium proceedings, 13066
- waste profile, economics of clean water, 10097

see also Wildlife.

Anions, improved anionic membranes for electro dialysis, 776

Anisotropy:

- anisotropic Heisenberg ferromagnet, theory, 18216
- elastically anisotropic polycrystalline and amorphous materials, suggested orientation conventions, 4477
- plates with rows of holes considered as anisotropic soft-inclusion models of 3-dimensional room and pillar mining systems, 18165

Ankeny National Wildlife Refuge, mammals, list, 1126

Ann Arbor, Mich., census of transportation, 1967, commodity transportation survey, 8069

Annelids, serpulidae (annelida, polychaeta), review of some little known genera, 4665

Annette Island, Alaska, airport, Federal aviation, regulations, 2574

Anniston, Ala., loran tests, evaluation, 14349

Annosus root rot in eastern pines, 14444

Annals (plants):

flowering, growing, etc., 4812

Annuitants, *see* Civil service.

Annuities:

District of Columbia—
judges retirement act of 1964, amend survivor annuity provisions, law, 1405

teachers' retirement amendments of 1970

law, 10923

reports, 5133, 9841

Foreign Service retirement and disability system, increases and adjustments—

law, 5060

reports, 1525, 5245

Railroad retirement act of 1937, annuities, increase—

hearings, 6719, 9930

law, 13344

reports, 8223, 8232, 12330, 13432

Railroad retirement act, supplemental annuities, continue, amend act—

hearings, 1742

law, 6547

reports, 5103, 5204, 6592

tax-sheltered plans for employees of public schools and certain tax-exempt organizations, 5689

trusts, tax exemption, procedures and guides under Internal revenue code, 11457

see also Civil service pensions.

Anodes:

anode materials and operating conditions

for electrowinning beryllium, 5880

Federal item identification guide, 11165

materials for alumina reduction, evaluation of lignite as carbon source, 7493

Anolyte studies of magnesium electrode in molten mixtures of lithium chloride, potassium chloride, and magnesium chloride, 5952

Anomalies:

anomalous water, discovery or error, USSR study, 5798, 7401

geochemical and radiometric, Serpentine Hot Springs area, Seward Peninsula, Alaska, 14522

South Atlantic geomagnetic anomaly, distribution of trapped particles at altitude of 900-km, 9061

Anomorianaki, Pagoda, relief, 1375, 3917

ANS, *see* American Nuclear Society.

Ansley Wilcox House National Historic Site, historical data, 15030

Anson County, N.C., community profile, 12405

Answers to your questions about American Indians, 10217

Antarctic Ocean, Ostracoda (Myodocopina), 6158

Antarctic regions:

Antarctic bibliography, 1951-61, 11552

Antarctic journal of United States, 2335

Antarctic personnel, dental calculus formation rate, indices evaluation, 10316

core drilling through ice sheet, 5386

glacier ice, deep core studies of crystal structure and fabrics, 10001

ionospheric disturbances, 1968 observations, 11275

nautical charts and publications, catalog, 15051

- Antarctic regions—Continued
oceanographic cruise summary, Ross Sea, 4598
Operation Deep Freeze, report, 15099
Permian sphenopods, 7244
seismological bulletin (periodical), 2336
Antarctica, *see* Antarctic regions.
Antelope County, Nebr., community profile, 17752
Antelope Recreation Area, general information, 16536
Antelope Valley :
soil survey—
report, 6191
summary of soil characteristics, 1110
Antelopes :
pronghorn, habitat management for, 17296
starvation with stomachs full of feed, 680
Antenna horns, pyramidal and H-plane horns radiating into dielectric materials, reflection coefficients, 16983
Antennas :
antenna parts, Federal item identification guide, 11166
Antenna system for tropospheric radio relay communication lines in centimeter waveband, USSR study, 8841
calculating compensating reflector in two-reflector antenna with circular symmetry, USSR study, 5759
community antenna relay applications accepted for filing, 2576
extremely thin, omnidirectional, microwave antenna array for spacecraft applications, 984
high-efficiency low-noise antennas, optimization of basic electronic characteristics, USSR study, 18110
iterative technique for reducing sidelobes of circular and cylindrical arrays, 15085
low sidelobe phased array, evaluation, 895
parabolic, high efficiency for space communications and radio astronomy, USSR study, 12655
plasma covered cavity-backed slot antenna, experimental investigation, 907
rhombic, nested-tandem array of 4, scaled-model measurements, 4092
scanning, phased arrays, phase interpolation circuits, 14854
shunt-fed, log-periodic monopole array antenna, analysis, 11273
60-ft. X-band microwave antenna—
computer system, hardware for data acquisition, NRL, 15090
operating procedures of computer control system, 15092
Soviet studies, 10258
structures, construction, lighting, and marking, FCC rules and regulations, 2578
stub and frame, flight vehicles, USSR study, 11499
transportable log-periodic dipole antenna, scaled-model measurements, 5391
two-reflector, with automatic phasing, experimental study, USSR study, 7395
UHF radio propagation data for low antenna heights, 4091, 5390
ultrashort-wave, USSR study, 16768
wave channel type antenna with modulated phase velocity, USSR study, 18105
Wullenweber, theoretical methods for computing characteristics, 8574
Anthony, Joseph P., Jr., evaluation of various types of disposable pallets for handling and transporting Florida citrus, interim report, 9280
Anthony P. Miller, Inc., relief, 3798, 13269, 17658
Anthracite, *see* Coal.
Anthracite mines, *see* Coal mines and mining.
Anthrax, walnut, identification and control, 14446
Anthrax, *see* Flies.
Anthropologists, employment outlook, 12689
Anthropology, Smithsonian contributions, 991, 4575, 9025, 10465A-467
Anthropometry, skinfolds, body girths, biacromial diameter, and selected anthropometric indices of adults, 6013
Anti-trust laws, *see* Monopolies—Trusts (industrial).
Antiballistic missiles, *see* Missiles.
Antibiotics :
antibiotic residues, hidden risks, 4173
treatment of blister rust cankers in eastern white pine, 16563
see also names of antibiotics.
Antibodies, *see* Antigens and antibodies.
Anticholinesterase, intoxication, pathophysiology, signs and symptoms, and management, Army technical bulletin, 17465
Anticollision lights for supersonic transport, (SST), 17477
Antidiscrimination, *see* Discrimination in housing.
Antifriction bearings, *see* Bearings (machinery).
Antigens and antibodies :
antigens of vibrio cholerae, USSR study, 16788
tissue typing antisera, 1970 catalog, 18263
Antimony :
geochemical investigations at Stibnite, Idaho, 11596
mineral industry survey, quarterly, 2337
Antimycin A :
control fish, resume on on field applications, 11878
effects on tissue respiration of rainbow trout and channel catfish, 11878
Antioxidants, radioprotective action of antioxidants obtained from petroleum products, USSR study, 12627
Antipoverty programs, *see* Poverty.
Antiserum, *see* Antigens and antibodies.
Antoine, Albert C., thermodynamic properties of liquid metal solutions in cesium-mercury system, 2112
Antila, Peter W., sedimentation in Plum Creek subwatershed No. 4, Shelby County, north-central Kentucky, 5564
Anvil Points Oil Shale Facilities, lease agreement, gas combustion retorting of oil shale, 866
AOML, *see* Atlantic Oceanographic and Meteorological Laboratories.
AP series, *see* National Air Pollution Administration.
Apache County, Ariz :
community profile, 6891
preliminary reconnaissance for uranium, 15520
Apache National Forest, status of lands conveyed to claimants, relief, 3781, 3787
Apalachicola River, sand ridge migration, report, 7668
Apanasewicz, Nellie, educational system of Yugoslavia, 11211
APC tablets, qualitative analysis, FDA's science project series, 12543
APCL, *see* Atmospheric and Physics Chemistry Laboratory.
Apertures :
aperture synthesis in radio astronomy, USSR study, 8845
effect on measurement of axial distribution function in magnetically confined plasma, 10394
APHA, *see* American Public Health Association.
Aphids :
balsam woolly aphid, 16543
spotted alfalfa, how to control it, 1198
Apical meristems, *see* Meristems.
Apogees, *see* Orbits.
Apollo project, *see* Project Apollo (man-in-space program).
Apollo spacecraft, *see* Spacecraft.

Apollo 13 Review Board:
Apollo 13 mission review, hearing, 13705
report, 12282
work procedures and findings, hearing,
9883

Apostle Islands National Lakeshore:
establish—
hearings, 1585, 13523
law, 17609
reports, 12240, 13470

Appalachian region:
acid mine drainage, messages from the
President, 5068, 15820-821
Bedford shale, Berea sandstone, and Sun-
bury shale, age, 5541
Development act of 1965, extend—
law, 1388
report, 1454
erosion control on logging roads, 14473
land stabilization and conservation pro-
grams, results from inception, 3384
medicinal plants guide, 10130
mine-timber market in bituminous coal
region, 10132
oil-producing formations, lithologic de-
scriptions, 11581
pneumoconiosis in bituminous coal miners,
8580
rural, private outdoor recreation enter-
prises, 4044
southern ridges and valley of Alabama,
Georgia, and Tennessee, soil survey in-
terpretations for woodlands, 7781
special districts, natural resource, review
of enabling laws, 14271
uranium in Appalachian mobile belt, de-
posits, description, etc., 8024

Appalachian Regional Commission:
appropriations, 1971, hearings, 8271, 11105
extend—
law, 1388
report, 1454

Appanoose County, Iowa, community profile,
13833

Apparel, *see* Clothing.

Appeals:
appellate procedure, Federal rules—
amendments, proposals, 8206
with forms, 11052
contract appeals, decisions, 2750
Indian appeals, decisions, 2751
land appeals, decisions, 2752
tax refunds, appeal rights and claims,
5633

Appell, Herbert R. conversion of urban re-
fuse to oil, 10338

Appellate proceedings, *see* Appeals.

Apple cider, *see* Cider.

Applegate, Richard L., ecology of daphnia in
Bull Shoals Reservoir, 1131

Applegate, Vernon C., brief history of com-
mercial fishing in Lake Erie, 9538

Appleman, Herbert S., introduction to
weather modification, 50

Appleman, Roy E., historic structures re-
port, Blankenship Ranch, Organ Pipe
Cactus National Monument, 12870

Apples:
aldicarb residues, performance, 9276
blight, 17440
commercial, production by varieties, 1969,
with comparisons, 2246
crabapples of documented authentic origin,
history, progeny, and locations of trees
9282
fresh, sold in selected markets, prices and
spreads, 10691
golden delicious, feasibility of shipping in
tray-packed boxes, 9303
McIntosh and golden delicious apples,
feasibility of using 50-by-30 centimeter
cell box for exporting, 4819

Apples—Continued
marketing orders to include paid adver-
tising—
hearings, 15852
law, 13337
report, 1623, 12225
National Apple Utilization Conference re-
port, 15399
pasteurized, 90-day subacute oral toxicity
studies on radiation, 4892
produced in Colorado, Utah, New Mexico,
Illinois, and Ohio, marketing order
authority, extend—
law, 13316
report, 12223

Appliances, *see* Electric apparatus and ap-
pliances.

Application of biologicals, 5765

Applied mathematics series 4547

Applied Technology Institute, *see* Institute
for Applied Technology.

Apportionments, congressional, methodology
and procedures among States, 1970
census
report, 13427

Appraisals, *see* Valuation.

Apprentices:

apprenticeship coordinators, 15466
apprenticeship standards—
cement masonry, asphalt, and composi-
tion trade, 68
lathing industry, national standards,
3455
building and construction trades, appren-
ticeship schedules 11967-968
electrical and electronic trades, apprentice-
ship schedules, 11966
Government Printing Office, increase num-
ber authorized—
law, 1421
report, 1533
industrial plant and equipment mainte-
nance trades, apprenticeship schedules,
13034
mechanical repair and personal service
trades, apprenticeship schedules, 4844
mechanical trades, examination announce-
ment, 9464
metal working trades, apprenticeship
schedules, 13035
printing crafts, compositor, bookbinder,
pressman, machinist, lithographer, pho-
toengraver, examination announcement,
3662, 8117
skilled trade, train through apprenticeship,
11969
training, sure way to skilled craft, 10728
why not be an apprentice? and become a
skilled craftsman, 12953

Apprenticeships, *see* Apprentices.

Approach and landing systems, weather ef-
fects 18375

Approach lights, *see* Lights and lighting.

Approach, naval aviation safety review, 2340

Appropriations:

gap between Federal aid authorizations
and appropriations, staff analysis, 12957
general Government matters, 1970, con-
tinue—
laws, 1384, 3733, 5052
reports, 162, 3922 13394, 13639, 13674
general Government matters, 1971, con-
tinue—
laws, 12120, 13300, 15769
report, 12208
legislative, 1969, amendments, proposals,
446
legislative, 1970 amendments, proposals,
444
legislative, 1971—
amendments, proposal, 13571
hearings, 6695, 9890
law, 15778
reports, 6685, 12351, 13440

Appropriations—Continued

- requests, 1971, amendments rel. to—
 - pollution abatement objectives, implementation, 8210
 - Veterans Administration, 8209
- statements, 91st Congress, 1st and 2d sessions, 9776
- supplemental, 1969–70—
 - proposal, 6572
 - with amendments 1971, proposal, 6573
- supplemental, 1970—
 - hearings, 401, 3952, 8273
 - interim report, 15828
 - laws, 3741, 12128
 - proposals, 8213, 8222, 9780
 - reports, 1541, 1562, 3927, 9667, 9675, 11066, 12215
 - revisions, 5074
 - supplemental, 1971 hearings, 9892
- see also subjects, or names of departments, etc., for which appropriations are made.
- Appropriations Committee, House:
 - hearings, 397, 399–401, 1570–71, 3849, 5142, 6692–96, 8266–73, 8724–29, 11020–22, 12258–259, 13492–493
 - reports, 394, 1461, 1468, 1498, 1521, 1541, 6685–86, 8247, 9667, 9680, 9686, 9702, 9719, 10962–963, 10983, 10985, 12207–208, 13394, 13426
- Appropriations Committee, Senate:
 - hearings, 486–487, 1700–3, 3950–52, 9888–92, 11104–106, 13708–711, 16036, 17687–688
 - meeting of subcommittee, 8377
 - reports, 474, 477, 1625, 1650–51, 1680, 1683, 3922, 3926–27, 5254, 9868, 11088, 11101, 12328, 12342, 12351, 13639, 13645, 13674, 13697, 15990, 16009, 16031
 - tribute to Carl Hayden, 6786
- Approximations:
 - accuracy of finite element approximations to structural problems, 7552
 - additive drag coefficients and mass-flow ratio for inlets utilizing right circular cones at zero angle of attack, 2092
- Apricots, canned, U.S. standards for grades, 16097
- APT (automatically programmed testing), see Tools.
- APTD series, see National Air Pollution Control Administration.
- APTIC, see Air Pollution Technical Information Center.
- Aptitude tests:
 - aptitude test performance affected by demographic differences, 13012
 - Armed Forces vocational aptitude battery, 15498
 - enlisted classification, development of improved aptitude area composites, 13059
- Aquaculture, see Aquiculture.
- Aquariums, experimental sea-water, at Fishery-Oceanography Center, description, etc., 3708
- Aquatic animals:
 - aquatic organisms and exotic fishes introduced into North America, 12723
 - invertebrates, chronic effects from methoxychlor, 11892
- Aquatic herbicide, data, supplement, 11
- Aquatic life:
 - heterotrophic and autotrophic populations in aquatic ecosystems, interrelation of carbon and phosphorus as means of regulating, 14413
 - invertebrates, toxicology of thiodan, 7788
- Aquatic plants, see Marine flora.
- Aqueducts, California undersea aqueduct pre-reconnaissance study, 6141
- Aqueous solutions:
 - N₂O₄ and aqueous and hot-salt environments, effect of composition on mechanism of stress-corrosion cracking of titanium alloys, 7514
 - ternary aqueous saline solutions, diffusion, 5620

Aqueous solutions—Continued

- titanium alloys at ambient temperature, stress corrosion cracking, 894
- see also names of substances in solutions, e.g., Salt.
- Aquiculture, Lummi aquaculture project, Lummi Reservation (remarks), 6889
- Aquifers:
 - digital model for aquifer evaluation, 8751
 - geohydrology, Project Rullison, Garfield County, Colo., with section on aquifer response, 8734
 - mechanics of aquifer systems (series), 8741
 - water-level and water-quality trends along Mississippi Gulf Coast, 16627
- Arab countries, American doctoral dissertations, compilation, 10303
- Arab-Israeli conflict of 1967, refugee situation, report, 3848
- Aranas National Wildlife Refuge, birds, list, 1121
- Arbelaez C., Vicente:
 - Spanish programmatic course, 15299
 - instructor's manual, 15300
- Arbitration:
 - international convention on Recognition and Enforcement of Foreign Awards, implement—
 - law, 15767
 - reports, 5246, 10991
 - negotiation impasse, grievance, and arbitration in Federal agreements, 12715
- Arbitration Board, Federal Employees, see Federal Employees Board of Arbitration.
- Arbor Day, National, see National Arbor Day.
- Arboretum, see National Arboretum.
- Arbuckle Recreation Area, general information, 7644
- Arc (electric), see Electric arc.
- Arc cutters, employment outlook, 14714
- Arc tunnels, see Wind tunnels.
- Arc welding, see Welders.
- Arcadia Reservoir:
 - Deep Fork River, Okla., water quality control, engineers report—
 - departmental edition, 9999
 - document edition, 9620
- Arceuthobium, see Mistletoe.
- Archaeology:
 - archeological, historical, and cultural properties, recovery of stolen objects, agreement with Mexico, 15972
 - archeological research series, 7630
 - archeological survey of southwest Virginia, 10466
- Arches, beam columns, and frames, finite element approach to structural instability, 10406
- Arches National Monument, general information, 11786
- Arches National Park:
 - establish—
 - hearing, 13740
 - report, 12345
- Architect of Capitol:
 - appropriations, 1970, legislative, amendment, 329
 - appropriations, 1971, legislative—
 - hearings, 6695, 9890
 - law, 15773
 - reports, 6685, 12351, 13440
 - reports, semiannual, 5191, 13562
 - transfer to Librarian of Congress authority to purchase office equipment and furniture for Library of Congress—
 - law, 12108
 - reports, 6689, 11081
- Architects:
 - certified fallout shelter analysts, directory of firms, 3655
 - employment outlook, 12680
 - nuclear defense design, professional development courses, 12044

Architects—Continued

procurement of architect and engineer services by Federal Government, establish policy—
hearing, 13522
report, 15888
VISTA architects and planners, general information, 5333

Architecture:

building research, selected studies applicable to design and construction of health facilities, 11407
contracting for construction and architect-engineering services for Atomic Energy Commission, 11975
courier station design, technical manual, 7997
developing new communities, application of technological innovations, 8780
facility design and planning, Air Force design manual, design policies and procedures, 4832
Georgetown architecture, northwest Washington, D.C. 14420, 15029
Georgetown commercial district, Washington, D.C., 15028
historic preservation program, 14574
hospital designs, quantitative methods for evaluating, 14933
low-cost wood homes, 1876
house plans, 5481-85, 7184-89
NASA facilities design and construction, engineering management, report, 8321
PACAF basic bibliography, 13026
structural design—
review of long, cylindrical, liquid-filled independent cargo tank-barges, 11846
single cell rectangular conduits, criteria and procedures, 9168

ARCRL, *see* Air Force Cambridge Research Laboratories.

Arctic Coast, coast pilots, Alaska, Cape Spencer to Beaufort Sea, supplement, 6493

Arctic Ocean, lights and fog signals, 15054

Arctic regions:

Arctic ice observing and forecasting program, 1968 report, 9048
correlation of graptolitic sequences with early Silurian graptolites in southeastern Alaska, 10183
eastern Arctic ice, seasonal outlook, 11810
fire in far northern regions, bibliography, 14602
North American arctic and subarctic, 1964-65, 1965-66 ice thickness observations, 4070
polar snow, Camp Century, Greenland, variation of some mechanical properties, 5364

Are you creative with people?, 4360

Area development, *see* Redevelopment (city planning).

Area handbooks:

Argentina, 1233
Burundi, 3474
Colombia, 15485
Guatemala, 13053
Guyana, 4862
Indonesia, 13052
Japan, 1232
Jordan, 4860
Korea, 94
Libya, 6354
Mongolia, 10738
Nicaragua, 15487
North Korea, 4861
Rwanda, 4863
Somali Democratic Republic, 15486
Tunisia, 15488
Turkey, 9354
Zambia, 1234

Area measurement reports, 11985

Area studies:

and language, agreement with Republic of China, 1158
areal investigations, catalog of information on water data index, 7226

Area trends in employment and unemployment (periodical), 2344

Area wage surveys, *see* Wages.

Arend, John L., oak forests of Lake States and their management, 5508

Argentina:

Army area handbook, 1233
created tinamous, study, 9184
defense, cooperative technical and scientific projects, agreement, 15315
economic trends and their implication for United States, 5706, 14629
mineral industry, minerals yearbook chapter, 5859

Argon:

CO₂-N₂-O₂-Ar gas mixtures for planetary entry applications, transport properties at high temperatures, 2085
gas bearing materials, selection and evaluation, 4492
stimulated emission in argon pinch discharge, detection and investigation, 4876

Arithmetic:

afternoon remedial and enrichment program, Buffalo, N.Y., 4051
remedial, Plus Program, Buffalo, N.Y., successful compensatory education program, 4054
school achievement of children 6-11 years as measured by wide range achievement test, 14935
van der Waerden's theorem on arithmetic progressions, note, 15082

Arizona:

census of business, 1967—
major retail centers, standard metropolitan statistical areas, 4908
retail trade, merchandise line sales, 11988
census of construction industries, 1967, statistics, 17483
census of governments, 1967, State reports, 3553
census of manufactures, 1967, statistics, 17497
climatological data, 2409
conservation of hawks, 15198
conservation of owls, 15199
county business patterns, 10800
5-spined ips, chemical control, 5502
foliar moisture content of chaparral accounting for variation and relating to prescribed fires, 11348
home fruit garden, 7919
mesozoic stratigraphy of Mule and Huachuca Mountains (series), 4252
mineral industry, minerals yearbook chapter, 4416
minority construction contractors located in selected cities, list, 8796
non-game birds, ways to attract, 15247
precipitation data, hourly, 2718
quitclaims to quiet title, 3781, 3787
snow survey measurements 1938-70, 18335
southeastern—
and adjacent areas, Cretaceous paleogeography, 16618
mesozoic stratigraphy (series), 16618
water resources, 4258, 16628, 18048
water supply outlook and snow surveys, 3337
wilderness, designate certain lands, hearing, 13743

INDEX 1970

Arkansas:

- agricultural conservation program, 1970 program, State program handbook, 6297
 - census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 6412
 - retail trade, merchandise line sales, 11989
 - selected services, area statistics, 3540
 - wholesale trade, area statistics, 166
 - census of construction industries, 1967, statistics, 15551
 - census of governments, 1967, State reports, 3554
 - census of manufactures, 1967 statistics, 15571
 - climatological data, 2409
 - county business patterns, 192, 12018
 - economic development programs (addresses), 8490-91
 - forest industries, 11368
 - forest statistics for Delta and Ouachita regions, 14485
 - mineral industry, minerals yearbook chapter 4417
 - mineral resources and industries, 2047
 - Mississippi River and tributaries, fishery products, wholesale dealers, list, 9557
 - plant materials annual report of field plantings, 15222
 - precipitation data, hourly, 2718
 - sediment, sources and solutions, 4690
 - small watershed—
 - development, progress report, 9149
 - projects, program, hearings, 12382, 17718
 - southern, exotic trees unsatisfactory for forestry, 4194
 - southwest counties, forest statistics, 706
 - water resources data, 7252
- ## Arkansas River and Valley:
- Arkansas-White-Red basins area development under USDA programs, progress, 6189
 - comprehensive development plan for basin, hearings, 433
 - flood plain information, Pulaski County, Ark., 7034
 - Fort Dodge-Wilroads Gardens section, Dodge City, Kans., special flood plain information, 14332
 - future of a river, choices and values, proposed channelization of Arkansas River above John Martin Dam, report, 1034
 - multiple-purpose project, agricultural aspects, observational study, annual report, 10562
 - navigation and comprehensive development report, hearings, 433
 - navigation project, hydraulic model investigation, 16449
 - surface water supply of basin, 736
 - water supply outlook and snow surveys, 3338
 - watershed snow courses and soil moisture stations, list, 7764
- ## Arlington County, Va.:
- Fourmile Run, flood protection, engineers report—
 - departmental edition, 14327
 - document edition, 13367
- ## Armaments, see Munitions.
- ## Armed Forces:
- air evacuation of patients, authorize subsistence without charge to members of uniformed services, civilian Government employees, and dependents—
 - hearing, 404
 - report, 1510
 - American serviceman, commend for his efforts and sacrifices in Vietnam conflict, report, 3811

Armed Forces—Continued

- appropriations, 1970, military procurement, authorization—
 - law, 1386
 - reports, 1450, 9657, 9662, 12352
- appropriations, 1971, military procurement, hearings, 8275, 11107
- aptitude area composites improved for enlisted classification, development, 13059
- Armed services procurement manual ASPM series, 5298
- capsule facts for Armed Forces (series), 69-78, 6343-44, 7972-73, 16689
- cargo for U.S. military forces, customs regulations, agreement with Philippines, 4736
- claims settlement by Federal agencies, amend law, report, 362
- courts-martial, manual, analysis of contents, 13049
- crossroads for man in uniform, 11972
- defense procurement circular, 2496
- defense supply procurement regulations, 4005, 8462
- dependents—
 - handicapped, benefits, 14553
 - health care cost-sharing arrangements—
 - hearings, 3853, 6697
 - reports, 5115, 13694
 - duty-free entry of gifts from servicemen in combat zones—
 - law, 3750
 - report, 1519
 - enlisted men appointed officers, no pay reduction, report, 10969
- Federal income tax information for personnel, 1969 returns, 2013
- freeze-drying food for Armed Services, 13045
- gold star lapel button, more equitable standard for awarding, report, 10970
- health benefit programs—
 - review, hearings, 13495
 - subcommittee report, 12263
- home buying serviceman, 749, 16660
- judge advocates and law specialist officers, procurement and retention, amend U.S. Code, report, 378
- layman as leader of worship, report of conference, 2175
- legislation affecting, 90th Cong., 2d sess., hearings, title page, contents, and index, 3850
- life insurance—
 - Government programs, annual report, 7889
 - servicemen's group, increase—
 - law, 13302
 - report, 9659
- major achievements, 1970, report, forces in action, 6843
- Marine Corps Band, director and assistant grades, remove statutory restrictions—
 - law, 5056
 - reports, 374, 3943
- Medal of Honor recipients, furnish headstone for unmarked graves at Government expense—
 - law, 15785
 - report, 1490
- medically trained servicemen, where do you go from here? Operation MEDHIC, 12595
- members—
 - death, where no remains are recovered, payment of certain expenses, report, 10972
 - erroneous payments of pay or allowances, waiver of claims—
 - hearing, 6721
 - report, 5116
 - personal property traffic management regulations, 7982

Armed Forces—Continued

members—continued
uniformed services, joint travel regulations, 4017
voluntarily extending tour of duty in hostile fire area, special 30-day period of leave, extend authorization—
law, 12126
reports, 10967, 13637
voting information booklet, 7974
military club systems, fraud and corruption in management, investigation, hearings, 1730, 3975
military-industrial complex, case for balanced viewpoint (remarks), 10772
military mail from Okinawa to points in southeast Asia, reductions achieved in cost of transporting, GAO report, 12586
military officer positions, improvements needed in determining graduate education requirements, GAO report, 14501
military personnel and civilian employees' claims act of 1964, amend, report, 362
military retired pay, provide retirees with improved formula for future cost of living adjustments—
law, 3749
reports, 1478, 1509, 1688
military retired pay, recomputation, authorize—
hearings, 6697
report, 5121
military's role in Peruvian politics, 3445
military symbols, field manual, 83
National Guard Bureau Chief, grade of lieutenant general, provide—
hearings, 6697
report, 5120
National Guard claims, contributory negligence, local law, apply, amend U.S. Code, report, 1456
National Guard officers, to act as property inspecting officers—
hearings, 402
report, 1489
NATO status of forces treaty, criminal jurisdiction operations—
hearings, 3955, 17690
report, 5205
new educational program (PREP) for servicemen with service since Jan. 31, 1955, 17400
nuclear weapons employment doctrine and procedures, staff officers' field manual, change, 7985
obstruction of military personnel or transportation, by Communist powers, groups, and organizations, amend Internal security act, hearings, 3870
obstruction of recruitment services, report, 15861
personnel, reciprocal advance of funds for temporary support, agreement with New Zealand, 1154
personnel selection and classification, 1237
President's Commission on an All-Volunteer Armed Force, report, 6127
procurement quality assurance handbook, medical materiel, supplement, 11185
procurement regulations, 2345
Air Force supplements, 2721, 5315-17, 6870-74, 8479, 9956-57
supplements, 8453-54
provisions under titles 10 and 37, United States Code, repeal obsolete sections, report, 10968
reemployment rights of Federal employees who leave their jobs to serve, 9471
retired serviceman's family protection plan, 3456
savings deposit program, allotments for prisoners of war, etc., during Vietnam conflict, waive \$10,000 limitation—
law, 5059
report, 3810, 5209

Armed Forces—Continued

Secretaries, to settle admiralty claims administratively, report, 6676
selection boards, members, increase number—
law, 5058
reports, 373, 3942
service personnel, income tax guide, information for all States, 11522
servicemen, tutorial assistance under GI bill, 17399
supplies and services provided by DSA, 6875
survivor benefit programs for active and retired military personnel—
hearings, 15888
special subcommittee report, 15887
uniformed services—
allowances for uniforms payment, report, 3808
assigned to Government quarters, family separation allowances, payment, report, 1487
family separation allowance, payment to prisoner of war, missing in action or in detained status during Vietnam conflict, report, 1482
joint travel regulations, 2780
transportation and various allowances, reimburse, report, 3809
United Kingdom and United States armed forces make accommodation in Federal Republic of Germany available to International Military Headquarters of NATO, agreement, 6232
United States—
flags to be presented to parents of deceased veterans—
law, 15786
reports, 10971, 13693
Forces in Middle East and southeast Asia, terminate resolutions, report, 9836
Forces in southeast Asia, terminate use, report, 11076
use in foreign countries, background information, 13508
VA-Armed Forces Pulmonary Diseases Research Conference, transactions, 18398
vocational aptitude battery, 15498
see also Overseas service—Pay, allowances, etc.—Reserve components of Armed Forces
Armed Forces Day, report, 1970, forces for freedom, 6843
Armed Forces Industrial College, see Industrial College of Armed Forces
Armed Forces Information Service, DoD pamphlets, 69-78, 3456, 6343-44, 7972-75
Armed Forces Institute:
bulletins, 4037, 6885, 17747
management improvements needed, GAO report, 16590
manual, 11158
Armed services, see Armed Forces
Armed Services Committee, House:
activities, report, 3852
Antisubmarine Warfare Subcommittee, trip to Knolls Atomic Power Laboratory, Sept. 28, 1970, report, 17634
calendar, 2797
committee prints, 5148, 12260, 15945
hearings, 402-408, 1572-75, 3851, 3853, 5145-47, 6697-98, 6700-1, 8274-76, 9731-32, 9893, 11023, 12261-262, 12264-265, 13494-495, 13497, 15886, 15888, 16037-38
title page, contents, and index, 3850
investigations and studies, expenses, report, 8235
reports, 372-379, 1478-79, 1486-93, 1496-97, 1510, 3808-11, 3814, 3816, 3824-25, 5120-21, 5123, 5126, 6596-6604, 6833-38, 9648, 9657, 9704, 10965-973, 15848
special subcommittee report, 15887

INDEX 1970

Armed Services Committee, House—Con.
 subcommittee print, 13713
 subcommittee reports, 3854, 5143-44,
 6899, 11024, 12263, 15885
 Armed Services Committee, Senate:
 calendar, 2816
 hearings, 487-489, 1703, 3954-55, 6787-
 89, 9893-94, 11107-109, 13714, 16039,
 17688, 17690
 investigations and studies, authorization,
 report, 5210
 reports, 476, 1627, 1688-89, 3930, 3938,
 3942-46, 5205, 5208, 13657, 13661,
 12352, 13637, 13652, 13657, 13661,
 13691-694
 subcommittee print, 13713
 Armed services papers, 402-408, 1572-75,
 3851-54, 5143-47, 6697-6701, 8274-76,
 9731-32, 11023-24, 12281-265, 13495-
 497, 15885-889, 17633-634
 title page, contents, and index, 3850
 Armed Violence, Advisory Panel Against, *see*
 Advisory Panel Against Armed Violence.
 Armel unit, *see* Missouri River Basin project.
 Armenian Soviet Socialist Republics, Academy
 of Sciences, after 25 years, 1985
 Armor:
 Army aircrew protective armor in Vietnam,
 evaluation, 13044
 randomly oriented armor thickness for
 meteoroid protection, 10400
 Armored force, cavalry regiment, field man-
 ual, 7983
 Arms (firearms), *see* Firearms.
 Arms control, *see* Disarmament.
 Arms Control and Disarmament Agency:
 annual report—
 departmental edition, 7976
 document edition, 8202
 appropriations, authorizations, extend—
 hearings, 6706, 6799
 law, 10907
 reports, 6670 6779, 9656
 appropriations, 1970—
 law, 3738
 report, 472
 appropriations, 1971—
 hearings, 8270
 report, 9686, 15990
 waive points of order, report, 9688
 Assistant Directors—
 nomination of John M. Lee, hearing,
 6799
 uniform compensation, provide—
 law, 10907
 reports, 6670, 6779, 9656
 telephone directories, 6220, 10611
 Armstrong, Augustus K.:
 carbonate facies and lithostrotionid corals
 of Mississippian Kogruk Formation, De-
 Long Mountains, Alaska, 16619
 Mississippian rugose corals, Peratrovich
 formation, west coast Prince of Wales
 Island, southeastern Alaska, 16614
 Armstrong, George T., hydrogen fluoride and
 thermochemistry of fluorine, 6008
 Armstrong County, Pa., community profile,
 16175
 Army:
 air-ground operations system, Army field
 manual, 4856
 aircraft, organizational and DS mainte-
 nance manual for survival kits, technical
 manual, 6364
 Army digest (periodical), 2347
 Army logistician (periodical), 2348
 aviation battalion, group, and brigade, field
 manual, 4853
 aviation digest, 3311
 aviation facilities planning, technical
 manual, 7994
 aviation meteorology applicable to, techni-
 cal manual, change, 9357
 challenge of chaplaincy in United States
 Army, 15484

Army—Continued
 character guidance discussion topics, our
 moral heritage, 1230, 9352
 civilian aids to Secretary of Army, 16th
 national conference, 7998
 Coast Artillery Corps Companies, Feb.
 1901-June 1916, pamphlet to accompany
 microcopy, 4539
 commanders call support materials (peri-
 odical), 2419
 confinement system, report of special civil-
 ian committee, 9356
 correspondence courses, announcements,
 3472, 4859
 drill and ceremonies, field manual, change,
 3466
 enlisted members, class Q allotment for
 dependents, Army Dept. pamphlet, 99
 facilities, construction criteria, technical
 manual, change, 6359
 field army, weather support for tactical
 operations, Army field manual, 3468
 1st Army in Europe, operations, 1943-45,
 overall picture, 442
 for your life a new dimension, career op-
 portunities, 15480
 Headquarters, records, National Archives
 inventory group, 17178
 historical series, 4399
 human factors research and development,
 15th annual conference, proceedings,
 7999
 installations and major activities in con-
 tinental U.S., list, 10735
 Judge Advocate legal service, pamphlets,
 2788
 Medical Department, early commissioning
 program—
 medical, osteopathic, dental and vet-
 erinary medicine students, 8002
 optometry, social work, sanitary engi-
 neering and psychology students, 9370
 military personnel—
 office management and administrative
 procedures, pamphlet, 17464
 ordered to—
 Alaska, helpful hints, 95
 Canal Zone, Southern Command, help-
 ful hints, 1236
 Germany, helpful hints, 97
 Hawaii, helpful hints, 98
 Japan, helpful hints, change, 9355
 Korea, helpful hints, pamphlet, 3476
 Puerto Rico, 3d U.S. Army, helpful
 hints, pamphlet, 1235
 Ryukyu Islands, helpful hints, 96
 military supply system, concepts methods
 and operations, hearings, 3866, 15907
 Monte-Carlo sampling techniques to eval-
 uate multivariate normal integral, ex-
 perimental comparison, 107
 opportunity to save on cost of temporary
 lodging for student officers at Fort
 Rucker, Ala., GAO report, 7214
 personnel, unit officer's guide, pamphlet,
 3475
 pictorial techniques, equipments, and sys-
 tems, still photography, Army technical
 manual, 3482
 prediction of disciplinary offense early in
 Army service, 108
 procurement legal service, pamphlet, 7991
 procurement procedure, 1214, 4852, 6345,
 9348, 15477
 publications, price list, 6131
 quartering, disciplining, and supplying at
 Morristown, 1779-80, winter encamp-
 ment, 18272
 recruiting and career counseling journal,
 3135
 register, Jan. 1, 1970—
 departmental editions, 10748-750, 13061
 document editions, 10942-944, 18352
 research and development, newsmagazine,
 2849

Army—Continued

Soldiers' Home National Cemetery, general information, 7993
 sponsored return travel to oversea duty stations, instructions, Army pamphlet, 6351
 tomorrow belongs to the leaders, Army ROTC, 15499
 TAMMS, The Army maintenance management system, field command procedures, technical manual, 3483
 travel regulations, 2781
 U.S. Army in '70s, 7998
see also Pay, allowances, etc.

Army Audit Agency:
 bulletin, 3209
 civilian career opportunities, auditors, 17471

Army Department:
 annual report, 8463
 appropriations, 1970—
 hearings, 3950
 military construction, reports, 1461, 1650, 3832
 public works—
 hearings, 486
 law, 3734
 report, 477, 1512
 appropriations, 1971—
 civil functions—
 hearings, 11106
 reports, 12207, 13697, 15873
 military construction, hearings, 9729
 public works, hearings, 13709
 Army regulation, 7980-82
 Assistant Secretary of Army (research and development), nomination of Robert L. Johnson, hearing, 488
 change proposed in interest rate criteria for determining financing costs of Federal power program, GAO report, 4217
 chiefs and executives, organization chart, 2708
 contracts with certain corporations, associations, and individuals, relief, 17663
 equal employment opportunity in action, evaluation guide, pamphlet, 6356
 field manuals 81-84, 1215, 3463-68, 4853-55, 8347, 7983-85, 9349, 10733-734, 15479
 form and guide letters, how to design and use, 17462
 high turnover of managers directing major research and development projects, GAO report, 14499
 improvements needed in management of aircraft modifications, GAO report, 4222
 integrated logistics support (ILS)—
 maintenance engineering analysis data system, Army technical manual, 10748
 management guide, technical manual, 10743
 procedural guide, technical manual, 10745
 support integration, technical manual, 10744
 major weapon systems satisfactory for combat use, need for management improvement, GAO report, 719
 management of Project One Hundred Thousand, GAO report, 1894
 manpower procedures handbook, 7990
 Natick Laboratories technical reports, 85, 1216-26, 6348-49, 7986, 13041-47
 opportunities for improvement in management of Government materials provided to overseas contractors, GAO report, 12580
 opportunity to save on cost of temporary student lodging for student officers at Fort Rucker, Ala., GAO report, 7214
 overpayments to Army personnel resulting from weaknesses in payroll procedures, GAO report, 10150

Army Department—Continued

pamphlets, 86-99, 1228-37, 2788, 3469-77, 4857-63, 6350-57, 7987-92, 9351-55, 10735-739, 11971-972, 13048-63, 15483-488, 17462-464
 prices negotiated for rock-crushing plants for use in Vietnam, 4228
 procurement, preproduction evaluation (PPE) contracts, 10732
 publications, price list, 6131
 rental rates for barges used in Republic of Vietnam included costs previously recovered by contractor, GAO report, 10153
 research, development, test, and evaluation appropriations, 1970, hearings, 397
 survey of Nike-X antiballistic missile development program indicates need for management improvements, GAO report, 1905
 technical bulletin, 13054, 17465
 technical information, points of contact, directory, 15500
 technical manuals, 100-105, 1238, 3480-83, 4865-67, 6358-65, 7994-97, 9357, 10740-747, 11973, 13055-58, 15490-492, 17466-470

Army Electronics Command:
 ECOM series, 13038-39, 15469-476
 research and development technical reports, 7978
 Army Installations, *see* Installations (military).

Army Materiel Command:
 AMC pamphlets, 79-80, 1213, 3168, 3457-60, 4846-49, 7977, 10731-732, 13038-37, 15467-468
 arsenal for the brave, general information, 7979
 employment bulletin, 2534
 history, arsenal for the brave, 6346
 publications and blank forms, index, 4846, 7977, 10731, 15467
 regulations, AMCR series, 4851
 reports, register of approved recurring reports, 4847, 13036
 safety manual, 4851

Army Materiel Command Firing Range:
 Underhill, Vt., adjust legislative jurisdiction—
 law, 1420
 report, 3824

Army Medical Department:
 college students, dietetic interns, qualified dietitians, educational opportunities, 6366
 newsletter, 9369
 physical therapists, educational opportunities, 8001

Army Medical Research and Development Command:
 abstracts of annual and technical reports submitted by contractors/grantees, 8000
 advanced abstracts of scientific and technical papers submitted for publication and presentation, 9368
 medical research support, 13063

Army Medical Research and Nutrition Laboratory:
 Fitzsimmons General Hospital, report, 15502-503
 reports and reprints, bibliography, 10751

Army Medical Service:
 annual report, 1968 fiscal year, 3484
 early commissioning program for optometry, social work, sanitary engineering and psychology students, 9370

Army Mobility Equipment Research and Development Center, news releases, 8063

Army National Guard, *see* National Guard.

Army Nurse Corps, *see* Nurse Corps Army—
 Nurses and nursing.

Army posts, *see* Military posts.

INDEX 1970

- Army Reserve :
 - Army Reserve magazine, 2350
 - officers, career planning, 1229
 - readiness of selected units of Reserve components of Army, GAO report, 4225
 - reemployment rights, briefing session and program, 3471
- Army Security Agency, hallmark (periodical), 2702
- Army Strategic Communications Command, technical manual, 15478
- Army supplies, *see* Military supplies.
- Army Surgical Research Team, WRAIR, activities in Vietnam, studies, 4868
- Army Surgical Research Unit, Brooke Army Medical Center, Fort Sam Houston, Tex., annual research progress report, 3485
- Army travel regulations, 4017
- Arner, Dale H., wild turkeys on southeastern farms and woodlands, 7921
- ARNG, *see* National Guard.
- Arnold, Pitt W., analysis of shunt-fed, log-periodic monopole array antenna, 11273
- Arnold, St. George T., 3 methods of evaluating capital expenditures in public sector, 8019
- Arnould, Richard J., diversification and profitability of food processing firms, 4042
- Aronson, Robert L., Federal spending and scientist and engineer employment, study in measurement 16853
- Aronstein, R. E., LMFBR liquid metal fast breeder reactor, 1000 MWE, follow-on study, conceptual design report, engineering studies, 8009
- ARPA, *see* Advanced Research Projects Agency.
- Array antennas, *see* Antennas.
- Array theorem, *see* Antennas.
- Arrest :
 - criminal court data on pre-trial release of defendants, pilot study, 14924
 - District of Columbia, pretrial detention, hearings, 1708, 3857, 6704
 - drug arrest abroad, notice, 11901
 - Emergency detention act of 1950, repeal—hearings, 17648
 - report, 1695
 - juvenile detention care, State responsibility, 15391
 - preventive detention, hearings, 12371
- Arroyos, Albuquerque N. Mex., floods, how to avoid damage, 17927
- ARS, *see* Agricultural Research Service.
- Arsenal for the brave, history of Army Materiel Command, 6346
- Arson, riots, looting and burning, subversive influences, hearings, corrected print, 423
- Art :
 - fine arts, Library of Congress classification, 12723
 - identification problems, application of nuclear technology, 124
 - Leonard Baskin, evaluation of his life and work, 14948
 - muses revisited, role of the fine arts in modern education (address), 11236
 - oriental studies, 7205
 - toward civic art, 11766
 - works and reproductions, catalog of copy-right entries, 17725
 - works of art and other objects in United States Capitol, compilation, reprint as House document, report, 9698, 13631
 - see also* Paintings.
- Artesian wells, water-level and water-quality trends along Mississippi Gulf Coast, 16627
- Arthritis :
 - arthritis and rheumatic diseases abstracts, 2351
 - one of sixteen million, group discussion aid for color film produced by Diabetes and Arthritis Control Program, 7269
- Arthropodborne diseases, reported encephalitis in horses and other equidae, 3379
- Arthur County, Nebr., community profile, 17753
- Artificial heart :
 - Artificial Heart Program Conference, proceedings, 6024
 - cardiac replacement, medical, ethical, psychological and economic implications, 6025
 - implanted, blood injury during functioning, problems, USSR study, 16738
 - program in applied health R/D, 7598
 - program of National Heart and Lung Institute, annual report, 17066
- Artificial kidneys :
 - bibliography (periodical), 2352
 - program of National Institute of Arthritis and Metabolic Diseases, 3d annual contractors' conference, proceedings, 15008
- Artificial Organs and Transplantation, National Commission on, *see* National Commission on Transplantation and Artificial Organs.
- Artificial rearing of 10 species of wood-boring insects, 5497
- Artificial satellites, *see* Satellites.
- Artillery :
 - Army Coast Artillery Corps Companies, Feb. 1901–June 1916, pamphlet to accompany microcopy, 4539
 - field artillery support, Fleet Marine Force manual, 11559
 - see also* Gunnery.
- Artists :
 - commercial, employment outlook, 14676
 - National Collection of Fine Arts, exhibit, list, 11764
- Arts, Advisory Committee on, *see* Advisory Committee on the Arts.
- Arts and crafts :
 - apprentice training, sure way to skilled craft, 10728
 - VAVS-sponsored competitions, 10660
- Arts and Humanities, National Foundation on, *see* National Foundation on the Arts and the Humanities.
- Arts, National Council on the, *see* National Council on the Arts.
- Arts, National Endowment for the, *see* National Endowment for the Arts.
- Arundel, Joseph C., mineral industry of Missouri, 4442
- Asbestos :
 - chrysotile, disposal from national and supplemental stockpile—law, 12152
 - reports, 6636, 6743, 11012
 - minerals yearbook chapter, 16886
 - products, census of manufactures, 1967, industry, statistics, 15604
- Asbestos workers, employment outlook, 14695
- Asbury, Francis :
 - statue, in District of Columbia, remove—law, 9603
 - report, 8249
- Ascension Island, mesospheric winds in January, 15474
- Ascension Parish, La., Lake Verret watershed work plan for watershed protection and flood prevention, 9173
- ASCS, *see* Agricultural Stabilization and Conservation Service.
- Ash, Sidney R., ferns from Chinle formation (Upper Triassic) in Fort Wingate area, N. Mex., 5550
- Ash (tree) :
 - tropical, stump diameter affects sprout development, 4189
- Ashe County, N.C., community profile, 12406
- Ashes, sulfur and ash distribution in coal seas, evaluating by statistical response surface regression analysis, 8906
- Ashizawa, Roy Y. :
 - gypsum, 16892
 - mineral industry of Hawaii, 4420, 18153

Ashland City, Tenn.:
 Cumberland River, flood plain information, 16417
 floods, how to avoid damage, 16437
 Ashland County, Ohio, community profile, 12407
 Ashley, Burton E.:
 mineral industry of—
 British Honduras, Costa Rica, El Salvador, Guatemala, Honduras, and Panama, 16901
 Ecuador, French Guiana, Guyana, Paraguay, Surinam, and Uruguay, 4423
 Islands of Caribbean, 5863
 Ashley, Victor L., relief, 9816, 17578
 Ashtabula County, Ohio, community profile, 12408
 Asia:
 central modification of clouds, USSR study, 11620
 contributions to hydrology of Asia and Oceania, 16641
 east and southeast, special study mission, report, 8293
 East Asian and Pacific series, 1140, 2236, 4723-25, 7812-13, 9190-92, 10603-605, 11895-896, 17330
 essentials for peace (remarks), 1141
 Pacific Coast, tidal current tables, 13209
 south—
 and east, translations, 3279
 market profiles, 13223
 Near East and south Asia, economic growth trends, 10247
 social science research, special papers available, 11897
 Southeast—
 American prisoners of war, hearings, 9733
 background information, 13731
 economic relations with European Socialist states, 4348
 evaluation of short-term ionospheric forecasts for selected DCA trunks, 612
 military construction—
 appropriations, 1970, hearings, 400
 appropriations, 1971, hearings, 9729
 requirements, subcommittee report, 6699
 moral and military aspects of war, hearings, 11124
 new U.S. doctrine, perspective, 507
 select committee of House to study, authorize, report, 12186
 Southeast and other areas, peace and security, background information, 9907
 student views toward U.S. policy, hearings, 13517
 transporting military mail from Okinawa to points in Southeast Asia, reductions achieved in cost, Defense Department, GAO report, 12586
 United States—
 Armed Forces in certain areas, terminate use, reports, 9336, 11076
 involvement, report, 12230
 use of concrete reinforced with barbed wire, concertina wire, etc., preliminary tests, 11255
 vessels in support of military activities, Government owned, improvements needed in operation by Maritime Administration, GAO report, 5531
 war, impact on U.S. economy, hearings, 9909, 13732
 southwest, clothing almanac, 1218
 special study mission, report, 9736
 United States trade, Communist areas, 12059
 west, agricultural situation, 1969 review and 1970 outlook, 8503

Asian Development Bank:
 appropriations, 1970—
 hearings, 1702
 law, 5053
 reports, 1521, 1561, 3818, 3840, 3926
 appropriations, 1971, hearings, 9728
 multilateral approach (remarks), 9252
 United States, contribution—
 increase, hearings, 8280, 12364
 proposal, message from the President, 5090
 proposal, special report, 8201
 special funds (statement), 9253
 Asotin County, Wash., community profile, 6892
 Asparagus:
 commercial growing, 9288
 frozen, U.S. Standards for grades, 8448
 Aspen:
 fire stimulated aspen sprouting in spruce-fir forest in New Mexico, 11349
 quaking aspen—
 management and uses in Alaska, 12926
 trees and boles, weights and centers of gravity, 12555
 Wisconsin, evaluating for site-quality to wood-quality relationship, 18023
 Aspet, Saint-Gaudens National Historic Site, historic structures, report, 2153
 Asphalt:
 and tar roofing siding products, current industrial reports, 3629
 natural weathering of mineral stabilized asphalt coatings on organic felt, 953
 worker, job grading standard, civil service, 6477
 see also Roofing—Siding.
 Aspirations, enrollments, and resources, challenge to higher education in the seventies, 5344
 ASPM series, 5298
 ASPS series, 8453-54
 Assassination, and political violence, 1042
 Assault and battery, assaults on State law enforcement officers, firemen, or judicial officers, hearings, 17706
 Assaying, sample assay data from Getchell Mine, Humboldt County, Nev., statistical interpretation, 5911
 Assemblers, factory operatives, employment outlook, 16834
 Assessments, see Taxation.
 Assets and liabilities, see Banks and banking.—Capital assets—Federal reserve member banks—Property
 Assistance, see Public welfare.
 Assistant Secretary for Environment and Urban Systems, Office of, Transportation Dept., general information, 9239
 Associations, see names of associations—
 also subject with which association has to do.
 Assumption Parish, La., Lake Verret watershed work plan for watershed protection and flood prevention, 9173
 Asteroidea, see Starfishes.
 Asteroids, see names of asteroids.
 Astrogeology, contributions to astrogeology (series), 11396, 18045
 Astrometry:
 and astrophysics—
 annular solar eclipse, 12831
 atmospheric optics, problems, 11704
 physics of comets, 11702
 Astronautics:
 biomedical problems of space flight, USSR study, 18109
 chronology on science, technology, and policy, 10374
 flight test results pertaining to space shuttlecraft, 18195
 future progress of space transportation (address), 5890
 manned space flight, present and future, staff study, 9768

Astronautics—Continued

- scientific heritage of K. E. Tsiolkovskiy, transactions of 1st lectures dedicated to development, 10415
- space flight—
 - factors in barley seeds during circum-lunar flights of automatic stations Zond 5 and Zond 6, chromosome mutations induced, USSR study, 5792
 - handbooks, 10371
 - human motor activity in sealed chambers and during, USSR study, 10273
 - investigations, opportunities for participation, 2994, 11709–710, 18228
 - manned, biomedical foundations, report, 1084
 - minimum-energy mission plan for manned exploration of Mars, 912
 - university role in astronaut life support systems, atmospheres, 8925
 - see also Navigation.
- Astronauts:
 - first lunar landing, 8932
 - life support systems, university role in developing water recovery systems, 11624
 - psychophysiology of their work, USSR studies, 10416
- Astronomical instruments, Federal item identification guide, 8467
- Astronomical observatories, Orbiting Astronomical Observatory thermal test program, 16961
- Astronomical photography, lunar stratigraphy, telescopic observations, 18045
- Astronomy:
 - astronomical papers, 9042, 17170, 18282
 - astronomical phenomena, 11808
 - long-range program in space astronomy, position paper of Astronomy Missions Board, 896
 - Soviet bloc research (periodical), 3210
 - submillimeter, USSR study, 1996
 - see also Astrometry—Astronomical photography.
- Astronomy Missions Board, long-range program in space astronomy, position paper, 896
- Astrophysics:
 - American Meteorological Society abstracts, 2969
 - astrometry and astrophysics—
 - annular solar eclipse, 12831
 - atmospheric optics, problems, 11704
 - physics of comets, 11702
 - course in theoretical astrophysics, 4532
 - on cosmic hydromagnetic dynamo theory, 5389
 - Asymptotic solutions, see Mathematics.
- Atascosa County, Tex., seepage investigation on Medina Canal, Water Improvement District No. 1 Canal System, 10184
- ATC, see Air traffic control.
- Atchison County, Mo., community profile, 16176
- Athens County, Ohio, community profile, 12409
- Athletic goods, see Sporting goods.
- Athletics, State Department athletic programs, sponsored U.S. overseas tours, 4729
- Atkinson, Gary D., monthly resultant gradient-level-wind, 13023, 17450
- Atkinson, Haserick & Co., Inc., relief, 9636
- Atkinson, L. Jay, agricultural productivity in Colombia, 16387
- Atlanta, Ga.:
 - area wage survey, 14733
 - census of transportation, 1967 commodity transportation survey, production, area series, 6429
 - geometric relationships between geologic structure and ground stresses, 7489
 - intrastate air quality control region, report for consultation, 8967

Atlanta, Ga.—Continued

- 2d major airport in Atlanta area, graphic simulation study of 2 sites, 18377
- urbanization and surface mining, socioeconomic aspects of mining in selected cities, 12741
- Atlantic City, N.J., joint probability method applied to tide frequency analysis, 11269.
- Atlantic Coast:
 - Atlantic coastal fishes, estuarine dependence studies, correction, 4714
 - coast pilots—
 - Cape Cod to Sandy Hook, supp., 6491
 - Cape Henry to Key West, 9484
 - Eastport to Cape Cod, supplement, 8134
 - Gulf of Mexico, Puerto Rico, and Virgin Islands, supplement, 8133
 - Sandy Hook to Cape Henry, 6492
 - Continental Shelf and slope—
 - gravels of northeastern part, 18042
 - heavy minerals, from southern Nova Scotia to northern New Jersey, 10175
 - ostracode zoogeography in southern Nova Scotian and northern Virginian faunal provinces, 10174
 - shallow structure, 5548
 - light lists—
 - Little River, S.C., to Rio Grande, Tex., and Antilles, 4977
 - St. Croix River, Maine to Little River, S.C., 3681
 - marine weather services chart—
 - Eastport, Maine to Montauk Point, N.Y., 18402
 - Manasquan, N.J. to Cape Hatteras, N.C. and Chesapeake Bay, 17412
 - Montauk Point, N.Y. to Manasquan, N.J., 18404
 - Savannah, Ga. to Apalachicola, Fla., 6280
 - nautical chart catalog, 4976
 - North America, tidal current tables, 13208
 - Ocean City, Md., to Cape Charles, Va., clam survey, 9522
 - south, life histories of several penaeid shrimps, 13243
 - surf clam fisheries, 12068
 - waterborne commerce, 1968 calendar year, 8552
- Atlantic Ocean:
 - Atlantic albacore fishery, 13239
 - Atlantic deep-sea calanoid copepoda, 15162
 - disposal of unserviceable chemical munitions, prevent possible pollution of ocean, hearings, 15927
 - eastern tropical tuna purse seine fishery, 5008
 - Gulf Stream, position of northern edge, etc., monthly summary, 2910
 - Hudson River Expressway, impact on coastal fisheries, hearings, 430
 - hurricanes, maximum sustained winds, 1832
 - middle—
 - bight, exploring for schooling pelagic fishes, 9533
 - western region, fisheries, agreement with Poland, 15322
 - North—
 - current, distribution of planktonic Foraminifera in vicinity, 7733
 - ice, oceanographic atlas, 4610
 - International Ice Patrol Service, report, 15213
 - some devastating hurricanes of 20th Century, 8578
 - standard monitoring sections, oceanographic observations, 1964–66, 9486
 - weather stations agreement, amended text of Annex 2, approved by Council of International Civil Aviation Organization, 6250
 - northeast, upper and deep sound channel, 15044

Atlantic Ocean—Continued

- northwest Atlantic fisheries, measures of control, protocol to Convention of Feb. 8, 1949, agreement with other governments, 7837
- northwestern, cldaroid echinoids, field guide, 6161
- radio navigational aids, changes, 1019
- S.S. Boston, container vessel, results from 2 operational seasons in North Atlantic service in matter of ship response to instrumentation aboard, 17268
- South, geomagnetic anomaly, distribution of trapped particles at altitude of 900-km, 9061
- streamflow from United States during 1931-60, 5566
- tropical Atlantic tuna larvae collected during EQUALANT surveys, 5010
- tuna food, review of studies, 3718
- western snappers, 9529
- western north, correlation of movements, 11272
- Atlantic Oceanographic and Meteorological Laboratories:
 - collected reprints, 602
 - ESSA technical report, ERL-AOML series, 11272, 14347, 17949
- Atlantic-Pacific Interoceanic Canal Study Commission:
 - appropriations, 1970—
 - hearings, 486
 - law, 3734
- Atlantic States:
 - cost of transporting freight, 11483
- Mid-Atlantic States air pollution control compact, consent of Congress, report, 13643
- Middle, fisheries, annual summary, 12065
- North Atlantic slope basins, surface waters—
 - quality, 8761
 - supply basins from—
 - Maine to Connecticut, 4263
 - Maryland to York River, 16642
 - New York to Delaware, 11401
- North public elementary and secondary day schools, 1968-69 directory, 11204
- regional reports, Middle Atlantic region, 7436
- South Atlantic slope basins, surface waters, quality, 8761
- Atlantic Tunas, International Convention for Conservation, see International Convention for Conservation of Atlantic Tunas.
- Atlases:
 - catalog of copyright entries, 5294, 8451, 17724
 - Changwat Nakhon Phanom, resources atlas, 16442
 - cloud cover over tropical Pacific Ocean, satellite data, 10383
 - cometary forms, structures near nucleus, 2077
 - forest atlas of South, 14437
 - look of our land, alrphoto atlas of rural U.S., 3394, 17431
 - naval oceanographic live atlas, data base for computer management, etc., 9045
 - oblique-incidence high-frequency backscatter ionograms of midlatitude ionosphere, 10025, 16457
 - oceanographic North Atlantic Ocean, ice, 4610
 - oral cytology, 15148
 - resources atlas project—Thailand, atlas, 16442
 - river basins of United States, drainage areas, land resource regions, etc., 15192
- Atmosphere:
 - aeroradioactivity survey and areal geology of Minneapolis-Saint Paul area, Minn.-Wis., 8011
 - atmospheric and man-made radio noise, amplitude and time statistics, 10024

Atmosphere—Continued

- atmospheric densities measured by Explorer 17 density gauges, analysis of errors and their effects upon measurements, 904
- atmospheric dispersion estimates, workbook, 8567
- atmospheric flow systems, research on instabilities associated with clear air turbulence, 10364
- atmospheric optics, problems, 11704
- atmospheric physics, problems, collection of papers, 11698
- atmospheric potential-gradient measurements at sea, 11820
- atmospheric propagation properties in 10- to 75-GHz region, survey and recommendations, 615
- atmospheric sensing to 100 km, status of passive inflatable falling-sphere technology, symposiums, 5913
- atmospheric stability and height, how variations affect gust factor, 15476
- atmospheric water resources program, Project Skywater, annual report, 10532
- attenuation at 15, 31 and 53 GHz, 10027
- circulation research, examples of usefulness of satellite data, 10383, 14845
- controlled—
 - system laboratory studies on tomatoes, 13046
 - storage of eastern-grown peaches and nectarines, 1199
 - used in leach-precipitation-flotation studies on red bed copper ore, 7497
 - weathering device, disclosure report, 11741
- Federal oceanic and atmospheric program for research development, etc., hearings, 11115, 16043
- galactic cosmic-rays, calculation of dose and dose-equivalent rates to man in atmosphere, 13073
- ground wave propagation in ionized atmosphere with arbitrary variation of conductivity with altitude, 11274
- Jovian, on inference of physical properties from photometry of eclipses of Galilean satellites, 17009
- light scattering in atmosphere, 2129
- lower, airborne laser-radar studies, 2104
- marine, surface-active material, detection and characterization, 12898
- Martian, Mariner-Mars 1969 mission, preliminary report, 5914
- micron-sized sulfate and water-soluble particles, new method for detecting, and its usage, 15472
- modified, affecting market quality of lettuce, when shipped by rail, 9301
- monthly global atmospheric circulation characteristics as reflected in TIROS VII radiometric measurements, 14845
- neutral-electrical interactions, 15470
- nuclear submarine, chemical research in purification, progress report, 15073
- Planet Jupiter, 14898
- planetary entry applications, transport properties at high temperatures of CO₂-N₂-O₂-Ar gas mixtures, 2085
- planetary mathematical modeling, fundamentals, USSR study, 4326
- polynuclear hydrocarbons in atmosphere, sources, 17015
- stars with steady state extended atmosphere, spectrum formation, symposium proceedings, 18235
- strong turbulence in, measurements of 0.63 μ m laser-beam scintillation, 8576
- temperature, pressure, density, and wind measurements in stratosphere and mesosphere, 947
- theoretical frequency response functions and power spectra of XB-70 response to atmospheric turbulence, 14824

INDEX 1970

Atmosphere—Continued

- transport processes, energy transfer and transformations, 3502
- two gas atmosphere sensor system (mass spectrometer), 2a and 2b, 8924
- turbulence profiles, remote sensing, feasibility study, 7509
- university role in astronaut life support systems, 8925
- upper—
 - atmosphere and space, USSR research, 16796
 - studies of aurorae by radiophysical methods, 12830
 - uranium mine atmospheres, investigation of radiological characteristics, 9390
 - see also Air—Mesosphere—stratosphere.
- Atmospheric entry:
 - ablation performance of charring ablators during atmospheric entry, simulation in ground-test facilities, 12788
 - aerodynamics of Mars entry probe-lander configurations at Mach 10 number, 5931
 - Apollo, heat-transfer rate and pressure measurements obtained during orbital entries, 18211
 - blunt body reentry, radio blackout alleviation and plasma diagnostic results, 5934
 - hypervelocity, stagnation point heat transfer during entry, 5892
 - lifting entry for unmanned Viking class Mars landers, 11670
 - nonrigidly supported ballast effects on slender body dynamics descending through atmosphere, 4522
 - spherical capsule technology program—
 - heat source technical report, 8014
 - quarterly progress report, 8013
 - summary report, 6379
 - spinning slender cone with slight aerodynamic and mass asymmetries (reentry F); angle of attack analysis, 16972
 - superorbital entry velocities, Apollo ablator thermal performance, 16979
- Atmospheric gases, see Gases.
- Atmospheric, Physics and Chemistry Laboratory ESSA technical report, ERL-APCL series, 611, 4089, 5386-88, 7050, 5571, 10022
- Atmospheric Sciences Laboratory ECOM series, 13038-39, 15469-476
- Atmospheric Sciences Library, Soviet literature accession, guide, 7054, 8579
- Atmospheric sounding, see Sounding.
- Atmospheric temperature, see Temperature.
- Atmospheric turbulence, see Turbulence.
- Atmospheric Turbulence and Diffusion Laboratory, ESSA technical memorandum, IE RTM-ATDL series, 604
- Atmospheric waves, see Waves.
- Atmospherics, HF atmospheric radio noise, simulator, 614
- Atoka County, Okla., Lower Clear Boggy Creek watershed, revised work plan for watershed protection and flood prevention, 15229
- Atolls, see Coral reefs and islands.
- Atomic absorption:
 - instruments, spectrum-1 and SFPA used to determine magnesium and calcium content of urine, feces and meals of man, USSR study, 8833
 - spectrophotometry used for analysis of cement, 10016
- Atomic auxiliary power generators, SNAP-8 nuclear reactor as energy source for Brayton cycle power generation system, study of potential application, 11641, 16959
- Atomic blasting:
 - biological implications of nuclear age, 4885
 - cratering and contained events, contribution to analysis of seismic data, Project Schooner, 13078
 - fracturing hard rock with nuclear explosives and extraction of ore by modified block-caving method, 10329

Atomic blasting—Continued

- nuclear cratering detonations, lidar observations of debris clouds, Project Buggy, 13085
- nuclear explosives—
 - engineering, symposium proceedings, 13069
 - in shale-oil industry, potential applications, 4406
 - public health aspects of peaceful uses, symposium proceedings, 1067, 7045
- Atomic energy:
 - act of 1954, amend—
 - hearings, 1427
 - law, 1417
 - reports, 1508, 1644
 - AEC answers to the public's questions (remarks), 147
 - atomic transition probabilities, bibliography, 6004
 - books for adults and children, list, 6400
 - civilian nuclear power—
 - heavy-water-moderated boiling-light-water-cooled reactor, evaluation, 3510
 - high-temperature gas-cooled reactors, evaluation, 1269
 - use of thorium in nuclear power reactors, 1270
 - code of Federal regulations, 10066
 - cooperation for civil uses, agreement with—
 - Austria, 7822
 - application of safeguards by IAEA, 9193
 - Colombia, 17363
 - Finland, 15328
 - Greece, 10622
 - Norway, 10618
 - Venezuela, 18354
 - cooperation for mutual defense purposes, agreement with Great Britain, 15303
 - employment outlook, 16838
 - energy and future (remarks), 10773
 - field, employment, occupational trends, 8030
 - fundamental nuclear energy research, 4896
 - high energy physics, reports, 135, 1265
 - human side of energy (remarks), 1275
 - legislation through 91st Congress, 1st session, compilation, 8191
 - long range atomic interaction potentials for nitrogen, 11694
 - New Brunswick Laboratory, research progress report, 9396
 - nuclear energy, world outlook (remarks), 9411
 - nuclear industry, 1969 report, 142, 4898
 - nuclear power—
 - and the environment, 1281
 - conference proceedings, 6398
 - status and outlook (remarks), 9408
 - nuclear technology application to art identification problems, 124
 - peaceful uses, industrial applications for nuclear explosion services, make available to foreign and domestic users, hearings, 1427
 - Phenix prototypes fast-neutron nuclear power station, 8006
 - program, security officers, statutes of general interest, 15538
 - programs, major activities, 6395
 - reviews to insure safety of nuclear operations, 1254
 - role of public in development and regulation of nuclear power (remarks), 13087
 - safeguards, application to United States reactor facilities, agreement with International Atomic Energy Agency, 4739, 7829
 - Soviet nuclear power developments, 7387
 - Soviet studies 16790
 - status and potential of nuclear industry, 145

- Atomic energy—Continued
 twenty-five eventful years, entering nuclear age (remarks), 10779
 underground uses of nuclear energy for excavation, air and water pollution and other environmental effects, study, hearings, 6817
 understanding the atom series, 1280-82, 6400, 9410
 western interstate nuclear compact, granting consent of Congress, report 13640
 Atomic Energy Agency, International, *see* International Atomic Energy Agency.
 Atomic Energy Commission:
 AEC-NASA tech brief, 2921
 AEC news releases, 11974
 AEC research and development reports, 110-136, 1242-73, 3487-3511, 4869-94, 6370-92, 8003-28, 9371-9406, 10753-771, 11875, 13065-86, 15505-532, 17472-474
 AEC symposium series, 4884-86, 9375, 13066, 13068
 AEC uranium policies (remarks), 137
 allowances for independent research and development costs in negotiated contracts, issues and alternatives, GAO report, 5522
 annual report—
 departmental edition, 6393
 document edition, 6729
 appropriations, 1970—
 hearings, 486
 public works—
 law, 3734
 report, 1512
 report, 477
 appropriations, 1971, authorizing—
 hearings, 8190, 11022, 13348
 law, 10933
 reports, 9676, 11073, 12207, 13697, 15873
 cataloging reports—
 corporate author headings, 15529
 report number series used by Technical Information Division, 15527
 environmental radiation protection standard-setting functions, transfer to Environmental Protection Agency—
 hearings, 15911, 16057
 report, 15874
 fast flux test facility, problems in developing, GAO report, 16596
 financial reports, 140, 15535
 fundamental nuclear energy research, 4896
 gaseous diffusion plants, future ownership, hearings, 1426
 Health and Safety Laboratory fallout program, quarterly summary reports, 6377, 9392, 1252, 13071
 appendixes, 1253, 6378, 9393, 13072
 news release indexes, 6369, 13064
 nuclear explosion services for industrial application make available to foreign and domestic users, hearings, 1427
 Nuclear Instrument Module Committee, standards adopted, 4891
 omnibus legislation, 1969, reports, 1508, 1644
 Physical Research Program, statistical summary, 15537
 press releases, 3037
 programs, major activities, 6395
 research contracts in physical sciences, 15536
 rules and regulations, 2358, 3515
 selling to AEC, 1279
 telephone directory, 8034
 USBM Colorado core hole 3, Rio Blanco County, Colo., hydraulic testing and sampling, for oil shale, 7239
 Atomic Energy Joint Committee:
 committee prints, 6550, 8191
 current membership, publications, etc., through 91st Congress, 1st session, 6550
 Atomic Energy Joint Committee—Continued
 hearings, 1426-27, 3761, 5063, 8190, 9610, 12155, 13348-349, 15812
 reports, 1508, 1644, 11073
 Atomic fuel, *see* Fuel.
 Atomic Industrial Forum, safeguards papers of ANS/AIF winter meeting, 9405
 Atomic ordnance, nuclear ordnance, Federal item identification guides for supply cataloging, supplements, 2598
 Atomic physics, *see* Nuclear physics.
 Atomic power, *see* Atomic energy.
 Atomic power plants, *see* Nuclear reactor power plants.
 Atomic ships, *see* Nuclear powered ships.
 Atomic warfare, interdisciplinary conference on selected effects of general war, proceedings, 6847
 Atomic weapons, *see* Weapons.
 Atomization, liquid jet, effect of steady velocities on dynamic response, 2106
 Atoms:
 expanding role of atom in humanities (lecture), 139
 semiclassical elastic scattering cross sections for central field potential function, 4504
 understanding the atom series, 1280-82, 6400, 9410
 ATS (applications technology satellites), *see* Satellites.
 Attaches, *see* Agricultural attache.
 Attachment, Federal wage garnishment law, basic information, 7895
 Attala County, Miss., community profile, 16177
 Attendance, National Guard Bureau, technician time and attendance procedures, 17065
 Attenuation:
 atmospheric at 15, 31, and 53GHz, 10027
 precipitation echo attenuation in linearly polarized radar sets, USSR study, 16739
 rain attenuation study for 15 GHz relay design, 15342
 symmetry of materials, ultrasonic method for determining, 4478
 Attenuators:
 Federal item identification guide, 16132
 fixed, selection of, military standard, 4032
 Attitude (inclination):
 fine-pointing control system of soft-gimbaled orbiting telescope, investigation, 11671
 spacecraft attitude determination, application of limited memory estimators, analysis, 14835
 Attitude (psychology):
 performance change and autonomic response consistency as function of expressed attitude toward specific stress situation, 3517
 Attitude control, *see* Aircraft—Satellites—Spacecraft.
 Attorney General, *see* Justice Department.
 Attorneys, *see* Lawyers—Public defenders.
 Auburn, Ala., preschool program in compensatory education, language stimulation program, 5355
 Auburn, Maine:
 flood plain information, 1804
 floods, how to avoid damage, 1810
 Auburn quadrangle, King County, Wash., geology, 16620
 Aucella:
 ammonites from Buchia zones in northwestern California and southwestern Oregon, 10182
 Buchia zones in Colyear Springs-Paskenta area, Calif., structural and stratigraphic significance, 4249
 Jurassic (Tithonian) and cretaceous Buchia zones in northwestern California and southwestern Oregon (series), 4249, 10182

INDEX 1970

- Audio-visual education, U.S. Government audiovisual personnel, directory, 8975
- Audio-visual equipment, U.S. Government audiovisual personnel, directory, 8975
- Audiologists, employment outlook, 12676
- Audiology, professional careers, examination announcements, amendment, 8116
- Audiometry, tentative audiometric hearing threshold level standards from 8 through 18 kiloHertz, 10315
- Auditing:
- defense expenditures, by GAO and capability to analyze, hearings, 508
 - freight and passenger transportation services accounts, joint agency transportation study, 16598
 - medical institutions, audits reorganized, USSR study, 5757
 - preaward audits of contractors' noncompetitive price proposals, questionable waivers, GAO report, 14513
 - "should cost" concepts feasibility of using in Government procurement and auditing, GAO report, 13172
 - see also for audit reports, names of corporations, etc.
- Auditors:
- Army Audit Agency, civilian career opportunities, 17471
 - careers with Civil Aeronautics Board, 15672
 - examination announcement, amdt., 8118, 15684
 - internal auditors, Internal Revenue Service, 14609
 - management (GAO), examination announcement, amdt., 8118, 15684
 - pay, national survey, 5822
 - tax, career opportunities, 786, 16711
- Auditory system, see Hearing.
- Audits, see Auditing.
- Audrain County, Mo., community profile, 17754
- Audubon County, Iowa, community profile, 13834
- Auger effect, oxygen on adhesion of clean iron (001) and (011) surfaces, study, 8943
- Augers:
- interaction of methane, etc., with iron (001) surface and their influence on adhesion studied with LEED, 11666
 - straight auger and belled auger footings in sandy silt, uplift resistance, Mead-Liberty transmission line, Pacific Northwest-Pacific Southwest Intertie, 9088
- Auglaize County, Ohio, community profile, 12410
- Augulis, R. P., study of winds in Lake Mead Recreation Area, 610
- Aujesky's disease, virus, USSR study, 16743
- Aural projectors, sound, military standard, 557
- Aurora County, S. Dak., community profile, 13835
- Auroras:
- long-range forecast of geomagnetic activity, 1970-73, 10026
 - radar studies simultaneously at frequencies of 75 and 50 MHz, USSR study, 8831
 - studies of aurorae and upper atmosphere by radiophysical methods, 12830
- Austenitic steels:
- refractory/austenitic bimetal combinations, evaluation, 10346
 - stainless 19-9DL and 12R72HV, effect of thermal-mechanical treatments, 10757
- Austin, John W.:
- log export restrictions of Western States and British Columbia, 4208
 - production, prices, employment, and trade in Northwest forest industries, 3100
 - timber flows and utilization patterns in Douglas-fir region, 14474
- Austin, W. G.:
- field and laboratory tests for safety of dams, investigation at Salt River Project, Ariz., 15146
 - research investigation of teflon-clad rubber-gate seals, 9093
- Austin, Wayne W., soil conditioning rating indices for major irrigated and non-irrigated crops grown in western U.S., 15232
- Austin, Minn.:
- Cedar River & tributaries, flood plain information, 16414
 - floods, how to avoid damage, 1799
- Austin, Tex., basic data for urban hydrology study, 4227
- Australia:
- background notes, 15280
 - economic trends and their implications for United States, 7330, 16726
 - economy, basic data, 13225
 - Japan's farm commodity market, view of competition with U.S., 6999
 - joint defense communications station, agreement, 6230
 - meat imported into U.S., trade agreement, 7824
 - mineral industry, minerals yearbook chapter, 7464
 - space research program, agreement, 15329
 - tracking stations, agreement, 15304
- Austria:
- atomic energy, cooperation for—civil uses, agreement, 7822
 - peaceful uses, application of safeguards by IAEA, agreement, 9198
 - background notes, 15281
 - economic trends and their implications for United States, 1972, 14617
 - economy, basic data, 3691
 - establishing business, 1385
 - market factors, 4990
 - mineral industry, minerals yearbook chapter, 4418
- Autauga County, Ala., community profile, 16178
- Authoritarianism, economic contest between freedom and authoritarianism (address), 11323
- Authors:
- L.C. national union catalog, cumulative list, 2935
 - register of additional locations, 10306
 - NHSB corporate author authority list, supplement to highway safety literature, 7603
 - writing occupations, employment outlook, 14685
- Automatic data processing equipment, see Electronic data processing systems.
- Automatic pilots, see Aircraft automatic pilots.
- Automatically programmed tooling, see Tools.
- Automation:
- and telemechanics systems, set of metal-dielectric-semiconductor integrated logic circuits for, USSR study, 16780
 - automated fingerprint identification, 14926
 - automated multiphasic health testing, bibliography, 14366
 - automated procurement system for small purchases, opportunities for more effective use, Navy Department, GAO report, 1899
 - automating fluid milk processing line, equipment and procedures, 4801
 - automation and women workers, 6282
 - automation of research, conversion of information form, USSR study, 5793
 - chemical production associated with fertilizers, USSR study, 5762
 - deciphering automata in absence of upper bound of state number, USSR study, 8836
 - indexing, state-of-the-art report, 8982

Automation—Continued
 innovations in pneumonics, USSR study, 8839
 national conference of Statistical Reporting Service, 17367
 physiological measurements in space, USSR study, 12646
 pneumatic automation and local control systems designs, USSR study, 16775
 technology—
 East European abstracts, 2518
 USSR abstracts, 3319
 Automaton, man among automata, USSR study, 5738
 Automobile accidents, *see* Motor vehicle accidents.
 Automobile drivers:
 driver behavior and accident involvement, implications for tort liability, 18384
 Government driver's guide, 6268
 insurance accessibility for hard-to-place driver, 10646
 see also Motor vehicle operators.
 Automobile driving, brake pedal force capability of adult females, 18238
 Automobile insurance:
 assigned risk plans, study, 15361
 automobile insurance and compensation study, 7861, 7863, 9231-36, 10646, 11915, 15354-356, 15359, 15361, 17382
 economic regulation in U.S., 15357
 insolvencies among automobile insurers, advisory report, 15358
 insurance accessibility for hard-to-place driver, 10646
 mass marketing of property and liability insurance, 11915
 motor vehicle assigned risk plans, report, 15359
 price variability, its extent, causes and relationships to high risk and other problems, 17381
 public attitudes, consumer complaint letters, analysis, 7863
 quantitative models, 17382
 selected automobile insurance markets, analysis of complaints, advisory report, 15354
 structural trends and conditions in industry, 9236
 study by Secretary of Transportation, review progress, hearing, 497
 Automobile mechanics, *see* Mechanics (persons).
 Automobile parking, *see* Parking of vehicles.
 Automobile parts, *see* Automobiles.
 Automobile seat belts, seat belt injuries in impact, 1283
 Automobile trailers, *see* Trailers.
 Automobile wrecking and used parts industry, *see* Automobiles.
 Automobiles:
 automobile allowances for certain disabled veterans, increase, report, 10986
 automobile and truck dealers under Fair labor standards act, 17407
 automobile salesmen, employment outlook, 14688
 automotive soft trim, how imports might affect certain workers of American Motors Corp., Tariff Commission, report, 15343
 car rental in U.S.A., 11928
 cost of operating, 9075
 excise taxes, extend, tax recommendations of the President, 15955
 exhaust pollutants, kryptonate-based instrumentation development for detection feasibility, 15517
 experimental safety cars study, condensation of report, 4562
 Federal consumer safety legislation covering scope and adequacy, 11767
 household ownership and purchases of cars, homes, and selected household durables, special report, 224, 15653

Automobiles—Continued
 imported foreign-made, excise tax information, 11454
 imported into United States—
 Federal motor vehicle safety standards, 636
 1957-69, market for, 3528
 regulations, 5296
 installment credit developments (periodical), 2359
 junk auto incinerator, construction and testing, 7500
 leaded and lead free automobile fuels, comparative emissions, 8913
 parts countermeasures, employment outlook, 14704
 passenger cars—
 performance data, consumer information, 4561
 tires in United States, tire use survey, physical condition, use, and performance, 10437
 personal injury claims, 15355
 appendix, 15356
 recent purchases and expectations to buy during months ahead, cars, houses, and other durables, survey data, 1334, 6450, 10823, 13177
 scrap, reduction roasting with nonmagnetic taconites, 8912
 scrapping processes and needs for Maryland, 10576
 service occupations, employment outlook, 14704
 speak up when you buy a car, 17221
 steam-powered cars, condensers and boilers, parametric analysis of size, weight, and required fan power, 11660
 typical junk, dismantling, to produce quality scrap, 2059
 Automotive painters, *see* Painters.
 Automotive trades, *see* Motor vehicles.
 Automotive vehicles *see* Motor vehicles.
 Autopsy, mallards, experimental studies on post-mortem changes, 17322
 Avalanches:
 mechanics of debris avalanching in shallow till soils of southeast Alaska, 18026
 strength tests on newly fallen snow, 682
 Avdeef, John A., relief, 3797, 13283, 13607
 Average camper, who doesn't exist, 4204
 Averitt, Paul stripping coal resources of U.S., 16609
 Avery, T. Eugene, forester's guide to aerial photo interpretation, 4807
 Avery County, N.C., community profile, 12411
 Avian leukosis:
 guidelines for leukosis dispositions, 6828
 lymphoid leukosis and Marek's disease, differential diagnosis, 9327
 Aviation, *see* Aeronautics—Aircraft.
 Aviation Advisory Commission, establish report, 9687
 Aviation boatswain's mates:
 E 1 & C, Navy training course, 10492
 F 1 & C, rate training manual, 18288
 Aviation electrician's mate, 3 & 2 rate training manual, 6089
 Aviation electronics technicians, *see* Electronic technicians.
 Aviation fields:
 Army, planning aviation facilities, technical manual, 7994
 military, instrument approach procedure charts 2684
 pavements, evaluation of airfield pavements other than Army, flexible airfield pavement evaluation, Army technical manual, change, 100
 soil strength at aircraft landing sites, rapid assessment, 10015
 unsurfaced forward-area airfields, evaluation of soil strength by use of ground vehicles, 14335
 Aviation fire control technicians, *see* Fire control technicians.

INDEX 1970

Aviation fuels, *see* Gasoline—Motor fuel—Turbine fuel.
 Aviation machinists, mate R 3 & 2, rate training manual 7685
 Aviation medicine, *see* Medicine.
 Aviation storekeeper, 3 & 2, rate training manual, 12885
 Aviation structural mechanics, *see* Mechanics (persons).
 Aviation support equipment technicians: aviation maintenance technician schools, Federal aviation regulations, 8599
 E 3 & 2, rate training manual, 17182
 Aviation war risk insurance, *see* War risk insurance.
 Aviators:
 airmen other than flight crewmembers, certification, Federal aviation regulations, 17959
 aviation medical examiners directory, 8042, 10781
 challenge for the bold, 15460
 commercial jet transport, vibration isolation during turbulent air penetration, 14811
 customs regulations, guide for private flyers, 16104
 F-4 2d-seat crewmembers, proficiency difference between pilot and navigator, southeast Asia evaluation, 13011
 inflight performance differences of pilot and navigator F-4 2d-seat crewmembers, limited southeast Asia combat evaluation, 7955
 instrument rating (airplane) written test guide, 5409
 memorandum for aviators, 2877
 pilot ratings and aircraft system performance, relationships, 14833
 pilot scanning and control behavior during simulated instruments approaches, measurement and analysis, 12759
 pilot schools, Federal aviation regulations, 10044
 pilot training, omission of significant costs from charges to Federal Republic of Germany, GAO report, 721
 pilots and copilots, employment outlook, 14723
 pilots and flight instructors certification, Federal aviation regulations, 1842, 5403, 8593, 10042
 pilots and mechanics in civil aviation, 1967-77, study of manpower requirements, 12707
 pilots and pilotage, certification, Federal aviation regulations, 8592
 pilot's weight and balance handbook, 12541
 training of student pilots to private pilot certification, evaluation of angle of attack instrumentation, 3554
 Avifauna, of northern Latin America, symposium, 7734
 Avram, Percy I, relief, 3919
 Awakening, effects of simulated sonic booms and subsonic aircraft noise on 6 subjects, 7-12 yrs. of age, 10362
 Awards (arbitration):
 foreign arbitral awards, recognition and enforcement, convention, implement—law, 15767
 reports, 5246, 10991
 Awards (incentive), *see* Rewards (prizes, etc.).
 Axial compression, buckling coefficients for simply supported, flat, rectangular sandwich panels under biaxial compression, 14467
 Axial flow, *see* Flow.
 Axial-load fatigue, *see* Strains and stresses.
 Axisymmetric filamentary structures, 8922
 Axisymmetry, *see* Symmetry.
 Ayrshire cattle, *see* Cattle.
 Azerbaydzhan medical journal, selections, 7877

Azimuth:
 growth of azimuthal current and microwave radiation of theta-pinch plasma, investigation, 8003
 surface wave, launching on cylindrical impedance boundary, 7951
 velocity vector azimuth angles for unguided rockets, wind-weighing technique to predict velocity, 13038
 Azov, Sea of, lights and fog signals, list, change, 10488
 Azovskoye More, *see* Azov, Sea of.

B

Babbitt, E. Holt, alcohol, alcoholism and drug abuse, 4784
 Babcock, Clarence O., plates with rows of holes considered as anisotropic soft-inclusion models of three-dimensional room-and-pillar mining systems, 18165
 Babies, *see* Infants.
 Babilzke, Herbert R., columbium alloy development with boron, hafnium and tungsten, 10328
 Bachrach, Morton W., OE's new copyright policy, 14290
 Backfills, *see* Hydraulic mine filling.
 Background, experiment in performance contracting, 13823
 Background notes, 1134-39, 2235, 4718-22, 6212-17, 7794-7811, 9186-89, 10591-600, 15278-291, 18343-344
 Backscatter:
 coefficients and transmission of 1.0- to 3.0-MeV electrons incident on some metals and alloys, 8942
 high-frequency over-the-horizon earth backscatter, computer simulation of structural details, 4630
 oblique-incidence high-frequency backscatter ionograms of midlatitude ionosphere, atlas, 10025
 radar, effect of sea roughness on bandwidth, 12889
 Bacteria and bacteriology:
 bacteria, the littlest cells, 15006
 bacterial insecticide preparation BIP-805, USSR study, 1981
 method for sampling yeasts and bacteria in sound wood, 18014
 see also Clostridium.
 Bacterial warfare, *see* Biological warfare.
 Baden, Margarita A. M., relief, 9795, 13383, 17577
 Bader, J. S.:
 reports for California by Geological Survey, Water Resources Division, 5562
 summary of ground-water data as of 1967, California region, 4255
 Badlands, ranch house, furnishing plan, Theodore Roosevelt National Memorial Park, 15027
 Badlands National Monument, historical basic data study, 7631
 Bae, Sa Cha, relief, 1374, 1604
 Baecher, Reynaldo C., relief, 13611
 Baggage:
 luggage—
 briefcases, and personal leather goods, current industrial reports, 2475
 census of manufactures 1967, industry report, 12004
 Bahamas:
 background notes, 7794
 Cay Sal Bank, oceanographic investigation, 14347
 Tongue of the Ocean, ambient noise levels—deep water, 9046
 shallow water, 1014
 Bahla de San Quintin *see* San Quintin Bay.
 Bahrain, background notes, 10591
 Bail:
 criminal court data on pre-trial release of defendants, pilot study, 14924

- Bail—Continued
District of Columbia, reforms, hearings, 3857, 6704
reform act of 1966, amend, hearings, 6704
- Bail Agency:
District of Columbia—
amend act, hearings, 6704
appropriations 1970, increase—
law, 9597
reports, 6689, 6771
- Bailey, Dorothy L., feed statistics, feed grains, corn, processed feeds, hay and other forages, 44
- Bailey, Warren R., economic considerations in crop insurance, 12493
- Baird, James T., need for dental care among adults, United States, 6014
- Baird, R. W., effects of conservation practices on storm runoff in Texas Blackland Prairie, 3428
- Baja California, benthic ecology of Bahia de San Quintin, 6162
- Baker, Charles D., nomination, hearings, 13719
- Baker, Charles E., temperature dependence of self-diffusion coefficients for gaseous ammonia, 2110
- Baker, Eugene C.:
estimated costs of steel slag disposal, 2051
mineral industry of Connecticut, 856
- Baker, James D., transform operation in TOS, assessment of human component, 49360
- Baker, Margaret A., 1964 exposure test of porcelain enamels on aluminum, three year inspection, 7569
- Baker, Ralph C., northern fur seal, 9516
- Baker, Robert K., violence and the media, 4641
- Baker, Simon, look of our land, airphoto atlas of rural U.S., 3394, 17431
- Baker, Calif., highway accident report, 7655
- Baker Ranch, Glen Canyon National Recreation Area, history, 15024
- Bakers and bakeries, bakers, job grading standard, civil service, 8125
- Bakkala, Richard G., biological data on chum salmon, *Oncorhynchus Keta* (Walbaum) 1792, 13233
- Balance, a discussion of conservation issues, 11821
- Balance of payments:
advantages of replacing foreign-made buses with American-made buses, GAO report, 5528
balance of payments—
and capital outflows, review and outlook (paper), 7151
and U.S. investment position, 10088
developments (remarks), 9250
Euro-dollar market and U.S. balance of payments (paper), 652
improve, by further promoting travel to United States—
hearing, 5259
reports, 6673-74, 9650, 13419
- Interest equalization tax act on foreign securities, extend—
law, 1393
reports, 1455, 1481
program, revised guidelines for banks and nonbank financial institutions, 5463
relationship to foreign direct investment program (remarks), 5480
- U.S.—
basic issues (address), 9494
policies (remarks), 10653
public policy implications of Euro-dollar market, 5066
- Balance sheets, *see* Finance.
- Balances, industrial plant equipment handbook, 13778
- Balanis, Constantine A.:
measurements of dielectric constants and loss tangents at E-band using Fabry-Perot interferometer, 2117
- Balanis, Constantine A.—Continued
radiation from slots on cylindrical bodies using geometrical theory of diffraction and creeping wave theory, 5979
- Baldanza, Nicholas T., literature search, injection molding processing parameters, 8499
- Baldwin, Godfrey S., projections of population of Cuba, by age and sex, 1968-90, 6454
- Baldwin, J. L., weekly weather and crop bulletin, 3355
- Ball bearings, *see* Bearings (machinery).
- Ballast (spacecraft), *see* Stability of spacecraft.
- Ballast (electric):
ballasts and starters, Federal item identification guide, 11167
Ballistic ranges, small, for impact metamorphism studies, 8947
- Ballistics, simplified ballistic-limit expressions for thin sheets, 2102
- Balloons:
inflatable falling sphere—
density data, evaluation, 13039
passive technology for atmospheric sensing to 100 km, status, symposium, 5913
jumpsphere wind profiles as related to space vehicle design and operations, further study, 14832
moored, Federal aviation regulations, 2573
unmanned, Federal aviation regulations, 2573
- Balsam fir, *see* Fir.
- Balsam wooly aphids, *see* Aphids.
- Balthasar, Noel C., digital receiver decision techniques for certain fixed length binary block codes transmitted through Gaussian channel, 4632
- Baltic Sea:
lights and fog signals, list, change, 17181
nautical charts and publications, catalog, 4603
- Baltimore County Board of Education, Towson, Md., selected drug education curricula, 14942
- passenger lists of vessels arriving—
1820-97, Federal lists, pamphlet to accompany microcopy, 17025
1833-66, city lists, pamphlet to accompany microcopy, 14911
- Baltimore, Md.:
air quality control region, Federal facilities, air pollution report, 12834
area wage survey, 4379
census of transportation, 1967, commodity transportation survey, production, area series, 6420
quarterly abstracts, pamphlets to accompany microcopy, 11723
principal electric facilities, map, 8622
- Band-tailed pigeons, *see* Pigeons.
- Bandages and bandaging surgical dressings, Federal item identification guide, 11175
- Bands, Federal item identification guide, 13780
- Bands (music):
military band, field manual, 3465
Sousa Band, discography, 4392
- Bandwidth:
large time-bandwidth product radars, capture and spurious target generation due to hard limiting, 6109
narrowband—
ambiguity functions, review, 10496
radar backscatter, effect of sea roughness, 12829
smooth limiting of two signals in system, 15094
wideband ambiguity functions, review, 6108
- Baney, Anna M., Hill-Burton State plan data, national summary as of Jan. 1, 1968, 11406

- Bang's disease, *see* Brucellosis.
- Banister, D'Arcy J.:
 geochemical investigations for gold, anti-
 mony, and silver at Stibnite, Idaho,
 11586
 silver in United States, 847
- Bankhead-Jones farm tenant act, *see* Agri-
 cultural credit.
- Banking, *see* Banks and banking.
- Banking and Currency Committee, House:
 calendar, 2798
 committee prints, 11025, 11027, 17635
 hearings, 1576, 3855, 5149, 6702, 8277-81,
 11026, 11028-29, 12266-267, 13499-502,
 15891-892
 investigations and studies, expenses, re-
 port, 6651, 8239
 reports, 361, 1523, 1546, 6672, 9658, 9677,
 9861, 10960, 12221-222, 12232-233,
 13430, 15878
- Banking and Currency Committee, Senate:
 calendar, 2817
 committee prints, 6792, 17692
 hearings, 480-492, 3956-58, 6790-91, 6793,
 8378-80, 9895-98, 11110-112, 12358-
 59, 13715-716, 16040-41, 17691
 investigations and studies—
 authorization, report, 5241
 expenses, report, 5201
 housing, Federal programs, etc.—
 authorization, report, 5242
 expenses, report, 3934
 reports, 1611, 1616-18, 1626, 1696, 3934,
 5201-2, 6759, 8351, 8354-55, 9879,
 11089, 11095, 12325, 12347, 13675,
 13680, 13703, 15979, 15985, 15987-988,
 15992, 16011, 16017, 16026, 16028
- Bankruptcy:
 act, amend rel. to dischargeability of
 debts, hearings, 1591
 Federal rules of appellate procedure, with
 forms, 11052
 insolvencies among automobile insurers—
 advisory, report, 15358
 protect American public against, hear-
 ings, 5262
 laws, study—
 hearings, 1591
 report, 9673
- Bankruptcy Laws of United States
 Commission:
 create—
 hearings, 1591
 law, 13329
 reports, 6640, 9673
- Banks, Bruce A., 1000-hour endurance test
 of glass-coated accelerator grid on 15-
 centimeter Kaufman thruster, 14859
- Banks, Vera J., major statistical series of
 Department of Agriculture, how they are
 constructed and used, farm population and
 employment, 12
- Banks and banking:
 American Samoa banks, eligible for Federal
 deposit insurance, report, 12347
 applications and reports received, or acted
 on, by Federal Reserve System Board of
 Governors, 2339
 assets and liabilities—
 all banks, semimonthly report, 2354
 commercial and mutual savings banks,
 14365
 capital accounts, 8608
 bank debits—
 and demand deposits, 11320
 deposits, and deposit turnover, 2362
 Bank holding company act of 1956,
 amend—
 hearings, 3956, 11111
 report, 13690
 bank lending practices, 1969, survey of
 changes, 11321
 banking and credit measures, weekly
 summary, 3352
 banking and monetary statistics, 16504
- Banks and banking—Continued
 banking, banks, bank clerks, tellers, bank
 officers, employment outlook, 14724
 banking structure—
 and monetary management (remarks),
 12530
 in United States, recent changes, 8441
 central banking and economic develop-
 ment, record of innovation (remarks),
 17989
 code of Federal regulations, 10067-68
 commercial banking, recent changes in
 structure, 14392
 commercial banks, assets and liabilities,
 2355
 consolidated condition statement, 2354
 consumer installment credit, monthly
 report, 2446
 credit for purchasing or carrying margin
 stocks—
 amendment, 10084
 regulations, supplement, 14395
 debits, demand deposits, and turnover
 (periodical), 2490
 debits to demand deposit accounts, etc.,
 10077
 demand deposits in insured commercial
 banks, June 1968, business holdings,
 16485
 deposits of country banks, index numbers,
 2503
 Development bank act, hearings, 11026
 Federal deposit insurance act, amend—
 hearings, 6702, 12359
 law, 1410
 reports, 1546, 1555, 1616, 3829, 6672,
 9652, 12347, 15992
 Federal reserve and banking system
 (remarks), 12532
 Federal reserve par list, 653
 cumulative supplement, 2625
 financial institutions, tax reforms, sum-
 mary of recommendations, 1727
 foreign operations under Federal reserve
 act, regulations, 4158
 amendment, 14393
 institutional investors, effect on securities
 market, study—
 extend reporting date—
 law, 15795
 report, 13480
 extend time, law, 310
 intent and letter of bank regulation
 (remarks), 11326
 interlocking bank relationships under
 Clayton act, regulations, 4159
 international financial institutions, U.S.
 participation, increase—
 hearings, 8280
 report, 9677
 minority banks, problems and prospects
 (address), 18387
 National Capital area bank holding com-
 pany, amendment, hearings, 3956
 needle in paper stack (remarks), 7153
 nonmember banks that maintain clearing
 accounts with Federal reserve banks,
 3222
 list, 5465
 one-bank holding company legislation of
 1970, hearings, 11111
 operating banking offices, list, 11301
 supplements, 2990
 operating banks and branches, changes,
 11300
 Penn Central failure and role of financial
 institutions, staff report, 17635
 policies for financial institutions for the
 seventies (remarks), 10081
 record maintenance and report of trans-
 actions, required report—
 hearings, 6702, 12359
 reports, 6672, 9652, 15992
 reform program to combat use of secret
 foreign bank accounts (statement),
 10657

Banks and banking—Continued
 secret foreign bank accounts, Nixon Administration's reform program to combat illegal use (remarks), 9248
 time and savings deposits, changes, 14386-387, 16505
 weekly condition report of large commercial banks—
 and domestic subsidiaries, 3350
 New York and Chicago, 3350
see also Banks for cooperatives—Federal land banks—Federal reserve member banks—National banks—State banks
 Banks for cooperatives, banks of Farm Credit System supervised by Farm Credit Administration, audit report, 5524
 Banner County, Nebr., community profile, 17755
 Bannerton, N.P., carbonation cell, materials compatibility, 2071
 Bar saws, *see* Saws.
 Barb (U.S.S.):
 loan to Italy, extension, agreement, 10617
 Barbados, economic trends and their implications for United States, 11476
 Barbados Oceanographic and Meteorological Analysis Project, ESSA technical memorandum ERLTM-BOMAP series, 16454
 Barbados Oceanographic and Meteorological Experiment, BOMEX period 4, high level cloud photography inventory, 16454
 Barbers:
 chairs—
 Emil J. Paldar Company, Tariff Commission report, 9219
 Tariff Commission report, 9218
 employment outlook, 12696
 Barbers Point, Hawaii, harbor study, model investigation, 12510
 Barbour County, Ala., community profile, 13836
 Barclay, Peter A., severe thunderstorm radar echo motion and related weather events hazardous to aviation operations, 11268
 Bard, Morton, training police as specialists in family crisis intervention, 16819
 Barents Sea, plankton distribution, 1011
 Bargain, freezer meats, there may be a catch to it, 4164
 Barger, W. R., detection and characterization of surface-active material in marine atmosphere, 12898
 Barges:
 amphibian resupply (LARC V), organizational mechanic/repairman course, tactical and support vehicles, Army pamphlet, 17463
 long, cylindrical, liquid-filled independent cargo tank-barges, structural design review, 11846
 rental rates for barges used in Republic of Vietnam, included costs previously recovered by contractor, GAO report, 10153
 steel purchased for commercial barge construction program in Vietnam, report, 17629
 Barite:
 minerals yearbook chapter, 14772
 world production, reserves, and future prospects, 16608
 Barium, sequential determination in biological materials, 6376
 Barium fluorides, and yttrium oxide phase diagram relation in alkaline earth fluoride-yttria systems, 18167
 Bark:
 beech bark disease, 14443
 Douglas-fir, tannin decomposition in 2 forest soils, 1883
 outside-bark stem diameters, converting dendrometer estimates to wood diameters on major Southern pines, 691

Bark—Continued
 thickness—
 and volume of sugar maple, estimating, 16575
 measurements of robusta eucalyptus not biased by position, 4190
 related to three diameter in sugar maple (*Acer saccharum* Marsh), 11347
 Barker, Fred:
 Precambrian—
 geology of Needle Mountains, southwestern Colorado, 4248
 melasyenite of Ute Creek, San Juan Mountains, Colo., chemistry, petrology, and strontium isotopes, 5542
 Barker L. Keith, simple method of using onboard optical measurements to predict orbit established after lunar-ascent-transfer orbit, 5937
 Barkuloo, James M., taxonomic status and reproduction of striped bass, *Marone saxatilis* in Florida, 6210
 Barley, seeds during circumlunar flights of automatic stations Zond 5 and Zond 6, chromosome mutations induced by space-flight factors, USSR Study, 5792
 Barnacles, burrowing, Cirripedia, order Acrothoracica, study, 990
 Barnard, J. Laurens:
 benthic ecology of Bahla de San Quintin, Baja California, 6162
 sublittoral Gammaridea (Amphipoda) of Hawaiian Islands, 7736
 Barnard, Joseph E., preview of Ohio's forest resource, 676
 Barnes County, N. Dak., community profile, 13837
 Barney, Richard J., national fire-danger rating system fine-fuel moisture content tables, Alaskan adaptation, 4184
 Barnicle, Timothy M., foreign trade regulations of Republic of Korea, 8145
 Barns, building plan, 2 grain-feed handling centers, 9309
 Baron, Norton, alpha-gamma angular correlations for reaction nickel-58, 5928
 Baron, Sheldon, new approach to aerial combat games, 18182
 Barr, Richard H.:
 bond sales for public school purposes, 8510
 current expenditures by local educational agencies for free public elementary and secondary education, 578
 elementary and secondary education, fall 1969, statistics of public schools, advance report, 7011
 preliminary statistics of State school systems, 12503
 statistics of public elementary and secondary day schools fall 1969, pupils, teachers, instruction rooms, and expenditures, 9993
 Barranger, John P., cascade impedance synthesis using extension of Fialkow-Gerst theorem, 943
 Barrels, steel shipping, current industrial reports, 2475
 Barrett, Anna R., directory of research in social studies/social sciences, 1788
 Barricades, electrical barrier for controlling predation of northern squawfish, laboratory tests, 15749
 Barrier materials, electrical barrier for controlling predation of northern squawfish, laboratory tests, 15749
 Barriers:
 Galveston Bay hurricane surge study, effects of—
 plan 2 Alpha and plan 2 Gamma barriers on tides, etc., hydraulic model investigation, report, 16448
 proposed barriers on tides, etc., report, 16447
 Barrow, Alaska, ionic concentration gradients in permafrost, 4069

INDEX 1970

- Barry, Anthony J., in situ tests of bearing capacity of roof and floor in selected bituminous coal mines, progress report, long-wall mining, 11591
- Barry County, Mo., community profile, 16179
- Bars (metal, etc.):
- Federal item identification guides for supply cataloging, supplements, 2593
 - landing mat tie bars, preliminary tests in conjunction with expedient reinforcement of concrete for use in southeast Asia, 11255
 - solid-state welding of TD-nickel bar, 14867
- Bartelli, Lindo J., classification and correlation of soils of Lake County, Fla., 15194
- Barton County, Mo., community profile, 16180
- Bartonville, Ill., railroad accident, report, 17236
- Bartram, S. F., preparation and crystal structure of NaUO_3 and NaU_2O_7 , 9380
- Barwick, Atwood S., Project Flood, data report, Caribbean Sea, 1012
- Basal ganglia, *see* Brain.
- Basalt, sulfur-basalt concretes, strengths, 5881
- Bascom, C. W., structural design review of long, cylindrical, liquid-filled independent cargo tank-barges, 11846
- Bascom, Willard D., evidence that polywater is a colloidal silicate sol, 17194
- Basic aerodynamic noise research, 7526
- Basic cadet training, 46, 17448
- Basic issues in U.S. balance of payments (address), 9494
- Basic military requirements, 7686
- Basic Standards, Institute for, *see* Institute for Basic Standards.
- Basins, small drainage, in Wyoming, flood hydrographs, study, progress report, 734
- Basket Slough National Wildlife Refuge, mammals, list, 1126
- Baskin, Leonard, evaluation of his life and work, 14948
- Bass, C. A.:
- NRL Microwave Space Research Facility—computer system hardware for data acquisition and control of 60-ft. X-band antenna, 15090
 - operating procedures of computer control system for 60-ft. X-band antenna, 15092
- Bass, Charles A., flow-diagram technique for time-varying coordinate systems, 17196
- Bass:
- largemouth bass and bluegills—effect of acids and alkalies on survival, 4716
 - pond management, 15224
 - striped, Morone saxatilis, taxonomic status and reproduction in Florida, 6210
 - white, in Bull Shoals Reservoir, age, growth, sex composition, and maturity, 11891
- Bass Lake Recreation Area, general information, 18007
- Bastnasite, treated bastnasite concentrate used as source for electrowinning misch metal, 11585
- Bates, Carlos G., paper, 9079
- Bates, Daniel W.:
- diversion and collection of juvenile fish with traveling screens, 9539
 - preliminary designs of traveling screens to collect juvenile fish, 13246
- Bates, Lloyd M., some physical factors affecting radiographic image quality, their theoretical basis and measurement, 1054
- Bates, William H., memorial services, 8172
- Bates County, Mo., community profile, 16181
- Bates Mountain Tuff, northern Nye County, Nev., description, etc., 1910
- Bath, Maine, Post Office and Customhouse, demolition property investigation, 2156
- Batholiths, Mesozoic batholithic complexes in California and western Nevada, chronology of emplacement, 7245
- Bathymetry:
- and magnetics of region (POL-421-3) 29°-35° N, 155°-165° W, 16462
 - bathymetric and magnetic profile in Pacific from Cocos Ridge to central California, 17949
 - correlation signal processing for depth sounding, 17172
 - International Indian Ocean Expedition, 1964, USC&GS ship Pioneer, data, errata, 17953
 - world bathymetric terms and their English language equivalents, glossary, 17190
- Bathysphere for fishery research, 12073
- Bathythermographs, mechanical, reliability study, 17176
- Batman, Paul C., Kaiser, Peak quadrangle, central Sierra Nevada, Calif., analytic data, 16616
- Baton Rouge, La., port, 16441
- Bats, oxygnathous, in free flight, echo location process, USSR study, 11496
- Battalions:
- infantry, field manual, 3463
 - tank units, Army field manual, 6347
- Batteries, *see* Electric batteries—Space batteries.
- Batting (textile fibers):
- stuffing materials and leather, Federal item identification guide, 6866, 11174
- Battle act, *see* Exports.
- Battles, *see* names of battles or places where fought.
- Battleships, *see* Warships.
- Batty, J. Vance, leach-precipitation-fotation studies of red bed copper ore using controlled atmosphere, 7497
- Baudette, Minn., toll bridge across Rainy River, construct, maintain, and operate, hearing, 15901
- Bauer, Frank C., Detroit, poverty broad outline, 8875
- Bauer, Josephine, go! developmental reading, (C), 11158
- Bauer, Mary L., current estimates from health interview survey, 11755
- Baughman, Vance, basic data on economy of Canada, 15729
- Baughman, Roger N., SURBAL, computerized times and bounds surveying, 12559
- Baumann, Lewis A.:
- effects of storage temperatures on quality of—
 - cottonseed salad oil, 10688
 - soybean salad oil, 10689
- Bauta-Toa Vaca Tunnel, P.R., feasibility design report, 11842
- Bauxite:
- minerals yearbook chapter, 841
 - report, quarterly, 2363
 - surinam-type metallurgical grade, disposal from national and supplemental stockpiles—
 - law, 12149
 - reports, 6633, 6748, 11007
- Baxter, W. G.:
- life testing small diameter thermocouples as function of thermal cycling, 9384
 - ORTC-III in-reactor experiment, 9386
- Bay of Bengal, *see* Bengal, Bay of.
- Bayley, R. W., structure and mineralization of Precambrian rocks in Galena-Roubais district, Black Hills, S. Dak., 7225
- Bayou Lafourche, and tributaries, Ouachita River, Monroe, La., flood plain information, 16428
- Bayous, *see* names of bayous.
- Bayroff, Abram G., Armed services vocational aptitude battery, 15498
- Be sure before you sign, 17215

- Beach, Norman E., Government specifications and standards for plastics covering, defense engineering materials and applications, 565
- Beaches, breaker travel and choice of design wave height, 12509
- Beacons, lunar beacons used in lunar orbit estimation, 14865
see also Radar.
- Beadle County, S. Dak., community profile, 13838
- Beall, F. C., thermal degradation of wood components, literature review, 14464
- Beals, Gordon A., rain models for landing guidance systems, 52
- Beams:
- beam columns, frames, and arches, finite element approach to structural instability, 10406
 - broad neutron beams normally incident on slabs of concrete, shielding calculations, 9391
 - cantilever scales for measuring weight changes, 18018
 - glued-laminated southern pine, flexural properties with laminations positioned by visual-stiffness criteria, 8701
 - high-current relativistic beams in plasma physics possibilities for using, 113
 - large glued-laminated timber, with 2 grades of tension laminations, 692
 - optical crossed-ocean method, use for turbulence measurements in supersonic, shock-free jets, 5917
 - see also* Concrete beams—Electron beams—Ion beams—Laser beams—Proton beams.
- Bean, Ross C., biological aspects of saline water problem, 7305
- Beans:
- dry, how to buy, 12983
 - U.S. standards for grades, 3995
 - see also* Lima beans.
- Bear River and Valley, southeastern Idaho, availability of ground water for large-scale use, initial assessment, 7221
- Bear Valley, Idaho, quaternary geology, 14521
- Beardsley, Grant L., jr.:
- Atlantic albacore fishery, 13239
 - size, seasonal abundance, and length-weight relation of some scombrid fishes from southeast Florida, 10896
- Beargrass Creek:
- Jefferson County, Ky.—
 - flood plain information, 14309
 - floods, how to avoid damage, 14324
- Bearings (machinery):
- air lubricated pivoted-pad journal bearing-rotor system, effects of mount stiffness and damping on dynamic behavior, 5972
 - antifricition—
 - Federal item identification guide, 4006
 - manufacturers shipments and unfilled orders, 11982
 - ball bearings lubricated with glass-fiber-filled polytetrafluoroethylene retainers in cold hydrogen gas, cooling effects, requirements, 8934
 - ball spinning torque, speed effects, 926
 - bearing and bushing, plain, Federal item identification guide, change, 5303
 - Federal item identification guides for supply cataloging, supplements, 2590
 - foil gas-bearing test rig design fabrication and testing, 10353
 - gas bearings—
 - high temperature—
 - operation, analysis, and design, 2068
 - research and development, 2068, 4492
 - material in argon selection and evaluation, 4492
 - hydrodynamic journal bearing test and analysis, 12756
 - Bearings (machinery)—Continued
 - instrument bearing performance in space and laboratory vacuum, 18214
 - mechanical power transmission equipment and bearings, Kennedy Round, special report, 8825
 - NRL-MB-20B, improved instrument ball bearing lubricant, 15086
 - potassium turboalternator (KTA), preliminary design study, 10345
 - self-acting thrust, optimization for load capacity and stiffness, 14886
 - 75-millimeter-bore bearings to 1.8 million DN with electron-beam-welded hollow balls, performance, 11653
 - errata, 16962
 - transient journal bearing analysis, 12760
 - turboalternator gas-bearing system performance at steady state conditions, 2093
 - unsteady Navier-Stokes equations for infinite hydrodynamic step bearing, computer solution, 11630
 - water-lubricated three-sector hydrodynamic journal bearings, experiments on stability at zero load, 11642
- Bears, black bear, habitat management, 6182
- Bearss, Edwin C.:
- Fort Moultrie, No. 3, Fort Sumter National Monument, Sullivan's Island, S.C., historic structures report, 7635
 - historical base map and ground study, Herbert Hoover National Historic Site, West Branch, Iowa, 7639
 - P. T. Smith House, Herbert Hoover National Historic Site, historic structures report, historical data, 7643
- Beatty, Rosemary P., metallization systems for integrated circuits, 11687
- Beaufort County, N.C., community profile, 12412
- Beaufort County, S.C., main drainage canals, requirements, feasibility study, 15206
- Beaumont, Tex.:
- area wage survey, 16850
 - census of transportation, 1967, commodity transportation survey, production, area series, 6431
- Beautification:
- guard against plant pests for beautiful America, 34
 - 2d annual highway beauty awards competition, 5416
 - States and Territories of United States and their resources, price list, 2207
 - urban beautification and improvement program, 14583
- Beauty operators, cosmetologists employment outlook, 12696
- Beaver County, Pa.:
- community profile, 16182
 - preparation characteristics of coal, 882
- Beaver County, Utah, community profile, 6893
- Beaver Falls, Pa., highway accident report, 9040
- Beaver Reservoir, food habits of 5 centrachids during filling, 11891
- Beaverdam-Warrior Creeks Watershed, work plan, 4702
- Beazley, Richard M., higher education salaries, 16395
- Beck, J. R., response of gas-purged manometers to oscillations in water level, 8760
- Beck, Thomas J., relief, 12171
- Beckett, C. W., physics and chemistry, journal of research, 2785
- Becoming a citizen series, 764, 1945, 10216, 16684
- Becraft, George E., mineral resources of Jack Creek basin, Madison County, Mont., 10163
- Bed bugs, *see* Bedbugs.
- Bed springs, *see* Bedsprings.
- Bedbugs, how to control them, 15432

- Bedding:
 does bedding promote pine survival and growth on ditched wet sands? 12558
 fabrics used on beds, fabric flammability, bibliography, 7574
- Bedford County, Pa., community profile, 16183
- Bedford shale, *see* Shale.
- Bedroom furniture, *see* Furniture.
- Beds, *see* Bed springs.
- Bedsprings, current industrial reports, 2475, 15634
- Beech:
 bark disease, 14443
 value increase, rate, 5511
- Beechler, R. L., study of rapid photointerpretation methods, 9364
- Beef:
 dynamic price-output model of beef and pork sectors, 15447
 family meals, guide for consumers, 12981
 freeze-dried raw beef patties, effect of headspace oxygen on quality, 1223
 fresh—
 industry, physical distribution system model for evaluating improvements, feasibility, 7
 USDA, institutional meat purchase specifications, 5288
 price spreads, 1949-69, revised series, 9312
 retail price increases, Federal responsibility, hearings, 3865
 trade agreement with Honduras, 6239
- Beef cattle, *see* Cattle—Steers.
- Been, Julian F., effects of nuclear radiation on high-reliability silicon power diode, analysis of forward electrical characteristics, 11637
- Beer, Alice B., trade goods, study of Indian chintz in collection of Cooper-Hewitt Museum of Decorative Arts and Design, Smithsonian Institution, 12917
- Beer, excise taxes, code of Federal regulations, 5692
- Bees, honeybee, *Apis mellifera* L., uniform system of reflecting spatial relations of outside world, USSR study, 16758
- Beetles:
 American Bidessini (Coleoptera, Dytiscidae-Hydoroporidae) checklist, 1096
 carpet, black, toxicity of new insecticides to larvae, 17442
 chemical control, Arizona 5-spined ips, 5502
 Douglas-fir, general information, 14439
 European chafer, description, control, etc., 3422
 flour, toxicity, of new insecticides, 17442
 Japanese—
 controlling, 6305
 United States, 12975
 lindane spray effective against mountain pine beetle in Rocky Mountains, 14463
 Monterey pine ips, description, control, etc., 16541
 mountain pine beetles in ponderosa pine, cactodylic acid field tested for control, 11351
- Beever, Joseph L., veterans' reemployment rights handbook, 11934
- Beeville, Tex.:
 flood plain information, 4080
 Poesta Creek floods, how to avoid damage, 4082
- Behavior:
 and life history notes on 3 Floridian solitary wasps (Hymenoptera, sphecidae), 9106
 chronic disulfoton poisoning at various levels, comparison of behavioral effects, 8039
 coping and adaptation, behavioral sciences bibliography, 15013
 dolphins in captivity, USSR study, 11501
- Behavior—Continued
 elementary teacher education program, feasibility study, behavioral science teacher education program, final report, 11221
 fish, USSR study, 10282
 mysterious behavior of dolphins, USSR study, 7382
 patterns of platyrrhine monkeys, saguinus Geoffroyi, and some other tamarins, 7735
 pilot scanning and control behavior during simulated instrument approaches, measurement and analysis, 12759
 probability learning, 1st-order Markov structures of quaternary events, 5971
 sensory behavior of naval personnel, monaural/binaural minimum angle of auditory response, 12731
 tenrecs, mammalian behavior and evolution, study, 6156
- Behavioral Science Research Laboratory:
 BESRL surveillance research, summary, 13060
 research publications, 1969, abstracts, 9363
 technical research notes, 106-108, 9358-63, 15493-497
 technical research reports, 9364-65, 13059-60, 15498
 work program, 1970 fiscal year, 3461
- Behrens, H. C., assembly and evaluation of improved ppb oxygen analyzer for sea water, 18069
- Beichley, G. L., hydraulic model studies of interstage module piping in 2.5 MGD universal desalination plant, Office of Saline Water, 17243
- Beinke, Nancy K.:
 District of Columbia catalog, 12867
 list of furnished historic houses in U.S., 17156
- Belgium:
 consular convention, report, 449
 economic trends and their implications for United States, 7326, 18078
 establishing business in, 15731
 income tax convention, text, etc., 13573
 labor law and practice, 18114
 mineral industry, minerals yearbook chapter, 4419
 pocket guide to Low Countries, 10219
- Bell, Frederick W., forecasting world demand for tuna to year 1990, 9527
- Bell, John E., family in hospital, lessons from developing countries, 6045
- Bell, Terrel H.:
 addresses, etc.—
 July 10, 1970, 11209
 Sept. 24, 1970, 16399
 Sept. 26, 1970, 16400
- Bell, Vernon L., preparation and properties of imide/pyrrone copolymers, 940
- Bell, William E., water technology, 10227
- Bellman, R. E., decision-making in fuzzy environment, 10360
- Bellmen, *see* Porters.
- Bells, peal of eight bells, for use of Smith College, Northampton, Mass., duty-free entry, report, 9693
- Belmont County, Ohio, community profile, 12414
- Belorussia, *see* Belorussian Soviet Socialist Republic.
- Belorussian Soviet Socialist Republic:
 Academy of Sciences, meeting held, 4332
 science and institutes, USSR study, 5804
- Belt conveyers, Federal item identification guide, 6856
- Belting, rubber V belts, visual inspection guide, military standard, 1775
- Belts, transmission, Federal item identification guide, 6856
see also Automobile seat belts—Safety belts.

- Beltz, Roy C.:
Arkansas forest industries, 11368
southern pulpwood production, 707
- Ben, Constantine, area travel survey, 15619
- Benbrook Dam, storage water, municipal use, report, 1471
- Bench-scale research on CSG process, 254-255
- Benches, level bench systems for forage production in North Dakota, economic analysis, 6291
- Bencivenga, Vincent L., test and evaluation of advanced integrated landing system for all-weather landing, 18372
- Bendel, Warren L., survey on photon activation analysis using NRL Linac, 15091
- Bender, Chester R., nomination, hearing, 13719
- Bending moments, *see* Moments.
- Bendtsen, B. A.:
mechanical properties and specific gravity of gravity of randomly selected sample of Engelmann spruce, 8702
tables for developing nonparametric estimates for near minimum property values, 14466
- Beneficiaries:
aged, interstate migration, 7750
public employee retirement systems, 1969, benefits and beneficiaries, 11859
railroad retirement, hospital insurance, medical insurance, and social security benefits, Medicare handbook, 10529
- Beneficiation, Georgia kyanite ore, 7498
- Benefit-cost analysis of kidney disease programs, 6144
- Benefit series service, unemployment insurance report, 2365
- Benefit societies, *see* Employee benefit plans.
- Benefit structure of private health insurance, 7751
- Benefits of interstate highways, 17968
- Benelux:
climatological bibliography of Benelux countries, 7962
Low Countries, pocket guide, 10219
- Bengal, Bay of, sailing directions, 4607
- Benjamin, Jesse, poverty area profiles, working age population, initial findings, Bedford, Stuyvesant, Central Harlem, South Bronx, 7436
- Bennett, A. H., thermal properties, and heat transfer characteristics of Marsh grapefruit, 10709
- Bennett, B. G., estimating stray photon spectra and dose above 25MeV near transverse shielding of proton synchrotron, 9395
- Bennett, Frank A., spacing and slash pine quality timber production, 4211
- Bennett, Wayne, use of probability theory in assignment of police patrol areas, 16820
- Bennett (U.S.S.):
loan to Brazil, extension, agreement, 4747
- Bennett County, S. Dak., community profile, 13839
- Benson, Carl S., ice fog, low temperature air pollution, 11250
- Benson, Sidney W., kinetic data on gas phase unimolecular reactions, 8985
- Benson County, N. Dak., community profile, 13840
- Benson Shoe Co., and workers, Lynn, Mass., women's and misses' dress shoes with leather, vinyl, or fabric uppers, Tariff Commission report, 10642
- Bent, Paul C., proposed streamflow data for Michigan, 16623
- Benthos, sled-mounted suction sampler for benthic organisms, 17568
- Bentley, Helen D.:
addresses, etc.—
Nov. 13, 1969, 640-641
Nov. 18, 1969, 643
Nov. 20, 1969, 642
Nov. 23, 1969, 644
- Bentley, Helen D.—Continued
addresses, etc.—Continued
Dec. 7, 1969, 645
Dec. 13, 1969, 1854
Jan. 15, 1970, 4142
Jan. 21, 1970, 4143
Feb. 17, 1970, 5425
Feb. 20, 1970, 5426
Feb. 26, 1970, 5429
Feb. 27, 1970, 5427-28
Mar. 12, 1970, 10052
Mar. 18, 1970, 7096
Mar. 19, 1970, 18493
Mar. 21, 1970, 7097
Apr. 16, 1970, 12526
May 12, 1970, 8621
May 18, 1970, 10056
May 23, 1970, 10054
June 19, 1970, 11310
July 11, 1970, 14372
Aug. 17, 1970, 14373
Oct. 2, 1970, 16494
Oct. 15, 1970, 17980
Oct. 19, 1970, 17981
nomination, hearings, 495, 13719
- Benton County, Iowa, community profile, 13841
- Benton County, Miss., community profile, 16184
- Benton County, Mo., community profile, 16185
- Benton County, Wash., community profile, 6894
- Benzene, benzenoid chemicals and products, imports, 15345
- Benzenoid chemicals, *see* Benzene.
- Bercaw, Robert W., study of odd strontium isotopes with stripping and pickup reactions, 10401
- Berea sandstone, *see* Sandstone.
- Berenyi, Steven G., vapor ingestion phenomenon in hemispherically bottomed tanks in normal gravity and in weightlessness, 12776
- Bereznicki, Bogdan, relief, 17677
- Berg, Dorothy F., illicit use of dangerous drugs in U.S., studies, surveys, and polls, compilation, 16930
- Berg, Otto E., filamentary crystal growth associated with hypervelocity microparticle impact craters, 11668
- Berg, W. A., determining pH of strip-mine spoils, 4181
- Bergen, James D.:
heated thermopile anemometer compared with sensitive-cup anemometer in natural airflow, 879
nocturnal air temperature on forested mountain slope, 5514
nocturnal radiation loss estimates for forest canopy, 5503
- Bergner, Per-Erik E., theory of quantitative radiation-response time-data, 13076
- Berkowitz, Donald, gastroenterology abstracts and citations, 2687
- Berks County, Pa.:
community profile, 16186
soil survey report, 17305
- Berkstresser, C. E., Jr.:
data for springs in—
Colorado Desert area of California, 7233
southern coast, transverse, and peninsular ranges of California, 7234
- Berlin, Germany:
crisis, 1961-63, reserve components in service, retirement benefits, report, 1488
western—
economic statistics, handbook, 2703
establishing business in, 15727
- Bernalillo County, N. Mex., soil samples from 10 profiles, engineering test data, 17280
- Berndt, H. W., forest land use and streamflow in central Oregon, 8708
- Berne Union, *see* International Union for Protection of Literary and Artistic Works, Berne Union.

INDEX 1970

Bernhardt, Audrey, cases decided in Court of Claims, 531, 3999, 13773, 16103
 Bernstein, Jeremy, elusive neutrino, 1280
 Bernstock, William M., bulletin of prosthetics research, 4781, 7888
 Berntson, B. L., European Community's common agricultural policy implications for U.S. trade, 573
 Berry, Albert G., Jr., relief, 17623
 Berry, Donald T., handling qualities of XB-70 airplane in landing approach, 5967
 Berry, Frederick H., walnut anthracnose, 14446
 Berry, P. F., radioisotope X-ray methods for field analysis of wet concrete quality, methodology and conceptual instrument design, 4889
 Berry, Virginia M., phase behavior in binary and multicomponent systems in elevated pressures, n-pentane and methane-n-pentane, 11732
 Berthold, Jeanne S., educational technology and teaching-learning process, bibliography, 16655
 Bertie County, N.C., community profile, 12413
 Beryllium:
 electrowinning, anode materials and operating conditions, 5880
 evaluated (n,2n) cross sections, tests by analysis of 1.4-eV flux in water for americium-beryllium source enclosed in beryllium spheres, 16993
 in vacuum, friction and contact resistance for low-speed gallium-lubricated sliding electrical contacts, 7542
 Beryllium oxide, melting point and phase transformation, 9383
 BES, *see* Employment Security Bureau.
 BES series, 15367
 BESRL, *see* Behavioral Science Research Laboratory.
 Bess, Leon, automatic cell counter, 11665
 Bessel functions:
 application of theory to axial compressor noise, 12757
 spherical, recursion formula for logarithmic derivatives in complex plane, 12513
 Bessemer and Lake Erie R.R. accident report, 11317
 Beta particles, distribution functions applied to size distribution of mineral products, 869
 Bethlehem, Pa.:
 area wage survey, 16849
 census of transportation, 1967, commodity transportation survey, production, area series, 6421
 Bethune, Mary M.:
 memorial in D.C., National Council of Negro Women to erect, extend time—law, 12105
 reports, 6687, 13625
 Betrand (steamship):
 excavation, preservation and display, 2230
 Better plants beautify, protect, improve our environment, 10556
 Better water is in the works, 11408
 Beverages:
 census of manufactures, 1967, industry statistics, 11998
 census of transportation, 1967, commodity transportation survey, shipper group, 1310
 Bexar County, Tex., seepage investigation on Medina Canal, Water Improvement District No. 1 Canal System, 10184
 BFCU, *see* Federal Credit Unions Bureau.
 Bhutan, background notes, 2235
 BI series, 12969
 Biafra, Nigerian-Biafran relief problems, hearings, 1737, 8420
 Blazzo, Lillian, relief, 13285, 13382
 Bibb County, Ala., community profile, 13842

Bibliography:
 accident, highway safety literature, 17076
 activation analysis, 8991
 addendum, 8990
 aerospace, 10368
 aerospace batteries and battery materials, secondary, 7529
 aerospace medicine and biology, 2300
 agriculture, 2368
 Air Force Academy Library series, 3430, 15450
 Air Force, 1965, scientific research, 47
 air pollution translations, 7564
 air, thermophysical properties from 0 to 300K, 962
 aircraft noise and sonic boom, 4776
 alpha particles, 11577, 16896
 altimetry, 18376
 Antarctic, 1951-61, 11552
 Arab world, American doctoral dissertations, 10303
 architecture, building and engineering, 13026
 arms control & disarmament (periodical), 2346
 artificial kidney (periodical), 2352
 artificial recharge of ground water, 4265
 atomic transition probabilities, bibliography, 6004
 automated multiphasic health testing, 14366
 battered child, 232
 bibliographic lists, Transportation Dept., 4775-76
 California water resources, reports, 5562
 cancer, human, involving viruses, partial listing, 12848
 Census Bureau, methodological research, 152, 13097
 chelating agents, clinical aspects, literature search, 17150
 children & poetry, 824
 cities, books about, list, 1925
 citizen and business participation in urban affairs, 8779
 climate of cities, 14902
 climatological, of Benelux countries, 7962
 cold regions science and technology, 596
 index, 597
 communications and electronics, 13027
 computer applications in psychotherapy, 9015
 construction industry selected references, 1960-69, 8553
 containers and packaging, 150
 coping and adaptation, behavioral sciences, 15013
 cryogenic publications and reports, list, 2465
 data compilations of Office of Standard Reference Data, annotated accession list, 17041
 DDT [1,1-dichloro-2,2-bis (P-chlorophenyl) ethylene], 5983
 death and dying, 11771
 desalting literature, 11449
 design of light aircraft, 5894
 determination of light elements in metals, activation analysis papers, 8995
 Down's syndrome (Mongolism), reference bibliography, 4569
 drug abuse, 7612, 7617
 drugstores, 15158
 dusting technology in delcing, 10301
 ecological techniques utilizing radionuclides and ionizing radiation, 3489
 educational technology and teaching-learning process, 16655
 emergency health services, 7268
 employee benefits and services, 13205
 environmental pollution, 18275
 environmental studies of—
 Iraq, Jordan, Lebanon, and Syria, 10723
 Israel, 7963
 Poland, 15461
 epidemiology of mental disorders, 12857

Bibliography—Continued

equilibrium critical phenomena in fluids and mixtures with key-word descriptors, 12844
ERIC products, 1967-68, information analysis publications of ERIC Clearinghouse, 17909
ESSA publications from Public Information Office, list, 4096
export opportunities, 3524
fabric flammability, 7674
testing and test methods, 17038
fibrinolysis, thrombolysis, and blood clotting, bibliography, 1969 annual compilation, 9010
fire in far northern regions, 14602
fish disease publications in English, selected, 11877
fisheries, available leaflets, list, 3713
folklore of North American Indians, 825
food and agricultural exports, 18006
foreign countries, statistical publications, 2663
forensic science, activation analysis papers, 7578
forest and range soils research in Oregon and Washington, 8706
Forest Service, publications by subject list, 11344
14-MeV neutron generators in activation analysis, 11739
furniture manufacturers and woodworkers, 16544
geronto-psychiatric literature in postwar period, comprehensive review, 1050
growth studies, Centre International de l'Enfance, publications, 8886
guide for professional reading for officers of Navy and Marine Corps, 15057
health service, comprehensive program, 5329
hellum, 11577, 16896
High Speed Ground Transportation and Northeast Corridor Transportation Project, published reports, 7864
high temperature chemistry and physics of materials, 958, 7573, 10430
highway safety—
human factors, 17078
literature, 2713
annual cumulation, 17077
related areas, 17079
hospital discharge, planning for, with abstracts and research reviews, 17047
hospitals, health facilities, etc., 16653
housing and planning references (periodical), 2719
human intelligence, extensive coverage, 6041
index medicus, abridged, 4571
individual psychotherapy, research, 2147
industrial arts and vocational education, 16545
information acquisition, sensing, and input, research and development in computer and information sciences, 8933
injection molding processing parameters, literature search, 8499
insect-resistant packaging, 12940
interior furnishings, fabric flammability, 12845
inventory management, 7732
Korea, 13028
Labor Department, current bibliographies prepared by Library, 8853
Labor management relations act, 1947, as amended by Labor management reporting and disclosure act, 1959, supplement, 17145
legal, juvenile and family courts, supplement, 9108
light aircraft design, NACA and NASA published information, 7507-8
lightning, 51
lobsters, genus *Homarus*, 6524

Bibliography—Continued

Malthusian spectre, challenges of food and population, 15450
management, literature survey, 15844
manufacturers' sales representative, 18323
marine black shales and related sedimentary rocks, minor element content, 8729
Marine Corps—
artillery, 12726
historical bibliographies series, 12726
marine radioecology, selected bibliography of non-Russian literature, 3501
marketing information guide, 2873
marketing research, 3525
mass spectroscopy, 13074, 15516
maternal nutrition, 11564
medical reviews, 2732, 2899
cumulated, 10464
medicare, impact, 6169
medicine, history, 10463
mental health and related fields, consultation reference guide, 1051
mental retardation, 11404
mentally retarded children, selected reading suggestions for parents, 13185
mercury contamination in natural environment, 14604
meteorological rocket sounding systems, 30 KM to 200 KM, study, 11604
Natick Laboratories, Natick, Mass., technical publications and papers, 1217
National Highway Safety Bureau contract research reports, 18245
natural environmental radioactivity, 10771
Negro in United States, 12725
neighborhood conservation and property rehabilitation, 4280
new communities, 5606
nitrogen oxides, 17017
North American geology, 14518-519
nuclear materials, safeguards and management, 1272
nuclear medicine, 10764
nuclear weapons and NATO, 9351
oceanography—
selected activation analysis literature, 11740
technical literature guide, 17173
oil pollution, biological effects, list, 7171
oil shale and shale oil, Mines Bureau publications, 1917-68, list, 848
Operation breakthrough, mass produced and industrialized housing, 10214
Orbiting Geophysical Observatory program, supplement, 5981
PACAF basic bibliographies, 13028-29, 15462-463
packaging, 3528
Parkinson's disease & related disorders, citations from literature, 10457
personnel bibliography series, 9476, 13205, 15696-697
personnel literature, 3016
personnel management, 13029
personnel policies and practices, 15697
photography, supp., 15463
plastics, technical conference papers, 9967
pollution analysis, bibliography of literature of activation analysis, 11738
position classification and pay in Federal government, 15696
potato diseases through 1945, with common and scientific names, 12995
poverty in the sixties, studies, 10552
presidential inaugurations, 2040
processing, storage, and output requirements in information-processing systems, research and development in computer and information sciences, 8984
psychiatry, cooperative studies, 1956-70, annotated, 7890
public health series, 17230
pulsars, 10765

INDEX 1970

Bibliography—Continued

radioactive occurrences in U.S., 13083
 selected list, 10762
 reactor fuel burnup calculations, 1273
 reactor safety, 13084
 Reclamation Bureau, 17238
 list, 17238
 recreation, outdoor, 16381
 regional medical programs, 15149
 remote sensing of earth resources, 16955
 retail credit and collections, 6153
 sales management and training, selections
 from Marketing information guide, 4902
 saury, Pacific, 13244
 science facilities supplement, 17165
 scientists and engineers in Federal Government, 6476
 small business, 4661-62, 6153, 7732,
 15158, 18323
 Federal Government publications, 1092
 smoking and health, 15131
 bibliographical bulletin, 3204
 social aspects of alienation, 1075
 social studies in elementary and secondary schools, 576
 solid waste management, abstracts and
 excerpts, 15258
 space environment's effect on man's response
 to infection, 2073
 speech, hearing, and language in relation
 to mental retardation, 7449
 sprinkler irrigation, selections from foreign
 literature, 14603
 States and urban crisis, 3430
 statistics and maps for national market
 analysis, 4661
 sunflower, literature survey, list, 951
 superconducting devices, quarterly literature
 survey, 3248
 system design considerations, overall, research
 and development in computer
 and information sciences, 11730
 technology assessment, 15939
 Tennessee Valley Authority, 7858-59
 thermal degradation—
 oxidation, and analysis of high polymers,
 13814
 wood components, 14464
 toxicity, 3265
 transplutonium elements, supplement, 3500
 transportation for the handicapped, 4775
 U.S. Government research and development
 reports, 3300
 urban crisis, 6042
 vanadium to 1968, geology and resources,
 10162
 venereal disease, 2477
 vital and health statistics, 17230
 wood research, recent publications of
 Forest Research Laboratory, list, 7190
 youth market selections from Marketing
 information guide, 3527
 zooplankton sampling devices, 15747
 see also names of departments, etc., issuing
 list of publications.
 Bicentennial era, American Revolution Bicentennial
 Commission newsletter, 9347
 Biceps muscles, *see* Muscles.
 Bichers, Theodore, quantities of pesticides
 used by farmers in 1966, 8496
 Bickoff, E. M., studies on chemical and
 biological properties of coumestrol and
 related compounds, 1204
 Bicycle tires, *see* Tires.
 Bidding, *see* Government contracts.
 Bidessini, *see* Beetles.
 Bien, Darl D., tables of component reliability
 for binomial redundancy applications, 2097
 Bieniewski, Carl L.:
 demand and supply of molybdenum in U.S.,
 7458
 mineral industry of Colorado, 4422
 Binstock, D., high-temperature combustion
 of coal seeded with potassium carbonate
 in MHD generation of electric power, 7485

Big Bend National Park, soldiers, ranchers
 and miners in Big Bend, 7647
 Big Creek Area, Calif., principal electric
 facilities, map, 8826
 Big Cypress Swamp, Fla., drainage area, hydrologic
 and biologic aspects, 16624
 Big game, *see* Game and game birds.
 Big Juniper House, Mesa Verde National
 Park, Colo., Wetherill Mesa excavations,
 7630
 Big Lake National Wildlife Refuge, birds,
 list, 1122
 Big step into a big future, 6334
 Big Thompson-Corralito project, *see* Colorado-Big
 Thompson Project.
 Big Timber Creek:
 floods, how to avoid damage in Camden
 and Gloucester Counties, N.J., Brook-
 lawn-Bellmawr-Westville vicinity, 10004
 Main Stem and South Branch, Camden
 and Gloucester Counties, N.J., flood
 plain information, 8541
 North Branch—
 Camden County, N.J., flood plain in-
 formation, 8542
 floods, how to avoid damage in Camden
 County, N.J., Stratford-Lindenwold-
 Gloucester Township vicinity, 10005
 South Branch, floods, how to avoid dam-
 age in Camden and Gloucester Coun-
 ties, N.J., Deptford, Washington, Glou-
 cester Townships vicinity, 8550
 Big Wills Creek:
 floods, how to avoid damage, Gadsden,
 Ala., 17938
 vicinity of Gadsden, Ala., flood plain in-
 formation, 16433
 Big Wood River, Ketchum, Idaho and vicinity
 flood plain information, 16419
 Bikerman, J. J., foam fractionation of in-
 organic solutions, 4304
 Bikini and nearby atolls, Marshall Islands
 (series), 4242
 Billelo, Michael A.:
 ice thickens observations, North American
 arctic and subarctic, 4070
 relationships between climate and regional
 variations in snow-cover density in
 North America, 5363
 Bilingualism, *see* Language and languages.
 Billings County, N. Dak., community pro-
 file, 13843
 Bills (congressional):
 armed services hearings on miscellaneous
 bills, 407-408, 1572, 1574-75, 3851,
 8276, 9732, 12262, 15886
 digest, 2508
 history, 2435
 Biloxi, Miss., hurricane Camille, Federal re-
 sponse, hearings, 8437
 Binaural interaction and laterality, compar-
 ison of cortical evoked potentials produced
 by clicks and tone pip stimuli, 8892
 Binder's covers, binder, note pad, Federal
 standard, 7158
 Binding posts, *see* Posts.
 Binghamton, N.Y., area wage survey, 2029
 Binomials, component reliability tables for
 binomial redundancy applications, 2097
 Bins, storage bin for fertilized, farm build-
 ing plan, 7929
 Bio-acoustics, *see* Sound.
 Biochemical reactions, *see* Chemical reac-
 tions.
 Biochemistry:
 biological aspects of saline water problem,
 7505
 CO₂, biochemical and physiological as-
 pects, symposium, 7525
 electrons, defense and regulation (lec-
 ture), 7908
 Biochemists, employment outlook, 14674
 Biodegradation, *see* Degradation.
 Bioengineering, *see* Biomedical engineering.
 Biofouling, *see* Fouling organisms.

Biogeocenosis, closed ecological systems, significance of V. N. Sukachev's study on biogeocenosis for creating, USSR study, 10279

Biography, State Department biographic register, 15292

Biological chemistry, *see* Biochemistry.

Biological implications of nuclear age, 4885

Biological Laboratory, Auke Bay, Alaska, general information, 10888

Biological Laboratory, Galveston, Tex., reports, 3705, 15744

Biological Laboratory, Honolulu, Hawaii, progress report, 290

Biological Laboratory, Milford, Conn., general information, 1370

Biological Laboratory, St. Petersburg Beach, Fla., report, 17565

Biological physics:

biophysics, problems, USSR study, 5782

memory analyzed in terms of molecular physiology, USSR study, 12628

national estuary study, additional support data for biophysical profiles—departmental edition, 15265

document edition, 13355

research project, Radiological Research Laboratory, Columbia University, annual report, 17474

Soviet biophysics studies, translation, 12645

Biological products:

application of biologicals, USSR study, 5765

licensing requirements—

amend act, report, 9669

under Public Health Service act, include vaccines, blood, blood components, and allergenic products, hearing, 8307

produced in licensed establishments, list, 15410

Biological sciences, *see* Biology.

Biological warfare:

bacterial methods, prohibit use in war, protocol, 13574

chemical and biological warfare, U.S. policies and international effects—

hearings, 3860

subcommittee report, 15898

Biologists, examination announcements, discontinuance notice, 8121

Biology:

Academy of Sciences, USSR, biological series, news, 7369

aerospace medicine and biology, bibliography, 2300

associate training programs, NIH, 6052

biological aspects of saline water problem, 7305

biological effects of—

laser radiation, USSR study, 12633

oil pollution, bibliography, 7171

tritium, 10759

biological rhythms in psychiatry and medicine, 17137

biological sciences, professional careers with Federal Government, 17556

biological subjects, new measurement techniques in studying effect of superhigh frequency fields on, USSR study, 1983

biology and cybernetic systems, USSR study, 16791

biology and your career, general information, 16827

cell biology and physiological psychology organization and description of complex data through cluster analysis, research, 2148

free radical processes in biological systems, AEC translation, 110

hydrologic and biologic aspects of Big Cypress Swamp, Fla., 16624

Biology—Continued

International Biological Program, support of Congress, etc.—

hearing, 3829

reports, 3805, 18676

medical technology and related biological sciences, Veterans Administration career opportunities, 17398

mental retardation, its biological factors, hope through research, 17228

northern pike in Oahe Reservoir, 7792

organization of biological systems and hypothesis of breakout of species in community, USSR study, 12635

poor seed production in *Tephrosia vogelii*, 7947

primary productivity and plankton biological sampling program results, USC&GS ship, Pioneer data, 615A

program, AEC authorizing legislation, 1971, hearings, 8190

systematic survey of Federal programs and needs, 2215

technical assistant, examination announcement, 15699

water pollution biology, practice, 4166

see also Marine biology—Space biology.

Bioluminescence, *see* Luminescence.

Biomechanics, biomechanical systems discussed, explained, USSR study, 5732

Biomedical engineering, research training programs, compendium, 11772

Biomedicine:

annual and technical reports submitted to USAMRDC by contractors/grantees, abstracts, 8000

biomedical foundations of manned space flight, report, 1084

biomedical problems of space flight, USSR study, 18109

biomedical sciences—

Air Force career opportunities, 9339

East European abstracts, 2516

effects of NIGMS training programs on graduate education, evaluative study, 6040

USSR abstracts, 3317

resources of biomedical research and education, report, 7625

Biometry:

notes on biometry in medical research, 6277

supp., 15377

Bionics:

neurobionics, some problems, USSR study, 5768

problem of objective foundation, USSR study, 5727

promise of neurobionic applications discussed, USSR study, 18096

Biophysics, *see* Biological physics.

Biosatellites, *see* Satellites.

Biphenyl, *see* Diphenyl.

Bipolar, *see* Dipole moments.

Birch:

symposium, proceedings, 669

yellow and paper birch seeds, germination after 8 yrs. storage, 12551

Birchenough, Arthur G., design and performance analysis of medium-power DC-DC converter, 8935

Birds:

Aleutian Islands National Wildlife Refuge, list, 4708

Anahuac National Wildlife Refuge, list, 11887

Aransas National Wildlife Refuge, list, 1121

Big Lake National Wildlife Refuge, list, 1122

Blackwater National Wildlife Refuge, list, 11883

Brazoria National Wildlife Refuge, list, 4712

Buffalo Lake National Wildlife Refuge, list, 1124

INDEX 1970

Birds—Continued

- certain problems in studying orientation, USSR study, 11497
- contaminated by oil and their rehabilitation, problem investigated, 12934
- Erle National Wildlife Refuge, list, 1125
- Eufaula National Wildlife Refuge, list, 4711
- Great White Heron National Wildlife Refuge, list, 15273
- Hagerman National Wildlife Refuge, list, 9180
- Havas National Wildlife Refuge, Ariz.-Calif., list, 9179
- Holla Bend National Wildlife Refuge, list, 11886
- invite birds to your home, conservation plantings for Northeast, 3424
- Iroquois National Wildlife Refuge, list, 11888
- J. N. "Ding" Darling National Wildlife Refuge, list, 4709
- Key West National Wildlife Refuge, list, 15273
- Klamath Basin National Wildlife Refuges, list, 1120
- Lacreek National Wildlife Refuge, list, 4710
- Las Vegas National Wildlife Refuge, list, 15275
- Loxahatchee National Wildlife Refuge, list, 1123
- Malheur National Wildlife Refuge, list, 12933
- Monomoy National Wildlife Refuge, list, 11885
- Monte Vista National Wildlife Refuge, list, 15274
- Moosehorn National Wildlife Refuge, list, 15272
- National Key Deer Refuge, list, 15273
- nesting mortality, analysis, 2217
- non-game, ways to attract—
 - Arizona, 15247
 - Montana and Wyoming, 15248
- orientation, USSR study, 11512
- Sand Lake National Wildlife Refuge, list, 11881
- Savannah National Wildlife Refuge, list, 11884
- Seney National Wildlife Refuge, list, 12932
- Souris Loop National wildlife refuges, list, 4706
- Upper Mississippi River Wildlife and Fish Refuge, list, 15271
- Wapanocca National Wildlife Refuge, list, 9181
- Wheeler National Wildlife Refuge, list, 4707
- accidental species, 11882
- see also Water birds—also names of birds.
- Birmingham, Ala.:
 - area wage survey, 11539
 - metropolitan intrastate air quality control region, report for consultation, 5994
 - principal electric facilities, map, 8628
- Birnbaum, A. H., summary of BESRL surveillance research, 13060
- Birth, natality statistics analysis, 1965-67, U.S., 10449
- Birth certificates, where to write for birth and death records, U.S. and outlying areas, 12600
- Birth control:
 - family planning—
 - population research, hearings, 8426
 - for better health and happiness, 14588
 - methods, if you're not ready for another baby, 16376
 - program, progress 1963-70, report, 18264
 - service programs, operational analysis, 16652

Birth control—Continued

- family planning—Continued
 - services and population research activities, expanding, improving, and better coordinating, report, 13653
 - services, special project grants, research, training, etc., hearing, 15918
- oral contraceptives, FDA report, 665
- population program assistance, aid to developing nations by United States, other nations, and international and private agencies, 7346
- publications, price list, 6132
- subsidized family planning services, survey of U.S., each State and county, 6988
- Birth defects and social security disability benefits, 18331
- Biscay, Bay of, sailing directions, change, 17179
- Bismuth:
 - disposal from national and supplemental stockpile—
 - law, 12141
 - reports, 6597, 6751, 11004
 - in United States, 5850
 - metal, mineral industry survey, quarterly, 2370
- Bisplinghoff, Raymond L., nomination, hearing, 16080
- Bits (tools), drill bits, counterbores, and countersinks, Federal item identification guide, 6858
- Bitumens, highway construction usage factors, 10525
- Bituminous coal, see Coal—Coal mines and mining.
- Bituminous sand, tar sands, hearing, 17704
- Bixby, Lenore E., notes on early retirement, program and certain personal factors, 12921
- Blachly, C. H., NRL-NB-20B, improved instrument ball bearing lubricant, 15086
- Black, Cyril E., testimony, hearings, 6788
- Black, Ruth G.:
 - DHEW obligations to institutions of higher education, 1969 fiscal year, 14561
 - trends in graduate enrollment and Ph.D. output in scientific fields, 7625
- Black bears, see Bears.
- Black Butte project, integrate with Central Valley project, report, 13484
- Black Diamond Quadrangle, King County, Wash., geology, 16620
- Black francolins, see Partridges.
- Black Hawk County, Iowa:
 - Cedar River, flood plain information, 17921
 - community profile, 13844
- Black Hills, Galena-Roubais district, Precambrian rocks, structure and mineralization, 7225
- Black locust, see Locust trees.
- Black lung disease, see Pneumoconiosis.
- Black Maria site study, Edison National Historic Site West Orange, N.J., 993
- Black markets, strengthened programs of international cooperation for halting illicit supply of drugs, 10609
- Black mesa, western Colorado, pot tests indicate fertilizers improve soils, 685
- Black news digest, 16821
- Black Panther Party:
 - Kansas City chapter, investigation, hearings, 9748
 - national organization data, investigation, hearings, 9748
 - report of Jan. 1970 Grand jury, U.S. District Court, northern district of Illinois, eastern division, 12400
- Black Range Primitive Area, N. Mex., mineral resources, 16607
- Black River:
 - Alcona County, Mich., harbor improvement, engineers report—
 - department edition, 14703
 - document edition, 18368

- Black Sea :
electrical discharges and sounds in some species of nonelectric fish, USSR study, 12656
lights and fog signals, list, change, 10488
shallow water regions, characteristics of biological noise propagation, 11500
Black shale, *see* Shale.
Black walnut, *see* Walnuts.
Black wart, *see* Warts (plant disease).
Black willows, *see* Willows.
Blackmore, Donald J., wages and related benefits, metropolitan areas, U.S. and regional summaries, 4373
Blackmun, Harry A. :
nomination—
hearing, 8418
report, 8347
Blacksmiths, employment outlook, 12703
Blacktail deer, *see* Deer.
Blackwater National Wildlife Refuge birds list, 11883
Blackwell, Robert J. :
remarks—
Dec. 1, 1969, 832
Apr. 15, 1970, 8879-80
Apr. 20, 1970, 8882
May 28, 1970, 10309
Oct. 14, 1970, 16878
Bladder, *see* Urinary organs.
Blade, O. C. :
diesel fuel oils, 865
motor gasoline, summer 1969, 5870
Bladen County, N.C., community profile, 12415
Blades :
blade-element performance of tandem-bladed inducer tested in water, 941
effect of blade leading edge thickness on cavitation performance of 80.6° helical inducer in hydrogen, 14853
helicopter rotor blades, flapwise bending moments, simplified procedures for estimating flapwise, 890
jet-flap rotor blade, performance evaluation, 10355
modified tandem rotor blade, performance evaluation, 11621
radial-inflow turbine, 6.02 inch varying blade-shroud clearance, experimental results, 4510
relative velocity, and inlet-guide-vane configuration effects on noise from axial-flow compressors, 5922
rotor blade-vortex interaction, experimental study, 11613
6-inch radial bladed centrifugal compressor, effect of Reynolds number on overall performance, 11645
turbine blade loading, advanced concepts to increase, experimental investigation, 10355, 11621
Blaine, R. L., early strength development in Portland cement pastes and mortars, 14914
Blaine County, Nebr., community profile, 17756
Blair, R. M., seasonal distribution of nutrients in plants of 7 browse species in Louisiana, 12566
Blair County, Pa. :
community profile, 16187
regional wholesale distribution facilities, 4820
Blake, Elizabeth, quiet cries, play about suicide prevention, 6048
Blake, Helen T., farmers' pesticide expenditures, 16379
Blake, Lamont V., guide to basic pulse-radar maximum-range calculation equations, definitions, and aids to calculation, 15060
Blake, Roland L., refinement of hematite crystal structure, 10324
Blanchette, Guy A., citizenship conferred upon, posthumously, 9796, 13288, 13384
Blankenship Ranch, Organ Pipe Cactus National Monument, Ariz., historic structures report, 12870
Blast effects, *see* Explosions.
Blasting :
crater scaling in granite for small charges, 11594
underground, effects of type of cut, delay, and explosive in frozen gravel, 7481
see also Explosives.
Blazej, Jules E., flight evaluation of SEAL glide-slope receiver, 4116
Blecharczyk, Stephan S., strainer/filter treatment of combined sewer overflows, 1869
Bleecker, Theodore, labor law and practice in Republic of Korea, 2018
Blennocampinae, *see* Flies.
Blight, *see* names of blights or plants affected.
Blind :
public assistance, money payments to recipients, 17053
Randolph-Sheppard act, amend, hearings, 13752
Blindness Statistics Model Reporting Area, *see* Model Reporting Area for Blindness Statistics.
Bliss, Idaho, Producers Interstate Co-op motor carrier accident, 7503
Blister rust, cankers in eastern white pine, antibiotic treatment, 16563
Bloch, Rene, mechanism for formation of skinned type membrane, 1956
Block and tackle, Federal item identification guide, 16118
Block caving, *see* Mines and mining.
Block signals, automatic system installation, maintenance, and repair, rules, standards, and instructions, 10530
Blocks, concrete blocks, surface bonding, technique for erecting block walls without mortar joints, 11947
Blood :
alcohol concentrations as affected by combinations of alcoholic beverage dosages and altitudes, 11981
blood, and blood components, licensing requirements under Public Health Service act, include, hearings, 8307
cerebral circulation, new methods of measuring, study, 17144
fibrinolysis, thrombolysis, and blood clotting, bibliography, 1969 annual compilation, 9010
injury during functioning of implanted artificial heart, USSR study, 16738
red cell cation exchange and displacement of oxygen dissociation curves in chronic hypercapnia, 11567
RH isoimmunization, hemolytic disease of fetus and newborn due to, 5841
supply of cardiac valves, and locomotion in pinnipedia, USSR study, 7374
Blood banks :
licensed, transfer of blood components within District of Columbia, authorize—
hearings, 411
law, 10917
reports, 387, 9838
Blood Donor Month, National, *see* National Blood Donor Month.
Blood pressure, renal disease and hypertension, Public Health Service cooperative study, conference proceedings, 14367
Blood vessels, measurement of blood vessels in retinal photographs of submariners, 11571
Blount, Winton M. :
addresses, etc.—
Nov. 21, 1969, 1039
Dec. 4, 1969, 2194
July 19, 1970, 12902
Aug. 21, 1970, 15113
Oct. 1, 1970, 17211

INDEX 1970

- Blount County, Ala., community profile, 13845
- Blount County, Tenn., appraisal of potentials for outdoor recreational development, 15177
- Blowers:
- current industrial reports, 3633
 - underground blower unit, turboclar fog dispersal method, development and testing, 18373
- Bloyd, R. M., Jr., underground storage of imported water in San Geronio Pass area, Calif., 4257
- BLS, *see* Labor Statistics Bureau.
- BLS staff papers, 5820
- Blue collar workers:
- examination announcement, amendment, 9463
 - prevailing rate pay systems, reports, 13408, 15854
 - see also* Government officials and employees.
- Blue Creek, near Klamath, Calif., field measurement of initiation of large bed particle motion, 4243
- Blue Cross, *see* Health insurance.
- Blue grouse, *see* Grouse.
- Blue lead, *see* Galena.
- Blue Ribbon Defense Panel, report to the President and Secretary of Defense on Defense Dept. organization, structure, operations, etc., 13816
- Blue Ridge hydroelectric power project, construction, proposal, hearing, 9936
- Blue River:
- vicinity, Kansas City, Mo. and Kans., engineers report—
 - departmental edition, 11248
 - document edition, 10946
- Blue Shield, *see* Health insurance.
- Blueberries, freeze dried RTP blueberries, reversible compression studies, 7986
- Bluefishes, bluefish, annotated list of parasites, 11893
- Bluegills:
- and largemouth bass, effect of acids and alkalies on survival, 4716
 - pond management, 15224
- Blueprint for the seventies, 86th annual report, fiscal year 1969, Civil Service Commission, 9465
- Bluestone, Herman, focus for area development analysis, urban orientation of counties, 9970
- Bluestone, Saul, relief, 9794
- Blunt bodies:
- bluntness and angle of attack, effects on hypersonic flow over 15° semilapex cone in helium, 14862
 - 5-foot diameter (1.5m) attached inflatable decelerators, deployment and performance characteristics from Mach number 2.2-4.4, 14850
 - hypersonic flow past blunt cones with consideration of equilibrium physicochemical transformations, 8955
 - lifting at Mach 3.71, experimental heat-transfer distributions, 5935
 - radiating, nonadiabatic equilibrium inviscid flow over blunt bodies, inverse-method solution, 14863
 - reentry, radio blackout alleviation and plasma diagnostic results, 5934
 - thin radiating shock layer about, 7517
- Blyth, James E.:
- Lake States pulpwood production—
 - plummetts 413,000 cords, 12550
 - rises 11 percent, 16567
 - pulpwood production in north central region by county, 12567
 - standing timber coefficients for Indiana walnut log production, 5510
- BNDD, *see* Narcotics and Dangerous Drugs Bureau.
- BNDD bulletin, 2372
- Board mills, *see* Building board mills—Paperboard mills.
- Board of Arbitration, Federal Employees, *see* Federal Employees Board of Arbitration.
- Board of education, *see* Educational boards and departments.
- Board of Regents of Smithsonian Institution, *see* Smithsonian Institution.
- Board of Trustees of Federal Hospital Insurance Trust Fund, annual report, 12159
- Board of Trustees of Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, annual report, 12518
- Board of Trustees of Federal Supplementary Medical Insurance Trust Fund, annual report, 10945
- Boards (lumber), *see* Lumber.
- Boards of Review, Judges Advocates General, court-martial reports, holdings and decisions, 1758, 17731
- Boatbuilding, ship and boat equipment, census of manufacturers, 1967, industry statistics, 12010
- Boating:
- recreational boat safety, coordinated national program, provide, hearings, 15926
 - regulations in national park system, 2154
 - safety circulars, 261, 2373
 - State safety programs, establish acceptable standards, report, 17630
 - statistics, 1969, motorboat numbering, boating accidents and related activities, 8135
- Boating Safety Advisory Council, establish, report, 17630
- Boats:
- Coast Guard Auxiliary courtesy examination need boat insurance? make seal of safety your policy, 4978
 - Coast Guard cutters, register, 8136
 - commodity transportation survey, 1967
 - census of transportation, shipper group, 1319
 - emergency repairs afloat, boatman's pocket guide, 3680
 - Federal boat safety act—
 - hearings, 15926
 - report, 17630
 - small boat harbors, ramps, landings, etc., Ohio River and tributaries, 16439
 - see also* Fishing vessels—Ships.
- Boatswains, *see* Aviation boatswain's mate.
- Boaz, Ruth L., statistics of public libraries serving areas with at least 25,000 inhabitants, 1968, 12505
- Bobb, William H.:
- Galveston Bay hurricane surge study, report, effects of—
 - plan 2 Alpha and plan 2 Gamma barriers on tides, currents, salinities, and dye dispersion for normal tide conditions, hydraulic model investigation, 16448
 - proposed barriers on tides, currents, salinities, and dye dispersion for normal tide conditions, 16447
- Bober, E. S., final report on reverse osmosis membranes containing graphitic oxide, 10231
- Bockris, John O'M., study of ionic solvation, 14601
- Bodega Bay, sand dune control benefits everybody, story, 10567
- Bodies (aerodynamics), *see* Aerodynamics.
- Bodies of revolution:
- convective heat-transfer rates on large-angle conical bodies at hypersonic speeds, 925
 - half-cone bodies with thin wings at Mach 10.03, aerodynamic interference effects on, 12820
- Body (human), *see* Anatomy.
- Body and fender repairmen, employment outlook, 14704

- Body fluids, repeated total body water measurements, reproductibility with tritium, 55
- Body measurements, lower body negative pressure experiments, stress effects of high noise levels, 16978
- Body temperature, rectal temperatures telemetry, evaluation of prototype unit for, 8888
- Body weight, and calories, pocket guide, 15429
- Boeckel, John H., Goddard Space Flight Center test philosophy and resultant record, 11659
- Bogart, Donald, estimation of spatial distribution in resonance absorbers, 12783
- Boggs, Sam Jr., distribution of placer gold in Sixes River, southwestern Oregon, 8730
- Bohan, J. P., erosion and riprap requirements at culvert and storm-drain outlets, hydraulic laboratory investigation, 8555
- Bohannon, Billy
fatigue strength of finger joints, 693
large glued-laminated timber beams with 2 grades of tension laminations, 692
- Bohl, Wayne H.:
study of crested tinamous of Argentina, 9184
summary of foreign game bird liberations 1960-68 and propagation 1966-68, 9183
- Bohon, Herman L.:
deployment and performance characteristics of 5-foot diameter (1.5m) attached indatable decelerators at Mach numbers 2.2-4.4, 14850
flutter design of stiffened-skin panels for hypersonic aircraft, 2101
- Bollermakers:
employment outlook, 18119
1 & C, rate training manual, 6091
- Boilers:
condensers and boilers for steam-powered cars, parametric analysis of size, weight, and required fan power, 11660
mercury, X-ray observations of flow patterns, 11631
postassium flowing adiabatically through venturi sized as boiler inlet, experimental cavitation and flashing, 11639
power, steel, current industrial reports, 15641
single-tube-in-shell water boiler with helical-wire insert, inlet nozzle, and two different inlet-region plugs, test, 5948
- Boiling:
forced-convection boiling near inception in zero gravity, 4521
peak and minimum pool boiling heat fluxes, interacting effects of gravity and size upon, 10352
- Boiling reactors, *see* Reactors (atomic).
- Boiling water reactors, *see* Reactors (atomic).
- Boise, Idaho, area wage survey, 8866
- Boldman, Donald R., velocity, intermittency, and turbulence intensity measurements in boundary layer of accelerated flow, 18220
- Bolin Creek, Chapel Hill, N.C., flood plain information, 16420
- Bollnas Lagoon, Marin County, Calif., summary of preliminary studies of sedimentation and hydrology, 10165
- Bollivar County, Miss., community profile, 16188
- Bolivia:
economy, basic data, 4989
mineral industry, minerals yearbook chapter, 18151
records of State Department, pamphlet accompanying microcopy, political relations, 1910-29, with other States, 14912
- Bollen, W. B., Douglas-fir bark tannin decomposition in 2 forest soils, 1883
- Bollenbacher, Gary, description and evaluation of digital-computer program for analysis of stationary outside coil Lundell alternators, 12796
- Bollermann, Bruce, study of 30 KM to 200 KM meteorological rocket sounding systems, literature and data review, 11604
- Bollinger County, Mo., community profile, 16189
- Bolsinger, Charles L., timber resources of Olympic Peninsula, Wash., 8715
- Bolts and nuts:
census of manufactures, 1967, industry statistics, 17526
threaded studs, Federal item identification guide, change, 13795
- Boltzman, equations, *see* Equations.
- Bolum, D., high contrast cathode ray tube engineering report, 14810
- BOMAP, *see* Barbados Oceanographic and Meteorological Analysis Project.
- Bombing (aerial):
offensive mine laying campaign against Japan, U.S. Strategic Bombing Survey, 2186
- Bombing Survey, Strategic, *see* Strategic Bombing Survey.
- Bombs, questionable pricing of contracts negotiated for urgently needed bomb bodies, by Navy Department, GAO report, 1904
- Bombyliidae, *see* Flies.
- BOMEX, *see* Barbados Oceanographic and Meteorological Experiment.
- Bon Homme County, S. Dak., community profile, 13846
- Bond, John W., Aspet, Saint-Gaudens National Historic Site, historic structures report, 2153
- Bonding of materials:
bond dissociation energies in simple molecules, 4550
errata, 10428
spotwelding and bonding effect of strain-gage attachment on fatigue behavior of Ti-6Al-4V, René 41 and Inconel X, 18204
surface bonding of concrete blocks, technique for erecting block walls without mortar joints, 11947
- Bonds:
Coast Guard not requiring shipbuilders to buy insurance and performance and payments bonds as means of reducing cost of vessel construction, GAO report, 14510
open market money rates and bond prices, monthly, 2989
purchase plans under self-employed individuals tax retirement act, guide, 5863
sales for public school purposes, 8510
TVA power plant projects financing, increase—
amount issued—
hearing, 13759
reports, 13412, 15843
borrowing authority, hearing, 11057
see also Savings bonds.
- Bonds of officers, etc., surety bonds, impact on small business in urban areas, hearings, 15941
- Bonds of United States:
2d liberty bond act, amendment—
law, 1395
report, 1648
see also Government securities.
- Bone, Sadie M., foreign trade regulations, 18229
- Bones, James T.:
primary wood products output in—
New York, 10137
Ohio, 10138
pulpwood production in Northeast, 4212
veneer industry in Northeast, 14484

INDEX 1970

- Bones:**
 bone measurement, conference, proceedings, 15511
 calcium content, study to develop neutron activation for measuring, 11618
 cancer, health information, 6135
 cranial and bacular variation in populations of spiny rats of Genus *Proechimys* (Rodentia: Echimyidae) from South America, 4663
 mineral measurement, progress, conference proceedings, methods, 15007
- Bonin Islands, inhabitants, entry into U.S., facilitate, 1495, 12100, 12302**
- Bonner, George P., preflight optical evaluation of right-hand hatch windows of Gemini missions VII, VIII, IX, and XII, 909**
- Bonneville Dam, fish passage report, 14302**
- Bonneville Power Administration:**
 annual report, 13090
 appropriations, 1970—
 hearings, 486
 law, 3734
 report, 1512
 appropriations, 1971—
 hearings, 11022
 public works, hearings, 13709
 generation and sales statistics, 8043
- Bonus system, code of Federal regulations, 8652**
- Bookbinders, employment outlook, 14712**
- Bookbinding, census of manufactures, 1967, industry statistics, 13149**
- Booker Creek, Chapel Hill, N.C., flood plain information, 16420**
- Booker T. Washington National Monument, administrative history, 4576**
- Bookkeepers, bookkeeping workers, employment outlook, 14686**
- Books, David J., relation of light to epicormic sprouting of sugar maple, 16560**
- Books:**
 and other printed matter, trade and tariff information, summaries, 7853
 atomic energy for adults and children, list, 6400
 catalog of copyright entries, 3997
 children's, 1969, list, 7439
 English language and literature in elementary and secondary schools, bibliography, 8511
 Federal item identification guides, 5304
 for supply cataloging, supplements, 2597
 GPO standard ink book, 5568
 Library of Congress—
 author catalog, 2935
 national union catalog, cumulative author list, register of additional locations, 10306
 subject catalog, 2038, 2832
 science and mathematics, for elementary and secondary schools, 11241
 see also Reference books.
- Books (talking), see Talking books.**
- Booms:**
 advanced gravity gradient booms, mechanical properties, 16994
 open-section, thermoelastic instability, 2080
 slender thin-walled booms, instability due to thermally induced bending moments, 11646
- Boone County, Iowa, community profile, 13847**
- Boone County, Mo., community profile, 16190**
- Boone County, Nebr. community profile, 17757**
- Boots and shoes:**
 census of manufactures, 1967, industry statistics, 12003
 footwear, Federal item identification guide, 11171
- Boots and shoes—Continued**
 men's, youths', and boys' footwear of leather, workers of Eagle Shoe Manufacturing Co., Everett, Mass., Tariff Commission report, 10638
 nonrubber footwear, tariff investigation report, 2262
 plastic- or rubber-soled footwear with fabric uppers, production and maintenance workers and salaried employees of Woonsocket Plant of Uniroyal, Inc., Tariff Commission, report, 9220
 protective footwear of rubber or plastics, etc., Tariff Commission report, 15346
 rubber footwear, census of transportation, 1967 commodity transportation survey group, 4926
 shoe materials, Federal item identification guide, 9953
 shoes and slippers, current industrial reports, 2475
 small domestic shoe manufacturers, problems, hearings, 11112
 women's and misses' dress shoes with leather, vinyl, or fabric uppers, Benson Shoe Co., Lynn, Mass., and workers of leather, vinyl, or fabric uppers, Benson Shoe Co., Dartmouth Shoe Co., Brockton, Mass., and Hartman Shoe Manufacturing Co. and Lemar Shoes, Inc., both of Haverhill, Mass., Tariff Commission report, 10642
- Booze, Charles F., Jr., occupations of active airmen, 8035**
- Borbridge, John, Jr., relief, 13583**
- Borda, Richard J., nomination, hearing, 16038**
- Border patrol agents, see Immigration inspectors.**
- Borghino, Elizabeth B., relief, 3785, 12097, 12292**
- Boric acid, isotopic, and assay, standard reference materials, 6002**
- Boring:**
 percussive drilling, prediction of penetration rate, 10334
 tunnel technology, disk cutter experiments in sedimentary and metamorphic rocks, 12743
 wellbore enlargement test of gas-storage well, 8910
- Boring insects:**
 lesser grain borer attack in small bins, evaluation of melathion, diazinon, silica aerogel, and diatomaceous earth as protectants against, 7924
 old house borer, description, control, 9300
 wood-boring insects, artificial rearing of 10 species, 5497
- Boring machinery, see Drills (tools).**
- Born, George H., application of Brouwer's artificial satellite theory to computation of state transition matrix, 14875**
- Bornite, high temperature enthalpies and entropies, 16923**
- Boron:**
 boron/epoxy reinforcement of aluminum tubing in various amounts, compressive and column strengths, 14877
 columbian alloy development, 10328
 minerals yearbook chapter, 16887
 removal from irrigation return waters, development of economical methods, 18071
- Borrowing, see Loans.**
- Borsody, Janos, analytic calculation of launch vehicle response to winds and calculations of optimal biased pitch programs, 11667**
- Bortz, Abe, social security sources in Federal records, 1101**
- Bortz, John E., Sr., new concept in strapdown inertial guidance, 7754**
- Bosque River:**
 floods, how to avoid damage, Waco, Tex., 17935
 Waco, Tex., flood plain information, 16413

Boston (S.S.):
 container vessel, ship response—
 instrumentation aboard, results from 2
 operational seasons in North Atlantic
 service, 17268
 results from first operational season,
 17267

Boston, Mass.:
 area wage survey, 4383
 census of transportation, 1967, commodity
 transportation survey, production, area
 series, 6417
 harbor, and its tributaries, pollution of
 navigable waters, conference proceed-
 ings, 1866
 metropolitan intrastate air quality con-
 trol region, Federal facilities, 10419
 passenger lists of vessels arriving, 1820-
 91, pamphlet to accompany microcopy,
 11719

principal electric facilities, map, 8622
 solid waste disposal, hearings, 1745
 Boston and Maine R.R., payment of loan
 guaranties, appropriation request, 12291
 Bostwick Park project, Colo., hydraulic
 model studies of Silver Jack Dam spillway
 stilling basin, 9092

Botanic Garden:
 appropriations, 1971, legislative—
 law, 15773
 reports, 6685, 12351, 13440

Botany:
 Botanical Society, All-Union, USSR, work
 between 3d and 4th delegates' con-
 gresses, USSR study, 5725
 botanical techniques for on-site inspec-
 tions of suspected underground nuclear
 explosions, 16605
 Smithsonian contributions to botany,
 11849

see also Medical botany—Plants.
 Boteler, Daniel C., bench-scale carbonization
 of lignite from Northern Great Plains
 Province, statistical approach, 10326
 Bothnia, Gulf of, lights and fog signals, list
 change, 17181

Botswana:
 economy, basic data, 6507
 special study mission report, 390
 print additional copies, reports, 9696,
 13634

Bottineau County, N. Dak., community pro-
 file, 13848

Bottles:
 Federal item identification guide, 16119
 plastic, current industrial reports, 2475

Botulism:
 clinical symptoms and etiology, USSR
 study, 18112
 Clostridium botulinum—
 types A, B, and E, spores, study of
 effect of ionizing radiation on resist-
 ance, germination, and toxin syn-
 thesis, 120, 134
 type E, effect of gamma rays on marine
 finfish inoculated with, final report,
 8017
 types E, nonproteolytic B, and F in
 nonirradiated and irradiated fisheries
 products in temperature range of 38°-
 50° F, growth and toxin production,
 3506

type F, studies, 127
 effect of ionizing radiation on resistance,
 germination and toxin synthesis of
 Clostridium botulinum spores, 1264
 United States-Japan conference on toxic
 micro-organisms, proceedings, 18065

Bouguer gravity, see Gravity.

Bouma, John C., regional wholesale distribu-
 tion facilities for Blair County, Pa., 4820

Boundaries:
 counties and county equivalent, map, 8103
 international boundary studies, 7815,
 15295-297, 17334-336

Boundaries—Continued studies—

Algeria-Mauritania, 15296
 Algeria-Spanish Sahara, 15295
 Cameroon-Chad boundary, 17334
 Guinea-Senegal, 7815
 Iraq-Syria, 15297
 Kuwait-Saudi Arabia, 17335
 Sudan-Uganda, 17336
 United States-Mexico boundary, 1849-55
 background study, 4586

Boundaries (physics):
 calculated wind-tunnel-boundary lift-inter-
 ference factors for rectangular perfor-
 ated test sections, 5943
 cylindrical impedance boundary used in
 launching azimuthal surface wave, 7951

Boundary layer:
 atmospheric, longitudinal and lateral
 spectra of turbulence, 5927
 compressible laminar and turbulent, in
 arbitrary pressure gradients, FORTRAN
 program for calculating, 12772
 fluctuating properties of turbulent layers
 for Mach numbers up to 9, 910
 hypersonic skin friction, Preston tubes for
 measuring, 937

incompressible laminar and turbulent, de-
 velopment, computer program to calcu-
 late, 7521
 laminar and turbulent, interacting with
 externally generated shock waves, in-
 vestigation, 916
 laminar boundary layer in presence of
 suction, 11703

laminar wedge-induced separation on flat
 plate in low-density, hypervelocity flow,
 10408

nonsimilar laminar boundary-layer equa-
 tions including foreign gas injection,
 method for solving, 919

polymer, influence of solid surface on re-
 laxation crosslinking processes, USSR
 study, 18111

radiation transport in ablation-product
 contaminated boundary layer, advanced
 methods of calculating, 16942

separation on liquid sphere, 16948
 test cell for measuring concentration po-
 larization boundary layer in a reverse
 osmosis system, 8806

test cell for measuring concentration po-
 larization boundary layer in a reverse
 osmosis system, 8806

transition on flat plates, charts for esti-
 mating, 11678

turbulent—
 boundary layer measurements obtained
 from forebody of airplane at Mach
 numbers up to 1.72, 11674

high speed boundary layer with heat
 transfer and arbitrary pressure
 gradient—

compressibility transformation, gen-
 eral considerations, 18189
 computer program manual, 18190

influence on panel flutter, experimental
 results, 10409

power-law velocity-profile-exponent va-
 riations with Reynolds number, wall
 cooling, and Mach number, 10397

shock wave boundary layer interactions
 for two-dimensional and axially sym-
 metric flows, influence of suction,
 16938

velocity, intermittency, and turbulence
 intensity measurements in accel-
 erated flow, 18220

velocity profiles downstream of three-
 dimensional transition trips on flat plate
 at Mach 3 and 4, 922

vibration responses of shells and plates to
 fluctuating pressure environments,
 study, 12755

wall, in Mach 6 axisymmetric tunnel, pre-
 liminary survey, 5938

INDEX 1970

- Boundary layer—Continued
wind profiles in, remote sensing, 16465
zero-pressure-gradient, compressible, turbulent boundary layer flow, summary of available information on Reynolds analogy, 5923
- Bourkland, Martin T., oceanographic cruise summary, Ross Sea, Antarctica, 4598
- Bourlier, Boo G., soil survey, Torrance area, N. Mex., 6197
- Bourne, Charles T., training device developments, 3267
- Bouse, L. F., design of herbicide sprayer for laboratory, 7902
- Boussu, Marvin F., new "live car" improves catfish harvesting and handling, 5006
- Bouthliet, Lorraine, mental health digest (periodical), 2879
- Bovine mastitis, *see* Mastitis.
- Bovine tuberculosis, *see* Tuberculosis in animals.
- Bow saws, *see* Saws.
- Bowker, H. Thomas, Antarctic bibliography, 1951-61, 11552
- Bowling-pin-machine mechanics, *see* Mechanics (persons).
- Bowman, Edgar W., recommended practices for vessel sanitation and fish handling, 8163
- Bowman, Ronald R., quantifying hazardous electromagnetism fields, practical considerations, 8957
- Bowman County, N. Dak., community profile, 13849
- Bowmer, Angus, Angus Bowmer theatre dedication (address), 6886
- Box Butte County, Nebr., community profile, 17758
- Box Elder County, Utah, community profile, 6895
- Boxes :
corrugated and solid fiber boxes industry, 1958-66, indexes of out-put per man-hour, 4375
feasibility of using 50- by 30-centimeter cell box for exporting McIntosh and golden delicious apples, 4819
Federal item identification guide, change, 1763
fiberboard and polystyrene foam boxes shipping California table grapes, feasibility, 15437
handling peaches in pallet boxes, 9304
paperboard, census of manufactures, 1967, industry statistics, 15597
seed-roll, using fluorocarbon-resin film as coating, effects on gin-stand capacity, seed-roll density, and rotational velocity, 3373
tray-packed, feasibility of shipping golden delicious apples in, 9303
wagon box for drying hay, farm building plan, 7928
- Boy Scouts of America :
annual report, 9618
water pollution and its control, boy scout leader's guide, 12540
- Boyce, John S., jr., needle cast of southern pines, 673
- Boyd, J. D., effect of composition on mechanism of stress-corrosion cracking of titanium alloys in Na_2O_4 and aqueous and hot-salt environments, 7514
- Boyd County, Nebr., community profile, 17759
- Boyer, Dennis L., annotated climatological bibliography of Benelux countries, 7962
- Boyle, Elizabeth L., Cantonese, basic course, 12936
- Bozarth, F. M., factors affecting productivity of central plant concrete mixers, 6138
- Bozich, D. J., study of vibration responses of shells and plates to fluctuating pressure environments, 12755
- Bozzelli, Michele :
copper—
1969 annual statistical supplement, 11984
quarterly industry report, 2452
BPR, *see* Public Roads Bureau.
BPR program (series), 18310
Braceand, Francis J., remarks, Apr. 23, 1970, 10513
Brackets, Federal item identification guide, 1764, 11168
Brackett, Jean C., three budgets for retired couple in urban areas of U.S., 1967-68, 8863
Brackish water, *see* Water.
Braconidae, *see* Wasps.
Bradford, Pa. :
aircraft accident report, 12881
Bradford Regional Airport, aircraft accident, 7651
Bradford County, Pa., community profile, 16191
Bradley, J. Roy, in-service improvements to USAF tower cabs, 4115
Bradley, Joseph N., hydraulics of bridge waterways, 15135
Bradley, Omar N., tribute, report, 3945
Bradley, W. H., geochemistry and paleolimnology of trona deposits and associated minerals of Green River formation, Wyoming, 727
Bradley County, Tenn., appraisal of potentials for outdoor recreational development, 15175
Bradley quadrangle, Calif., complete Bouguer gravity and general zoology, 10181
Braham, Randolph L., education in Hungarian People's Republic, 8515
- Brain :
and psyche, USSR study, 7398
artificial brain, on course to, USSR study, 1989
brain as mechanism of reflection of reality, chemical continuum, USSR study, 16770
central processing dysfunctions in children, review of research, 7619
cerebral circulation, new methods of measuring, study, 17144
cranio-cerebral cooling apparatus, method for improving effectiveness, USSR study, 5755
experimental cerebellar vermal lesions, relationship of chronic gastric ulceration, 56
involvement of cholinergic structures of brain in mechanism of emotional memory, USSR study, 7392
malignant diseases, research, 14932
minimal brain damage in children, report, 10536
minimal brain dysfunction in children, educational medical and health-related services, 11844
psychotropic drugs and dysfunctions of basal ganglia, multidisciplinary workshop, proceedings, 1080
sciences, IBRO survey of research facilities and manpower in United States, index and supplement, 11781
tumors, hope through research, 17140
- Brainard, Calvin H., price variability in automobile insurance market, its extent, causes and relationships to high risk and other problems, 17381
- Brakes :
Air Force A-7D aircraft problem, hearing, 8192
brake pedal force capability of adult females, 18238
lining and shoe, friction, Federal item identification guide, 11172
nonfriction braking systems for high-speed trains, 14381
- Braman, J. D., address, Dec. 12, 1969, 9243
- Bramer, Henry C., continuation of materials evaluation program, 11441

- Brandes, O. Jean, preparing requests for clearance of OE data collections, 7019
- Brandhorst, Henry W., Jr., effects of bias light and heat treatment on spectral response of cadmium sulfide thin film photo-voltaic cells, 2088
- Branscomb, Lewis M.:
nomination, hearing, 494
remarks, Apr. 28, 1970, 10439
- Bransford, Mildred B., calculation procedure for heat transfer to gas-solid suspension from externally heated tube, 14775
- Brasfield, W. C., wave action and breakwater location, Vermillion Harbor, Ohio, 11256
- Brass, brass and bronze smelting refining industry, air pollution aspects, 2134
- Brass mills, inventories of shapes, current industrial reports, 2475-76
- Brassieres, girdles, and allied garments, current industrial reports, 3630, 15625
- Brauch, Earl F., mineral industry of Wyoming, 4471
- Braun, Kurt, labor law and practice in Japan, 14662
- Braun, Willis, analysis of mixing region for 2-dimensional jet injected at angle to moving stream, 929
- Brayton cycle:
Brayton space power system, steady-state analysis, 5964
400-hertz Brayton cycle turboalternators and controls, steady-state electrical performance, 5953
gas-bearing Brayton cycle turboalternator, turbine performance, 4519
power generation system using SNAP-8 nuclear reactor as energy source, study, 11641
errata, 16959
6-inch radial bladed centrifugal compressor, effect of Reynolds number on overall performance, 11645
space power system—
alternator and voltage regulator exciter, unbalanced electromagnetic forces, 10343
design and development, alternator and voltage regulator-exciter, 11601
2- to 10-kilowatt Brayton rotating unit, effects of operating parameters on net power output, 11661
- Brazil:
Brazilian education system, summary, 17907
citrus processing, 8680
economic trends and their implications for United States, 7339
foreign trade regulations, 277
general agreement on tariffs and trade, protocol to negotiations for establishment of new schedule 3, agreement, 4735
loan of vessels, U.S.S. Guest and U.S.S. Bennett, extension, agreement, 4747
Brazoria National Wildlife Refuge, birds, list, 4712
- Brazos River:
floods, how to avoid damage, Waco, Tex., 17935
Waco, Tex., flood plain information, 16413
- Bread, breadmaking U.S. wheats as supplements for Western European wheats in breadmaking, study, 3375
- Bread, Day of, *see* Day of Bread.
- Breakers, *see* Waves.
- Breakfast foods, *see* Cereals as food.
- Breakfasts:
eat a good breakfast to start a good day, 21
school breakfast program—
for children, strengthen and expand—
law, 10909
reports, 5200, 9666
meals for needy children, provide temporary emergency assistance—
law, 6539
report, 5251
- Breaking hunger's barrier, 7937
- Breaks Interstate Park, recreation complex, Dickenson County, Va. dedication (remarks), 16167
- Breakthrough for disadvantaged youth, 2015
- Breakwaters:
breaker travel and choice of design wave height, 12509
coastal regime, recent U.S. experience, 12508
wave action and breakwater location, Vermillion Harbor, Ohio, 11256
- Breast, cancer, health information, 10519
- Breast feeding your baby, general information, 13182
- Breathing, *see* Respiration.
- Brecher, M. Herbert:
motor effects from visually induced disorientation in man, 11978
quantitative evaluation of optically induced disorientation, 11979
- Bredin-Archbold-Smithsonian biological survey of Dominica, 15161
- Breeder reactors, *see* Reactors (atomic).
- Breeding, *see* names or classes of plants or animals.
- Brehm, Henry P., medical care costs for disabled, 6167
- Breidenbach, A. W., needs for chemical research in solid waste management, 17310
- Bremer County, Iowa, community profile, 13850
- Brenden, J. J., determining utility of new optical test procedure for measuring smoke from various wood products, 16573
- Brennan, James A., influence of natural environment on MAD operations, 9049
- Bresler, Sidney A., economics of seawater desalting in combination with power production, 1948
- Breslin, A. J., investigation of radiological characteristics of uranium mine atmospheres, 9390
- Bravoortia tyrannus, *see* Menhaden.
- Brewer, Joseph D., program to attain maximum agricultural production in An Giang Province, Viet-Nam, 5373
- Brewer, William D., evaluation of flash X-ray technique for recession measurements in ablative materials, 5960
- Brewster County, Tex., Sanderson Canyon Watershed, work plan for watershed protection and flood prevention, 15246
- BRH, *see* Radiological Health Bureau.
- Bricker, Richard W., Apollo command module mockup flammability tests, 8939
- Bricklayers, employment outlook, 14696
- Bridge-to-bridge—
communication, report, 3819
radiotelephones, hearings, 3881
- Bridge to future, Veterans Administration special employment and training for youth, 6278
- Bridgeport, Conn., census of transportation, 1967, commodity transportation survey, production, area series, 6418
- Bridges, W. B., design for space qualified laser, 18186
- Bridges:
bridge inspector's training manual, 11838
natural disaster damages to bridges, Federal assistance available, 9076
special replacement program, to enable States to replace bridges over major rivers, hearings, 11146
waterways, hydraulics, 15135
see also names of bridges.
- Brief cases, current industrial reports, 2475
- Briefing on reemployment rights of members of Army National Guard and Army Reserve, 3471
- Briefing on Vietnam, hearings, 506
- Briefs of accidents, U.S. civil aviation (periodical), 2375
- Brig, *see* Guardhouses.
- Briggs, G. A., plume rise, 15530

INDEX 1970

- Briggs, Ted C.:
compressibility data for helium over temperature range 5°C to 80°C and at pressures to 800 atmospheres, 5883
elastic pressure distortion of volumes of 1,000 atmosphere Burnett compressibility apparatus over temperature range 0°-75° C, 7490
- Briggs, Vernon M. Jr., they have power, we have people, status of equal employment opportunity in Houston, Tex., 16467
- Brimhall, Pauline N., health for better living, guide, 6310
- Brimmer, Andrew F.:
addresses, etc.
Nov. 17, 1969, 652
Dec. 2, 1969, 1858
Dec. 29, 1969, 4154
Feb. 6, 1970, 5464
Feb. 11, 1970, 7151
Mar. 22, 1970, 8680
Apr. 1, 1970, 12530
May 18, 1970, 10080
May 28, 1970, 12531
June 20, 1970, 11324
July 23, 1970, 14388
Sept. 23, 1970, 18509
Oct. 10, 1970, 17989
Oct. 16, 1970, 17990
- Brinkman, F. E., research materials developed under NBS inorganic materials program, 17037
- Brines:
brine disposal—
from desalting plants, spray systems method of increasing water evaporation rates, 774
pond manual, 17239
disposal by solar evaporation—
design criteria, 14598
field experiments, 14597
laboratory experiments, 11446
ice production from brine in continuous crystallizer, desalination by freezing, 771
solar evaporation, disposal methods, data, 11445
- Brinkman, Kenneth A., picloram in spaced stem injections to control Lakes States hardwoods, 16561
- Brisbane box, *see* Brushbox.
- Briscoe, C. B., establishment and early care of sycamore plantations, 14481
- Bristol Bay, birchline recruitment curves to assess influence of lake size on survival of sockeye salmon (*oncorhynchus nerka*), forecast runs, 8168
- British Columbia:
log export restrictions, 4208
sailing directions, 4605
- British Honduras:
economic trends and their implications for United States, 797
mineral industry, minerals yearbook chapter, 16901
- British Isles, *see* Great Britain.
- British thermal unit, *see* Heat.
- Brittle materials, ductile-brittle transition and stress-strain behavior of tungsten, how affected by reactor irradiation, 16990
- Broaching machines, industrial plant equipment handbook, 11159
- Broadband, *see* Bandwidth.
- Broadcasting, *see* Radio broadcasting—Radio stations—Television.
- Broadfoot, W. M., tree-character relations in southern hardwood stands, 11358
- Broadwoven goods, *see* Textiles
- Brobst, Donald A., barite, world production reserves, and future prospects, 16608
- Brock, F. J., research and development program on orbitron ultrahigh vacuum gauge, 2069
- Brockton, Mass., census of transportation, 1967, commodity transportation survey, production, area series, 6417
- Brodie, Donald C., drug utilization and drug utilization review and control, 11752
- Broilers, *see* Chickens—Poultry.
- Brokers:
credit, regulations—
amendment, 10083
supplement, 14394
registered brokers and dealers and members of national securities exchange, insure to protect customers—
hearings, 13715
report, 16028
- Brombacher, W. B., survey of micromanometers, 12841
- Bromides, *see* Silver bromide.
- Bromine, minerals yearbook chapter, 16888
- Bromley, Edmund Jr., visibility measurement for aviation use, 18378
- Bromley, L. A., further studies of sea water and its concentrates to 200°C., 7309
- Bronx County, N.Y., community profile, 13851
- Bronze:
brass and bronze smelting and refining industry, air pollution aspects, 2134
Chinese bronzes, Freer Gallery, technical studies, 7205
- Brooke, Albert B., Jr., nomination hearing, 494
- Brooke Army Medical Center, Fort Sam Houston, Tex., Army Surgical Research Unit, annual research progress report, 3485
- Brooking, Walter J., agricultural equipment technology, suggested 2-year post high school curriculum, 4048
- Brookings County, S. Dak., community profile, 13852
- Brooks, J. D., laboratory investigation of diffraction and reflection of sonic booms by buildings, 12799
- Brooks, Parkman T.:
chemical reclaiming of superalloy scrap, 874
electrochemical recovery of high-purity nickel and cobalt from crude nickel and ferro-nickel, 11587
- Brooks, Ronald L., testimony hearings, 17707
- Broome County, N.Y., community profile, 13853
- Brosge, William P.:
geologic interpretation of reconnaissance aeromagnetic survey of northeastern Alaska, 5539
probable Permian age of Rampart group, central Alaska, 4231
- Brother. . . don't pass it on (poster), 15011
- Brotherhoods, *see* names of brotherhoods
- Brotman, Richard, youthful drug use, 15392
- Brou, Claire E., relief, 13619
- Brouillard, Keith D., South Vietnam, fishery development survey, 15745
- Brow, Gaylord T., method for testing rate of gas diffusion in crude oil by periodic measurements of concentration profiles, 7483
- Brown, A. A., cyclic and constant temperature aging effects on magnetic materials for inverters and converters, 10344
- Brown, David, investigation of influence of duct-mounted Helmholtz resonators on sound field of model ducted propeller, 16941
- Brown, Earl S., relief, 13278, 13599
- Brown, Emma E., abstracts of BESRL research publications, 9363
- Brown, George H.:
addresses, etc.—
May 14, 1970, 9457
Oct. 7, 1970, 15657
Oct. 23, 1970, 17540
- Brown, Gilbert L., paper, Jan. 26-30, 1970, 7728
- Brown, Jack, relief, 349, 13261, 13587

- Brown, Jerry, ionic concentration gradients in permafrost, Barrow, Alaska, 4069
- Brown, Kay B., distributive education in high school, suggested guide for administrators and teachers of distribution and marketing, 8514
- Brown, Lenard E.:
 Baker Ranch, Glen Canyon National Recreation Area, history, 15024
 Capitol Reef, historical survey and base map, 7632
 furnishing study, Fruita Schoolhouse, Capitol Reef National Monument, 2159
 history, basic data, Ozark National Scenic Riverways, Dent, Shannon and Carter Counties, Mo., 7640
 survey of United States-Mexico boundary, 1849-55, background study, 4586
- Brown, Norman L., experimental production of fish protein concentrate (FPC) from Mediterranean sardines, 3710
- Brown, Robert A., establishing business in Denmark, 9506
- Brown, Thomas A., plant materials annual report of field plantings, Arkansas, 15222
- Brown County, Nebr., community profile, 17760
- Brown County, Ohio, community profile, 13854
- Brown County, S. Dak., community profile, 13855
- Brown recluse spider, general information, 13247A
- Brownswiss cattle, *see* Cattle.
- Brown unit, *see* Fort Belknap project.
- Browne, Secor D.:
 nomination, hearings, 495
 remarks—
 Nov. 10, 1969, 234
 Nov. 25, 1969, 235
 Jan. 22, 1970, 3654
 Jan. 26, 1970, 3652
 Apr. 9, 1970, 8110
 Apr. 22, 1970, 8109
 May 1, 1970, 8108
 July 16, 1970, 12042
 Aug. 6, 1970, 15677
 Sept. 17, 1970, 17546
 Sept. 28, 1970, 15675
 Oct. 6, 1970, 15679
 Oct. 7, 1970, 15678
- Browning, James S., beneficiation of Georgia kyanite ore, 7498
- Brows Ferry Nuclear Plant, Wheeler Reservoir, Ala., fish monitoring investigations, 2646
- Browse, *see* Forage plants.
- Brubacher, John L., soil survey, Sedgwick County, Colo., 6196
- Bruce, David:
 estimating volume of Douglas-fir butt logs, 8699
 potential production in thinned Douglas-fir plantations, 8705
- Bruce, James A., plankton distribution in Barents Sea, 1011
- Brucellosis:
 eradication, cooperative State-Federal program, progress report, 17427
 Federal requirements for interstate movement of cattle, pocket reference, 3378
 national committee, 1970 proceedings, 17427
 swine, how to eradicate it and validate herd and area, 15445
- Brule County, S. Dak., community profile, 13856
- Brumberg, Abraham, problems of communism, 3098
- Brunner, Robert O.:
 fiscal impact of social security program, 2220
 trust fund surpluses and fiscal neutrality in social security program, 11861
- Bruno, Emil, relief, 352
- Brunswick County, N.C., community profile, 12416
- Brush:
 brushland fuels desiccated for burning, moisture contents, 18015
 results of field trials of Tree Eater, tree and brush masticator, 8687
 Brushbox, direct seeding in Hawaii, 4192
 Brushes, Federal item identification guides for supply cataloging, supplements, 2495
 Brushes (electric machinery):
 electric contact brush, holder, Federal item identification guide, 13787
 Brusse, J., tests on propellers under static thrust conditions, 4498
- Bryan, C. Hobson, propensity for change among rural poor in Mississippi Delta, study of roots of social mobility, 11192
- Bryan, Robert G.:
 industry wage survey, nursing homes and related facilities, 819
 men's and boys' shirts (except work shirts) and nightwear, 7426
- Bryan County, Okla., Lower Clear Boggy Creek watershed, revised work plan for watershed protection and flood prevention, 15229
- Bryant, Horace E., identification of ingested gizzard shad and threadfin shad by gizzard dimensions, 11891
- Bryson, J. O., flexural behavior of prestressed concrete composite tee-beams, 14915
- BSRL, *see* Behavioral Science Research Laboratory.
- Btu (British thermal unit), *see* Heat.
- Bubble chambers, maximum-bubble-pressure system improved for measuring surface tension of molten metals, 4480
- Bubbles, unstable motion under low gravitational conditions, 12795
- Bubonic plague, *see* Plague.
- Bucans, refugees, assistance, appropriations, 1971, hearings, 9728
- Buchanan County, Iowa, community profile, 13857
- Buchanan County, Mo., community profile, 16192
- Bucher, John F., endodontics, 1025
- Buchia, *see* Aucella.
- Buck, James H., relief, 1373, 3916
- Buckeye Turkey Hatchery, Inc., motor carrier accident, 887
- Buckley, Donald H.:
 adsorption of ethylene oxide and vinyl chloride on iron (011) surface and effects of these films on adhesion, 16996
 effect of—
 sulfur, oxygen and hydrogen sulfide surface films on adhesion of clean iron, 7535
 surface active media on friction, deformation, and fracture of calcium fluoride, 2115
 3½ percent silicon on adhesion, friction, and wear of iron in various media, 5958
 interaction of methane, ethane, ethylene, and acetylene with iron (001) surface and their influence on adhesion studied with LEED and auger, 11666
 LEED and auger studies of effect of oxygen on adhesion of clean iron (001) and (011) surfaces, 8943
- Buckley, John E., intraoccupational wage dispersion in metropolitan areas, 820
- Buckling, *see* Strains and stresses.
- Buckman, R. W., Jr., evaluation of refractory/austenitic bimetal combinations, 10346
- Bucks County, Pa., community profile, 16193
- Bucyrus, Ohio, stream pollution and abatement from combined sewer overflows, 16522

INDEX 1970

- Budget Bureau :
 redesignate Management and Budget Office—
 disapproval, report, 8260
 hearings, 8301
 statistical reporter (periodical), 3227
- Budget of United States :
 budget and fiscal policy, 5072
 budget outlays, reduce by restructuring or terminating certain Federal programs, proposed legislation, message from the President, 5091
 defense program, 1971, statement, 5323
 estimates, submitted by the President, 91st Congress, 1st and 2d sessions, 0776
 Federal budget, inflation, and full employment—
 hearings, 3764
 report, 322
- 1970—
 amendments—
 hearings, 399
 proposal, 445, 3897
 proposal for Export-Import Bank, 5186
 limitation on fiscal year budget outlays, 331
 outlay limitation, 8214
 revised report, 8217
 status—
 scorekeeping report, 441
 staff reports, 8336-42
- 1971—
 amendments—
 hearings, 8271
 proposals, 9781-82, 13564
 appendix—
 departmental edition, 3521
 document edition, 3779
 budget in brief, 3519
 departmental edition, 3520
 District of Columbia—
 departmental edition, 6406
 document edition, 6562
 document edition, 3778
 hearings, 6694
 special analyses, 3522
 status, scorekeeping report, 13555-557, 15959-962, 17655-656
 planning-programing-budgeting—
 hearings, 3977
 inquiry of National Security and International Operations Subcommittee, 8410
 system, hearings, reports, and committee prints, compilation, authorize printing reports, 5208, 6664
- Budgets, *see* Budget of United States—
 Budgets (family and personal) *also* names of departments, etc.
 Budgets (family and personal) :
 family food budgeting for good meals and good nutrition, 3402
 retired couple in urban areas, 8863
 three budgets for urban family of 4 persons, preliminary spring 1969 cost estimates, 16867
- Budworms, western budworm egg masses, estimating numbers of eggs, 678
- Bue, Conrad D., streamflow from United States into Atlantic Ocean during 1931-60, 5568
- Buechner, Helmut K., avifauna of northern Latin America, symposium, 7734
- Buell, Donald A., experimental investigation of velocity fluctuations behind oscillating vanes, 936
- Buena Vista County, Iowa, community profile, 13858
- Buffalo, N.Y. :
 afternoon remedial and enrichment program, Buffalo, N.Y., 4051
 area wage survey, 5833
 census of transportation, 1967, commodity transportation survey, production, area series, 6424
- Buffalo, N.Y.—Continued
 expanded language arts, compensatory education, 5358
 M/V Thorstream (Nor.) explosion and fire with loss of life, marine casualty report, etc., 6075
 Plus Program, successful compensatory education program, 4054
 preschool program in compensatory education, Project Early Push, 5356
 principal electric facilities, map, 8822
- Buffalo County, Nebr.
 community profile, 17761
- Buffalo County, S. Dak., community profile, 13859
- Buffalo Lake National Wildlife Refuge, birds, list, 1124
- Buffeting loads, *see* Load (mechanics).
- Bugg, Frank M., affect of wall roughness on damping of liquid oscillations in rectangular tanks, 5973
- Buggy Project, *see* Project Buggy (plow-share program).
- Bugs, *see* Insects.
- Build our American communities, 11280
- Builders, operative, census of construction industry, 1967, statistics, 13143
- Building :
 accelerating construction and reducing cost of low-rent housing opportunity, GAO report, 14509
 airport, so you want to build one, types, specifications, etc., 7070
 bibliography for overseas missions of International Development Agency, 11417
 construction—
 airports, procedures guide for using standard specifications, 626
 catfish ponds, commercial, 2226
 health research facilities, remodeling and equipping, PHS grants and awards, 5069
 low-rent public housing projects, strengthening of concrete inspections and testing requirements, GAO report, 14508
 methods, design details and canopy slots, wind tunnel studies of effects on aerodynamic characteristics of small-scale all-flexible parawings, 16981
 nuclear installations, use of prestressed concrete, USSR study, 4331
 operations of San Luis unit, Central Valley Project, questionable aspects concerning information presented to Congress, GAO report, 5534
 pole-type structure, initial evaluation, 694
 waste treatment facilities which benefit industrial users, Federal grants awarded, Federal Water Quality Administration, GAO report, 10145
- construction reports—
 quarterly public, 1336-37
 residential alterations and repairs, 190, 2440, 13157
- contracting for construction and architect-engineering services for Atomic Energy Commission, 11975
- general contractors, census of construction industry, 1967, statistics, 13122
- Hill-Burton hospitals, and related health facilities, representative costs, 7260
- house construction, how to reduce costs, 12982
- housing and building research and development, Federally financed, catalog, 14572
- institutions of higher education grouped by level, control, and enrollment size, distribution patterns, 11206
- Library services and construction act, amend—
 hearings, 8430, 17641
 report, 16013

Building—Continued

- low-rent housing—
 - administration of program handbook, transmittals, 7282, 8787, 12606
 - construction handbook, 1935, 11423
 - preconstruction handbook, 1932, 4279, 5600, 11421
- materials, Federal item identification guides for supply cataloging, supplements, 2593
- military construction, use of advertised contracting in survey, GAO report, 14516
- minority enterprise, 6500
- NASA facilities design and construction, engineering management, report, 8321
- notice of construction, alteration, activation, and deactivation of airports, Federal aviation regulations, 624, 2575
- nursing schools, construction grants, 5574, 16654
- orderly revolution (address), 10871
- PACAF basic bibliography, 13026
- permits, 17536
 - housing authorized, construction reports, 2437-38, 9446
 - annual, 17536
- Philadelphia plan, questions and answers, 7410
- research—
 - at National Bureau of Standards, 18232
 - selected studies applicable to design and construction of health facilities, 11407
 - residential construction, decade of 70's, change (address), 5594
 - sewage and water works construction, contract awards, 10101, 17999
 - State and local governments, construction expenditures, 1336-37
 - technology and housing research activities of Federal Government, report, 15156
 - wood-frame house construction, 12974
- see also Construction industry—Installations (military).
- Building board mills, census of manufacturers, 1967, industry statistics, 17519
- Building machinery:
 - construction cranes, USSR study, 4354
 - construction machinery, current industrial reports, 2476, 8079
- Federal item identification guides for supply cataloging, supplements, 2590
- installation or erection of building equipment, census of construction industry, 1967, statistics, 13140
- Building materials, see Construction materials.
- Building science series, 953, 2135-36, 5996-99, 7569, 8978-79, 14914-915, 18232
- Building trades:
 - and low income housing (address), 7271
 - health and safety in Federal and federally financed construction projects, promote legislative history, 1740
 - union wages and hours, 12716
- Buildings:
 - building system, structural performance evaluation, 2135
 - civil, industrial, and agricultural buildings, USSR study, 10271
 - concrete for military structures, standard practice, technical manual, 15491
 - diffraction and reflection of sonic booms by, laboratory investigation, 12799
 - Historic American Buildings Survey—
 - Charleston and South Carolina low country, records, 12872
 - District of Columbia, catalog, 12867
 - Maryland, records, 12873
 - selections, 14420, 15028-29
 - subjects, checklist, 12863
 - historic preservation program, 14574
 - man and his shelter, conference proceedings, 5996
 - multiple-member structures, strength, 18022

Buildings—Continued

- performance, concept and measurement of components, etc., 5996
- prefabricated structures, Federal item identification guides for supply cataloging, supplements, 2593
- with fallout protection, design case study, DCS series, 13187
- see also Public buildings, also names or types of buildings.
- Bulgaria:
 - claims of U.S. Nationals against Government, text of act, regulations, etc., 5479
 - economy, basic data, 6506
 - mineral industry, minerals yearbook chapter, 16902
- Bulk carriers in world fleet, 8878
- Bull Shoals Reservoir:
 - age, growth, sex composition and maturity of white bass, 11891
 - ecology of daphnia, 1131
- Bullards Bar Recreation Area, general information, 14427
- Bulletins, see Farmers' bulletins—also names of departments, etc., issuing bulletins—also subjects.
- Bullis, W. Murray:
 - measurement methods for semiconductor device industry, summary of NBS activity, 965
 - methods of measurement for semiconductor materials, process control, and devices, 7579, 8996, 17042
 - errata, 11736
- Bullock, G. L., fin rot, coldwater disease, and peduncle disease of salmonid fishes, 10583
- Bullock County, Ala., community profile, 13860
- Bulls, DHIA sire summary list, Ayrshire, Guernsey, Holstein, Jersey, Brown Swiss, Milking Shorthorn, Red Dane, Mixed Breed, and Red Poll sires, 15397
- Bumpers, bumper-hull structures, discussion of modes of failure, with application to meteoroid hazard, 17007
- Buncombe County, N.C., community profile, 13861.
- Bundy, Kathryn, what you should know about paraplegia, 10538
- Buoyancy:
 - equation for vortex motion including effects of buoyancy and sources with application to tornadoes, 18203
 - growth due to buoyancy of weak homogeneous turbulence with shear, 17004
- Bur, Thomas R.:
 - suggested orientation conventions for elastically anisotropic polycrystalline and amorphous materials, 4477
 - ultrasonic method for determining elastic symmetry of materials, 2057, 4478
- Burbank, Wilbur S., geology and ore deposits of Eureka and adjoining districts San Juan Mountains, Colo., 10176
- Burch, Dean:
 - addresses—
 - Jan. 9, 1970, 4127
 - Jan. 15, 1970, 4126
 - Jan. 30, 1970, 4125
 - June 10, 1970, 11293
 - Sept. 16, 1970, 16478
 - Sept. 25, 1970, 16479
- Burch, Stephen H., complete Bouguer gravity and general geology of Bradley, San Miguel, Adelaida, and Paso Robles quadrangles, Calif., 10181
- Burcham, Frank W., Jr., local flow field around pylon-mounted dummy ramjet engine on X-15-2 airplane for Mach numbers from 2.0-6.7, 5946
- Bureaus, see Government offices.

INDEX 1970

- Buren, Denver P., insect enemies of yellow-poplar, 16577
- Burgess, Ernest M., management of lower-extremity amputations, surgery, immediate postsurgical prosthetic fitting, patient care, 4786
- Burgess, Isabel A.:
nomination, hearings, 495
remarks—
May 19, 1970, 10483
Aug. 6, 1970, 12884
Aug. 15, 1970, 15041
- Burgess, Jackie D., relief, 3796, 13608
- Burggraf, Odus R., analysis of large bending deformations of filamentary tubular shell typical for pressure constraint components of space suits, 2075
- Burgin, Lorraine, mineral industry of New Mexico, 4448
- Burgin, Vera E., decennial index-digest, decisions and opinions of Department of Interior, 18339
- Burial:
Medal of Honor recipient, furnish headstone for unmarked grave at Government expense—
bearing, 405
law, 15785
report, 1490
- Burk, Sa Cha, *see* Bae, Sa Cha.
- Burke County, N.C., community profile, 13862
- Burke County, N. Dak., community profile, 13863
- Burkham, D. E.:
error analysis of streamflow data for alluvial stream, 7249
precipitation, streamflow, and major floods at selected sites in Gila River drainage basin above Coolidge Dam, Ariz., 7248
- Burleigh County, N. Dak., community profile, 13864
- Burley tobacco, *see* Tobacco.
- Burlington, Vt., area wage survey, 11535
- Burlington County, N.J., Pennsauken Creek and South Branch, flood plain information, 8543
- Burma:
economy, basic data, 4994, 6509
mineral industry, minerals yearbook chapter, 14782
records of Dept. of State, pamphlets to accompany microcopy, internal affairs, 11721
- Burn, James W., determination of atmospheric temperature profiles from planetary limb radiance profiles, 5899
- Burners, *see* Gas burners.
- Burnham, W. L., availability of ground water for large-scale use in Malad Valley-Bear River areas of southeastern Idaho, initial assessment, 7221
- Burning, *see* Arson—Combustion.
- Burning of land:
brushland fuel desiccated for burning, moisture contents, 18015
foliar moisture content of chaparral in Arizona, accounting for variation and relating to prescribed fires, 11348
prescribed burning—
and deadening upland hardwoods in northern Mississippi, hydrologic effects, 11366
in Lake States, current status, 5491
on abandoned fields in northern Mississippi, hydrologic effects, 704
slash burning in small experimental watershed, increases in maximum stream temperatures, 4185
- Burns, Alfred J., prices and spreads for apples, grapefruit, grapes, lemons, and oranges sold fresh in selected markets, 10691
- Burns, Arthur F.:
addresses, etc.—
Apr. 6, 1970, 12532
Apr. 29, 1970, 10078
May 18, 1970, 10079
June 26, 1970, 11331
July 2, 1970, 11331
July 6, 1970, 11322
nomination, hearing, 3957
- Burns, Robert D.:
Missouri Basin Inter-Agency Committee—minutes of 158th meeting, 11598
minutes of 159th meeting, 11599
- Burris, J. R., 1000-MWe LMFBF follow-on study, task 2 and 3 report, topical report, control study, 117
- Burrowes Manufacturing Corp., relief, 355
- Burrows, Marshall C., thermometric determination of oxidant-fuel distribution with rocket combustor, 4525
- Burse, Richard L., comfort and stability ratings for prototype Lincloe titanium helmet system, 1219
- Burt County, Nebr., community profile, 17762
- Burundi:
area handbook, 3474
development assistance, agreement, 9206
economic trends and their implications for United States, 11475
investment guarantees, agreement, 10621
- Burwell, Edward L., gas flood efficiency improvement by polymer injection, 14798.
- Bus drivers, *see* Motorbus driver.
- Bus mechanics, *see* Mechanics (persons).
- Buses, *see* Motorbuses—School buses.
- Bush, Donald G., trading in live beef cattle futures, 9566
- Bush, Joseph C.:
industry wage survey—
machinery manufacturing, 14737
women's and misses' dresses, 7424
- Bushings (electrical):
plain, Federal item identification guide, change, 5303
- Bushong, Stewart C., medical radiation information for litigation, proceedings of conference, etc., 1052
- Business:
agricultural, potentials in Tennessee Valley region, 1174
American business—
and its role in Nation's economy (address), 1360
in internationalized world economy (address), 10243
American political environment best for growth (address), 13216
are you creative with people? forward-looking program, 4360
building minority enterprise, 6500
business holdings of demand deposits in insured commercial banks, 16485
census establishment and IRS corporation data, link, 1993 enterprise statistics, 10827
census, 1967—
major retail centers—
area statistics, 154, 3530-39, 4908-14, 6412-15, 8052-64, 9418-29
publications order form, 1335
merchandise line sales, publications order form, 6455
retail trade area statistics, 1290, 4915
retail trade merchandise line sales, 10785-794, 11986-996, 13099-121, 15541-546, 17481
selected services, area statistics, 155-164, 1291-99, 3540-47, 4916-20, 6416, 9431
selected services, subject reports, 15547
wholesale trade area statistics, 165-186, 1301-7, 3548-49, 9432, 15548, 17482
census publications, price list, 11836
citizen and business participation in urban affairs, bibliography, 8779

Business—Continued

community to bring full resources to bear on problems which confront the nation (remarks), 15734
 conditions—
 digest, 2379
 advance, 2296
 national summary, 2934
 county business patterns—
 CBP series, 191-215, 1320-21, 3610-26, 4931-33, 9447-51, 10800-811, 12017-34, 13158-174, 15620
 errata sheet, 15621
 publications order form, 3627
 U.S. summary, 3610, 15620
 credit and assistance, code of Federal regulations, 8639
 current business reports (series), 2467-72
 development loans, who can borrow, how to apply, 16163
 doing business with NATO, how U.S. companies can participate, etc., 4900
 domestic and international business news to use for trade association periodicals, 2514
 economic policy and business outlook (remarks), 2268
 economy at midyear 1970, with industry projections for 1971, 13092
 enterprise statistics 1967, preliminary reports, 2541
 environmental pollution, bibliography, 18275
 establishing in—
 Austria, 1365
 Belgium, 15731
 Canada, 8147
 Congo (Kinshasa), 8149
 Denmark, 9506
 Federal Republic of Germany and West Berlin, 15727
 Ghana, 5002
 Greece, 15728
 Iran, 10878
 Malaysia, 8148
 Mexico, 15725
 Morocco, 15732
 Saudi Arabia, 13228
 Venezuela, 4991
 expenses, tax information, 5675
 farmer cooperatives, farm business tools, 10684
 Federal minority enterprise program hearings, 8378
 foreign practices, 5699
 government relations (address), 4980
 how business community can broaden its horizon (address), 1361
 important role in social development (address), 15708
 income tax returns, statistics, 18077
 indexes, monthly, 2380
 international business—
 in changing world (addresses), 4986-87, 6503, 8142-43, 9495
 publications checklist, 18089
 supplement, 7343
 international, opportunities in changing world (address), 15716
 international problems need Government help (statement), 9498
 involvement in helping to solve our great social problems (address), 1362
 involvement in social problems of our day (remarks), 9510
 loan applications, need for improvements in analyses of, Small Business Administration, GAO report, 711
 losses from operating a business, tax information, 5654
 minority—
 expansion (address), 15711
 higher education aid, directory, 9503
 opportunities are in small business (address), 3687

Business—Continued

minority—continued
 opportunities, manual for small and minority group businessmen and professionals in HUD programs, 16676
 Minority Business Enterprise Office, general information, 8144
 minority enterprises—
 address, 10862
 Federal assistance programs, catalog, 5335
 model for medium-range economic planning, USSR study, 16793
 Navy prime contractors, selling to, directory, 2185
 OMBE outlook, news from Minority Business Enterprise Office, 12058
 outlook (remarks), 15736
 overseas business reports, 274-278, 1365, 3000, 3690-94, 4989-5002, 6505-15, 8145-50, 9504-9, 10872-879, 12059-60, 13219-230, 15721-733, 17562-564
 private enterprise role (address), 9491
 private outdoor recreation enterprises in rural Appalachia, 4044
 private programs assisting minority business enterprise, directory, 13217
 program in 2-year colleges to up-grade employees (paper), 11239
 role toward consumers (address), 17560
 schools, higher education aid for minority business, directory, 9503
 sector, job opportunities in, program, background information, 12376
 service checklist, guide to Commerce Dept. publications, weekly, 2381
 serving American business, U.S. merchant marine, 10311
 small business—
 allocation of radio frequency spectrum for land mobile radio use and its impact on small business, 6678
 bibliographies, 4661-62, 6153, 7732, 15158, 18323
 conversions to Government antipollution standards, assist, hearings, 16041
 corporation farming impact, report, 3931
 credit cards, impact on, hearings, 15940
 domestic shoe manufacturers, problems, hearings, 11112
 drug industry, competitive problems, hearings, 524, 11148, 12383
 Federal Government publications, survey, 1092
 financial assistance programs and policies, review, hearings, 5283
 franchising impact, hearings, 5282, 11149
 Government procurement, before and after defense cutbacks, hearings, 17652
 handbook, print as Senate document, reports, 1539, 1638
 impact of crime—
 hearings, 13761
 reports, 3924-25
 improving prospects, report, 7708
 insurance and risk management, 18324
 Investment act, amend—
 hearing, 3856
 report, 16011
 investment company, starting, 1091
 legislation, 1970, hearings, 16041
 management series, 12914, 18324
 1969 tax guide, 7318
 participation of small and minority contractors in construction industry increase, hearings, 16041
 position and problems in procurements financed by International Development Agency—
 hearings, 1600
 report, 1559

INDEX 1970

Business—Continued
 small business—continued
 problems facing tool and die industry—
 hearings, 439
 report, 5117
 problems, investigation—
 authorization, report, 5233
 expenses, report, 455
 programs in Government agencies, 1969
 handbook, print as Senate document,
 reports, 1539, 1638
 programs of Federal Government, sur-
 vey, handbook, 3899
 ratio analysis, 12914
 Robinson-Patman act, congressional in-
 tent, hearings, 1601, 15944
 SBA assistance (remarks), 18321
 securities issue, exemption from regis-
 tration, increase, report, 15979
 small marketers aids, 11848
 softwood lumber standard impact, hear-
 ing, 15942
 starting and managing series, 6154,
 9104, 15159
 urban areas, impact of crime, crime in-
 surance and surety bonds, etc., hear-
 ings, 15941
 solving the seventies (address), 16161
 special current business reports (series),
 3215
 statistics—
 Federal reserve monthly chart book,
 2624
 1969 biennial edition, 8050
 weekly, 2382
 survey of current business (periodical),
 3250
 weekly supplement, 2382
 tax information on sale of a business,
 5686
 technology for small business, program of
 Small Business Administration, 10545
 U.S. in international economy (address),
 9512
 USSR, guidelines on methods pertaining
 to compilation of state plan for de-
 velopment of national economy, 2002
 venture capital financing, guide, 13218
 what's ahead (address), 267
 you and PL 480 exports, how small busi-
 ness can benefit, 5399
 Business and Defense Services Adminis-
 tration:
 official texts, 2384
 press releases, 3038
 Business consolidations:
 corporate mergers, tax reform—
 hearings, testimony, summary, 1602
 summary of recommendations, 1725
 economic report on corporate mergers,
 staff report of Federal Trade Commis-
 sion, hearings, 513
 Business consultants, *see* Consultants.
 Business Economics Office, press releases,
 3039
 Business machine mechanics, *see* Office
 machine servicemen.
 Business machines, *see* Office furniture and
 equipment.
 Business men:
 encounter with bureaucracy (address),
 6887
 GSA and minority businessman, partners
 in progress, 11385
 how to do business with Defense Supply
 Agency, guide, 6869
 JOBS '70, introducing programs to help
 you, 14655
 rural and urban problems of small busi-
 nessmen, hearings, 11061, 13544
 small securities exemptions, increase,
 hearing, 9895
 State Dept. guide to key officers of For-
 eign Service posts, 2789
 VISTA business, opportunities to serve the
 poor, 6986

Business men—Continued
 worldwide exhibitions, 1970-71 schedule,
 16717
 Buster, James M., relief, 9647
 Butadiene styrene:
 acrylonitrile-butadiene-styrene (ABS) plas-
 tic pipe—
 schedules 40 and 80, voluntary product
 standard, 11745
 standard dimension ratio, product
 standard, 11746
 Butcher, Stanley J., instructor institute,
 safety in industry, instructor outline,
 7415
 Butler, Elmer, floods of Dec. 1966 in south-
 western Utah, 10189
 Butler, James N., use of amalgam electrodes
 to measure activity coefficients of metal
 salts in multicomponent salt solutions,
 1953
 Butler County, Ala., community profile,
 13865
 Butler County, Iowa, community profile,
 13866
 Butler County, Mo., community profile, 16194
 Butler County, Nebr., community profile,
 17763
 Butler County, Ohio, community profile,
 12417
 Butler County, Pa., community profile, 16195
 Butt swells of water tupelo for pulp and
 paper, 4199
 Butte County, S. Dak., community profile,
 13867
 Buyers, *see* Purchasing agents.
 Buying, *see* Purchasing.
 Buzhardt, J. Fred, jr., nomination, hearing,
 16039
 Buzzard, Charles R., soil survey, Curry area,
 Oregon, 6192
 BWR (boiling water reactor), *see* Reactors
 (atomic).
 By-products, *see* Waste products.
 Byers, David C., angular distribution of
 Kaufman ion thruster beams, 10412
 Byrd, Paul F., Gauss quadrature rules in-
 volving some nonclassical weight func-
 tions, 11649
 Byrne, James B., soil survey of McCreary-
 Whitley area, Ky., 12927

C

C-141A, *see* Aircraft.
 C&MS, *see* Consumer and Marketing Service.
 C.C.C., *see* Commodity Credit Corporation.
 C.F.S. series, 284-289, 1368-68, 2327, 2385,
 2645, 2647, 2650, 2679, 2693, 2700, 2857,
 2860, 2874-75, 2883, 2891, 2951, 2958,
 2970, 3157, 3200, 3209, 3257, 3330, 3699-
 3702, 6518-21, 8154-61, 10882-887,
 12061-65, 13231-232, 15741-743
 CAB, *see* Civil Aeronautics Board.
 Cabanilla, Leonardo M., relief, 3905
 Cabarrus County, N.C., community profile,
 13568
 Cabbage, caterpillars, pathogens and chemi-
 cals tested against, 13002
 Cabbage loopers, *see* Loopers.
 Cabinet Committee on Opportunities for
 Spanish-Speaking People:
 appropriations, 1971—
 hearings, 12259, 17687
 reports, 13426, 13429, 16031
 Chairman, nomination of Martin G.
 Castillo, hearing, 8409
 establish, to replace Interagency Commit-
 tee on Mexican-American Affairs—
 hearings, 1583
 law, 3751
 reports, 1513, 1520
 Cabinet Task Force on Oil Import Control:
 majority and minority recommendations,
 hearings, 16070
 report on relationship of oil imports to
 national security, 6125

- Cables:
aluminum, foreign free world producers, directory, 13093
Federal item identification guides for supply cataloging, supplements, 2592
field cable and field wire techniques, Army field manual, 7984
shape towed in circular path, 15075
see also Electric cables.
- Cabrillo National Monument, general information, 994
- Cabriole Project, *see* Project Cabriole (field cratering experiment).
- Cacao, foreign agriculture circulars, 2657
- Cache County, Utah, community profile, 6896
- Cacodylic acid, field tested for control of mountain pine beetles in ponderosa pine, 11351
- Caddis flies, *see* Flies.
- Cadets, *see* Air Force Academy, Colo.—Coast Guard.
- Cadmium:
disposal from national and supplemental stockpile—
hearings, 406
law, 12137
reports, 1496, 6749, 11102
mineral industry survey, quarterly, 2383
single crystal high resistivity cadmium telluride for use as gamma ray spectrometer, research and development, 10763
- Cadmium sulfide, thin film photovoltaic cells, effects of bias light and heat treatment on spectral response, 2088
- Cadmium telluride, single crystal high sensitivity, for use as gamma ray spectrometer, research and development, annual summary report, 15526
- Cagle, Caroline H., changes in time and savings deposits, 14386-387, 16505
- Cahn, Patricia L., American education, 2332
- Cahn, Robert, nomination, hearing, 11129
- Calabrese, Anthony, effects of acids and alkalies on survival of bluegills and largemouth bass, 4716
- Calandra, J. C., 90-day subacute oral toxicity studies on radiation, pasteurized food, strawberries, apples, and pears, 4892
- Calanoida, Atlantic deep-sea calanoid copepoda, 15162
- Calapoca division, *see* Williamette River project.
- Calcaterra, Peter C., study of active vibration isolation systems for severe ground transportation environment, 893
- Calcium:
calc-alkali series, hydration, oxidation, and origin, 901
calcium and calcium compounds, minerals yearbook chapter, 14773
calcium content of bone, study to develop neutron activation for measuring, 11618
magnesium and calcium content of urine, feces and meals of man using atomic absorption instruments spectrum-1 and SFA, determination, USSR study, 8833
renal calcium excretion in crew members, effects of oral administration of magnesium oxide during submarine patrol, 8893
sequential determination in biological materials, 6376
- Calcium fluoride:
calcium fluoride and yttrium oxide phase diagram relation in alkaline earth fluoride-yttrium systems, 18166
friction, deformation, and fracture, effect of surface active media, 2115
- Calcium sulfate, hydrous, microbial conversion to hydrogen sulfide, 7480
- CalComp plotter, *see* Plotting instruments.
- Calculating machines:
computing machines, census of manufactures, 1967, industry statistics, 17528
- Calculating machines—Continued
Navy navigation satellite system, computing aids, TRACAL and SNAP, 7677
Calculations, *see* Numerical calculations.
Calculi, *see* Dental calculus.
Calculus of variations, *see* Functional analysis.
- Caldwell, William H., clinical aspects of chelating agents, 17150
- Caldwell County, Mo., community profile, 16196
- Caldwell County, N.C., community profile, 12418
- Calendars:
American Indian, 8798
calendar of events in Library of Congress (periodical), 2384
18-month calendar of national meetings, 2529
tax calendar and check list, 5668
- Calendars (of business), *see* Court of Claims—House of Representatives.
- Calif, *see* Calves.
- Calhoun County, Ala., community profile, 13869
- Calhoun County, Iowa, community profile, 13870
- Calhoun County, Miss., community profile, 16197
- Calibration:
accelerometer calibration with earth's field dynamic calibrator, 6010
calibrating ultrasonic equipment used in nondestructive testing or inspection, materials and defect simulator for, 9059
calibration and test services of National Bureau of Standards, supplements, 955, 6000, 8981, 14920
hypersonic turbulent skin friction, Preston tubes for measuring, 937
inequitable charges for calibration services, need for accounting improvements at National Bureau of Standards, GAO report, 12576
NBS secondary standard magnetic tape (computer amplitude reference) using reference tape amplitude measurement process A, 957
photographic, for emission spectrography using small computer, 18174
precision measurement and calibration—electricity-radio frequency, 14922
heat, 12843
psychoacoustic, earphones—
differential sensitivity for alternate interaural loudness balancing, 5846
efficient monaural procedure, 5845
radioactivity, standards, special conference session, proceedings, 14923
spray equipment and handling of insecticides, seed orchardist's guide, 8716
- Calibrators:
earth's field dynamic calibrator for calibration of accelerometer, 6010
laser used for transmissometer calibrator, evaluation, 15340
precision, high frequency calibration facility for coaxial capacitance standards, 8986
- California:
Antelope Valley area, soil survey summary, 1110
Buchia zones in Colyear Springs-Paskenta area, structural and stratigraphic significance, 4249
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 9418
retail trade, merchandise line sales, 13099
selected services, area statistics, 6416
wholesale trade, area statistics, 167
census of Governments, 1967, State report, 3555
census of transportation, 1967, commodity transportation survey, 9434

INDEX 1970

California—Continued

Central Lahontan basin, Truckee River subbasin soils, 15448
citrus fruit, tests of overseas shipments, interrelations between fruit condition, biphenyl content, transit temperature, delayed loading, and biphenyl pad placement, 26
climate, 14340
climatological data, 2409
coast, marine sanctuaries, create, hearings, 11131, 16063
coast pilot, supplement, 6490
county business patterns, 3612, 12019
current region—
 fishery resources, seasonal and geographic characteristics of jack mackerel, 12071
 Pacific saury, seasonal and geographic characteristics of fishery resources, 13240
electric rate book, 14376
floods, Mojave River basin ground-water recharge, 7241
ground water data 1967, summary of region, 4255
ground water occurrence, summary, 14541
Kaiser Peak quadrangle, central Sierra Nevada, analytic data, 16616
Lake Tahoe basin, general information 14556
Lake Tahoe national lakeshore, establish, study—
 law, 15807
 report, 13465
land and water resources, 7767
land conveyance by Southern Pacific Co., validate, 9712, 17595
landings, fish and shellfish, 2385
littoral environment observation program, preliminary report, 10000
Mesozoic batholithic complexes, chronology of emplacement, 7245
mineral industry, minerals yearbook chapter, 4420
minority construction contractors located in selected cities, list, 8796
national wildlife refuge for tule elk, establish, hearings, 9902
north coastal area, sediment yield and land treatment, Eel and Mad River basins, 15449
northern—
 ponderosa pine, estimating past diameters, 5501
 wood borers attracted to turpentine in windthrown timber, 4188
northwestern—
 ammonites from Buchia zones, 10182
 Jurassic (Tithonian) and Cretaceous Buchia zones (series), 4249, 10182
nursing home care under medical program—
 prescribed drugs, continuing problems in providing, GAO report, 14497
 problems in approving and paying, GAO report, 12538
Pacific slope basins—
 surface water quality, 14555
 Tia Juana River to Santa Maria River, surface water supply, 18054
precipitation data, hourly, 2718
resources, tomorrow's challenge, what's ahead for our land and people, 15193
seed viability, germination and radicle growth of dwarf mistletoe in California, 18028
selected streams, mean annual runoff as related to channel geometry, 16646
soils and people, cooperative soil surveys, facts about what they can do for you, 15237
southern—
 urban sprawl and flooding, 5545
 water quality in offshore submarine basins, 14419

California—Continued springs—

Colorado Desert area, data, 7233
southern coast, transverse, and peninsular ranges, data, 7234
State institutions for mentally retarded, questionable claims under Medicaid program for care of persons, GAO report, 10151
student health project, 5587
table grapes, shipping in fiberboard and polystyrene foam boxes and in polyethylene mesh bags, feasibility, 15437
undersea aqueduct, reconnaissance study, 6141
upper Precambrian and lower Cambrian strata in southern Great Basin, 14535
water resources—
 development by Engineers Corps, Army, 14333
 1968 data, 5583, 5753
 reports by Geological Survey, Water Resources Division, list, 5562
Water Resources Division, Geological Survey, activities, 1907
watershed phase of 1968 soil and water conservation needs study, 1114
California quail, *see* Quail.
Call for cooperation, message from the President, 15118
Calladay, Raymond S., thermal feasibility of using hydrogen or methane fuel for direct cooling of turbine stator, 18219
Callahan, Wayne, health insurance for aged, participating health facilities, 11857
Callaway County, Mo., community profile, 16195
Calleguas Creek :
 including Conejo Creek and Arroyo Santa Rosa, Sonoma to Pacific Ocean, Ventura County, Calif., flood plain information, 8533
 vicinity of Camarillo, Ventura County, Calif., flood hazard, 8532
Calleja-Perez, Jose L., relief, 5101, 17579, 17668
Calloway County, Ky., forest inventory statistics, 4771
Calories, and weight, pocket guide, 15429
Calorimetry, laser power and energy measurements, 961
Calumet River, pollution of interstate waters, Ind.-Ill., conference proceedings, 7163
Calvert, Ruth E., relief, 13581, 17583
Calvert formation, Bates Mountain Tuff, Northern Nye County, Nev., description, etc., 1910
Calves :
 calf crop, 7839, 15336
 movable shelter, farm building plan, 6308
Calvesbert, Robert J., climate of Puerto Rico and Virgin Islands, 14341
Camarillo, Calif., Ventura County, flood hazard, 8532
Cambodia :
 concluded, now it's time to negotiate, report to Nation by President Nixon, 11896
 hostilities, governments participating in treatment of prisoners of war relative to Geneva Convention, with reservations, if any, 13511
 in perspective, Vietnamization assured, report by Richard Nixon, 10605
 May 1970, staff report, 16051
 refugee and civilian war casualty problems, hearing, 13749
 situation, questions and answers, 9197, 10604
 strike, defensive action for peace (address), 9192
 United States military actions, questions of international law, 11895
Cambodian language, Foreign Service Institute, basic course, 12935

- Cambrian period:
early, fossil *Salterella conulata* Clark in eastern North America, description, etc., 18047
Salterella from Lower Cambrian of central Nevada, 10179
Camden County, Mo., community profile, 16199
Camden County, N.J.:
Big Timber Creek, Main Stem and South Branch, flood plain information, 8541
Brooklawn-Bellmawr vicinity, Big Timber Creek, floods, how to avoid damage, 10004
Gloucester City to Haddon Heights vicinity, floods, how to avoid damage, 8549
Little Timber Creek, flood plain information, 8540
North Branch, Big Timber Creek—flood plain information, 8542
Statford-Lindenwold-Gloucester Township vicinity, floods, how to avoid damage, 10005
Pennsauken Creek and South Branch, flood plain information, 8543
South Branch, Big Timber Creek, floods, how to avoid damage, 8550
Camden County, N.C., community profile, 13871
Camera News, Inc.:
newsreel, data concerning association with Students for a Democratic Society, hearings, 8305
print additional copies, report, 15838
Cameras:
automatic photoelectric triggering mechanism for data-recording camera, 18012
framing of motion-picture cameras, synchronized with 4-microsecond flashing light and its application in Schieren photography, 11682
operability status considering dynamic solar conflict for Radio Astronomy Explorer satellite, analytic determination, 10384
Cameron, J. R., proceedings of bone measurement conference, 15511
Cameron County, Pa., community profile, 16200
Cameroon:
background notes, 1134
Cameroon-Chad boundary, study, 17334
economic trends and their implications for United States, 16719
Campaign Expenditures, 1970, Special Committee to Investigate, House:
expenses, reports, 13447
interim report, 15880
Campaigns (political), see Elections.
Campbell, Charles D., skyline tension and deflection handbook, supplement, 8704
Campbell, Colleen A., Federal and State student aid programs, 11064
Campbell, E. D., Plovershare program, special report on hard-core costs of Projects Gasbuggy and Schooner, 3493
Campbell, Edward M., digest of State dental health programs, 972
Campbell, George G., evaluation of oil shale fracturing tests near Rock Springs, Wyo., 11584
Campbell, J. Phil:
addresses, etc.—
Sept. 13, 1969, 10
Oct. 31, 1969, 3392
Nov. 13, 1969, 3426
Jan. 14, 1970, 3391, 7912
Feb. 19, 1970, 7936
Mar. 17, 1970, 7915
Mar. 18, 1970, 7939
Apr. 6, 1970, 9283
Campbell, James F., law and order reconsidered, 1044
Campbell, John D., reducing cooperative cotton ginning costs in Oklahoma, 3 suggested ways, 4100
Campbell, Keith S., annual report Freeport test facility and vertical-tube-evaporator test-bed plant, Freeport, Tex., 16697
Campbell, Richard A., performance of twin gyro attitude control system including passive compensation and nonlinear control law, 14855
Campbell, Robert W., testimony, hearings, 11108
Campbell, Thomas G.:
experimental investigation of plasma-covered cavity-backed slot antenna, 907
extremely thin, omnidirectional, microwave antenna array for spacecraft applications, 934
Campbell County, S. Dak., community profile, 13872
Campers:
average camper, who doesn't exist, 4204
wildlife esthetics and auto campers in Superior National Forest, 5509
Campgrounds, see Camps.
Cammarota, V. A., anode materials for alumina reduction, evaluation of lignite as carbon source, 7493
Camp Century, Greenland:
polar snow, variation of some mechanical properties, 5364
revisited, pictorial view, 16411
Camp Lejeune, N.C., Marine Corps base, disturbances, inquiry, hearings, 1573
Camp Pendleton, Calif., Marine Corps base, conditions in brig, inquiry, report of special subcommittee, 5145
Campaign expenditures, campaign broadcast reform act of 1969, hearings, 1705
Camping:
and picnicking in Eldorado National Forest, 18008
camping the high country, Sierra National Forest, 16537
camping in national park system, fees, facilities, etc., 11787
horse sense on backcountry packtrip, 7197
importance of shading to visitors at Indian boundary Campground, Tenn., 16571
national forests, America's playgrounds, 15441
Camping equipment, campground stoves and grills, evaluation, 672
Camps:
campground stoves and grills, evaluation, 672
logging, census of manufactures, 1967, industry report, 12001
Camptotheca acuminata, Decaisne (nys-saceae) source of camptothecin, antileukemic alkaloid, 6319
Camptothecin, antileukemic alkaloid, camptotheca acuminata Decaisne (nyssaceae) as source, 6319
Campus Unrest, President's Commission on, see President's Commission on Campus Unrest.
Campuses, see Colleges and universities.
Can marketing order help? 7934
Canada:
air defense, continued operation of radar stations and exchange of aircraft, agreement, 17348
background notes, 18343
balance of payments with United States, prospects and opportunities (remarks), 16509
Canada's agricultural trade and production, 1959-69 trends, statistical look at Canadian-U.S. competition, 16383
civil aviation, world survey, 10783
Columbia River Basin flood control payments, agreement, 6251
economic trends and their implications for United States, 7331, 18083
economy, basic data, 15729
egg production tests, 1969 report, 4799
establishing business in, 8147

Canada—Continued

- flood control payments by U.S., adjustments, agreement, 450
- foreign trade regulations, 10877
- ionospheric research by satellites, agreement, 15317
- labor offices directory, 5816
- market profiles, 13221
- mineral industry, minerals yearbook chapter, 5860
- nautical charts and publications, catalog, 7669
- north Pacific fur seals, extending interim convention of Feb. 9, 1957, agreement, 4744
- Northeastern Interstate Forest Fire Protection compact, New Brunswick and Quebec Provinces participation, agreement, 7828
- operation of radiotelephone stations, agreements, 5192, 11066
- plotage services on Great Lakes and St. Lawrence Seaway, agreement, 17342
- potassium chloride (muriate of potash), determination of injury to U.S. industry from imports, 1169
- reciprocal fishing privileges, agreement, 15313
- social science research, special papers available, 15293
- trade, oil exports, arrangement, 6244
- use of facilities at Pinetree Radar Site, Hopedale, Labrador, agreement, 10613
- Canada geese, habitat management, 15210
- Canada-United States Interparliamentary Group:
 - 12th meeting, House delegation, report, 5111
 - 13th meeting—
 - House delegation, report, 12239
 - Senate delegation report, 15970
- Canadian River, Norman, Okla., special flood hazard information, 7042
- Canal Zone:
 - code, amend—
 - law, 13330
 - report, 13661
 - geology and paleontology, 14534
 - insurance business, annual report, 15540
 - military personnel ordered to, U.S. Army Forces, Southern Command, helpful hints, DA pamphlet, 1236
 - mineral industry, minerals yearbook chapter, 4459, 18159
- Canal Zone Government:
 - annual report, 9416
 - appropriations, 1970—
 - hearings, 486
 - law, 3734
 - cash relief payments to former employees to provide cost of living adjustments, amend Canal Zone code—
 - law, 13330
 - report, 13661
 - financial statements, 1969 and 1968, GAO examination, 8203, 8721
- Canals:
 - Bryan-Chamorro treaty of 1914, convention respecting Nicaraguan canal route, termination, message from the President, 15973
 - canal contraction joints, performed polysulfide strips for tests, Wahluke Branch Canal, Columbia Basin project, 9090
 - hazards to people and animals from Bureau-constructed canals, 9091
 - main drainage canals, Beaufort County, S.C., requirements, feasibility study, 15206
 - polysulfide canal contraction joint sealer, 17245
 - polysulfide canal sealant, coal-tar extended, laboratory tests for use in contraction joints in concrete-lined joints, 7723

Canals—Continued

- seepage investigation on Medina Canal, Bexar-Medina-Atascosa Counties, Tex., Water Improvement District No. 1 Canal System, 10184
- Canard, STOL air-sea transport model, with blowing over canard and wing flaps, ground effects investigation, 18206
- Cancer:
 - bladder, health information, 10521
 - bone, health information, 6185
 - breast, health information, 10519
 - carcinogenesis abstracts (periodical), 2390
 - chemotherapy reports (periodical), 2386-88
 - colon and rectum, 4648
 - human cancer involving viruses, partial bibliography, 12848
 - inhalation carcinogenesis, conference proceedings, 9375
 - larynx, health information, 10520
 - progress against, 1970, report by National Advisory Cancer Council, 18268
 - prostate, general information, 1059
 - regional medical programs, progress report, 1068
 - research activities to ascertain causes and develop cures, etc., study, authorization, report, 12318
 - research program, extend and improve—
 - hearings, 5277, 8428, 12279
 - reports, 12248, 17627
 - science and cancer, 984
 - smoking and lung cancer, 7591
 - stomach, health information, 6136
 - uterus, health information, 6134
 - what to know, what to do about it, 2208
- Cancer, International Agency for Research on, *see* International Agency for Research on Cancer.
- Cancer Institute, *see* National Cancer Institute.
- Candy, *see* Confectionery.
- Cane sugar, *see* Sugar.
- Canker (disease of plants):
 - blister rust, in eastern white pine, antibiotic treatment, 16563
- Canned foods:
 - canned foods and other food products, except meat and dairy products, census of transportation, 1967, commodity transportation survey, shipper group, 3601
 - census of manufactures, 1967, industry statistics, 13145
 - report (periodical), 2468
 - see also* names or classes of foods canned.
- Canneries, fruit cannery waste, aerobic treatment study of aerated lagoon, activated sludge, and activated sludge re-aeration, 10103
- Canning and preserving, home canning of meat and poultry, 9293
- see also* names of commodities canned or preserved.
- Cannon, Robert H., jr., nomination, hearing, 13719
- Canopies, forest, nocturnal radiation loss estimates, 5503
- Canopies (aircraft):
 - canopy slots, construction methods, and design details, wind-tunnel studies of effect on aerodynamic characteristics of small-scale all-flexible parawings, 16981
- Cans:
 - corrugated, heater, immersion, M-67, liquid-fuel-fired for development, 1216
 - metal—
 - and miscellaneous fabricated metal products, census of transportation, 1967 commodity transportation survey, shipper group, 1314
 - current industrial reports, 2475, 15635
 - plastic garbage-can-liners, equip tips, 10116
- Canillevel beams, *see* Beams.
- Canto, Francis C., *see* Feldmeier, Franz C.

- Canton, Steve, Air Force comptroller, 2315
Canton, Ohio:
 area wage survey, 16847
 census of transportation, 1967, commodity transportation survey, 8067
Cantonese language, Foreign Service Institute, basic course, 12936
Canyon Fire, Calif., 1968 fire, fire weather and fire behavior, 10135
Canyonlands National Park:
 boundaries, revise—
 hearing, 11128
 report, 12323
Capacitors:
 coaxial capacitance standards, precision, high frequency calibration facility, 8986
 electrolytic capacitors, Ion Capacitor Corporation, Columbia City, Ind., Tariff Commission reports, 17374
 miscellaneous, Federal item identification guide, 16132
 series capacitor inverter-converter for multikilowatt power conversion, 11696
Capacity of refrigerated warehouses in United States, 6254
Cape Beaufort, Alaska, coalbeds, sampling and coking studies, 879
Cape Charles, Va., clam survey, to Ocean City, Md., 9522
Cape Cod National Seashore:
 land acquisition appropriations, increase—
 law, 10913
 reports, 6619, 8362
Cape Cod to Sandy Hook, coast pilot, supp., 6491
Cape Girardeau, Mo., Mississippi River and Cape LaCroix Creek, flood plain information, 14314-315
Cape Girardeau County, Mo., community profile, 17764
Cape Hatteras National Seashore, climatic summaries of resort areas, 1816
Cape Henry to Key West, coast pilot, 9484
Cape Kennedy, Fla., investigation of small-scale motions and forecasting of wind profiles over short periods of time, 12758
Cape LaCroix Creek, Cape Girardeau, Mo., flood plain information, 14314-315
Cape May Plant Materials Center, N.J., annual report, 1106
Cape Spencer to Beaufort Sea, coast pilot, supplement, 6493
Capellen, J., bibliography of mass spectroscopy literature for last half compiled by computer method, 13074, 15516
Capillaries:
 channels, and porous media, fluid flow under influence of electric field, 4481
 correction of pressure data for thermal transpiration effects in pneumatic lines, 2074
Capillarity, *see* Surface tension.
Capital:
 capital markets, access of State and local governments (remarks), 5464
 gains for individuals and corporations, tax reform hearings, summary of recommendations, 8394
 outflows and U.S. balance of payments, review and outlook (paper), 7151
 venture capital financing, guide, 13218
Capital assets, short-term asset management (speech), 5420
Capital of United States:
 airports, Federal aviation regulations, 1843, 2574
 crime in National Capital, hearings, 1708, 3968
 National Capital transportation act of 1969, Federal contribution for transit development program, law, 1407
 See also District of Columbia.
Capital punishment, death penalty, abolish, hearings, 9923
Capitalism, black capitalism, economic potential (paper), 4154
Capitol, works of art and other objects, compilation, reprint as House document, reports, 9698, 13631
Capitol Reef National Monument:
 Fruita Schoolhouse, furnishing study, 2159
 historical survey and base map, 7632
Capitol Reef National Park:
 establish—
 hearing, 13740
 report, 12344
Capone, Francis J., longitudinal aerodynamic characteristics of twin-turboprop subsonic transport with nacelles mounted under wings, 16980
Capp, John P., fly ash utilization, summary of applications and technology, 14779
Caprara, Alfredo, relief, 12098, 12300
Caps, caps and plugs, Federal item identification guide, 13781
Capsules (spacecraft), *see* Spacecraft.
Captain Brown's House, Minute Man National Historical Park, historical data, 4577
Captive Nations Week, proclamations and addresses, summary, 1439
Capture:
 capture and spurious target generation due to hard limiting in large time-bandwidth product radars, 6109
 spatial, distribution in resonance absorbers, estimation, 12783
Capulin Mountain National Monument, general information, 9027
Car rental in U.S.A., 11928
Carbon:
 activated—
 catalytic oxidation of ferrous iron in acid mine water, 2058
 iodine retention studies, progress, report, 15512
 carbon-phenolic ablation material, experimental study, 16968
 deposition, optimization experiment in thermal oil recovery by statistical analysis, 18170
 evaluation of lignite as source, anode materials for alumina reduction, 7493
 interrelation with phosphorous in regulating heterotrophic and autotrophic populations in aquatic ecosystems, 14413
 iron-copper-carbon powder metallurgy alloy, use of cement copper, 7479
 molybdenum-hafnium-carbon alloys, thermomechanical processing, 8936
 phase 2, bench-scale research on CSG process—
 laboratory physico-chemical studies, 254
 mechanics of fluo-solid systems, studies, 6487
 operation of bench-scale continuous gasification unit, 255
 powdered carbons for waste water treatment, methods of application, 14414
 spent granular activated carbon, regeneration, 14405
 yttrium dicarbide-carbon system, mass spectrometric investigation of vaporization thermodynamics, and dissociation energy of yttrium dicarbide and tetracarbide, 8937
Carbon black:
 mineral industry survey, quarterly, 2389
 minerals yearbook chapter, 8895
Carbon County, Pa., community profile, 16201
Carbon County, Utah, community profile, 6897
Carbon dioxide:
 carbon dioxide and helium mixtures at -10° and -20° C and pressures to 1,000 PSIA, 12744

Carbon dioxide—Continued

- carbon dioxide and water vapor, analytical chemical study of effect on hydrogen-air constant-pressure combustion, 10402
- chemical, biochemical, and physiological aspects, symposium, 7525
- CO₂-N₂-O₂-Ar gas mixtures for planetary entry applications, transport properties at high temperatures, 2085
- desorption, from three-component solution, 15065
- intermittent exposure to 3% CO₂, effect on respiration, 11570
- laser beam, thermal defocusing in air doped with SF₆, 17193
- new amines as regenerative carbon dioxide absorbents, investigation, 6100
- recycle and dual pressure melt gasification for MHD system, 10852
- trapping agents of ¹⁴CO₂ used in vitro metabolic studies, comparative study, 15502
- water vapor effect on LiOH-CO₂ reaction, dynamic isothermal system, 4623
- Carbon isotopes:
 - nitrogen 2 and carbon 2 measurement of resonance multiplet line shapes from plasma, 10495
 - reaction carbon-12, alpha-gamma angular correlations, 2107
 - trace contaminant adsorption and sorbent regeneration, 16933
 - trapping agents of ¹⁴CO₂ used in vitro metabolic studies, comparative study, 15502
- Carbon monoxide:
 - air quality criteria, 5986
 - summary and conclusions, 11713
 - calculating future emissions and concentrations from urban traffic data, 17016
 - carbon monoxide and hydrogen, activation energies for reactions with hydroxyl radicals, 7543
 - contamination of refractory metals, 11607
 - control techniques for emissions from—
 - mobile sources, 5989
 - stationary sources, 5988
 - dangers, safety measures, etc., 13247B
 - opacity probability distribution functions at elevated temperatures, 5977
- Carbonaceous rocks, *see* Rocks.
- Carbonates:
 - high temperature properties and decomposition, 956
 - carbonation cell, materials compatibility, 2071
 - see also* Lithium carbonates—Potassium carbonates.
- Carbonatites, and mafic-ultramafic igneous rocks of Gem Park complex Custer and Fremont Counties, Colo., 16617
- Carbonization:
 - bench-scale, of lignite from Northern Great Plains Province, statistical approach, 10326
 - coal carbonization studies, altering composition and yield of volatile products by increasing free space above charge, 10335
 - fluidized-bed, low-temperature, of bituminous coal and thermal cracking of tar vapors, 880
 - prediction of carbonization product yields from exploration data, 11586
- Carburetors, simplified modular turbojet combustor, preliminary tests, 12773
- Carcinogenesis, *see* Cancer.
- Carcinogens, compounds which have been tested for carcinogenic activity, survey, 4556
- Cardboard boxes, *see* Boxes.
- Cardiac activity, *see* Heart.
- Cardiac diseases, *see* Heart diseases.
- Cardiac pacemaker, *see* Heart.

- Cardiac replacement, medical, ethical, psychological and economic implications, 6025
- Cardiovascular system:
 - Artificial Heart Program Conference, proceedings, 6024
 - cardiovascular mortality rates and geochemical environments in Georgia, 4244
 - cardiovascular training grant program directors, National Heart Institute, report of 18th conference, 7601
 - disease, epidemiological investigation, Framingham study, 974-976, 7620
 - thoracic squeeze episode as possible cause of diving casualty, case report, 5843
- Cards, *see* Catalog cards.
- Cardwell, Louis E., analyses of natural gases, 4410, 12740
- Careers, *see* Civil service—Occupations.
- Carex, *see* Sedges.
- Cargo, *see* Shipments—Shipping—Ships.
- Cargo carriers:
 - compact, equip tips, 7192
 - M6 rolling wheel-type, 1000 gal. liquid transporter, rigging for airdrop of supplies and equipment, Army technical manual, 104
- Cargo handling, chemical data guide for bulk shipments by water, 6495, 10854
- Cargo terminals, *see* Terminals (transportation).
- Caribbean area:
 - Agricultural Stabilization and Conservation Service, annual report, 4805
 - agriculture prospects, 7003
 - Chitons, *Acanthopleura granulata* Gmelin and *Chiton tuberculatus* Linne, ecology, density, mortality, feeding, reproduction and growth, 17275
 - climatological data, 2409
 - Communist threat to U.S., hearings, 6809, 13744
 - Cooperative Investigation of Caribbean and Adjacent Areas, bibliography, 18283
 - Cuba and Caribbean region, U.S. security posture, hearings, 13510
 - islands, mineral industry, minerals year-book chapter, 5863
 - market profiles, 13222
 - meteorology, climatology, and physical/chemical oceanography, bibliography, 18283
 - Virgin Islands, U.S., our Caribbean gems, description, history, etc., 7860
- Caribbean Sea:
 - cidaroid echinoids, field guide, 6161
 - Project Flood, data report, 1012
- Carices, *see* Sedges.
- Carleton, David A.:
 - mineral industry of—
 - Iran, 5861
 - Kuwait, Kuwait-Saudi Arabia Neutral Zone and Saudi Arabia, 18155
 - Near East areas, 4454
 - Nigeria, 5866
- Carloading, packing and car-loading, instructor's guide, Army Dept. pamphlet, 6357
- Carlsbad Caverns National Park, reimburse persons contributing money to keep park open, 1646, 9590, 9643
- Carlson, O. D., NAS en route stage A, radar video data processor modifications, 17965
- Carlson, Robert J., foreign trade regulations of Brazil, 277
- Carlstead, E. M., tropical numerical weather predictions in Hawaii, status report, 1831
- Cariucci, Frank C., III, nomination, hearing, 8433
- Carmichael, Stokely, testimony, hearing, 9922
- Carnations, production and sales, etc., 7842
- Carney, Charles B., North Carolina hurricanes, descriptive listing of tropical cyclones which have affected State, 10671

- Carotene, stability in alfalfa as affected by pilot- and industrial-scale dehydration, 4829
- Carpenter, Stanley B., moisture contents of brushland fuels desiccated for burning, 18015
- Carpenters:
carpenter's folding ruler for measuring angles, 684
employment outlook, 12700
- Carpenterworm: description, etc., 16542
- Carpentry, carpentering, special trade contractors, census of construction industry, 1967, statistics, 13130
- Carpet beetles, *see* Beetles.
- Carpets:
carpets and carpeting, current industrial reports, 2476
fabric flammability, bibliography, 7574
Wilton, Brussels, velvet, and tapestry, Tariff Commission report, 2266, 11911
- Carr, C. Jelleff, study of new methods of measuring cerebral circulation, 17144
- Carriers:
common and contract, property tax assessments, hearing, 11047
common carrier services, applications, FCC reports, 2576
common, property tax assessments—
hearing, 499
report, 1694
Interstate commerce act, amend—
hearings, 6720, 11047, 13721-722
report, 1678
text, 800
motor common carriers and common carriers by rail, express, and water, establish through rates and joint rates, hearings, 13721
radiotelegraph carriers, uniform system of accounts, FCC rules and regulations, 2586
surface, freight rates, railroads to publish, authorize, hearings, 6720
wire-telegraph and ocean-cable, uniform system of accounts, FCC rules and regulations, 2586
see also Air carriers—Communications—
Motor carriers—Pipe lines—Telephone—Water carriers.
- Carriers of disease, *see* Disease carriers.
- Carrigan, Anne L., geophysics and space data bulletin, 2692
- Carrillo, Fred V.:
mineral industry of—
Idaho, 4430
Montana, 4444
- Carroll, James W., man and animal, changing concepts, 11879
- Carroll County, Iowa, community profile, 13873
- Carroll County, Md., soil survey report, 4692
- Carroll County, Miss., community profile, 16202
- Carroll County, Mo., community profile, 16203
- Carroll County, Ohio, community profile, 12419
- Carroll County, Tenn., appraisal of potentials for outdoor recreational development, 4678
- Carroon, L. E., correlative estimates of streamflow in upper Colorado River basin, 5565
- Carrots:
carrots and peas, canned, U.S. standards for grades, 12389
production in United States, 3395
- Cars, *see* Automobiles—Railroad cars.
- Carson, Thomas M., use of lunar beacons in lunar orbit estimation, 14865
- Carson National Forest, Blue Lake area land conveyance, hearings, 16064
- Carson Ranger District, Toiyabe National Forest, general information, 14489
- Carswell, George H.:
nomination—
hearings, 5272
report, 5184
- Carter, A. F., analysis of geometry and design-point performance of axial-flow turbines using specified meridional velocity gradients, 2062
- Carter, Arthur W., effects of ground proximity on longitudinal aerodynamic characteristics of unswept aspect-ratio-10 wing, 5956
- Carter, Gene, assignment rates for claims submitted under supplementary medical insurance program, 11858
- Carter, Horace S., Georgia mountain area, 8568
- Carter, Malcolm N., direction for Navy commanding officers and public affairs staff, 2511
- Carter County, Mo.:
community profile, 16204
Ozark National Scenic Riverways, history, basic data, 7640
- Carter County, Okla., appraisal of outdoor recreational potentials, 15176
- Carteret County, N.C., community profile, 12420
- Cartographers, Soviet, international relations, 12642
- Cartographic aids, serial photography, Army technical manual, 4865
- Cartography, *see* Maps and charts.
- Cartridges:
cartridges and propellant actuated devices and components, Federal item identification guide, 17735
weapon, Federal item identification guide, 13782
- Caruso, P. Jr., Orbiting Astronomical Observatory thermal test program, 16961
- Cary, Aubrey M., Jr., summary of available information on Reynolds analogy for zero-pressure-gradient, compressible, turbulent-boundary-layers flow, 5923
- Casa Angelica Mental Retardation Facility, relief, 15975
- Cascade, impedance synthesis using extension of Failkow-Gerst theorem, 943
- Cascade County, Mont., solid waste disposal, comprehensive study, 10577
- Cascade Range, western Oregon, 3 small watersheds, hydrologic properties of soils, 4186
- Caseload statistics, State vocational rehabilitation agencies, 2210
- Cases, *see* Brief cases.
- Casey, Clifford B., soldiers, ranchers and miners in Big Bend, 7647
- Cashiers:
employment outlook, 12692
Government, regulation relating to cash held at personal risk, including imprest funds, department circular, 10649
- Casings, effect of penetration by payload into its crushable casing and landing energy absorption, approximate analytical models, 12801
- Casper, Wyo., Sage Creek, flood plain information, 14310
- Cass County, Iowa, community profile, 13874
- Cass County, Mo., community profile, 16205
- Cass County, Nebr., community profile, 16206
- Cass County, N. Dak., community profile, 13875
- Cassidy, J. J., experimental study and analysis of draft-tube surging, 7726
- Cassidy, R. J., nonfriction braking systems for high-speed trains, 14381
- Cassidy, C. R., Buggy, analysis of ground motion, 3494
- Cassville, Wis.:
floods, how to avoid damage, 1813
Mississippi River, flood plain information, 1808

INDEX 1970

Cast iron :
 current industrial reports, 2475
 gray iron foundries industry, 1954-66
 indexes of output per man-hour, 4374
 Castillo, Martin G., nomination, hearing, 8409
 Castings :
 aluminum sand casting alloy of high toughness (M-45), report, 18194
 direct, on porous supports, membranes for reverse osmosis, 7308
 iron, current industrial reports, 2475
 nonferrous, current industrial reports, 2475, 8087
 steel, current industrial reports, 2475
 Castor oil :
 disposal from national stockpile—
 law, 12142
 reports, 6598, 6752, 11005
 Castro, Fidel, broken pledges, memorandum, 12369
 Casualties, *see* Civilians—Marine accidents.
 Casualty services, Air Force manual, 15453
 Caswell County, N.C., community profile, 12421
 Catalog cards :
 Library of Congress—
 books, authors, 2935
 books, subjects, 2038, 2832
 motion pictures and filmstrips, 2833
 music and phonorecords, 12724, 16873
 Cataloging :
 Atomic Energy Commission—
 report number series used by Technical Information Division, 15527
 reports, corporate author headings, 15529
 cataloging handbook, H series, 536, 1756, 2494-95, 2588-93, 2596-98, 2630-31, 2633-35, 4003, 8458-59, 9550, 16100-108
 cataloging manual M (series), 537, 1757, 6844-45, 13775-776
 MARC [machine readable cataloging] format for—
 maps, data elements, etc. for magnetic tapes, 14754
 serials, 11556
 notes for medical catalogers (periodical), 2971
 service, bulletin, 2391
 supply cataloging, Federal manual—
 FSC classes assigned for integrated materiel management, special procedures, change, 6844
 operating procedures, 13775
 supply classification, 537
 Catalogs :
 Census Bureau, 2376
 census publications, monthly supplement, 2377
 civil defense motion pictures, 12045
 Coast Guard Academy, 12056
 copyright entries, 529-530, 1753-54, 3997-98, 5294, 8451, 11156, 18770, 17723-727
 defense management education and training, 16111
 dictionary, L. C. subject headings, supplement, 8236
 FAA headquarters recurring reports, 17958
 Federal assistance programs, create, hearings, 510
 Federal domestic assistance programs—
 create, hearing, 15908
 description, 13824
 Federal supply catalog—
 consolidated master reference list, 4016, 12396, 13802, 16144
 GSA stock catalog—
 identification list, 2628-29, 4162
 list, 7160, 16514
 national supplier change index, 2627
 federally financed housing and building research and technology, 14572

Catalogs—Continued
 Government publications, monthly catalog, 2900
 Helminths of waterfowl (Anatidae), 1133
 HEW assistance providing financial support and service to States, communities, organizations, and individuals, 737
 HEW State administered formula grant programs, 14559
 illustrated Paleozoic plant specimens in National Museum of Natural History, catalog, 15160
 Industrial College of Armed Forces, 12619
 publications, 10253
 Internal Revenue Service forms, form letters, notices, 10233
 Labor Statistics Bureau publications, 4384
 Library of Congress—
 books, subjects, 2038, 2832
 motion pictures and filmstrips, 2833
 music and phonorecords, 12724, 16873
 national union catalog 2935
 register of additional locations, 10306
 local forecast studies, 7961
 market share reports, 7343
 medical and veterinary zoology, 12963
 index-catalogue, special publication, 15406
 meteorological instruments in Museum of History and Technology, 4667
 meteorological satellite data, television cloud photography, catalogs—
 ESSA 3 and ESSA 5, 4095, 10030-31
 ESSA 7, 11277, 17954
 minority business enterprise, Federal assistance programs, 5335
 National Bureau of Standards, standard reference materials, 12842
 catalog and price list supplements, 6001, 14921
 National Library of Medicine—
 biweekly listing, 2930
 cumulative listing, 2931
 nautical chart catalog, Pacific Coast, Guam, and Samoa Islands, 9485
 nautical charts and publications—
 introduction, 4599-4600
 region 1, Canada, Greenland, and Iceland, 7669
 region 2, Central and South America and Antarctica, 15051
 region 3, Western Europe, 4602
 region 4, Scandinavia, Baltic, and U.S.S.R., 4603
 region 5, West Africa and the Mediterranean, 7670
 region 6, Indian Ocean, 4604
 neotropical squamata, 6057
 outdoor recreation research, 1969 reference, 9063
 programmed instructional material, Navy, 11812
 Project Flambeau fires, 1964-67, final report, 10122
 Staff College, civil defense, 13192
 tissue typing antisera, 18263
 United States nautical chart catalog, Atlantic and Gulf Coasts, Puerto Rico, and Virgin Islands, 4976
 water data, catalog of information, index, 7226-28, 10164
 water resources research, 7311
 Catalysts :
 catalytic oxidation of ferrous iron in acid mine water by activated carbon, 2058
 fuel cell, preparative techniques and electrochemical testing of interstitial compounds, 7454
 Catanzaro, E. J., standard reference materials, boric acid, isotopic and assay standard reference materials, 6002
 Catawba County, N.C., community profile, 12422
 Catawba River and Valley, flood plain information, Morganton, N.C., Silver Creek and Bailey Fork, 7037

Caterpillars, cabbage, pathogens and chemicals tested against, 13002
see also names or types of caterpillars.

Catfish:

channel—
 acute viral disease, 6209
 effects of Antimycin A on tissue respiration, 11878
 pond management, 17301
 virus disease, 1116
 commercial fish ponds, construction, 2226
 farming, new farm crop, 3400
 genus *Noturus* Rafinesque, revision with analysis of higher groups in Ictaluridae, 2152
 new "live car" improves catfish harvesting and handling, 5006
 Catheters, surgical catheters, drains, and tubes, Federal Item Identification guide, 6868
 Cathey, Henry M.:
 growing flowering—
 annuals, 4812
 perennials, 4813
 growing peonies, 15428
 indoor gardens for decorative plants, 4814
 Cathode ray tubes:
 high contrast, engineering report, 14819
 single gun color CRT, research and development, phase 2, final report, 5900
 Cathodes:
 cold cathode ion source mass spectrometer employing ion counting techniques, 4491
 cold cathode magnetron ultrahigh vacuum gage, research and development program, 2070
 Cation exchange, *see* Ion exchange.
 Cations, *see* Ions.
 Catron County, N. Mex., mineral resources of Black Range Primitive Area, 16607
 Cats, relationship of chronic gastric ulceration to experimental cerebellar vermal lesions, 56
 Cattaraugus County, N.Y., community profile, 13876
 Cattle:

beef, dehorning, castrating, branding, and marking, 7916
 dairy, free-stall shed, farm building plan, 3412
 DHIA sire summary list, Ayrshire, Guernsey, Holstein, Jersey, Brown Swiss, Milking Shorthorn, Red Dane, mixed breed and Red Poll sires, 15397
 Federal requirements for interstate movement, with respect to brucellosis, pocket guide, 3378
 feeders, farm building plan, 3414
 horn flies, how to control them, 1197
 industry—
 achievements and prospects (remarks), 7940
 physical distribution system model for evaluating improvement, feasibility, 7
 live beef cattle, commitments of traders, 2428
 on feed, 2392
 rinderpest, highly contagious disease, 10699
 scabies, eradicating, etc., 3419
 sheep and cattle scabies eradication, cooperative State-Federal progress report and epidemiology, 7907
 sold for slaughter, selected markets, 2392
 stocker and feeder, shipments, 3197
 trading in live beef cattle futures, 9566
see also Livestock—Steers—Tuberculosis in animals.
 Cattle ranges, *see* Range lands.
 CATV (community antenna television), *see* Television.
 Causation, culpability and deterrence in highway crashes, 12949
 Causes and Prevention of Violence, National Commission on, *see* National Commission on Causes and Prevention of Violence.

Cavaller County, N. Dak., community profile, 13877
 Cavalry (armored), *see* Armored force.
 Cavalry barracks, Fort Laramie, furnishing study, 7633
 Cavan, Bruce P., literature review of dusting technology in delcing, 10301
 Caves, shock wave diffraction by circular cylindrical cavity in elastic-plastic media, numerical calculation, 8535
 Cavitation:
 cavitation and gas diffusion in a flow, development, USSR study, 16757
 damage to high-purity metals and nickel-base superalloy in water, 17002
 80.6 helical inducer operated in hydrogen, thermodynamic effects, 5933
 experimental, and flashing of potassium flowing adiabatically through venturi sized as boiler inlet, 11639
 performance of 80.6° helical inducer in hydrogen, effect of blade leading edge thickness, 14853
 Cavities:
 heat transfer distributions in deep cavities in hypersonic separated flow, experimental investigation, 16964
 stability during gas jet impingement on liquid surfaces in weightlessness, 16982
see also Caves.
 Cay Sal Bank, Bahama Islands, oceanographic investigation, 14347
 Cayuga County, N.Y., community profile, 13878
 Cayuse Indians, *see* Umatilla Reservation.
 CBS, *see* Columbia Broadcasting System.
 CCC, *see* Commodity Credit Corporation.
 CCPM pamphlet, 4647
 CEA-series 2653, 2742
 Ceccarelli, Jane M.:
 illustrative total monthly family benefits under 1969 amendments, 12919
 maximum benefits under social security amendments of 1969, 12920
 Cedar:
 eastern red, survival and growth of seed sources in southwest Missouri, 5494
 tree and sawyer factors effects on costs of felling large alligator junipers, 14478
 Utah juniper, tree weights and fuel size distribution, 10123
 Cedar County, Iowa, community profile, 13878
 Cedar County, Mo., community profile, 16207
 Cedar County, Nebr., community profile, 17765
 Cedar Falls, Iowa, floods, how to avoid damage, Cedar River, 17915
 Cedar River:
 Austin, Minn., flood plain information, 16414
 Black Hawk County, Iowa, flood plain information, 17921
 floods, how to avoid damage, 1799
 Cedar Falls, Waterloo, and Evansdale, Iowa, 17915
 Ceiling (meteorology):
 prediction, development of base techniques, 18371
 Celestial mechanics:
 Hill's method of secular perturbations, discussion of application to determination of zero-rank effects in non-singular vectorial elements of planetary motion, 11832
 relativistic equations of motion of artificial earth satellite, integration, 14894
see also Three body problems.
 Celilo-Mead Transmission Line Project, *see* Pacific Northwest-Pacific Southwest Intertie.
 Cells:
 automatic cell counter, 11665
 carbonation cell, materials compatibility, 2071

INDEX 1970

- Cells—Continued
 cell biology and physiological psychology
 organization and description of complex
 data through cluster analysis, research,
 2148
 red cell cation exchange and displacement
 of oxygen dissociation curves in chronic
 hypercapnia, 11567
- Cellulose:
 ester membranes, research and develop-
 ment, 14595
 oriented membranes for reverse osmosis
 and relationship between morphology
 and salt rejection, study, 5622
- Cellulose acetates:
 improved membranes for reverse osmosis,
 770
 development, report, 7307
 tubular membranes, improvement by feed
 additives, 10224
- Celmer, John, automatic analog computer
 scaling using digital optimization tech-
 niques, 10381
- Cement:
 analysis, use of atomic absorption spectro-
 photometer, 10016
 cement and structural clay products, cen-
 sus of manufactures, 1967, industry
 statistics, 15602
 finisher, job grading standard, civil serv-
 ice, 8126
 highway construction usage factors, 10525
 mineral industry surveys—
 annual, preliminary, 7455
 monthly, 2395
 polymer cement concrete and polymer con-
 cretes, 15505
- portland—
 abnormal set, causes and corrections,
 7724
 pastes and mortars, early strength de-
 velopment, exploratory studies, 14914
 use in stabilization of hydraulic mine
 filling, including results with other
 additives, 4474
 soil-cement, effect of polymer on proper-
 ties, 17244
- Cement masons, *see* Masons.
- Cemeteries:
 American military, overseas, general in-
 formation, 17456
 cemetery corporations, tax exempt status,
 extend, report, 9717
see also National cemeteries.
- Cenozoic era. Cenozoic geology of Granite
 Mountains area, central Wyoming, 8740
- Census:
 business, 1967—
 major retail centers—
 area statistics, 154, 3530-39, 4908-14,
 8052-64, 9418-29
 publications order form, 1335
 retail trade—
 area statistics, 1290, 4915
 merchandise line sales, 10785-794,
 11986-996, 13099-121, 15541-546,
 17481
 publications order form, 6455
 selected services, area statistics, 155-
 164, 1291-99, 3540-47, 4916-20, 6416,
 9431, 15547
 wholesale trade, area statistics, 165-
 186, 1301-7, 3548-49, 9432
 wholesale trade, subject reports, 15548,
 17482
 census establishment and IRS corporation
 data link, 1963 enterprise statistics,
 10827
 census geography series CG, 6451, 8093
 census 1960, monograph, 6437
 census 1967, commercial fisheries, 15549
 census 1970—
 congressional and State redistricting
 availability of data—
 report, 8259
 text, 13098
- Census—Continued
 census 1970—continued
 decennial population, and congressional
 apportionment, report, 13427
 facts, questions and answers, 4951
 final plans, and 4 programing systems
 for computerized data retrieval and
 manipulation, papers presented at
 conference on Small-Area Statistics,
 American Statistical Association, New
 York, N.Y., 4929
 geography, 6451
 logistics, report, 5136
 most accurate of all (remarks), 9457
 user guide, 2399
 technical documentation, 12014
 what's new (remarks), 5005
 census tabulation available on computer
 tape series, 8094-95
 census use study—
 data interests of local agencies, 8076
 general description, 8075
 reports, 188, 4930, 6436, 8075-76,
 15618-619
 announcement and order form, 3609
 construction industries, 1967—
 advance industry reports, 2396
 publications order form, 6411
 area statistics, 15550-566
 final area reports, publications order
 form, 15654
 final industry reports, publication order
 form, 10828
 industry statistics, 11997, 13122-143,
 15567-568
 data access descriptions, 13178
 contract block statistics program, census
 geography, 8093
 data tabulation activities, 6436
 do your thing, let's get it together, 1970
 census is what's happening, be counted,
 8096
 fluoridation, 7262
 Governments, 1967—
 final reports, 187
 Government finances, 12039
 reports, 4921
 State reports, 3551-3600, 4922-23
 topical studies, 1308, 3550
 housing, 1970, printed reports, data access
 description, 13178
 manufactures, 1967—
 area statistics, 15569-590, 17497-510
 final industry report, announcement and
 order form, 15613
 industry statistics, 10795-796, 11998-
 12012, 13144-152, 15591-611, 17511-
 534
 preliminary reports, 2397
 special reports, 13153-154
 Mexican Americans, census information,
 6460
 mineral industries, 1963, indexes of pro-
 duction, 15614
 1985 prediction shows an affluent majority
 by 1985 (remarks), 15657
 population, 1970 final reports, number of
 inhabitants—
 announcement and order form, 15615
 microfiche order form, 17166
 number of inhabitants, 17535
 State editions, print additional copies,
 report, 12193
 population and housing, 1970—
 advance reports, announcement and or-
 der form, 15658
 preliminary reports, announcement and
 order form, 10830
 printed reports, 10825
 population 1790-1890, revised price list,
 effective July 1, 1970, of National
 Archives microfilm publications of cen-
 sus records, 17020
 privacy, census and Federal question-
 naire, hearings, 17709
 publications, price list, 11836

Census—Continued

- small-area data notes, 3201
- statistical briefs from around the world (periodical), 3225
- statistics, collection authorization and continuation, report, 5195
- summary tapes, general information, 10824
- tract memo, 2398
- tract papers GE-40 (series), 4929
- transportation, 1967, commodity transportation survey—
 - area series, 6417-34, 9433-45, 8065-74, 10797
 - commodity groups, 10798
 - final volumes, 18155-156
 - shipper groups, 1309-19, 3601-8, 4924-28, 12013
 - final volume, 15616-617
 - national travel survey, 15616
 - truck inventory and use survey, 15617
- use study, ADMATCH users manual, 6435
- who uses the census? 1339
- Census Bureau:
 - catalog, 2376
 - census establishment and IRS corporation data link, 1963 enterprise statistics, 10827
 - fact finder for nation, 13096
 - methodological research, papers and research, list, 152, 13097
 - press releases, 3040
 - publications catalog, monthly supplement, 2377
 - schedule B, statistical classification of domestic and foreign commodities exported from United States, 189, 3175
 - small-area data notes, 3201
 - special censuses conducted, summary, 1331, 4948
 - technical notes, 8100
 - technical papers, 8101-2
 - working papers, 1340, 6461
 - your future with Census Bureau, job opportunities, 9458
- Centenarians, America's social security beneficiaries who reach 100, 7746-47
- Center for Computer Sciences and Technology, technical highlights, 1969 fiscal year, 6006, 10424
- Center for Coordination of Foreign Manuscript Copying, news, 2964
- Center for Disease Control:
 - rubella surveillance, report, 15669
 - salmonella surveillance, annual summary, 15670
- Center for Radiation Research, technical highlights, 1969 fiscal year, 6006, 10432
- Center of gravity, *see* Center of mass.
- Center of mass, centers of gravity of infants, determination, 11977
- CENTO, *see* Central Treaty Organization.
- Centrachidae, food habits of 5 species during filling of Beaver Reservoir, 11891
- Central African Republic:
 - background notes, 15278
 - economic trends and their implications for United States, 7321
- Central America:
 - cotton, 14424
 - nautical charts and publications, catalog, 15051
 - neotropical caddisflies, *Leucotrichia* and related genera from North and Central America, 17274
 - progress and problems in U.S. aid to economic unification, GAO report, 14511
 - west coast, sailing directions, 2171
- Central Arizona project, water for cities, farms, and factories, 9080
- Central Asia, *see* Asia.
- Central Dakota Nursing Home, land conveyance, report, 13638
- Central Gulf Steamship Corp., relief, 15386

Central Intelligence Agency:

- Retirement act of 1964, amend—law, 3755
- reports, 1479, 1689
- Central Lahontan basin, Truckee River sub-basin, soils, 15448
- Central States:
 - cost of transporting freight, 11482-483
 - Forest Tree Improvement Conference, proceedings, 14457
 - fresh fruit and vegetable unloads, in mid-western cities, by commodities, States, etc., 6822
- North Central—
 - climate conditions preceding historically great fires, 12560
 - dietary levels of households, 4816
 - look of our land, airphoto atlas of rural U.S., 17431
 - principal electric facilities, map, 8624
 - pulpwood production by county, 12567
 - veneer-log production and receipts, 12568
- South Central—
 - inland waterways, transportation of mineral commodities, 849
 - principal electric facilities, map, 8627
- Central Treaty Organization, general information, 7817
- Central Valley project:
 - annual report, 9081
 - Black Butte project, include, report, 13484
 - San Luis unit, construction and operation, questionable aspects concerning information presented to Congress, GAO report, 5534
- Centre County, Pa., community profile, 16208
- Centre International de l'Enfance, coordinated growth studies, 1951-68 publications, 8886
- Centrifugal compressors, *see* Compressors.
- Centrifugal force, use to investigate how kerosene is bound to minerals in oil shale, 7499
- Centrifuges, space station centrifuge configuration, stability study and modal analysis, 11654
- Ceramic fibers, *see* Fibers.
- Ceramics:
 - ceramic-metal bore seal development, 14816
 - structural-ceramic failure, effect of surface finishing, 4624
 - welding, techniques, 15084
- CERC, *see* Coastal Engineering Research Center.
- Cerceris, *see* Wasps.
- Cereals, *see* Grain.
- Cereals as food, dry cereals, nutritional content, hearings, 16045
- Cerebellum, *see* Brain.
- Cerebral palsy, *see* Palsy.
- Cerebrum, *see* Brain.
- Ceremonies (military), *see* Military ceremonies, honors, and salutes.
- Ceres (asteroid), heliocentric coordinates, 1928-2000, list 9042
- Cerro Gordo County, Iowa, community profile, 13580
- Certificated air carriers, *see* Air carriers.
- Certificates, plant variety protection, report, 15991
 - see also* types of certificates or subjects involved.
- Certification of air carriers, *see* Air carriers.
- Cerullo, Richard E., review of curve-fitting method of least squares as applied to petroleum engineering, 7459
- Cesium:
 - low-temperature cesium-vapor diode, voltage breakdown, 14852
 - mercury system, liquid metal solutions in, thermodynamic properties, 2112
 - portable cesium irradiator, demonstrations conducted and operation, 1262

INDEX 1970

- Cesium isotopes, cesium-137, problems of distribution and experimental evaluation of permissible levels, USSR study, 8005
- Cetacea :
Soviet cetacean morphology research outlined, 8843
Soviet studies on cetaceans, 5763
- Cetane, *see* Hexadecane.
- Ceylon :
accessions list, Library of Congress American Libraries Book Procurement Center, New Delhi, 2286
background notes, 15279
- Cezairliyan, A., improvements in oscilloscopic measurements in high-speed experiments, 17039
- CFSTI, *see* Clearinghouse for Federal Scientific and Technical Information.
- Chachalaca Trail, Santa Ana National Wildlife Refuge, invites you to take the trip, general information, 2231
- Chaco Canyon National Monument, master plan, 1000
- Chad :
background notes, 17326
Cameroon-Chad boundary, study, 17334
economic trends and their implications for United States, 14643
- Chafers, *see* Beetles.
- Chaffee, Frederic H., area handbook for Japan, 1232
- Chaffee County, Colo., geology and mineral deposits of Poncha Springs, NE quadrangle, 5552
- Chains :
Federal item identification guides, 5305
change, 12392
supply cataloging, supplements, 2592
- Chaire, barbers, Tariff Commission report, 9218-19
- Chalcocite, concentrate, oxidation roasting, 5875
- Chalcopyrite, high temperature enthalpies and entropies, 16923
- Chalfant, James C., central processing dysfunctions in children, review of research, 7619
- Challenge (periodical), 750, 2722
- Challenge for the bold, 15460
- Challenge for the bold in United States Air Force, 11961
- Challenger and opportunity, U.S. maritime industry 1970, 8884
- Challenging career with Maritime Administration, 4394
- Chalmette National Historical Park, master plan, 2162
- Chamber devices :
human motor activity in sealed chambers and during space flight, USSR study, 10273
rotary expansible, classification definitions, 6113
- Chamberlain, Edwin, isothermal compressibility of frozen soil and ice to 30 kilobars at -10°C , 14305
- Chamberlain, George, criteria for aircraft installation and utilization of extinguishing agent concentration recorder, 7970
- Chambers, David H., high-purity zinc and tin by amalgam electrorefining, 872
- Chambers, Joseph R. :
effects of pointed nose on spin characteristics of fighter airplane model including correlations with theoretical calculations, 16967
investigation of lateral-directional dynamic stability of tilt-wing V/STOL transport, 5945
- Chambers County, Ala., community profile, 13881
- Chambers of commerce, civil defense activities, handbook, 148
- Chamis, Christos C., characterization and design mechanics for fiber-reinforced metals, 10407
- Chamise, control of regrowth with phenoxy herbicides, 1881
- Chamiza, *see* Saltbush.
- Champaign County, Ohio, community profile, 13882
- Champaign, Ill. :
preschool program in compensatory education—
academic, 8523
ameliorative preschool program, 4060
- Chancelleries :
Chancery act of 1964, amend, report, 5132
foreign, in D.C., property use for, amend act, report, 5132
- Chanceries, *see* Chancelleries.
- Chanco, Amado G., jr., relief, 12298
- Chandler, Edwin E., water spectrum, 3336
- Chandler, Majorie O., students enrolled for advanced degrees, fall—
institutional data, 9994
preliminary report, 12506
- Chandler, Russell L., relief, 358, 13282, 13606
- Chang, Hsiao-Shu H., use of atomic absorption spectrophotometer for analysis of cement, 10016
- Chang, Ming, relief, 12299, 17593
- Changing patterns, 245
- Changing priorities for 1970's (remarks), 6266
- Changwat Nakhon Phanom, Thailand, *see* Nakhon Phanom, Thailand.
- Channel catfish, *see* Catfish.
- Channels :
capillaries, and porous media, fluid flow under influence of electric field, 4481
cold rectangular, containing warm liquids, analysis by conformal mapping of steady frozen-layer configuration, 4529
dislocation channeling in irradiated metals, 17188
East River, New York, spur channel to Astoria waterfront, engineers report—
departmental edition, 10002
document edition, 9778
15-GHz line-of-sight propagation channels, correlation analysis and scintillation, 10382
flood control channels, hydraulic design, engineer manual, 17919
future of a river, proposed channelization of Arkansas river above John Martin Dam, report, 1034
ionospheric channel model, experimental verification, 4090
magnetohydrodynamic channel flow, variational principle for, 2122
relation of channel geometry to mean annual runoff of selected streams in California, 16646
sediment transport in alluvial channels (series), 4243, 7243, 10177
shallow-water tow-channel results, gas-hydraulic analogy application, 7516
upper and deep sound channel in northeast Atlantic, 15044
why improve, 15254
- Chansler, John F., cacodylic acid field tested for control of mountain pine beetles in ponderosa pine, 11351
- Chapparal :
experimental prescribed burn to reduce fuel hazard, 18021
foliar moisture content, in Arizona, accounting for variation and relating to prescribed fires, 11348
- Chapel Hill, N.C. :
floods, how to avoid damage, 16438
Little, bolln, Booker, and Morgan Creeks, flood plain information, 16420
- Chaplains :
challenge of chaplaincy in United States Army, 15484
Navy chaplains bulletin, 15059
services, PACAF basic bibliography, 15462

Chaplains—Continued

- Veterans Administration hospitals, chaplain service, general information, 12951
- Chaplains, Office of Chief of, Army Dept., historical review, 1227, 17461
- Chapman, Robert M., lode mines and prospects in Fairbanks district, Alaska, 729
- Character guidance, *see* Guidance.
- Characteristics of Federal executive, 246
- Characters (graphic symbols):
 - character recognizers for data display and analysis, 14830
- Charcoal, hickory for charcoal and fuel, 8718
- Charges, *see* Electrostatistics.
- Charitable contributions, *see* Charities.
- Charities, charitable contributions, tax reform, recommendations, summary, 1726
- Charlton County, Mo., community profile, 17766
- Charles Mix County, S. Dak., community profile, 13883
- Charleston, S.C.:
 - buildings, Historic American Buildings Survey, records, 12872
 - principal electric facilities, map, 8628
 - privateers, 1793-96, account of French palatinate, 4666
- Charleston, W. Va., area wage survey, 12711
- Charlotte, N.C., area wage survey, 11543
- Charm, W. B., detailed stratigraphic description of JOIDES cores on continental margin off Florida, 4245
- Charpy-V notch ductility characteristics of neutron-irradiated A 537-B and A350-LF2 steel weldments, 11819
- Charring ablaters, *see* Ablating materials—Ablators.
- Chars:
 - char formation and surface recession of composite ablation material with silicone-resin base, investigation, 16999
 - char oil energy development, interim report, 10851
 - MHD power system burning char with oxygen study, research and development report, 9481
 - phase 2, bench-scale research on CSG process—
 - laboratory physico-chemical studies, 254
 - mechanics of fluo-solid systems, studies, 6487
 - operation of bench-scale continuous gasification unit, 255
 - phenolic-nylon pyrolysis products, thermal cracking on passing through heated char, 8952
- Charters:
 - Federal, consideration, expenses, report, 5223
 - Organization of American States, amendment, protocol, 10616
- Charts:
 - charts for calculating dimension yields from hard maple lumber, 4198
 - Coast and Geodetic Survey, summary list of those for sale, 15704
 - handbook of agricultural charts, 14, 17432
 - medical care dollar, chart book, size and shape, 6172
 - planar linear graphs labeling theorems, contribution to 4-color problem, 4621
 - sold by Superintendent of Documents, price list, 17225
 - see also* Maps and charts—Organization charts—*also* subjects.
- Chase, Clarence D., growing timber resource of Michigan, 14482
- Chase, Helen C., study of infant mortality from linked records, methods of study and registration, aspects, 6017
- Chase, John L.:
 - directory of graduate deans at United States universities, 1872-1970, 11203

Chase, John L.—Continued

- graduate teaching assistants in American universities, recent trends and recommendations, 11229
- Chase, Joseph, oceanographic observations, 1966, east coast of U.S., 1359
- Chase County, Nebr., community profile, 16209
- Chaskells, Henry H., materials and defect simulator for calibrating ultrasonic equipment used in nondestructive testing or inspection, 9059
- Chassahowitzka National Wildlife Refuge, general information, 1127
- Chatham County, N.C., community profile, 12423
- Chattahoochee River, and tributaries, pollution of interstate waters, conference proceedings, 16519
- Chattanooga, Tenn.:
 - air quality control region, Federal facilities air pollution report, 12833
 - area wage survey, 2033
 - interstate air quality—
 - control region, report for consultation, 5993
 - study, 18229
 - principal electric facilities, map, 8628
- Chattanooga shale, *see* Shales.
- Chatters, Roy M., studies on application of radioisotope techniques in stream pollution problems in pulp and paper industry, etc., 6386
- Chautauqua County, N.Y., community profile, 13884
- Chaves, Jesse R., stereocomparatory coordinate reduction, 15137
- Cheat River, W. Va., Rowlesburg Dam, spillway and outlet works, 11257
- Chebyshev polynomials, *see* Polynomials.
- Checker confidence statements affected by performance of initial image interpreter, 9362
- Checklists:
 - business service, 2381
 - State publications, monthly, 2901
 - see also* names of departments, etc., issuing checklists—*also* subjects.
- Checks, personal, to pay postal charges, permit, report, 5255
- Chelan County, Wash., community profile, 6898
- Chelating agents, clinical aspects, therapeutic and diagnostic uses, including reports of their adverse effects, citations from literature search, 17150
- Chemehuevi Indians:
 - judgment funds, disposition—
 - law, 17607
 - report, 15998
- Chemical analysis:
 - chemical analyses and stratigraphic sections of phosphatic rocks of Permian and Mississippian age in Weber County, Utah, 18040
 - chemical continuum of brain as mechanism of reflection of reality, USSR study, 16770
 - chemical quality sampling and analysis by Federal Water Pollution Control Administration at selected sites in Pacific Northwest, Sept. 1968-June 1969, results, 1914
 - instruments, industrial plant equipment handbook, 6849
- Chemical bond, *see* Valence.
- Chemical cartridge respirators, *see* Respiratory equipment.
- Chemical elements:
 - atomic transition probabilities, bibliography, 6004
 - do superheavy elements already exist (remarks), 4895
 - light elements in metals, determination, bibliography of activation analysis papers, 8995

Chemical elements—Continued
 minor and trace elements in meteoritic minerals, 17271
 minor element content of marine black shales and related sedimentary rocks, selected annotated bibliography, 8729
see also Transition elements.
 Chemical equilibrium, *see* Equilibrium.
 Chemical industries, *see* Chemicals.
 Chemical processing plants, *see* Chemicals.
 Chemical reactions:
 chemical-physical studies of clad UO₂ under reactor accident conditions, 9378
 chemically reacting air couette flow with hydrogen injection, diffusion model study, 18224
 epoxy compounds, reactions by radical mechanism, USSR study, 10262
 formation of highly active anticholinesterase compound by reaction of O-pinacoyl-S-beta-ethylmercaptoethylmethylthio-phosphonate with activator TMB-4, USSR study, 4344
 gas phase unimolecular reactions, kinetic data, 8985
 laboratory physico-chemical studies, phase 2, bench-scale research on CSG process 254
 SIXBIT generalized reaction kinetics program, 16463
 sulfide to sulfate reaction mechanism, 11336
see also Kinetics.
 Chemical reclaiming of superalloy scrap, 874
 Chemical solutions, *see* Solutions.
 Chemical warfare:
 chemical and biological warfare, U.S. policies and international effects—
 hearings, 3860
 subcommittee report, 15898
 Chemical weapons, *see* Weapons.
 Chemicals:
 adverse and toxic effects, toxicity bibliography, 3265
 agricultural—
 census of manufactures, 1967, industry statistics, 15600
 registered pesticides, repellants, acaricides, summary of uses, 3383
 automation of chemical production associated with fertilizers, USSR study, 5762
 basic, plastics materials, synthetic, rubber, and fibers, census of transportation 1967, commodity transportation survey, shipper group, 3603
 characteristics of natural water, study and interpretation, 14549
 chemical control of Arizona 5-spined lps, lps lelecontei, Sw, 5502
 chemical data guide for bulk shipment by water, 6495, 10854
 chemical products, census of transportation, 1967, commodity transportation survey, shipper group, 4925
 chemical quality of surface water in Umpqua River basin, Oreg., 7229
 chemical service, custom contact-molded reinforced-polyester chemical resistant process equipment, voluntary product standard, 11743
 chemical treatment of oil slicks, status report on use of chemicals and other materials to treat oil spilled on water, 7170
 chemicals and chemical products—
 Federal item identification guides for supply cataloging, supplements, 2595
 used for DOD laundering, military standard, 559
 trade and tariff information, summaries, 17375
 compounds, authorized for use under USDA poultry, etc., inspection programs, list, 528, 11154
 environmental and chemical hazards, series, 811

Chemicals—Continued
 general agreement on tariffs and trade, supplementary protocol, 15947
 gum and wood, census of manufacturers, 1967, industry statistics, 13150
 hazardous industrial chemicals and materials, symbols for packages and containers, military standard, 16152
 industrial chemical industry, employment outlook, 14719
 industrial chemicals, census of manufactures, 1967, industry statistics, 17521
 industry reports, 2403
 inorganic—
 current industrial reports, 2475, 8083
 industry profile, waste control, economics of clean water, 10098
 investment and operating costs for chemical and petroleum plants, bibliography, 14776
 lethal, open-air testing of, environmental dangers, report, 392
 mineral materials for chemical manufacturing, supply and demand by chemical industry in Ohio River basin, survey, 8897
 miscellaneous chemical products, census of manufactures, 1967, industry statistics, 15601
 new ways of obtaining chemical agents, USSR study, 16803
 noxious substances, feasibility of olfactory coding to assure aversive response in young children, 15755
 nuclear submarine atmosphere purification, chemical research, progress report, 15073
 oil dispersing chemicals, study of composition, properties, and use of chemicals for dispersing oil spills, 7173
 planning in chemical industry, USSR study, 11506
 thermodynamic properties of hydrocarbons and related substances, organic sulfur compounds in ideal gas state from 0° to 1,000°K, 10320.
see also Inorganic compounds—Organic compounds—also names of chemicals.
 Chemistry:
 career in chemistry with Narcotics and Dangerous Drugs Bureau, 10340
 chemical research in solid waste management, needs, 17310
 CO₂ chemical, biochemical, and physiological aspects, symposium, 7525
 East European abstracts, 2517
 high temperature chemistry and physics of materials, bibliography, 958, 7573, 10430
 journal of research, National Bureau of Standards, 2785
 new alchemy chemistry role in rebuilding world (remarks), 10775
 research on artificial and synthetic food, development, USSR study, 4347
 research program, 6394
 series, no. 10-11, 1969, new means of plant protection, USSR study, 5775
 USSR abstracts, 3318
see also Geochemistry—Industrial chemistry—Neurochemistry.
 Chemists:
 career in Narcotics and Dangerous Drugs Bureau, 10340
 pay, national survey, 5822
 Chemotherapy:
 cancer chemotherapy reports (periodical), 2386-88
 daunomycin, fact sheet, 10442
 Chemung County, N.Y.:
 community profile, 13885
 dental care program, under title 19 of social security amendment, analysis, 8763
 Chenango County, N.Y., community profile, 13886
 Cheng, H., analysis and design of 3 gas bearings for high temperature operation, 2068

- Cheraskin, Emanuel, statement, July 22, 1970, hearing, 15916
- Cherkis, Norman Z., glossary of world bathymetric terms and their English language equivalents, 17190
- Cherokee County, Ala., community profile, 13887
- Cherokee County, Iowa, community profile, 13888
- Cherokee County, N.C., community profile, 12424
- Cherokee Indians:
estates of intestate members, disposition—law, 9605
reports, 6606, 8368
notebook of a Cherokee shaman, 9025
Oklahoma, land conveyance to, report, 13482
- Cherokee Strip, in Kansas and Oklahoma, opening to homesteading, establish national park system unit to commemorate, study, report, 9713
- Cherries, freeze dried RTP cherries, reversible compression, studies, 7986
- Cherry blossoms, *see* Japanese flowering cherry blossoms.
- Cherry County, Nebr.:
community profile, 17767
late Miocene nonmarine diatoms from Kilgore area, 16622
- Chesapeake and Delaware Canal, construction, repair, etc., progress report, hearings, 11055
- Chesapeake and Ohio Canal National Monument:
esthetic impact of Potomac Edison Company's high voltage transmission line—
hearing, 8297
report, 9694
- Chesapeake Bay:
basin, comprehensive study, hearing, 3893
legal perspective, 8671
marine weather services, chart, 17412
- Chesler, Mark, planning educational change, integrating the desegregated school, 16401
- Chest, thoracic squeeze episode as possible cause of diving casualty, case report, 5843
- Chester County, Pa.:
community profile, 16210
West Branch Brandywine Creek, Coatesville to junction of East and West Branches, flood plain information, 16434
- Chestnutt, David, effects of inlet-guide-vane configuration and relative blade velocity on noise from axial-flow compressors, 5922
- Cheuk, Shu-Sum, relief, 9807
- Cheyenne, Wyo., Crow Creek, flood plain information, 14311
- Cheyenne County, Nebr., community profile, 16211
- Cheyenne River Sioux Tribe, *see* Sioux Indians.
- Chiang, C. W., analysis of supersonic conical flows, 12815
- Chiaroscuro, woodcuts, "Pembroke" album, 5835
- Chlavetta, Kenneth J., wildlife review, 3362
- Chicago, Ill.:
area wage survey, 2020
aeroradioactivity survey and related surface geology, 17472
Board of Trade, futures trading and open contracts, 2685
census of transportation, 1967, commodity transportation survey, 9433
community action program, effectiveness and administration, GAO report, 1885
comprehensive health services program, effectiveness and administration, GAO report, 1886
concentrated employment program, effectiveness and administrative efficiency, GAO report, 713
Democratic National Convention, 1968, television coverage, subcommittee staff report, 9759
- Chicago, Ill.—Continued
fresh fruit and vegetable prices, 10707
interstate air quality control region, report for consultation, 14904
large commercial banks, weekly condition report, 3350
metropolitan, air quality control region, Federal facilities, 8957
metropolitan area, flood hazard mapping, 5546
Neighborhood Youth Corps program, effectiveness and administrative efficiency, GAO report, 714
occupational health survey of metropolitan area, 8559
O'Hare International Airport, climatological summaries, 2251
principal electric facilities, map, 8623
student health project, 1968 summer, Student Health Organization of Chicago student health project, 8772
Students for a Democratic Society, activities, hearings, 9749
- Chicago and North Western Ry., accident report, 17236
- Chicago, Milwaukee, St. Paul and Pacific RR., accident investigation, summary report, 10062
- Chickamauga and Chattanooga National Military Park:
lands, acquisition and disposal—law, 1409
reports, 368, 1658
- Chickasaw County, Iowa, community profile, 13889
- Chickasaw County, Miss., community profile, 16212
- Chickasaw Indians:
correspondence of Secretary of Treasury relating to administration of trust funds ("S" series), pamphlet to accompany microcopy, 4541
estates of intestate members, disposition—law, 9605
reports, 6606, 8369
- Chickens:
broiler marketing guide, 1750, 5292, 12388, 16095
bruise rates on broilers before and after handling by live bird pickup crews, determination, 6
commercial broilers, production and weekly placements, 7840
feeding experiments, radiation-pasteurized clams, studies on chronic animal feeding, final report, 8025, 9403-4
layers and egg production, 6255
mycoplasma gallisepticum infection, control and eradication, guidelines, 3377
production, disposition, cash receipts and gross income, 1968-69, by States, 9208
production, etc., monthly report, 2527A
pullet chicks for broiler hatchery supply flocks, 3114
radiopasteurized, microbiological aspects, quarterly reports, 1255-60, 3491-92
tested by official State agencies, monthly report, 3297
traits of chickens, estimates of heritabilities and of genetic and phenotypic correlations, errata, 6299
- Chicopee, Mass., census of transportation survey, 1967, commodity transportation survey, production, area series, 6418
- Child care, *see* Children.
- Child development, *see* Children.
- Child Development Office:
establish, hearings, 11031
manuals, 738
publications, list, 15671
- Child health, *see* Children.
- Child labor:
agricultural, harmful, prohibit, hearings, 16071
agriculture, requirements under Fair labor standards act, 11935

INDEX 1970

Child labor—Continued
bulletin, 11935
working children, 1969 report, 17409
Child life, *see* Children—Clearinghouse for Research in Child Life.
Child Nutrition, National Advisory Council on, *see* National Advisory Council on Child Nutrition.
Child study, *see* Children.
Child welfare, *see* Children.
Childhood, *see* Children.
Children:
aid to families with dependent children—
cost standards for basic needs and percent of standards met, 6021
financial assistance, provide basic level—
bill form, 11117
brief summary of act, 13548
hearings, 8319, 9905
related material, 13727
reports, 8227, 8252
revision as resubmitted by Administration, 11118
findings, data by State and census division, demographic and program characteristics, 1967 study, 17052
material related to Administration revision, 17697
work and training provisions, 17698
New York City, report of findings of special review, 8329
public assistance money payments, 17053
services under Social Security act, annual report, 15952
study, 1969, preliminary report, 11758
welfare policy and consequences for recipient population, study of program, 7743
ameliorative preschool program, Campaign, Ill., preschool program in compensatory education, 4060
awakening effects of simulated sonic booms and subsonic aircraft noise on 6 subjects, 7–12 yrs. of age, 10362
battered child, bibliography, 232
benefits for people disabled since childhood, 7752
books, 1969, list, 7439
central processing dysfunctions, review of research, 7619
child care—
income tax deduction, 781
services provided by hospitals, 11940
child care and guidance, suggested post high school curriculum, 11202
child care and rearing, birth to middle teens, Government publications, list, 7715
child care arrangements of AFDC recipients under work incentive program, 7586
child development, publications, price list, 10517
child health and human development, progress 1963–70, report, 18264
child health programs, improve, hearings, 16050, 17700
Child nutrition act of 1966, amend—
laws, 6539, 10909, 12121
reports, 5200, 5251, 9666, 9844
child nutrition programs, 6313
handbook for volunteers, 10109
Child protection act of 1969, law, 3727
children and poetry, bibliography, 824
children of divorced couples, U.S. selected years, 6018
children's and young adult services in public library systems serving from 100,000 people, coordinators, 1970 directory, 14277
Comprehensive preschool education and child day-care act of 1969, hearings, 11031

Children—Continued
dependent, of unemployed parents, aid to families, 3304
disadvantaged—
afternoon remedial and enrichment program, Buffalo, N.Y., 4051
education, evaluation of title 1, Elementary and secondary education act, 14280
expanded language arts, Buffalo, N.Y., 5358
follow through programs, 1969–70, Federal funds, 583
homework helper program, New York City, 5351
language stimulation program, Auburn, Ala., preschool program in compensatory education, 5355
performance contracting experiment, on improving education background, 13823
Plus Program, Buffalo, N.Y., elementary program in compensatory education, 4054
preschool, Project Early Push, Buffalo, N.Y., compensatory education program, 5356
education in federally affected areas, 1969 annual report, 5342
fire! fire! look out! it burns! 1341
food for children in pre-school centers, in summer programs, 7178, 16530
food for families with young children, 10685
food service programs under National school lunch act—
meals for needy children, provide temporary emergency assistance—
law, 6539
report, 5251
strengthen and improve—
law, 10909
reports, 5200, 9666
growth, coordinated studies, 1951–68, Centre International de l'Enfance publications, 8886
handicapped—
better education, annual reports, 575, 14275
better education program, 16389
breakthrough in early education, 4049
early education assistance act, policies and procedures, supplement, 4059
education, personnel preparation, guidelines for obtaining grants by State agencies, universities, etc., manual, 16402–403
education, scholarship program, summer 1970, 1970–71 academic year, 7025
Headstart centers, impact on community institutions, national survey, 16648
summary report, 16649
Headstart child development act of 1969, hearings, 6811
Headstart child development program—
expanded hearings, 6811
policies and instructions, manual, 733
health services, social security benefits, 5840
hearing levels of children by age and sex, United States, 6016
Indian, attending public schools constructed in school districts adjoining or in proximity of Indian reservations, provide proper housing and educational opportunities, 9870
interdisciplinary journal for professions serving children, 2404
Learning to Learn Program, Jacksonville, Fla., preschool compensatory program, 4061
learning to talk, speech, hearing, and language problems in pre-school child, 6051

Children--Continued

- mentally retarded--
 - children of members of Armed Forces, health care cost-sharing arrangements, prescribe, amend U.S. Code, hearing, 3853
 - clinical programs, listing, 10312
 - reading suggestions for parents, 13185
- Mexican-American, Los Angeles, Calif., Malabar reading program, elementary program in compensatory education, 4053
- minimal brain damage in children, report, 10536
- minimal brain dysfunction in children, educational medical and health-related services, 11844
- obscene material sold or offered to minors, exclude from U.S. mails as nonmailable, hearings, 3884
- pediatric pharmacology conference, proceedings, 5474
- people power for children, 14292
- preprimary enrollment, 14293
- trends of children under six, 8522
- preschool, discipline and self-control, program manual and study guide, 4952
- preschool program in compensatory education--
 - Fresno, Calif., 11238
 - New York City, 7020
 - Oakland, Calif., 7021
- Project Headstart--
 - child development program, 10836
 - manual of policies and instructions, 738
 - evaluation studies, report, 742
- Head Start to confidence, program manual and study guide (for film also), 3651
- newsletter, 2707
- nutrition education for young children, guide for teachers and aides, 741
- recruitment and selection for child development center, 740
- series, 740-741
- protection from hazardous substances by child resistant packaging--
 - hearings, 3962, 13527
 - report, 9847
- recruitment and selection for child development center, 740
- research programs, studies in progress, 13184
- School children's assistance act, hearings, 5156
- school fluoridation, new protection for child's smile, 3770
- services to AFDC families, annual report to Congress, 17571
- sex-oriented mail, protection of minors and rights of privacy--
 - hearings, 13530
 - reports, 6624, 9655, 13439
- social services for families and children, 18241
- special milk program, extend, law, 12121
- six-hour retarded child, conference report, 9071
- sons and daughters of deceased or disabled veterans, educational assistance information, 11933
- special milk program, extend, report, 9844
- success in early counseling, 14276
- talking books for very young readers, 14756
- television programs (address), 16478
- visual acuity, health statistics, 6015
- women by number of own children under 5 years old, Mar. 1969 population characteristics, 12035
- years 6-11, school achievement as measured by reading and arithmetic subtests of wide range achievement tests, 14935

Children--Continued

- young, feasibility of olfactory coding of noxious substances to assure aversive responses, 15755
- your child and Teacher Corps, 9998
- see also Adoption--Child labor--Day care of children--Orphans.
- Children and Youth, Interdepartmental Committee on, see Interdepartmental Committee on Children and Youth.
- Children's Bureau:
 - Chief, nomination of Edward F. Zigler, hearing, 11120
 - folder series, 13182
 - publications, 233, 1341, 13183
- Children's clothing, see Clothing.
- Children's literature, subject headings, 826
- Childs, A. Gary, method for computing external maximum range thrust limited rocket trajectories with application to lunar transport, 16986
- Childs, Dana P., temperature, moisture, and relative humidity of stored tobacco, 10678
- Childs, Rex E., guidelines for poultry processing plant layouts, 10690.
- Childs, T. W., laminated root rot of Douglas-fir in western Oregon and Washington, 18025
- Chile:
 - agricultural prospects, report, 8502
 - economic trends and their implications for United States, 4314, 14633
 - foreign trade regulations, 10875
 - mineral industry, minerals yearbook chapter, 4421
 - national hydrologic data system, design and development, 14531
 - Peru-Chile trench, presence of Ostracoda (Myodocoppina), 6158
 - population, estimates and projections, 1961-1991, 225
- Chiles, W. Dean:
 - methodology in assessment of complex human performance effects of signal rate on monitoring dynamic process, 3516
 - methodology in assessment of complex performance, effects of signal rate on monitoring static process, 8037
 - effects of alcohol on complex performance, 6404
 - effects of 2 common medications on complex performance, 6402
- Chilocco Indian School, Indian School Journal (periodical), 2740A.
- Chilton County, Ala., community profile, 13890
- Chimneys, and fireplaces, general information, 15415
- China:
 - Amerasia papers, clue to catastrophe, 8414-15
 - coast, sailing directions, change, 4608
- Communist--
 - Chinese People's Republic hostility toward USSR, socialist nations, 16809
 - discussion guide issues, 7813
 - education of national minorities, 14279
 - international negotiation, when academic door to Peking opens, memorandum, 11126
 - mainland, mineral industry, minerals yearbook chapter, 14785
 - mainland, rare-element mineral deposits, 11388
 - Peking's approach to negotiation, selected writings, print additional copies, report, 9826
 - railroad passenger timetable, 1990
 - scientific abstracts, 2430
 - translations, 3270
 - U.S. foreign policy, issues, 4724
- records of State Department, pamphlet accompanying microcopy, political relations, 1910-29, with other States, 11722

China—Continued

- Republic—
 - air transport services, agreement, 4743
 - capsule facts for Armed Forces, 74
 - economic trends and their implications for United States, 7327, 16723
 - language and area studies, agreement, 1158
 - naval vessel loans, extend—
 - hearing, 16037
 - reports, 5123, 6617
 - Sino-American Fund, economic and social development, agreement, 17343
 - U.S. security agreements and commitments abroad, hearings, 11125
 - Sino-Soviet stepped-up hostilities poses threat to U.S. security, hearing, 11134
- Chindgren, C. J., construction and testing of junk auto incinerator, 7500
- Chinese crewmen, deserters, requests for private immigration bills, allegations of Senate bribery, investigation, report, 11002
- Chinese language, character grammars, component combination and frame-embedding, 4553
- Chinle formation:
 - ferns from Upper Triassic period in Fort Wingate area, N. Mex., 5550
 - upper Triassic, upper part and related rocks, southeastern Utah and adjacent areas, 10180
- Chinn, Yau Ming, relief, 5046
- Chinook salmon, *see* Salmon.
- Chintz, trade goods, Indian chintz in collection of Cooper-Hewitt Museum of Decorative Arts and Design, study, 12917
- Chlocco, Michael J., midship wave bending moments in model of cargo ship Wolverine State running at oblique headings in regular waves, 1086
- Chippers (tools), tool forces and chip formation in orthogonal cutting of loblolly pine, 11364
- Chippewa Indians, Lac du Flambeau Band, land, hold in trust, report, 9822
- Chiroprodists, podiatrists, employment outlook, 12673
- Chiroprody:
 - Health training improvement act of 1970—
 - hearings, 9924
 - report, 13651
- Chiropractors, employment outlook, 12674
- Chiton tuberculatus Linne, *see* Chitons.
- Chitons, Caribbean, Acanthopleura granulata Gmelin and Chiton tuberculatus Linne, ecology, density, mortality, feeding, reproduction, and growth, 12775
- Chittagong, East Pakistan, port, economic analysis of proposed reconstruction of jetties 1 through 6, final report, 8264
- Chlorides, thermionic converter with chloride vapor deposited tungsten emitter (110), characteristics, 18192
 - see also* chlorides by name, e.g. Lithium chloride.
- Chlorinator, aerofeed hypochlorinator, series WF, evaluation, 14434
- Chlorine:
 - aluminum chlorine battery, 10349
 - water chlorine, residual, report of study, 1815
- Chocolate, *see* Confectionery.
- Choctaw County, Ala., community profile, 13891
- Choctaw County, Miss., community profile, 16213
- Choctaw Indians:
 - estates of intestate members, disposition—
 - law, 9605
 - reports, 6808, 8368
 - tribal assets, final disposition, repeal act of Aug. 25, 1959—
 - law, 15776
 - reports, 10978, 18702

Cholera:

- antigens of vibrio cholerae, USSR study, 16788
- epidemiology and prophylaxis, USSR study, 18097
- laboratory diagnosis, USSR study, 18100
- urgent problems in epidemiology and prevention, USSR study, 16749
 - see also* Hog cholera.
- Cholesterol serum, diet and regulation of, Framingham study, 7620
- Cholinesterase:
 - anticholinesterase compound, highly active, formation by reaction of O-pinacolyl - S - beta - ethylmercaptoethyl - methylthiophosphonate with reactivator TMB-4, USSR study, 4344
 - inhibited, how degree of reactivation is affected by structure of organophosphorus inhibitors, USSR study, 16781
- Cholinesterase inhibitors, *see* Anticholines-terase.
- Chou, Y. S., thin radiating shock layer about blunt body, 7517
- Chow, Hubert K., Mossbauer effect spectrometry for analysis of iron compounds, 10760
- Chowan County, N.C., community profile, 12425
- Chrysler, Donald, world agricultural situation, 1969 review and 1970 outlook, 5341
- Christensen, Jay V., hardware simulation of lunar midcourse navigation system using statistical filter theory and hand-held sextant observations, 927
- Christian County, Mo., community profile, 16214
- Christiansted National Historic Site, general information, 995
- Christmas, 6-cent commemorative postage stamps (posters), 17208-209
- Christodoulou, A. P., parametric economic and engineering evaluation study of electrodialysis process for water desalination, 1954
- Christopher, Joe F., growth components of Mississippi forests, 11360
- Chromite:
 - refractory grade, disposal from national and supplemental stockpile—
 - law, 12151
 - reports, 6635, 6744, 11011
- Chromium:
 - chrome plated steel and steel parts heat treated to 180,000 psi or over, grinding, military standard, 1777
 - chrome tannery wastes, activated sludge treatment, pilot study of treating combined chrome tannery wastes and domestic sewage, 5471
 - mineral industry survey, monthly, 2405
 - minerals yearbook chapter, 18142
 - U.S. resources, availability, 8901
- Chromium carbide, mass spectrometric determination of dissociation energy, 7547
- Chromosomes, mutations induced by space-flight factors in barley seeds during circumlunar flights of automatic stations Zond 5 and Zond 6, USSR study, 5792
- Chromosphere, *see* Sun.
- Chrysanthemums:
 - growing in home garden, 15419
 - production and sales, etc., 7842
- Chrysotile, *see* Asbestos.
- CHScene, notes from Community Health Service, 13248
- Chub, hot-smoked, guidelines for processing, 6522
- Chudnoff, M., preservative treatments and service life of fence posts in Puerto Rico, 14470
- Chukars, *see* Partridges.
- Chum salmon, *see* Salmon.
- Churches, active church in today's problems (remarks), 9982

Churchill, Norman J., soil survey of Fulton County, Pa., 4693

Churkin, Michael, Jr., early Silurian graptolites from southeastern Alaska and their correlation with graptolitic sequences in North America and Arctic regions, 10183

CI series, 9131, 15196

Clarocchi, Joyce D.:
index to passenger lists of vessels arriving at Baltimore—
city passenger lists, 1833-66, 14911
Federal passenger lists, 1820-97, 17025
passenger lists of vessels arriving at Boston, 1820-91, 11719

CICAR (Cooperative Investigation of Caribbean and Adjacent Areas), *see* Caribbean area.

Cider, apple, making and preserving, 11948

Cifelli, Richard, distribution of planktonic Foraminifera in vicinity of North Atlantic current, 7733

Cigarettes:
advertising on television, prohibit—
hearing, 496
law, 8181
reports, 1652, 6614

Labeling and advertising act, amend—
hearing, 496
law, 8181
reports, 1652, 6614

Public health cigarette smoking act of 1969—
hearing, 496
law, 8181
reports, 1652, 6614

smoking, public health protection, etc.—
hearing, 496
law, 8181
reports, 1652, 6614

smoking habits, changes between 1955-66, 10448

tar and nicotine content by brand names, list, 7592

Cigars, tax rates on large cigars, adjust, report, 13398
see also Tobacco.

Cincinnati, Ohio:
area wage survey, 11533
census of transportation, 1967, commodity transportation survey, production, area series, 6425
principal electric facilities, map, 8623

Cinnabar ores, electrolytic oxidation for mercury recovery, 12750

Ciompi, L., comprehensive review of gerontopsychiatric literature in postwar period, 1050

Circuit Courts of Appeals:
circuit executive, provide for appointment for each judicial circuit, hearing, 13533
judge, nomination of William E. Miller, report, 11068

Circuits:
electronic circuit designs for space vehicles, control, 12825
electronic, handbook, change, 4633
frequency dependent, automated fault diagnostics by correlation and variance techniques, 5878
ground plane printed circuit boards by refracted photographic method, 122
integrated—
metalization system for, 11687
multilevel large scale, failure modes, study, 12763
metal-dielectric-semiconductor integrated logic circuits set for automation and telemechanics systems, USSR study, 16780
parameters to be controlled for specification of microcircuits, military standard, notice, 16151
phase interpolation circuits for scanning phased arrays, 14854
quasi-optical circuit techniques in varactor multipliers, study, 2080

Circuits—Continued
silicon microcircuits, fabrication by neutron transmutation doping, final report, 9397

Circulars, *see* names of departments, etc., issuing circulars.

Circulation of blood, *see* Blood.

Circulation of money, *see* Money.

Circulators, ferrite circulators, USSR study, 5742

Circulatory system, *see* Cardiovascular system.

Cirripedia, *see* Barnacles.

Citations, *see* Law.

Cities and towns:
area travel survey, census use study report to help plan transportation facilities for urban areas, 15619
area wage surveys, occupational earnings—
interarea pay compensation, and wage trends, 14665
supplementary provisions, 7422
balanced community (address), 4286
books about cities, bibliography, 1925
capital improvements programming in local government, 751
census, 1967, local government, metropolitan areas, 4921
census, 1970, availability of place of work, data access description, 3645
census data interests of local agencies, census use study, 8076
Central Arizona project, water for cities, 9080
citizen and business participation in urban affairs, bibliography, 8779
climate, survey of recent literature, 14902
communities in action, antipoverty program (periodical), 2431
community action program, traffic safety guide, 17075
community environmental management series, 5376, 7044, 11259
community organization, identification of leaders, and their involvement in planning process, 7044
community planning for nursing in South Dakota, source book, 986
community solid waste practices, 1968 national survey—
Delaware, New Jersey, New York, 17308
Pennsylvania, 17309
commuter and municipal income tax, background paper, 10676
comprehensive planning assistance in small community, 1926
consumer price index, city average, 2447
coordinators of children's services and young adult services in public libraries serving from 100,000 people, 1970 directory, 14277
design for regenerating a city, 7009
developing new communities, application of technological innovations, 8780
drug abuse prevention, community program guide, 8919
EDA, building communities with jobs, 16162
environmental and sociological quality of urban life, hearings, 13501
erosion and sediment control in urban areas of Northeast, guidelines, 9143
estimated retail food prices by cities, 2548
extending scheduled airline service to smaller communities (remarks), 1343
Federal aid programs (address), 9968
Federal aid to communities, simplifying, report of interagency program, 8045
Federal housing and urban development programs, description and progress report, 6762
financial assistance to small towns, water systems sanitary sewer systems, solid waste disposal, 9315

INDEX 1970

Cities and towns—Continued

Government finances, 13179
 highway activities, 1967, municipalities of 50,000 or more population, annual report, 10524
 housing and urban development act of 1965, amend—
 hearings, 11028
 reports, 12232, 13457, 16017
 housing and urban development trends (periodical), 2720
 hydrologic effects from urbanization of forested watersheds in Northeast, 10131
 "I like it here", small town America, film-strip, 16675
 impact on community, experimental and demonstration programs for disadvantaged youth, 7407
 income taxes on Federal employees, withholding by Federal Government, authorize, report, 9715
 inner city—
 PHLBB, proper role (speech), 5418
 housing, financing, hearings, 5149
 Negro youth in job training project, 4364
 joint municipal and semichemical pulping waste treatment, 663
 land planning and community development, resource data on soils, Creswell area, Oreg., 15228
 local government finances in selected metropolitan areas, 15655
 low-income areas, 7 cities, 1969, food prices before and after distribution of welfare checks, 15438
 statistical summary, 17745
 major metropolitan market area for foreign visitors, 17394
 mass transportation program—
 Federal financial assistance, increase—
 hearings, 490, 9898
 report, 1696
 long-term financing—
 hearings, 8281
 report, 12233
 metropolitan airport system, planning, 15484
 metropolitan areas, statistics, 9456
 model cities—
 Assistant Secretary for organization and functions of office at HUD, handbook, 16663
 build management capacity to effectively use shared revenues (address), 744
 planning and evaluation—
 sample work plan for first action year, 14580
 workbook for 1st work year, 16677
 step towards new Federalism, 15121
 model cities program—
 addresses, 1922, 1942
 extend—
 law, 3737
 reports, 3821, 15878, 16026
 questions and answers, 18062
 usefulness to the elderly, hearings, 6784
 municipal waste treatment plants, need for improved operation and maintenance, Federal Water Quality Administration, GAO report, 14505
 nature downtown, guide for urban beautification, 17317
 need for community involvement in career development program (address), 5605
 new communities, bibliography, 5606
 new communities to plan and build (address), 5595
 new industry, how to improve your community by attracting, 11188
 nutrition and human needs, urban crisis, hearings, 13756
 organization of biological systems and hypothesis of breakout of species in community, USSR study, 12635

Cities and towns—Continued

population of United States by metropolitan-nonmetropolitan residence, 6440
 powdered carbons for waste water treatment, methods of application, 14414
 precipitation, persistence at 108 cities in conterminous United States, 14344
 preliminary community and regional water supply data in support of desalting plant projections, 5628
 recruitment and community penetration, experimental and demonstration programs for disadvantaged youth, 7411
 resource planning and development, rural-urban, 2228
 retirement communities, economics of aging, toward a full share in abundance, hearings, 9885
 sediment problems in urban areas, 14526
 small businessmen's problems, hearings, 11061, 13544
 socioeconomic aspects of mining in selected cities, urbanization and surface mining, Atlanta, Ga., 12741
 sources of community support for Federal programs serving older Americans, hearings, 17686
 State and community highway safety programs, local participation, 4563
 State urban information and technical assistance services, 1st 6 months, report, 11418
 States and urban crisis—
 Air Force Academy Assembly, final report, 15451
 Air Force Academy Library bibliography, 3430
 statewide community organization for the aged, project report, 12959
 storm water pollution from urban land activity, concentrations and loads, investigation, 18002
 T.W.O.'s model cities plan, 6467
 transportation planning programs, urbanized area directory, 17969
 transportation resource allocation study (TRANS), summary report, development of prototype model, 15138
 trends in social and economic conditions in metropolitan and nonmetropolitan areas, 15648
 urban affairs, study—
 authorization, report, 5242
 expenses, report, 3934
 urban America and federal system, 4
 urban area traffic operations improvement program, Transportation Dept., report, 12289
 print as Senate document, report, 12354
 urban areas—
 economic problems, grassroots hearings, 8278
 retired couple, 1967-68, 3 budget levels, 8863
 urban beautification and improvement program, 14583
 urban crisis—
 bibliography, 6042
 cannot be separated from solutions for rural decline (remarks), 5608
 urban development effects on direct runoff to East Meadow Brook, Long Island, N.Y., 5553
 urban employment survey, reports, 8875
 urban property, FAIR plan, fire and extended coverage insurance, 8781
 urban renewal program, eliminate causes of lead-based paint poisoning, provide Federal assistance, hearings, 13502
 urban sprawl and flooding in southern California, 5545
 urban studies series, poverty area profiles, working age population, 7436
 Urban terrorism prevention act, hearings, 17706

Cities and towns—Continued

urban traffic data used to calculate future carbon monoxide emissions and concentrations, 17016
 urban transportation planning system 360—
 general information and introduction, 11840
 program documentation, 15136
 urban universities, rhetoric, reality, and conflict, 11247
 urban wage earners and clerical workers, consumer price index, 4385
 wages and related benefits, U.S. and regional summaries, 4373
 water as urban resource and nuisance, 11389
 water for cities, outlook, 4233
 water in urban environment (series), 5545-46
 your Agriculture Department, how it serves people on farm and in community, nation, world, 9317
see also Employment—Redevelopment (city planning, etc.)—*also* subjects.
 Citizens Advisory Committee on Environmental Quality, report, 7706
 Citizen's Advisory Council on Status of Women, endorsement of equal rights amendment to U.S. Constitution, 14591
 Citizens of United States:
 citizen and business participation in urban affairs, bibliography, 8779
 citizen involvement and responsive agency decision-making, responses to questionnaire, 8421
 customs hints for returning residents, know before you go, 8452
 departures, statistical summary and analysis, 3230
 employed in U.S. possessions, tax guide, 5669
 foreign tax credit for U.S. citizens and resident aliens, 5644
 taxpayers abroad, questions asked, 1961
 Citizenship:
 becoming a citizen series—
 our American way of life, 10216
 our Government, 16684
 our United States, 764
 teacher's guide, 1945
 Federal textbook, English, home, and community life, home study course for helper, 16685
 Federal textbook on citizenship, 755, 1946, 16686
 our Constitution and Government, 4291-92
 naturalization during period preceding general election, amend act—
 law, 1401
 report, 1629
 publications, price list, 18307
see also Naturalization.
 Citizenship Day, bulletin, 14584
 Citrus fruit:
 California, tests of overseas shipments, interrelations between fruit condition, biphenyl content, transit temperature, delayed loading, and biphenyl pad placement, 26
 Florida citrus, evaluation of various types of disposable pallets for handling and transporting, interim report, 9280
 forced-air precooling on moving conveyor, 9279
 foreign agriculture circulars, 2657
 fresh, Florida, shipment specifications, 8584
 processing in Brazil, 8680
 production, use, value, by States, 4757
 quality, effects of maturity changes on nondestructive measurements, 7946
 research conference, program and abstracts of papers, 6294

City planners:

urban planners, employment outlook, 14684
 VISTA architects and planners, general information, 5333
 why not be an urban planner? careers for women, 17416
 City planning, *see* Redevelopment (city planning, etc.)
 Civil aeronautics, *see* Aeronautics.
 Civil Aeronautics Board:
 air mail rate authority, hearings, 9757
 annual report, 1342
 applications, etc., filed with CAB, 2338
 appropriations, 1970—
 hearings, 1701
 law, 3742
 report, 1468
 appropriations, 1971—
 hearings, 8269
 report, 9719
 careers for—
 accountants and auditors, 15672
 economists and transportation industry analysts, 16673
 Member, nomination of Secor D. Browne, hearings, 495
 orders, 2995
 press releases, 3041
 regulations, 238, 3137, 8107
 relationship to environmental problems (remarks), 15676
 special regulations, 10838
 United States air carriers, list, 15674
 weekly summary of orders and regulations, 3354
 Civil affairs, operations, Army field manual, 1215
 Civil Air Patrol, civil defense programs, 6466
 Civil aircraft, *see* Aircraft.
 Civil aviation, *see* Aeronautics.
 Civil defense, *see* Civilian defense.
 Civil defense management for sewage systems, industrial civil defense handbook, 4956
 Civil Defense Office:
 annual report, 6462
 annual statistical report, 4955
 appropriations, 1971, hearings, 8271
 FG series, 242, 3655, 6465, 8112, 9460, 10841-842
 information bulletin (periodical), 2743
 leaflets, 6466, 8113, 10843, 12044, 13190, 15681
 miscellaneous publications MP series, 12045-46, 13191-192
 motion picture catalog, 12045
 publications index, 13191
 Staff College, Battle Creek, Mich., catalog, 13192
 technical reports, 4960, 9461, 15682
 Civil disturbances, *see* Riots.
 Civil Engineer Corps, Navy, former line officers, payment of severance pay, correct inequity, report, 10966
 Civil engineering:
 basic criteria, Naval Facilities Engineering Command, design manual, changes, 7664
 fire protection, Air Force manual, 15455
 general, resources and work force management, Air Force manual, change, 9335
 general maintenance of permanently installed storage dispensing systems for petroleum and unconventional fuels, Air Force manual, 15454
 Civil engineers:
 Air Force civil engineer (periodical), 2314
 Navy civil engineer (periodical), 2944
 Civil, industrial, and agricultural buildings, USSR, 10271

INDEX 1970

Civil procedure:
 Customs Court, judicial machinery, improve—
 hearings, 1732, 6722
 law, 10081
 reports, 1661, 8261
 District Courts, rules, as amended, 11053
 Federal rules of appellate procedure, with forms, 11052
 rules, for District Courts, amendments, proposal, 9619
 sovereign immunity, judicial review of certain administrative agency action, hearing, 13750
 Civil Reserve Air Fleet, military airlift, subcommittee report, 11024
 Civil rights:
 act of 1964, amend—
 hearings, 15893
 report, 15858
 title 6, HEW organization, policies and compliance procedures, development under act, report, 4961
 act of 1968, Indian bill of rights, amendments, hearing, 16065
 acts of 1957, 1960, 1964, 1968, compilation, 427, 11049
 civil rights digest (periodical), 2406
 Federal enforcement effort, report of Commission on Civil Rights, 15683
 for all people, by all people, summary of report, 3656
 for free men in a free world, survey of human rights in United States, 1142
 legal rights of the disabled and disadvantaged, 6164
 Mexican-American problems, Civil Rights Commission, hearing, 3659
 national conference of Statistical Reporting Service, 17367
 see also Privacy.
 Civil Rights Commission:
 appropriations, 1970—
 law, 3738
 report, 472
 appropriations, 1971—
 hearings, 8270, 13708
 increase, authorization reports, 13433, 13654
 reports, 9686, 15990
 waive points of order, report, 9688
 Clearinghouse publications, 3656, 4961, 5462
 urban series, 3657, 6467
 general information, 13193
 hearing, 3659
 Civil service:
 adverse action, law and regulations, FPM manual supplement, 2609
 annuitants—
 age and sex characteristics in relation to social security, 17279
 health insurance premium charges, gradually increase Government's contribution, and then assume total payment, hearings, 8314
 voluntary income tax withholding tables, 15701
 annuitants, health benefits insurance, bi-weekly Government contribution, increase—
 law, 15802
 reports, 15839, 16004
 best opportunities for Federal employment, 10846
 biological and agricultural sciences, professional careers with Federal Government, 17556
 career directory, etc., guide, 9466
 career opportunities—
 aerospace technology positions with NASA, amdt., 8114
 auditing, Army Audit Agency, 17471
 Commerce Department, 12057
 computer specialists, 244

Civil service—Continued
 career opportunities—continued
 expanding opportunities, women in Federal Government, 9473
 General Accounting Office, secretarial careers, 16587
 go Government, 3669
 Government Printing Office, 7257
 health careers, 1049
 human equation, working in personnel for Federal Government, 3668, 9472
 lawyers in public practice, 6483, 15693
 rehabilitation therapists in Veterans Administration, 1183
 VA hospitals and offices, technical clerical, & trades careers, 18399
 veterans, 13201
 Veterans Administration, count your benefits as an employee, 7893
 VISTA lawyers, 5332
 United States Information Agency, cross-cultural communication, 2278
 civil service journal, 2407
 employee-management relations, improve, hearing, 1744
 employment under executive assignment system, 2605
 equal opportunity in Federal employment, newsletter, 2544
 evaluation of employees for promotion and internal placement, 2606
 examination announcements—
 accountant, 15684
 amendment, 8118
 agricultural commodity grader (meat), 1344
 agricultural research scientists, discontinuance notice, 8121
 air traffic control specialists, 3467
 aircraft mechanic, journeyman and junior levels, amendment, 3661
 apprentice—
 mechanical trades, 9464
 printing crafts—
 amendment, 8117
 compositor, bookbinder, pressman, machinist, lithographer, photo-engraver, 3662
 audiology, speech pathology, professional careers, amendment, 8116
 auditor, amdt., 8118, 15684
 biological sciences, discontinuance notice, 8121
 border patrol agent, 15685
 clerk, amendments, 3660, 6472
 computer technician, computer operator, computer specialist, discontinuance notice, 248
 current, 1347, 4966, 8119, 10847, 13197A
 Washington, D.C., metropolitan area, 247, 3664, 4967, 8120
 dental auxiliaries, 4964
 educators and librarians, amendment, 1345
 engineers, amendment, 6471
 entomologist, discontinuance notice, 8121
 Federal service entrance examination, 1349, 17550
 attachment, 17551
 firefighter amdt., 13195
 forester, discontinuance notice, 8121
 hearing examiner, 12052
 immigration patrol inspector, 3663
 internal revenue agent, amdt., 8118, 15684
 junior Federal assistant, special test, 9478
 librarian, Veterans Administration installations, discontinuance, 3665
 management auditor (GAO), amdt., 8118
 medical technical assistant, 1356
 nursing assistant, amendment, 8115

Civil service—Continued

examination announcements—continued
 pathologist, forest and forest products,
 discontinuance notice, 8121
 plant-quarantine inspector, discontinu-
 ance notice, 8121
 radio broadcast technician, amendment,
 6469, 10844
 range conservationist, soil conservation-
 ist, soil scientist, discontinuance
 notice, 6471
 research forester, and forest products
 technologist, discontinuance notice,
 8121
 salary supplement, 1354
 scientists, amendment, 6471
 social scientists, 9477
 substitute clerk-carrier, Post Office,
 1355
 amendment, 4962
 revision, 6486
 summer employment for juniors in
 veterinary medicine, 17557
 technicians in engineering and physical
 science, 6473
 amendment, 13196
 technical assistant, 15699
 trades and crafts, equipment operation
 and repair—
 automotive mechanic, amendment,
 12047
 blue collar workers, amendment, 9463
 trainees in vacation work-study pro-
 gram, engineering, physical sciences,
 mathematical sciences, amendment,
 4963
 transmitter and receiver operator and
 maintenance technician, 6470
 amendment, 10845
 veterinarian trainee, 17557
 Federal careers projected vacancies, etc.,
 college level, guide, 9469
 Federal civilian employment in U.S. by
 geographic area, annual report, 9474
 Federal employment of noncitizens, 17553
 Federal jobs in engineering, physical sci-
 ences, & related professions, 17549
 Federal jobs overseas, 13200
 Federal personnel, fund raising for volun-
 tary health and welfare agencies,
 manual, 2868, 3666
 Federal personnel manual, 2603, 6474
 supplements, 2604-15, 4970-71, 6475,
 8123-24, 15688
 Federal service entrance examination, sam-
 ple questions and suggestions, etc.,
 17555
 Federal white-collar workers, occupations,
 list, 15695
 handbooks, 3116-7, 13197
 qualification standards for white collar
 positions under general schedule,
 13197
 investigation, authorization and continua-
 tion, report, 6195
 job grading standards—
 asphalt worker, 6477
 baker, 8125
 cement finisher, 8126
 die sinker, 6478
 leader, 13198
 mason, 6479
 meatcutter, 8127
 office appliance repairer, 6480
 packer, 8128
 painter, 6481
 plasterer, 6482
 roofer, 8129
 supervisors, 13199
 trades and labor occupations, 2608,
 6475, 8123-24, 15688
 job opportunities, local and regional an-
 nouncements, 1351, 4973, 8180
 job qualification system for trades and
 labor occupations, 15690

Civil service—Continued

labor-management relations in Federal
 service, report and recommendations,
 4367
 laws, Executive orders, rules and regula-
 tions, FPM manual supplement, 2613
 librarians, professional careers, 3674
 Library of Congress special 1970-71
 recruit, program, 2039
 management of civilian hiring limitations
 and recruiting by Defense Department
 is costly, GAO review, 1892
 medical certificates, reviewing and acting
 on, 2607
 minority group employment in Federal
 Government, preliminary report, 13203,
 17554
 national emergency standby regulations
 and instructions, FPM supplement, 2615
 occupational groups and series of classes,
 handbook, 1350, 2704
 pay structure of Federal civil service,
 15694
 personnel bibliography series, 9476, 13205,
 15696-697
 personnel policies and practices, bibliog-
 raphy, 15697
 position-classification standards, 3026
 position classification systems within ex-
 ecutive branch, improve—
 hearings, 3885, 11054
 law, 6548
 report, 6737
 processing personnel actions, 2604, 4970
 qualification standards—
 postal field service, 3116
 white collar positions under general
 schedule, 3117
 recruiter (periodical), 4965, 15686
 Retirement act, amend, hearing, 11142
 safety clauses in collective bargaining
 agreements in Federal service, 16510
 selected placement of physically handi-
 capped, etc., handbook, 15689
 severance pay, what it is, 12051
 summer jobs in Federal agencies, 253,
 15698
 supergrade positions, additional—
 hearings, 432
 law, 3757
 recommendations, 8315
 reports, 1554, 1649
 supervisory grade-evaluation guide, and
 qualification standard, 13206
 take a giant step, go Government, typists,
 stenographers, office jobs, 1352, 12048
 training resources, guide, 9475
 upward mobility for lower level employees,
 suggested goals and actions, 15700
 veterans, best bets in Washington, D.C.
 area, 2366
 working for U.S.A., applying for job, etc.,
 15692
 see also Civil service pensions—Govern-
 ment officials and employees.
 Civil Service Commission:
 administration of Federal employees'
 group life insurance program, GAO re-
 port, 5520
 ADP Management Training Center, scope,
 faculty, methods, etc., 13194
 annual report—
 departmental edition, 9465
 document edition, 9617
 appropriations, 1970, supplemental, pro-
 posal, 15966
 appropriations, 1971, hearings, 8271,
 11105
 General Management Training Center,
 purpose, etc., 3667
 Government-wide service benefit plan, Blue
 Cross and Blue Shield for Federal em-
 ployees, needs improved administration,
 GAO report, 18082

INDEX 1970

Civil Service Commission—Continued
 improve position classification within executive branch—
 hearings, 3885, 11054
 law, 6548
 report, 6737
 Interagency Boards of U.S. Civil Service, directory, 1353
 interagency programs, bulletin, 9470
 long term educational opportunities under career education awards and other programs, 250
 Management Sciences Training Center, Jan.-June 1971 schedule, 17552
 pamphlets, 1352-53, 3668-69, 3671-72, 6483-85, 9471-75, 10848, 12048-50, 13200-203, 15692-695, 17553-554
 revolving fund, expand use, amend U.S. Code—
 law, 3759
 report, 1665
 Civil service pensions:
 Agriculture Department employees, planning your retirement, guide, 17446
 air traffic controllers, include within retirement provisions of U.S. Code relating to hazardous occupations—
 hearing, 3985
 report, 11102
 annual report, 1346
 annuities and survivors benefits, change requirements, reports, 13538, 13695
 civil service disability retirement payments, tax advice, 4311
 Federal classified and postal employees, retirement annuity increases, 13539
 Federal firefighters, include within hazardous duty retirement provisions of U.S. Code—
 hearings, 17651
 report, 15981
 Federal tax information for civil service retirees, 1957
 five percent increase in certain annuities, hearing, 3887
 retirement act, amend, reports, 13538, 13695
 retirement amendments of 1969, law, 309
 retirement benefits, FPM manual supplement, 2610
 retirement system—
 Federal employee facts, 4968
 financing and benefits, amend U.S. Code, law, 309
 Civil service retirement and disability fund, see Civil service pensions.
 Civil War, 1861-65:
 case files of investigations by Levi C. Turner and Lafayette C. Baker, 1861-66, microcopy, pamphlet to accompany, 17029
 Lincoln, Lee, and American Civil War, National Park Service publications, list, 6130
 military operations, official records of Union and Confederate Armies, guide-index, main eastern theater, comprehensive index, 14907
 Civil works, see Public works.
 Civilian bureaus, see Government offices.
 Civilian defense:
 Civil Air Patrol and civil defense programs, 6466
 civil defense activities for local chambers of commerce, handbook, 148
 civil defense directors, coordinators, career development, program for professional advancement, 15681
 civil defense film in time of emergency, general information, 13190
 civil defense in textile, apparel, and related industries, 6407

Civilian defense—Continued
 extend emergency authority of the President—
 law, 12123
 reports, 10973, 11093
 fallout shelter analysts, national directory, 10842
 Federal civil defense act of 1950, amend—
 law, 12123
 report, 10973, 11093
 Federal civil defense guide, 241, 4957-59, 6463-64, 10839-840, 12043, 13188, 15680
 Federal stockpile, inventory, report, 2293
 FG series, 242, 3655, 6465, 8112, 10841-842, 13189
 Government in emergency, suggestions for including in social studies curriculum, grades 1-12, 12046
 industrial civil defense highlights, 2741
 industrial management, preparation for wartime and peacetime disaster in industry, 9460, 13189
 Jewish War Veterans and civil defense, 10843
 medical materials or supplies stored for national emergencies, transfer to another Federal agency before shelf life expires—
 law, 15808
 report, 15851
 motion picture catalog, 12045
 State salary ranges of positions—
 employment security, 11405
 selected classes in civil defense, 743
 Civilian employees, see Armed Forces—
 Army—Defense Department—Government officials and employees.
 Civilians:
 aids to Secretary of Army, 16th national conference, 7998
 captives of North Vietnam, payment of claims, amend War claims act—
 law, 12116
 report, 9874
 civilian employees of State Dept. in Republic of Vietnam, questionable justification and loose administration of special cost of living allowance, GAO report, 10152
 civilian medical program for Vietnam, followup investigation, report, 15881
 manpower management (periodical), 2784
 Navy, fundamentals of supervision, home study course, 4594
 quiz booklet, 4596
 war casualty problems in Laos and Cambodia, hearing, 13749
 Civilization, see Culture.
 Civilization's dilemma, is there a solution?
 Cladding:
 clad UO₂ under reactor accident conditions, physical-chemical studies, 9378
 fast breeder reactor advanced fuel element cladding fabrication, 15513
 Claffin, Alan, B., benefit-cost analysis of low-dose radiation processed foods, 6390
 Claiborne County, Miss., community profile, 16215
 Claiborne County, Tenn., appraisal of potentials for outdoor recreational development, 15179
 Claiborne group:
 Cockfield formation of Louisiana and Mississippi and Yegua formation of Texas geohydrologic significance of lithofacies, 18044
 geohydrologic of Claiborne group (series), 18044
 Claims:
 against nonappropriated fund activities of U.S., jurisdiction of U.S. courts—
 law, 13325
 report, 6645
 Alaska native claims settlement act—
 hearings, 511, 5161
 report, 9882

Claims—Continued

assignment rates submitted under supplementary medical insurance program, 11858
 automobile personal injury claims, 15355
 appendix, 15356
 claims and judgments against U.S., proposed supplemental appropriation to pay, 5188, 8220, 15968
 driver behavior and accident involvement, implications for tort liability, 18384
 erroneous payments of pay or allowances to members of Armed Forces and personnel of National Guard, waiver, hearing, 6721
 Federal claims collection act of 1966, progress and problems in implementing, GAO report, 12584
 foreign claims certified to Congress, partial payments, amend U.S. Code—
 law, 12135
 report, 13642
 International claims settlement act of 1940, amend—
 law, 1413
 report, 1679
 military claims, finality of settlement, amend U.S. Code, report, 15849
 Military personnel and civilian employees—
 claims act of 1964, sec. 3(c), repeal, law, 12134
 personal property, settlement, discontinue annual report to Congress—
 law, 12134
 report, 12335
 settlement, amend law, report, 362
 National Guard members, contributory negligence, local law, apply, amend U.S. Code, report, 1456
 prisoners of war, civilian American citizens, and persons serving aboard U.S.S. Pueblo held captive by forces of North Korea, payment, amend War claims act—
 law, 12116
 report, 9874
 questionable claims under medicaid program for care of persons in State institutions for mentally retarded in California, Social and Rehabilitation Service, GAO report, 10151
 sundry claimants, relief, 3803
 tax refunds, appeal rights and claims, 5633
 tort actions filed by persons under 21, insane, mentally retarded, or imprisoned on criminal charge, extend time, amend U.S. Code, report, 1457
 uniformed services and National Guard members, erroneous payments of pay and allowances, waiver, amend U.S. Code, report, 5116
 United States nationals against Bulgaria, Rumania and Italy, text of act, regulations, etc., 5479
 War claims act of 1948, amend—
 law, 12116
 report, 9874
 see also Government contracts—Tax refunds—Unemployment insurance—also names of claimants.
 Clallam County, Wash., community profile, 6899
 Clamps, hub clamps, Federal Item Identification guide change, 5311
 Clams:
 canned, trade agreement with Japan, 15947
 radiation-pasteurized, chicken feeding experiments, chronic animal feeding studies on, final report, 8025, 9403-4
 surf clam fishery, Atlantic Coast, 10889, 12068
 survey, Ocean City, Md. to Cape Charles, Va., 9522

Clancey, James T., pipeline gas from lignite gasification, current commercial economics, 1357
 Clare, Kenneth G., area handbook for Republic of Korea, 94
 Clarion County, Pa., community profile, 16216
 Clark, Alexander, III:
 wood density surveys of minor species of yellow pine in Eastern United States—
 sand pine, 4209
 table mountain pine, 4210
 Clark, C. F., cost analysis of six water desalting processes, 4298
 Clark, Eldon R., woodcock status report, 18342
 Clark, James W., research on instabilities in atmospheric flow systems associated with clear air turbulence, 10364
 Clark, Leroy W., USAF instructors journal, 3315
 Clark, R. T., beef cattle, dehorning, castrating, branding and marking, 7916
 Clark, Shirley M., limnological study of lower Columbia River, 15748
 Clark County, Mo., community profile, 16217
 Clark County, Ohio:
 community profile, 12426
 soil survey report, 9160
 Clark County, S. Dak., community profile, 13892
 Clark County, Wash.:
 community profile, 6900
 soils and people, 6199
 Clarke, James W.:
 bibliography of North America geology, 14518
 geophysical abstracts, 2691
 Clarke, Robert G., mineral industry of New York, 5865
 Clarke, Thomas H., address, Nov. 18, 1969, 638
 Clarke, W. J., myeloproliferative disorders in men and animals, 13066
 Clarke County, Ala., community profile, 13893
 Clarke County, Iowa, community profile, 13894
 Clarke County, Miss., community profile, 16218
 Clary, Robert R., measured and predicted longitudinal vibrations of liquid propellant two-stage launch vehicle, 14882
 Class action and other consumer protection procedures, hearings, 8306
 Classification:
 act of 1949, qualification standards, 13197
 Air Force, enlisted personnel, airman classification manual, manual, 1205, 9334
 Government publications available to depository libraries, list of classes, 15124
 Library of Congress—
 additions and changes, quarterly list, 2790
 class K, law, draft outline, 18136
 class N, fine arts, 12723
 outline, 16374
 National Library of Medicine, 2150
 supplement, 989
 Navy enlisted personnel manual, 4618, 11814
 position classification, Federal government, bibliography, 15696
 position-classification standards, 3026
 position classification systems within Executive branch, improve—
 hearings, 3885, 11054
 law, 6548
 reports, 5112, 6737
 standard classification system for indirect costs of defense contractors in aircraft industry, 6320

INDEX 1970

- Classification—Continued
visual and mechanical defects for equipment, electronic, wired, and other devices, 6876
see also Civil service—Government officials and employees—*also* names of subjects, objects, etc., classified.
- Classification definition series, 6112-13
Classification tests, *see* Aptitude tests.
Classification information, *see* Confidential material.
- Classified matter, *see* Confidential material.
Classroom personnel, *see* Teachers.
- Clatsop County, Oreg.:
ground-water resources of Clatsop Plains sand-dune area, 18053
Warrenton Dune & Water Conservation District, 35 years of progress, 10574
Clausen, Knud E., germination of yellow and paper birch seeds after 8 yrs. storage, 12551
Clavichords, and harpsichords, 4574
- Clay:
census of transportation, 1967, commodity transportation survey, shipper group, 4928
construction products, current industrial reports, 2475, 3631
minerals yearbook chapter, 4400
structural clay products, census of manufactures, 1967, industry statistics, 15602
Yazoo clay, Jackson Group, Upper Eocene, Mississippi, illustrations of plant microfossils from, 8745
- Clay County, Ala.:
community profile, 13895
Tallaseehatchie Creek watershed work plan, 9172
- Clay County, Iowa, community profile, 13896
- Clay County, Miss., community profile, 16219
- Clay County, Mo., community profile, 16220
- Clay County, Nebr., community profile, 17768
- Clay County, N.C., community profile, 12427
- Clay County, S. Dak., community profile, 13897
- Clay tiles, *see* Tiles.
- Clayton act, *see* Monopolies.
- Clayton County, Iowa, community profile, 13898
- Clayton County Journal, relief, 13270, 13588
- Clean air act, *see* Air pollution.
- Clean Waters for America Week, designate, report, 5247
- Cleaners (mechanical):
clean work stations, machines, for cleaning, industrial plant equipment handbook, 1759
lint-cleaner operating parameters, effects on cotton quality, 9302
- Cleaning:
contract services, industry wage survey, 4376
equipment and supplies, Federal item identification guides for supply cataloging, supplements, 2495
plants, census of business, 1967, laundries, cleaning plants, and related services, 15547
see also Dry cleaning.
- Cleaning compounds:
cleaners, 1967 census of manufactures, industry statistics, 15599
Detergent pollution control act of 1970, hearings, 16087, 17719
detergents and associated contaminants in ground water at 3 public-supply well fields in southwestern Suffolk County, Long Island, N.Y., 8762
phosphates in detergents and eutrophication of America's waters—
hearings, 8296
report, 6690
- Cleaning machines, *see* Cleaners (mechanical).
- Clear-cutting:
clearcut openings, seedfall and establishment of Engelmann spruce, case history, 5515
effects on salmon habitat of 2 southeast Alaska streams, 4206
Clear Lake National Wildlife Refuge, birds, list, 1120
Clearcutting, *see* Clear-cutting.
- Clearfield County, Pa., community profile, 16221
- Clearinghouse for Federal Scientific and Technical Information:
Clearinghouse announcements in science and technology, 2408
fast announcement (periodical), 2566
news, 2400
special announcement, 3214
- Clearinghouse for Research in Child Life, research relating to children, 13184
- Clearwater River, Middle Fork, river plan, 3769
- Cleary, Donald P., world demand for shrimp & prawns may outstrip supply in next decade, 9532
- Cleary, Joseph W.:
approximation of distribution of flow properties in angle of attack plane of conical flows, 14883
effects of angle of attack and bluntness on hypersonic flow over 15° semipex cone in helium, 14862
- Cleburne County, Ala., community profile, 13899
- Cleft lip, *see* Harelip.
- Cleft palates, U.S. facilities providing cleft palate services, National Institute of Dental Research directory, supplement, 6039
- Clergy:
Protestant clergymen, rabbis, Roman Catholic priests, employment outlook, 12681
social security for clergymen—
and religious workers, tax information, 5666
explanation, 6173
- Clergy Week, International, *see* International Clergy Week.
- Clerical workers, *see* Clerks.
- Clerks:
examination announcement, amendments, 3660, 6472
hotels, front office clerks, employment outlook, 14726
urban clerical workers and wage earners, consumer, price index, 4385
see also Office workers—Postal clerks—Receiving clerks—Shipping clerks.
- Clermont County, Ohio:
community profile, 12428
- Ohio River—
flood plain information, 16426
floods, 17943
- Cleveland, Ohio:
area wage survey, 5827
census of transportation, 1967, commodity transportation survey, 8067
Hopkins Airport, access study, survey results, 15362
metropolitan intrastate air quality control region, Federal facilities, 10420
principal electric facilities, map, 8623
- Cleveland, Tex.:
East Fork San Jacinto River, Reese and Tarkington Bayous flood plain information, 16418
floods, how to avoid damage, East Fork San Jacinto River, Reese & Tarkington Bayous, 17928
- Cleveland County, N.C., community profile, 12429
- Clevenson, Sherman A., Lunar Orbiter flight vibration data and comparisons with environmental specifications, 17000

Clevis, Federal item identification guide, 13797
 Clifford, J. E., study of water-vapor electrolysis unit, 10348
 Clifford, Kenneth J., United States marines in Iceland, 12727
 Clifton, N.J.:
 area wage survey, 817
 census of transportation, 1967, commodity transportation survey, 8066
 quad-city solid wastes project, June 1, 1966-May 31, 1967 interim report, 9074
 Climate:
 Benelux countries, 1960-69, climatological bibliography, 7962
 cities, survey of recent literature, 14902
 climatology, Caribbean and adjacent regions, bibliography, 18283
 climatography of United States—
 climates of States, 11264-266, 14340-341
 climatic summaries of resort areas, 601, 1816, 7047-48, 8568
 climatological data—
 by States, etc., 2409
 national summary, 2410
 climatological handbook, Columbia basin States—
 hourly data, 2192-93
 precipitation, 2191
 temperature, 2189-90
 climatological summaries, visibilities below $\frac{1}{2}$ mile and ceilings below 200 feet—
 Bradley International (Windsor Locks) Airport, Hartford, Conn., 2256
 Clarence E. Hancock Airport, Syracuse, N.Y., 7849
 Detroit Metropolitan-Wayne County Airport, Detroit, Mich., 2255
 Dulles International Airport, Washington, D.C., 7849
 General Mitchell Field, Milwaukee, Wis., 4764
 Greater Pittsburgh International Airport, Pittsburgh, Pa., 4764
 International Airport, Los Angeles, Calif., 2259
 International Airport, Miami, Fla., 2261
 James M. Cox Airport, Dayton, Ohio, 2254
 John F. Kennedy International Airport, New York, N.Y., 4764
 LaGuardia Airport, New York, N.Y., 4764
 Love Field, Dallas, Tex., 2253
 Metropolitan Airport, Nashville, Tenn., 4764
 Metropolitan Oakland International Airport, Oakland, Calif., 4764
 Minneapolis-St. Paul International Airport, Minneapolis, Minn., 4764
 New Orleans International Airport, New Orleans, La., 4764
 Newark Airport, Newark, N.J., 4764
 O'Hare International Airport, Chicago, Ill., 2251
 Philadelphia, Pa., International Airport, 4764
 Port Columbus International Airport, Columbus, Ohio, 2252
 Portland International Airport, Portland, Oreg., 4764
 Rochester-Monroe County Airport, Rochester, N.Y., 7849
 St. Louis, Mo., Lambert-St. Louis Municipal Airport, 7849
 Salt Lake City, Utah, Municipal Airport no. 1, 7849
 San Francisco, Calif., International Airport, 7849
 Seattle-Tacoma International Airport, Seattle, Wash., 7849
 Standiford Field, Louisville, Ky., 2260

Climate—Continued
 climatological summaries—continued
 Weir Cook Airport, Indianapolis, Ind., 2258
 William P. Hobby Airport, Houston, Tex., 2257
 climatology, Northern Hemisphere, cold regions, 4072
 conditions preceding historically great fires in North Central region, 12560
 local climatological data, 2849
 monthly data for world, 2902
 monthly global atmospheric circulation characteristics as reflected in TIROS VII radiometric measurements, 14845
 monthly precipitation probabilities by climatic divisions, 23
 Eastern States from Great Lakes to Gulf Coast, 32
 probabilities of hot and cool days sequences hot spells in Nevada, Markov chain models, 14345
 relationship between climate and regional variations in snow-cover density in North America, 5383
 substation observations, precipitation, temperature, etc., 11936
 wave climatology, aid to ship routing, north Pacific Ocean, 7682
 Climatography, *see* Climate.
 Climatology, *see* Climate.
 Clinch River, radioactive liquid waste, disposals at low-level in, with relation to composition of water, 8739
 Clinical Center, National Institutes of Health:
 current clinical studies and patient referral procedures, 6053, 12858
 patient admission procedures, 18266
 Clinical medicine, *see* Medicine.
 Clinical psychologists, *see* Psychologists.
 Clinics:
 chelating agents, clinical aspects, therapeutic and diagnostic uses, 517 citations from literature search, 17150
 clinical and physiological investigations dealing with electrosleep and electroanesthesia, USSR study, 10276
 clinical programs for mentally retarded children, 10312
 home health agencies, directory of medicare providers of services under health insurance for aged, 4669
 outpatient psychiatric services, 1063
 pharmaceutical communication in clinical environment, 17049
 Veterans Administration, career opportunities, professional social workers, social work associates, graduate training, 15379
 see also names of clinics.
 Clinton County, Iowa, community profile, 13900
 Clinton County, Mo., community profile, 16222
 Clinton County, N.Y., community profile, 13901
 Clinton County, Ohio, community profile, 12430
 Clinton County, Pa., community profile, 16223
 Clips:
 contact clip, electrical, Federal item identification guide, 6857, 8465
 electrical, military standard, 13807
 Clocks and watches:
 census of manufactures, 1967, industry statistics, 17533
 census of transportation, 1967, commodity transportation survey, shipper group, 3608
 spin synchronous clock for spin-stabilized vehicles, 16975
 U.S. imports of watch movements duty-free from Virgin Islands, benefit islands' economy, GAO report, 7217

INDEX 1970

Clocks and watches—Continued
 watch repairmen, employment outlook, 16832
 watches, trade and tariff information summaries, 10639
 Close, Kathryn, children, interdisciplinary journal for professions serving children, 2404
 Close, William H., address, Apr. 20–24, 1969, 9242
 Closed Basin division, *see* San Luis Valley project
 Clostridium:
 botulinum, type E—
 effect of gamma rays on inoculated marine finfish, final report, 8017
 nonproteolytic B, and F in nonirradiated and irradiated fisheries products in temperature range of 33°–50° F. growth and toxin production, 3506
 Clostridium botulinum—
 spores, types A, B, and E, study of effect of ionizing radiation on resistance, germination, and toxin synthesis, 120, 134, 1264
 type F, studies, 127
 Closures:
 closures for containers, current industrial reports, 2475
 covers and doors, access, Federal item identification guide, 13784
 Cloth, *see* Textiles—*also* names of textiles.
 Clothing:
 almanac for southwest Asia, 1218
 apparel and related products, census of transportation, 1967, commodity transportation survey, shipper group, 3602
 apparel industry—
 civil defense preparedness, 6407
 employment outlook, 12706
 children's outerwear—census of manufactures 1967, industry statistics, 17516
 clothing and individual equipment, Federal item identification guides for supply cataloging, supplements, 2597
 clothing and textile repair shop, mobile, Federal item identification guide, 11169
 clothing speaks, 4-H member's guide, 7082, 8609
 coats and coat-like garments, Federal item identification guide, change, 1765, 5306
 men's apparel, current industrial reports, 2475
 miscellaneous apparel and accessories, census of manufactures, 1967 industry statistics, 17517
 wearing apparel, fabric flammability bibliography, 7574
 women's and misses' outerwear, census of manufactures, 1967, industry statistics, 17515
 women's apparel, current industrial reports, 2475
 see also names or types of clothing.
 Cloud seeding, *see* Weather control.
 Clouderoft, N. Mex., climatic summaries of resort areas, 7048
 Clouds:
 accuracy of high resolution infrared radiometer on Nimbus 11 for mapping, 10380
 atmospheric neutral-electrical interactions, 15470
 central Asia, modification of, USSR study, 11520
 cloud formation and angular distribution of reflected radiation on basis of data obtained during flights of an Il-18 aircraft in 1964, USSR study, 7399
 cloud growth associated with development of secondary cyclones, meteorological satellite views, 12771

Clouds—Continued
 convective, relationship between horizontal moisture convergence and cloud formation, 11267
 cover over tropical Pacific Ocean, atlas, satellite data, 10383
 debris, from nuclear cratering detonations, lidar observations, Project Buggy, 13085
 estimating cloud amount and height from satellite infrared radiation data, 17948
 high-level photography inventory, BOMEX 4 period, 16454
 lower E-layer alkali-plasma-cloud releases, instabilities observed and their implications regarding sporadic E, 17192
 numerical experiments in modifying kinetics of cloud spectrum formation by introducing additional condensation nuclei, USSR study, 10269
 radar for microstructural studies, USSR study, 10274
 special cloud content study, Project Buggy, 13077
 television photography, meteorological satellite data, catalogs, 4095, 10030–31, 11277, 17954
 tropics, mean-cloudiness and gradient-level-wind charts, 13023, 17450
 Clough, G. W., finite element analyses of Port Allen and Old River Locks, 16445
 Clough, Nestor, dimple, spall, and perforation characteristics of thin plates of 9 materials under hypervelocity impact, 4524
 Cloutier, Roger J., medical radionuclides, radiation doses and effects, symposium proceedings, 13068
 Clown Week, National, *see* National Clown Week.
 Clubs, *see* Service clubs.
 Cluster pine, *see* Pine.
 Clustering, organization and description of complex data through cluster analysis in physiological psychology and cell biology, research, 2148
 Clutter, *see* Radar.
 Clyde, Calvin G., optimum operation of desalting plants as supplemental source of safe yield, 8807
 Coagulation, disseminated intravascular, in decompression sickness, discussion, 5844
 Coahoma County, Miss., community profile, 16224
 Coal:
 and petroleum products, census of transportation, 1967, commodity transportation survey, shipper group, 3604
 anthracite—
 culm-bank material, Operation Red Dog, fluid bed combustion and potential uses of, study, 1358
 Pennsylvania, mineral industry surveys, weekly, 3014
 bituminous—
 fluidized-bed, low temperature carbonization, and thermal cracking of tar vapors, 880
 transportation on Great Lakes waterway system, 11575
 bituminous and lignite, minerals yearbook chapter, 4401
 bituminous coal and lignite distribution (periodical), 2371
 carbonization studies, altering composition and yield of volatile products by increasing free space above charge, 10335
 char oil energy development, interim report, 10851
 chemicals—
 mineral industry survey, monthly, 2417
 minerals yearbook chapter, 4402
 coal laden in United States on vessels engaged in foreign trade, 6459

Coal—Continued

coalbeds, sampling and coking studies of several in Kokolik River, Kukpowruk River, and Cape Beaufort areas of Arctic Northwestern Alaska, 879
 consol synthetic fuel process, 1970 final report, 10850
 conversion of coal into liquids, Project Western Coal, 13207
 diffusion studies of light hydrocarbon gases through coal, 16925
 electrophoretic-specific gravity separation of pyrite from coal, laboratory studies, 16924
 extinguishing and removing burning coal refuse banks, 16894
 foreign trade reports, 2668
 gas-solid suspension, heat transfer to, from externally heated tube, calculation procedure, 14775
 grindability, prediction from exploration data, 14795
 high-temperature combustion of coal seeded with potassium carbonate in MHD generation of electric power, 7485
 international trade, monthly inventory, 2756
 investigations using laser irradiation, 4475
 liquification pilot plant, Cresap, W. Va., start up, and initial operations, 3675
 low grade, magnetohydrodynamics (MHD) for pollution-free production of electrical energy, hearings, 5267, 9916
 Mines Bureau coal program, 1969, review, 11582
 operation of bench-scale continuous gasification unit, phase 2, bench-scale research on CSG process, 255
 Pennsylvania anthracite from Kidney seam, Northern Field, preparation characteristics, 7488
 preparation characteristics, from Beaver and Lawrence Counties, Pa., 882
 process to make high-Btu gas from coal, 10337
 process to produce ashless, low-sulfur fuel from coal, economic evaluation, 9480
 products, census of manufactures, 1967, industry statistics, 17523
 Project Gasoline, CST process of coal liquification, summary report, 6488
 Project Seacoal, investigation of process for deriving oil from coal, etc., 4974
 pulverized coal-burning diesel engine, research and development report, 9479
 repeatability of plastometer and dilatometer tests, 10332
 report weekly, 3348
 resources, Cumberland, Hobart, and Maple Valley quadrangles, King County, Wash., 5551
 seams, evaluating sulfur and ash distribution, by statistical response surface regression analysis, 8906
 seeded, combustion products, thermodynamic, electrical, physical and compositional properties, 12739
 stripping coal resources of U.S., 16609
 thermionic topping converter for coal-fired power plant, 4975
 tippie and delivered samples, analyses, 4482
 unit train transportation, technology and description of 9 representative operations, 5851
 see also Coal dust—Coke—Lignite.
 Coal beds, see Coal.
 Coal County, Okla., Lower Clear Boggy Creek watershed, revised work plan for watershed protection and flood prevention, 15229
 Coal dust:
 clouds, radiant heating by flames in coal mine galleries, 18168
 dust explosion hazard, control on coal mine shuttle-car runways, 18173

Coal dust—Continued

explosives in coal dust-gas airmixtures, effect of sodium nitrate on incendiarity, 876
 horizontal plate elutriator and 10-mm nylon cyclone elutriator, evaluation of penetration characteristics, 5886
 respirable coal mine dust, symposium proceedings, 5855
 respirable dust control in mines of West Germany, 16897
 respirable dust sampling requirements under Federal coal mine health and safety act of 1969, 12742
 Coal mines and mining:
 air sealing coal mines to reduce water pollution, 5885
 bituminous coal mines, in situ tests of bearing capacity of roof and floor, progress report, longwall mining, 11591
 coal fractures and cleats, computer program for stereographic analysis, 7463
 coal mine shuttle car runways, control of dust explosion hazard, 18173
 coal miners black lung benefits Federal coal mine health and safety act of 1969, 7759
 fatalities, mineral industry survey, monthly, 2411
 Federal coal mine health and safety act of 1969—
 law, 1424
 legislative history, 12269
 respirable dust sampling requirements, 12742
 health and safety of coal miners, improve working conditions—
 hearings, 412
 law, 1424
 injuries and worktime, monthly report, 2412
 limestone treatment of acid mine drainage, studies, 10105
 microfilming maps of abandoned anthracite mines, Lackawanna Basin, northern anthracite field, 7462
 mine-timber market in Appalachian bituminous coal region, 10132
 Mines Bureau program, 1969, review, 11582
 pneumoconiosis in Appalachian bituminous coal miners, 8560
 radiant heating of coal dust clouds by flames in coal mine galleries, 18168
 respirable coal mine dust, symposium proceedings, 5855
 respirable dust control in mines of West Germany, 16897
 solid waste disposal from coal mining in Washington, Oregon, and Montana, 2048
 see also Mine drainage—Mine fires.
 Coal Research Office:
 appropriations, 1970, law, 314
 research and development reports, 254-255, 1357-58, 3675, 4974-76, 6487-88, 9479-81, 10850-852, 13207
 Coalinga Canal:
 designate—
 law, 13311
 report, 12343
 Coal tar, see Tar.
 Coals, see Coal.
 Coast and Geodetic Survey:
 authorized nautical chart sales agents, list, 8132, 17558
 nautical chart catalog—
 Atlantic and Gulf Coasts, Puerto Rico and Virgin Islands, 4976
 Pacific Coast, Hawaii, Guam and Samoa Islands, 9485
 press releases, 3042
 technical manuals, 3676
 technical publications and charts, summary list of those for sale, 15704
 travel regulations, uniformed service, 2780, 4017

INDEX 1970

- Coast Artillery, *see* Artillery.
- Coast changes, coastal regime, recent U.S. experience, 12508
- Coast Guard:
 - after college develop your leadership abilities as commissioned officer, 258
 - AMVER system, 13211
 - appropriations, 1970—
 - hearings, 1701
 - law, 3742
 - reports, 1468, 1556
 - appropriations, 1971, report, 9719
 - appropriations for vessels, etc., authorization—
 - hearings, 5172, 8382
 - law, 10921
 - reports, 6605, 6616, 9848
 - Assistant Commandant with rank of Vice Admiral, nomination of Thomas R. Sargent, hearings, 13719
 - auxiliary administrative handbook, 12053
 - auxiliary manual, 260
 - auxiliary membership qualification guide, 13212, 17559
 - boating safety circular, 261, 2373
 - bulletins, 13213
 - careers, general information, 10858
 - cargo and miscellaneous vessels, rules and regulations, 263
 - Commandant, nomination of Chester R. Bender, hearings, 13719
 - construction of shore and offshore establishments, appropriation authorization—
 - hearing, 5172, 8382
 - law, 10921
 - reports, 6605, 6616, 9848
 - cutters, register, 8136
 - Data Buoy Project, transfer to National Oceanic and Atmospheric Administration, Commerce Dept.—
 - hearings, 16057
 - report, 15875
 - engineers digest (periodical), 2540
 - future in Alaska, hearings, 17717
 - improve and clarify certain laws affecting Coast Guard, hearing, 9900
 - Marine Board of Investigation, report and Commandant's action, 6073-75, 7656-57, 7661
 - national search and rescue manual, amendment, 10856
 - oceanographic reports, 1359, 3684, 6499, 9486, 10857, 13215
 - officers, interservice transfers, amend U.S. Code—
 - hearings, 403
 - law, 15781
 - reports, 1491, 13692
 - officers and cadets, register, 6496
 - omnibus bill—
 - hearing, 9900
 - law, 12106
 - reports, 1536, 9849
 - opportunity to reduce cost of vessel construction by not requiring shipbuilders to buy insurance and performance and payment bonds, GAO report, 14510
 - organization manual, amendment, 12054
 - policy and operations with respect to foreign vessel activities in or near U.S. waters off Florida, hearings, 13744
 - Rear Admiral, nominations of James A. Palmer, Ellis L. Perry, John F. Thompson, Jr., Edward D. Schelderer, and Albert A. Heckman, hearing, 13719
 - recreational boating safety, minimum standards, establish, hearings, 15926
 - travel regulations, uniformed services, 2780, 4017
 - uninspected vessels, rules and regulations, 15705
 - where the action is, 15706
 - your son and Coast Guard, recruiting information, 10861
- Coast Guard Academy, New London:
 - cadet profile, 10859
 - catalogue of courses, 12056
 - information bulletin for candidates, 10860
- Coast Guard Auxiliary:
 - courtesy examination decal, requirements and standards, check-off list, 4978
 - motorboat examination program, courtesy examiners handbook, 13214
 - public education and safety programs, 3685
- Coast Guard Reserve:
 - Coast Guard reservist (periodical), 2413
 - officers, remove promotion restrictions, etc., amend U.S. Code—
 - hearing, 9900
 - law, 17604
 - reports, 1537, 16005
 - register of officers, 10855
- Coast Guard stations:
 - appropriations for vessels, etc., authorization—
 - hearing, 5172
 - law, 10921
 - report, 9848
 - construction of shore and offshore establishments, appropriation, authorization—
 - hearings, 5172, 8382
 - law, 10921
 - reports, 6605, 6616, 9848
- Coast guide, *see* Coast pilots.
- Coast pilots:
 - manual, 3676
 - Pacific Coast, Alaska, Dixon Entrance to Cape Spencer, 3679
 - supplement, 6489
 - United States coast pilot, 8134, 9484
 - supplements, 6490-93
- Coastal Engineering Research Center:
 - bulletin and summary report of research progress, 16407
 - miscellaneous papers, 10000, 16408
 - reprint R (series), 12508-509
 - technical memorandums, 4066, 11249
 - technical reports, 1802, 4071, 5366
- Coastal Plain, south Georgia, conservation irrigation guide for design of sprinkler irrigation systems, 17288.
- see also* names of States.
- Coastal Plains Regional Commission:
 - economic development programs, evaluation, hearings, 3390
 - press release, 3043
- Coastal regime, recent U.S. experience, 12508
- Coastal Zone, Advisory Committee for Management of, *see* Advisory Committee for Management of Coastal Zone.
- Coastal Zone Management Conference, utilization, implementation, of coastal zones of U.S., including Great Lakes, hearings, 3880
- Coasts:
 - Coastal zone management act of 1970, hearings, 16043
 - coastal zone management programs, assist States in establishing, hearings, 11115
 - sublittoral Gammarridea (Amphipoda) of Hawaiian Islands, 7736
- Coated fabrics, *see* Textiles.
- Coated surfaces, *see* Surfaces.
- Coatesville, Pa., floods and flood plain management information, 17916
- Coating materials:
 - aluminum-coated ta-10W for heat-shield applications, 923
 - degradation tests for fuels and fuel container coatings (test procedure), military standard, change, 550
 - protective, evaluation of concrete and related materials for desalination plants, progress report, 15144
 - see also* Polyethylene.
- Coats, and coat-like garments, Federal item identification guide, change, 1765, 5306
- Coaxial capacitors, *see* Capacitors.

Cobalt:

- Co-Ni-V alloys, reaction with C_2 at 1,351°-1,429°K, 7494
- disposal from national and supplemental stockpile—
 - law, 12140
 - reports, 6596, 6750, 11010
- gamma-prime strengthened cobalt nickel base alloy, develop by statistical design and analysis of optimum seeking experiments, 2118
- high-purity, electrochemical recovery, from crude nickel and ferronickel, 11587
- mineral industry survey—
 - monthly, 2414
 - quarterly, 2415
- minerals yearbook chapter, 842, 18143

Cobalt isotopes:

Co-60—

- compact heat source in space, design definition and safety evaluation study, final report, 6374
- heat source demonstration program, phase 1, preliminary analysis and design technical report, 10770
- source used in gamma monochrometer, evaluation of high specific activity, 3493

COBOL, see Computer programs/programming.

Coccoidea, see Scale insects.

Cochise County, Ariz.:

- community profile, 6901
- Perilla Mountain watershed, watershed work plan, 15245
- preliminary reconnaissance for uranium, 15520

Cochran, Doris M., frogs of Colombia, 11785

Cochran, P. H., lodgepole pine clearcut size affects minimum temperatures near soil surface, 1884

Cochran, Thomas H.:

- effects of gravity on gas jet diffusion flames, 11690
- forced-convection boiling near inception in zero gravity, 4521

Cochran, William:

- Grace Mine iron ore waste disposal system and estimated costs, 2049
- mineral industry of New Hampshire, 18158

Cockfield formation, see Claiborne group.

Cockrell, C. R., reflection coefficients of pyramidal and H-plane horns radiating into dielectric materials, 16983

Cockrell, John T., maintaining target detection proficiency through team consensus feedback, 15496

Cockroaches, how to control them, 15431

Cocks(plumbing):

- drain cocks, and valves, general purpose, Federal item identification guide, change, 13798

Coconino County, Ariz.:

- community profile, 6902
- preliminary reconnaissance for uranium, 15521

Code of Federal regulations, 2416, 5441-60, 7105-50, 8638-59, 11318-319

general provisions, 10063

index, 11318

see also names of departments, etc., issuing regulations—also subjects.

Code recorders, see Recording instruments.

Codes:

- binary block, digital receiver decision techniques for certain fixed length transmitted through Gaussian channel, 4632
- comprehensive MMPI code book for males, 9257
- cyclic (20,8) code, exhaustive search for the best, 16459
- error control using concatenated code, 11647

Codes—Continued

Federal general data standard, representations and codes—

- counties and county equivalents of States of United States, 14918
- States and outlying areas of United States, 14917

input and output codes, supply cataloging manual, 1757

change, 6845

work unit codes and maintenance engineering analyses control numbers (MEACNS) for aeronautical equipment, uniform numbering system, 6877

see also Code of Federal regulations—

Codes of law—also names of departments, etc., issuing codes—also subjects.

Codes of law:

District of Columbia, 1967 edition, supplement, 5168

statutes of United States, revision and codification study—

authorization, reports, 6736, 15984

expenses, reports, 463, 5231

United States—

1964 edition, supplements, 9570, 10902, 12087

title 5, Government organization and employees, 9934

see also subjects.

Codfish, irradiated Atlantic, toxicogenesis, at low storage temperature, 1968, report, 3507

Coding theory, see Information theory.

Codington County, S. Dak., community profile, 13902

Coe, Harold H.:

cooling requirements of ball bearings lubricated by glass-fiber-filled polytetrafluoroethylene retainers in cold hydrogen gas, 8934

performance of 75-millimeter-bore bearings to 1.8 million DN with electron-beam-welded hollow balls, 11653

Coefficients:

additive-drag coefficient and mass-flow ratio for inlets utilizing right circular cones at zero angle of attack, approximate solution, 2092

backscatter coefficients and transmission of 1.0- to 3.0-MeV electrons incident on some metals and alloys, 8942

buckling, for simply supported, flat, rectangular sandwich panels under biaxial compression, 14467

Fourier coefficients, two-signal primer for Fourier analysis of random access communication system, 16461

Fourier's law of heat conduction, modifications through use of simple collision model, 12814

Newtonian-type integration coefficients and some applications to orbit calculations, derivation, 18201

pressures on Apollo launch escape vehicle configuration, aerodynamic characteristics, 10385

reflection, of pyramidal and H-plane horns radiating into dielectric materials, 16983

self diffusion, for gaseous ammonia, temperature dependence, 2110

standing timber coefficients for Indiana walnut log production, 5510

viral coefficients, estimating from experimental data, 2050

Coelho, George V., coping and adaptation, behavioral sciences, bibliography, 15013

Coeur d'Alene Indian Reservation, land exchange and sale, report, 15999

Coffee:

foreign agriculture circulars, 2657

and green coffee inventories, imports, and roasting, current business reports, 2469

international agreement, annual report, 12256

INDEX 1970

- Coffee County, Ala., community profile, 13903
- Coffee County, Tenn., appraisal of potentials for outdoor recreational development, 15180
- Cohee, George V., changes in stratigraphic nomenclature by Geological Survey, 7222
- Cohen, Edwin S.:
 remarks—
 Nov. 11, 1969, 2275
 Nov. 19, 1969, 2269
 Feb. 10, 1970, 6273
- Cohen, George, Tan-O-Quil-QM treatment for feathers and down, 1222
- Cohen, Jerry J., special cloud content study, Project Buggy, 13077
- Cohen, Julius S., manpower and mental retardation, exploration of issues, 12903
- Cohen, Leonard S., investigation of mixing and combustion of turbulent, compressible free jets, 2067
- Cohen, Malcolm S., micro model of labor supply, 14664
- Cohen, Mark E., 2d report on development of improved cellulose acetate membranes for reverse osmosis, 7307
- Cohen, Sidney, drug dependence, 6044
- Coho salmon, *see* Salmon.
- Coils, *see* Electric coils.
- Coins, outstanding and circulation, monthly statement, 3224
- Coke:
 mineral industry survey, monthly, 2417
 minerals yearbook chapter, 4402
 prediction of strength and carbonization product yields from exploration data, 11586
 Project Seacoal, investigation of process for deriving oil from coal, etc., 4974
see also Coal.
- Colbert County, Ala., community profile, 13904
- Colby, Elbridge, 1st Army in Europe, 442
- Cold regions:
 climatology, Northern Hemisphere, 4072
 engineering, Naval Facilities Engineering Command, design manual, changes, 7664
 science and engineering monographs—
 engineering, 1803, 4073-74, 14306
 environment, 4072
 physical science, 599
 science and technology, bibliography, 596
 index, 597
 sewerage and sewage disposal, 1803
- Cold Regions Research and Engineering Laboratory:
 research reports, 1800-1, 4067-69, 5363-65, 7032-33, 8533-35, 10001, 11250-252, 16409
 special reports, 4070, 16410-411
 technical reports, 596-598, 8536, 14304-305
- Cold storage:
 regional holdings, 1969, summary, 7847
 report (periodical), 2418
 strawberry plants for transportation, 15434
see also Frozen foods—Lockers.
- Cole, Gary L.:
 automatic restart control system for axisymmetric mixed-compression inlet, 2121
 design and performance of digital electronic normal shock position sensor for mixed-compression inlets, 2126
- Cole, Henry A., jr., effects of vortex shedding on fuel slosh damping predictions, 7541
- Cole, John W.:
 copper, 843
 titanium, 18175
- Cole, Samuel J., relief, 5036
- Cole, W. Storrs:
 larger foraminifera from deep drill holes on Midway atoll, 732
 larger foraminifera of late Eocene age from Eua, Tonga, 5555
- Cole County, Mo., community profile, 16225
- Coleman, H. P., iterative technique for reducing sidelobes of circular and cylindrical arrays, 15085
- Coleoptera, *see* Beetles.
- Colfax County, Nebr., community profile, 17769
- Coll, Blanche D., perspectives in public welfare, history, 1099
- Collecting of accounts:
 debt collection deception guide, 17995
 Federal claims collection act of 1966, progress and problems in implementing, GAO report, 12584
- Judgment debt collection operations of Justice Department—
 hearing, 416
 report, 1515
- retail credit and collections, bibliography, 6153
- Collection, evaluation, and processing series, 3643-46, 6452, 13178
- Collective bargaining:
 agreements, joint committee or boards to interpret provisions, union management funds to finance—
 hearings, 517
 reports, 1547, 3837, 5199
 agricultural workers, provisions, hearings, 16071
 current issues facing NLRB (address), 987
 implications in postal service (remarks), 18270
 major agreements—
 administration of negotiated pension, health, and insurance plans, 11529
 seniority in promotion and transfer provisions, 7421
 role in shipping industry (remarks), 10052
 safety clauses in agreements in Federal service, 16510
see also Industrial relations.
- Collectives, USSR, spread of droplet infections in closed collective, mathematical models, 5746
- College educated workers, 1968-80, study of supply and demand, 16856
- College students, *see* Students.
- Colleges and universities:
 academic institutions, impact of changes in Federal science funding patterns, 18274
 air pollution training courses, bulletin, 17012
 American, 1971-72 foreign curriculum consultant program, 16394
 aspirations, enrollments, and resources, challenge to higher education in seventies, 5344
 basic student charges, tuition and fees, for room and board, 11230
 Black, relationship with Federal agencies, 14371
 campus disorders, extent of subversion, hearings, 3980
 campus unrest, report, 18302
 college bound program, New York City, secondary program in compensatory education, 11242
 college men and women, pathways to military service, 564
 college volunteers, guide to action helping students to help others, 569
 community college and Office of Education's goals (address), 577
 cooperative education programs, instructions for submitting, proposal, 16390
 DEBW obligations to institutions of higher education, fiscal year, 14561
 education professions, 1968, report on people who serve, 1789
 Emergency student loan act of 1969—
 hearings, 413
 law, 311
 enrollment, 1969, fall, report on preliminary survey, 17912

Colleges and universities—Continued

- Federal laboratory-university programs and relationships, catalog, report, 4657
- Federal support—
 - research and development, 1968 report to Congress and President, 7650
- universities and colleges, 4588, 15035
- financial statistics—
 - commentary on endowment, 14285
 - current funds, revenues and expenditures, physical plant assets, 16393
- Federal funds, 9986
- selected, 12504
- graduate deans, 1872-1970, directory, 11203
- graduate education of Air Force line officers, 10712
- graduate education requirements for military officer positions, Improvements needed in determining, GAO report, 14501
- graduate enrollment and Ph.D. output in scientific fields, 1960-61 through 1967-68, trends, 7625
- graduate social work education, cost and output, exploratory study, 15163
- graduate teaching assistants in American universities, recent trends and recommendations, 11229
- higher education—
 - aid for minority business, directory, 9503
 - directory, 12497
 - facilities act of 1963, amend, hearings, 6705
 - higher and professional education in India, 7014
 - how Education Office assists students and colleges, 1792, 11232
 - message from the President, 6575
 - opening fall enrollment, advance statistics, basic information, 14286
 - personnel training program, 1970-71 fellowship programs, etc., 8517, 9985
 - physical facilities in institutions, inventory, 7015
 - priorities, report of President's Task Force on Higher Education, 17220
 - programs in foreign language and area studies, research and training opportunities abroad, 16406
 - reports for participants in Higher Education Bureau program, 11231
 - salaries, 16395
 - students enrolled for advanced degrees, fall 1969, preliminary report, 12506
- Higher education act of 1965, amend—
 - hearings, 413, 9931
 - law, 311
- housing grants, authorization, increase, report, 9861
- HUD's college housing program, guide, 14575
- institutions of higher education—
 - environmental science centers, survey, 9766
 - under Fair labor standards act, 9265
- law enforcement curriculum at State university, introducing, 16816
- library statistics—
 - data for individual institutions, 14288
 - fall 1968, analytic report, 9990
- NASA research, sustaining university program, 1969 list of tasks, 4533
- NASA's university program, active grants & research contracts, quarterly report, 2922, 7556
- National Defense Foreign Language (NDFL) fellowships, manual for participating institutions, 7017
- National Institute of General Medical Sciences training program effects on graduate education in biomedical sciences, evaluative study, 6040
- 1969 graduate education in comprehensive health planning, 5019

Colleges and universities—Continued

- noncredit activities in institutions of higher education, institutional distribution, 7018
- physical facilities, distribution among institutions grouped by level, control and enrollment size, 11206
- placement officers, employment outlook, 14677
- psychiatric-mental health nursing institutions offering stipends, list, 9017
- role in astronaut life support systems, atmospheres, 8925
- schools participating in nursing student assistance programs, 1971 fiscal year, 12598
- scientific education and educational establishments, USSR study, 5731
- Sea grant college and program act amendments—
 - hearings, 8435, 16043
 - law, 13324
 - reports, 10994, 11079, 13655
- Spanish surnamed American college graduates, list, 8051
- State land-grant, Extension Service review (periodical), 2555
- students enrolled advanced degrees, fall 1968—
 - institutional data, 9994
 - summary data, 8529
- Ukrainian SSR higher educational institutions scientists, 16807
- universities, national laboratories, and man's environment, conference proceedings, 1248
- university role in astronaut life support systems, water recovery systems, 11624
- upward bound, 1970-71 guidelines, 1796
- urban universities, rhetoric, reality, and conduct, 11247
- urban university and environment (address), 8531
- see also Dissertations (academic)—also names of colleges and universities.
- Collings, M.K., hydrology of 4 streams in western Washington related to Pacific salmon species, 14529
- Collins, A. Gene, geochemistry of some petroleum-associated waters from Louisiana, 4473
- Collins, C. G. :
 - effect of thermal-mechanical treatments on tensile strength of 19-9DL and 12R 72HV austenitic stainless steels, 10757
 - summary of tube fabrication studies using planetary swager, 10758
- Collins, J. F., refractory metal fuel element research, final report, 9387
- Collins, William E., adaptation to vestibular disorientation, influence of specific and nonspecific gravi-receptors on nystagmic responses to angular acceleration, 8040
- Collis, Ronald T. H., lidar observations of debris clouds from nuclear cratering detonations, 13085
- Collisions, see Aircraft accidents—Motor vehicle accidents.
- Collisions (electronic) :
 - collision integrals for nonelastic processes in plasma kinetic theory, 2096
 - H₂-H₂ and H₂-H collisions, semiempirical electric dipole moment and its derivative, 16992
 - ion-polar-molecule collisions, computer-made motion pictures and time history plots, 14849
- Colloidal sols, see Colloids.
- Colloids :
 - determination of surface and colloidal conditions which can lead to high salt rejection, reverse osmosis, polymer membranes, 5614
 - evidence that polywater is colloidal silicate sol, 17194
 - needle and slit colloid thrusters, research and development, 5918

INDEX 1970

- Colombia :
 agricultural productivity, 16387
 area handbook, 15485
 atomic energy cooperation for civil uses, agreement, 17363
 economic trends and their implications for United States, 1967, 11464, 18084
 frogs, types, description, etc., 11785
 hydrographic and cartographic efforts, 1010
 market factors, 6505
 mineral industry, minerals yearbook chapter, 18152
 Colombo, Arthur F., infrared evaluation of starch products used in iron ore flotation, 867
 Colon (anatomy) cancer, 4648
 Colonial National Historical Park :
 Moore House, general information, 6064
 Thomas Pate House and lot 42 in Yorktown, Va., historic data, 12875
 Color :
 color-range bodies in color photography, USSR study, 5799
 4-color problem, some labeling theorems for planar linear graphs, 4621
 Color codes, single gun color CRT, research and development, phase 2, final report, 5900
 Color perception, stimulus size, duration, and retinal location effects upon appearance of color, 7453
 Color photography :
 aerial, evaluates mortality from impact of Douglas-fir tussock moth, 16582
 color-range bodies, USSR study, 5799
 Color prints, see Prints.
 Color television, see Television.
 Colorado :
 apples, marketing order authority, extend—
 law, 13316
 report, 12223
 basin, carices, manual, 12977
 board-foot volumes to 6-inch top for lodgepole pines, 5505
 census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 3530
 retail trade, merchandise line sales, 13100
 selected services, area statistics, 3541
 census of governments, 1967 statistics, 3556
 census of manufacturers, 1967, statistics, 17498
 climatological data, 2409
 counties, estimates of population, 3641
 county business patterns, 193, 9447
 improved environment through resource conservation and development, 10559
 irrigation council, annual meeting, proceedings, 9087
 mineral industry, minerals yearbook chapter, 4422
 minority construction contractors located in selected cities, list, 8795
 Piceance Creek basin, Green River formation lithology and oil shale correlations, 11583
 ponderosa pine zone, seeded ranges response to different grazing intensities, 4826
 precipitation data, hourly, 2718
 primary election, 1st Congressional district, Sept. 8, 1970, campaign expenditures, complaint, investigation, report, 15880
 public lands outdoor recreation map—
 Eagle area, 14746
 Glade Park area, 14747
 Piceance Creek area, 14748
 Powderhorn area, 14749
 recreation sites, 14750
 Red buffalo section of interstate highway 70, selection of highway route, choices and values, 10499
 Colorado—Continued
 Rockies, transect physical geography and military environment, 13042
 small watershed projects, program, hearings, 17718
 southern economic development program (address), 5326
 student health project, 8773
 trees native to its forests, 7203
 water resources, 16629-630
 water supply outlook
 and snow surveys, 3338
 early season snow report, 4700
 special early season snow report, 4701
 western—
 meteorology of major storms, 1827
 pot tests indicate fertilizer improves soils from Black mesa, 685
 Colorado-Big Thompson project :
 Flatiron Power and Pumping Plant discharge measurements using radioisotopes—
 and high-head turbines and pumps, 3504
 velocity, integrated sample, dilution, and total count methods, 6389
 Colorado Desert, springs in area, data, 7233
 Colorado River and Valley :
 basin—
 mineral quality problem, Appendix B, physical and economic impacts, 14404
 Pacific slope basins in California, surface water quality, 4264
 surface water quality, 14555
 surface water records, 5563
 compilation of hydrologic data of basin, 1968, Mukewater Creek, Tex., 8732
 deposits on Fort Mojave Indian Reservation, 16613
 surface water supply of basin—
 Colorado River Basin above Green River, 14551
 Green River to Compact Point, 12592
 lower basin, 14552
 upper basin, streamflow, correlative estimates, 5565
 water supply outlook and snow surveys of—
 drainage basin, 3338
 lower basin, 3337
 watershed conditions affecting water supply, 3247
 watershed snow courses and soil moisture stations, list, 7764
 Colorado River Front Work and Levee System, Senator Wash dam, dikes, and pumping-generating plant, Senator Wash Unit, Calif., Imperial Dam Division, technical record of design and construction, 17248
 Colorado River storage project, Power Operations Center, Montrose, Colo., general information, 10531
 Columbia Basin project, Wahluke Branch Canal, tests on preformed polysulfide strips for canal contraction joints, 9090
 Columbia Broadcasting System, "Project Nassau", CBS network news documentary practices, report, 12252
 Columbia County, N.Y., community profile, 16226
 Columbia County, Pa., community profile, 16227
 Columbia County, Wash., community profile, 6903
 Columbia Falls, Mont. :
 flood plain information, 4078
 floods, how to avoid damage, 7039
 Columbia River and Valley :
 basin—
 flood control payments, agreement with Canada, 6251
 surface waters, quality, 16644
 Columbia basin States, climatological handbook—
 hourly data, 2192-93
 precipitation, 2191
 temperature, 2189-90

Columbia River and Valley—Continued
 Federal Columbia River Power System, Bonneville Power Administration, report, 13090
 fish passage report, Bonneville, The Dalles, John Day, McNary Dams, 14302
 limnological study of lower area, 15748
 otter trawling introduced to Columbia River smelt fishery, 9531
 snow survey and soil moisture measurements for Canada, 1107, 17291
 surface waters, quality of basin, 5567
 timber economy, projected developments, 698
 water supply outlook and snow surveys, 3345
 Columbian College, *see* George Washington University.
 Columbiana County, Ohio, community profile, 12431
 Columbium, *see* Niobium.
 Columbus, Ind., Post Office dedication (remarks), 12902
 Columbus, Ohio:
 area wage survey, 5831
 high schools, Students for a Democratic Society, hearings, 6716
 Port Columbus International Airport, climatological summaries, 2252
 Columbus County, N.C., community profile, 12432
 Columnaris disease of fishes, 6204
 Columns:
 alumina, for selective removal of phosphorous from wastewater, operating parameters, 14406
 beam columns, frames, and arches, finite element approach to structural instability, 10406
 column and compressive strengths of aluminum tubing with various amounts of unidirectional boron/epoxy reinforcement, 14877
 Combat:
 action in Korea, history, etc., 4399
 aerial games, new approaches, 18182
 major weapon systems satisfactory for combat use, need for management improvement, Army Department, GAO report, 719
 readiness of Strategic Air Command bases, GAO review, 7208
 Combat air crews, *see* Flight crews.
 Combat areas:
 airdrop of supplies and equipment in theater of operations, Army field manual, 3464
 construction in theater of operations, Army technical manual, 6358
 Combat vehicles, *see* Motor vehicles.
 Combating drug abuse, 327
 COMBI, *see* Computer programs/programming.
 Combustion:
 cantilever scales for measuring weight changes, 18018
 chambers, position numbers, military standard, 16149
 experimental prescribed burn to reduce fuel hazard in chaparral, 18021
 fluid-bed combustion and potential uses of anthracite culm-bank material, Operation Red Dog, study, 1358
 gas combustion retorting of oil shale under Anvil Points lease agreement, 866
 hydrogen-air constant-pressure combustion, analytical chemical kinetic study of effect of carbon dioxide and water vapor, 10402
 mixing and combustion of turbulent, compressible free jets, investigation, 2067
 stability of single swirl-can combustor modules using ASTM-A1 liquid fuel, 903

Combustion products, seeded coal, thermodynamic, electrical, physical and compositional properties, 12739
 Combustors:
 48-module swirl-can turbojet combustor segment, performance at high temperatures using ASTM-A1 fuel, 2124
 full-scale annular ram-induction combustor for Mach 3 cruise turbojet engine, tests, 18218
 rocket, thermometric determination of oxidant-fuel distribution, 4525
 short length turbojet, insensitive to radial distortion of inlet airflow, performance, 5924
 simplified modular turbojet combustor, preliminary tests, 12773
 turbojet—
 performance with natural gas fuel, 8933
 using natural gas fuel heated to 1200° F, performance, 5963
 Come out from under the ivy, 7008
 Comets:
 atlas of cometary forms, structures near nucleus, 2077
 nature and origin, 10417
 physics, studies in astrometry and astrophysics, 11702
 Command (military):
 commanders call support materials (periodical), 2419
 commanders digest (periodical), 2420
 commanders' guide to retention of AMEDD officers, 15483
 TAMMS, The Army maintenance management system field command procedures, technical manual, 3483
 Commanders call support materials, 2419
 Commander's supply and maintenance handbook, 10739
 Commanders digest (periodical), 2420
 Index, 6846
 Commemoration of Yellowstone National Park, hearings, 429
 Commemorative medals, *see* Medals.
 Commemorative stamps, *see* Postage stamps.
 Commerce:
 agricultural trade development and assistance act of 1954—
 amend, reports, 369, 6586
 Library of Congress project newsletter, 2834
 American business in internationalized world economy (address), 10243
 American problems in world trade and possible solutions (address), 269
 case for positive trade policy (address), 9193
 changing world and international business (address), 9495
 commerce and foreign trade code of Federal regulations, 7119
 current U.S. role in export trade and proposals for future improvement (address), 11400
 domestic and international business news to use for trade association periodicals, 2514
 East-West trade—
 Battle act, report, 17332
 outlook for U.S. participation (address), 15720
 export challenge of 70's (address), 11461
 Federal Maritime Commission's role in stabilizing U.S. international trade (remarks), 7096
 fish farming, commercial reality, conference papers, 9136
 foreign agricultural trade—
 by countries, 7005, 85008, 11198
 monthly, 2655
 Foreign Arbitral Awards, recognition and enforcement, convention on, implementation—
 law, 15767
 reports, 5246, 10991

INDEX 1970

Commerce—Continued

foreign commerce and navigation of U.S.—
departmental edition, 17539
document edition, 17615
foreign oceanborne trade of United States
container cargo, selected trade routes,
2660
foreign production and commercial reports,
indexes, 1966, 2737, 16713
foreign trade—
American policy (remarks), 12526
challenges in international economy
(address), 265
foreign trade and tariffs, proposals writ-
ten statements, other material submit-
ted by administration witnesses, and
letter of the President, 13552
FT reports, 230, 1338, 2664-74, 10831-
832, 12038, 12041, 17542-543
New England, problems (remarks), 642
promotion (address), 10242
role of Commerce Department (ad-
dress), 8826
statistics, 1970 guide, 12040
trends, 16730
United States, 1963-69, annual, 6515
United States, 1967-69, quarterly, 3692
errata, 274
United States, 1968-70, quarterly, 10879
Haiti's agriculture and trade, 6998
international business in changing world
(addresses), 4987, 6503, 8142-43
international business opportunities in
changing world (address), 15716
international commerce (periodical), 2757
automated cumulative index, 2758
interstate, scored horses not to be shipped
for exhibit or show—
hearings, 498, 17649
report, 1682
interstate commerce, publications, price
list, 4645
Interstate commerce act—
amend—
hearings, 499, 8308
reports, 1694, 9653, 12201, 13474
together with text of supplementary
acts and related sections of various
other acts, 800
interstate commerce acts annotated, ad-
vance bulletins, 2297
interstate or foreign flight to avoid prose-
cution for killing policeman or fireman,
prohibit, hearings, 17706
National Export Expansion Council's In-
dustry Committee on Engineering and
Construction Services, report, 15719
Northwest forest industries, trade, 3100
position of U.S. in world commodity ex-
ports, 1968 report, 8102
promoting foreign trade (address), 10241
Puerto Rican-Virgin Islands trade study,
11311
safety on waterfront its importance to
trade (remarks), 5428
steamship lines in foreign commerce of
U.S., approved conference, rate and
interconference agreements, 639, 2341,
7093, 17977
summaries of trade and tariff informa-
tion, 4766, 6262, 7853, 10639, 17375
tariff and trade proposals, hearings, 12287
trade, agreement with Honduras, 6239
Trade Act of 1969, proposals—
committee print, 9773
hearings, 12287
Trade act of 1970, report, 15859
Trade expansion act of 1962, amended,
hearings, 12287
Trade expansion act of 1969, proposals,
analysis, 9774
trade policy at mid-year 1970 (address),
11876
trade policy in changing world (address),
15737

Commerce—Continued

trade policy toward developed countries,
hearings, 10938
trading in live beef cattle futures, 9566
transporting fresh fruits and vegetables
overseas, interim report, 9278
United States—
business in international economy (ad-
dress), 9512
European Community's common agricul-
tural policy implications, 573
world competitive position (statement),
9513
United States international trade—
prospects (address), 6517
research, 7344
United States trade with—
Communist areas in Eastern Europe and
Asia, 12059
major world areas, 9509
Puerto Rico and U.S. possessions,
monthly report, 2667
USSR trade and services, translations,
3286
waterborne, 1968 calendar year, 8552-54
foreign trade, summary report, 230
national summaries, 14334
where are we headed in trade negotia-
tions? (address), 17131
where world trade is headed, fairer trade
or confrontation? (remarks), 15739
world trade policies, proposed legislation,
message from the President, 1445
world trade to develop expanding era, pro-
posals, analysis, 9774
see also Exports—Trade routes—also
names or classes of articles of com-
merce
Commerce business daily, 2422
Commerce Committee, Senate:
calendar, 2819
hearings, 496-500, 1705-7, 3959-67, 5258-
62, 8381-87, 9899-9903, 11114-115,
12360-362, 13717-718, 13720-725,
16042-45, 17693-694, 17717
investigations and studies, additional ex-
penditures, authorization, reports, 1637,
5211
reports, 475, 1631-32, 1643, 1647, 1652,
1659, 1677-78, 1682, 1694, 6735, 6764,
6767-68, 8349, 9833, 9839, 9847-49,
9860, 9866, 9872, 9877, 11077, 12355,
13655-656, 13669, 13672-673, 13688-
689, 13701, 15977, 15993, 16005
Commerce Department:
annual report, 4981
appropriations, 1970—
law, 3733
reports, 472, 5104
appropriations, 1971—
amendment, proposal, 13567
hearings, 8270, 13708
reports, 9686, 15990
waive points of order, report, 9688
Assistant Secretary of Commerce, nom-
ination of—
Jobe, Larry A., hearings, 494
Assistant Secretary for Economic Affairs,
nomination of—
Passer, Harold C., hearings, 495
Tribus, Myron, hearings, 494
career gateways, 6501
careers, 12057
imports of watch movements duty-free
from Virgin Islands, benefit islands'
economy, GAO report, 7217
inequitable charges for calibration serv-
ices, need for accounting improvements
at National Bureau of Standards, GAO
report, 12576
management internship for you, career op-
portunities, 6502
maritime programs, appropriation, author-
ization—
law, 10908
hearing, 5173

Commerce Department—Continued

press release, 3044
 role in foreign trade (remarks), 8826
 special services, authorize—
 hearing, 11042
 law, 15797
 report, 1632
 State Technical Services Office, annual report, 6504
 telephone directory, 3698
 Commerce Technical Advisory Board, Panel on Venture Capital report, financing new technological enterprise, 15714
 Commercial artists, *see* Artists.
 Commercial aviation, *see* Air carriers.
 Commercial banks, *see* Banks and banking.
 Commercial fisheries, *see* Fish and fisheries.
 Commercial Fisheries Bureau:
 annual report, 8165
 appropriations, 1970, law, 314
 Biological Laboratory—
 Auke Bay, Alaska, general information, 10888
 Galveston, Tex., reports, 3705, 15744
 Honolulu, Hawaii, progress report, 290
 Milford, Conn., general information, 1370
 St. Petersburg Beach, Fla., report, 17565
 circulars, 290, 1369-70, 3703-8, 6522, 8162-64, 9515-17, 10888, 13233-235, 15744, 17565-566
 Economic Research Division program, 8164
 Federal aid program, 1970 activities, 13234
 fishery marketing development series, 12075
 Great Lakes Fishery Laboratory, Ann Arbor, Mich., general information, 8162
 new publications, monthly list, 2906
 special scientific reports, fisheries series, 3717-18, 5013-14, 6524-25, 8166, 10896-897, 13241-246, 15746-752, 17658
 statistical lists, SL series, 3714-16, 6526, 9540-65, 10893-895, 12076-82
 Technological Laboratory—
 Gloucester, Mass., general information, 13235
 Pascagoula, Miss., report, 3707
 Seattle, Wash., report, 3706
 transfer functions to National Oceanic and Atmospheric Administration—
 hearings, 15912, 18057
 report, 15875
 Commercial policy:
 trade policy at mid-year, 1970 (address), 11876
 U.S. foreign trade policy for the 70's (address), 17212
 U.S. position in international markets (remarks), 11922
 Commercial practices, code of Federal regulations, 5442, 7120
 Commercial products:
 census of business, 1967, merchandise line sales—
 publications order form, 6455
 retail trade, 10785-794, 11986-996, 13099-121, 15541-546, 17481
 commodity transportation survey, 1967 census of transportation—
 area series, 6417-34, 8065-74, 9433-45, 10797
 commodity groups, 10798
 selected major TCC3-digit classes, 12013
 U.S. summary, 10798
 shipper group, 1309-19, 3601-8, 4924-28, 12013
 export commodity classifications, special announcements, 3649
 exports—
 domestic merchandise, statistics, 12041
 foreign trade reports, 2666, 2673, 10832
 schedule B, 10831

Commercial products—Continued
 exports—continued

statistical classification, schedule B, 189, 3175
 goods and services to which trademarks are applied, international classification, Nice agreement, revised, 15973A
 Government-rejected consumer items sold into commercial channels, report, 1557
 guaranties covering consumer products with electrical, mechanical, or thermal components, provide minimum standards—
 hearings, 8387
 report, 9872
 household ownership and purchases of cars, homes and selected household durables, special report, 224
 imports, foreign trade reports, 2665, 2673, 12038
 schedule A, commodity groupings, etc., 10833
 manufactures products, miscellaneous, census of transportation, 1967, commodity transportation survey, shipper group, 3605
 miscellaneous and nonenumerated products, trade and tariff information summaries, 10639
 position of U.S. in world commodity exports, 1968 report, 8102
 product standard PS (series), 4551, 7570-72
 promotion, employers contributions to jointly administered trust funds, permit—
 hearings, 517
 reports, 1547, 3837, 5199
 recent purchases of cars, houses, and other durables, and expectations to buy during months ahead, survey data, 1334, 6450, 10823, 13177
 selected household durables, 1970, 1969, 1960, special report on household ownership, 15653
 shipments of commodities by manufacturers, map, 15661
 standardization and certification, challenge to industry and Government (address), 6516
 voluntary product standard PS (series), 8997, 10440-441, 11742-749, 14928-931, 17044
see also names of products.
 Commercial standards, *see* Standards and standardization.
 Commercial treaties:
 trade, Canadian oil exports, arrangement, 6244
 trade agreements, proposed legislation, message from the President, 1443
 trade agreements program, 1968, report, 15822
 Trade expansion act of 1962, amend—
 proposal, 9773
 report, 15859
 Trade expansion act of 1969, proposals, analysis, 9774
see also General agreements on tariffs and trade.
 Commissaries, commissary and subsistence depot operating manual, 15457
 Commission on Bankruptcy Laws of United States, *see* Bankruptcy Laws of United States Commission.
 Commission on Government for District of Columbia, *see* District of Columbia Commission on Government.
 Commission on Government Procurement, *see* Government Procurement Commission.
 Commission on Instructional Technology, *see* Instructional Technology Commission.
 Commission on Licensure to Practice the Healing Art, composition, revise, report, 385

INDEX 1970

- Commission on Organization of Government of District of Columbia, *see* District of Columbia Commission on Organization of Government.
- Commission on Population Growth and the American Future, *see* Population Growth and the American Future Commission.
- Commission on Revision of Criminal Laws of District of Columbia, *see* Criminal Laws of District of Columbia, Commission on Revision of.
- Commissioned officers, *see* Air Force Reserve—Army—Army Reserve—Marine Corps—Public Health Service.
- Committee on Scientific and Technical Information, *see* Scientific and Technical Information Committee.
- Committees, interagency committees in which HUD participates, inventory, 12607
 - see also* Advisory committees—Congressional committees.
- Commodities, *see* Agricultural products—Commercial products—Exports—Imports—*also* names of commodities.
- Commodity Credit Corporation:
 - appropriations, 1970—
 - law, 1392
 - report, 1482
 - CCC export credit sales program, general information, 8580
 - CCC price support program data, 2429
 - charts, providing graphic summary of price support and related activities, 3719
 - dairy products, donate to school lunch program and needy groups of U.S. and abroad—
 - law, 9598
 - reports, 382, 5207
 - export credit sales program—
 - how it works, 8170
 - regulations covering export financing of sales of agricultural commodities, 8581
 - financial condition and operations, report, 3143
 - financial statements, 1969, GAO examination, 8211, 12574
 - orderly liquidation of stocks of agricultural commodities held by CCC, etc., 10694
 - reports of president, 12083—84
 - sales list, monthly, 2393
- Commodity Exchange Authority:
 - appropriations, 1970—
 - law, 1392
 - report, 1482
 - appropriations, 1971, hearings, 8266
- Commodity exchanges:
 - act, as amended, 5015
 - code of Federal regulations, 8640
 - commodity futures statistics—
 - July 1968—June 1969, 4827
 - monthly summary, 2909
 - New York Mercantile Exchange potato futures market, extent and price effects of floor trading, 13247
 - trading in live beef cattle futures, 9566
- Common carriers, *see* Carriers—Communications—Motor carriers.
- Commonwealth Parliamentary Association Conference, Port-of-Spain, Trinidad and Tobago, 1969, Senate delegation appointed to attend, reports, 8404, 15513
- Communicable Disease Center, National, *see* National Communicable Disease Center.
- Communicable diseases, *see* Contagion and contagious diseases.
- Communication satellites, *see* Satellites.
- Communications:
 - act of 1934, amend—
 - hearings, 1705, 3876, 5258, 8384, 9758, 11043, 16042, 17694
 - law, 313
 - reports, 9714, 9886, 12237, 13476, 16855, 16977
- Communications—Continued
 - act of 1967, amendment, report, 9866
 - ATS—1 VHF communications, experimentation, 18370
 - carriers, discontinuance of service, FCC rules and regulations, 2585
 - civilian power and communications, problems caused by electromagnetic pulse, 4887
 - common carriers—
 - and affiliates, reports, FCC rules and regulations, 2585
 - interstate and intrastate toll service, uniform separation procedures, hearing, 16042
 - miscellaneous rules, FCC rules and regulations, 2585
 - preservation of records, FCC rules and regulations, 2585
 - statistics, 8607
 - communications and electronics, communications-radio receiving set AN/PRR-9 and transmitting set AN/PRT-4, operator training course, 13050
 - computer communications, capacity to govern, FCC role in development of national policy (remarks), 7077
 - Defense Department, improvements needed in management, GAO report, 18034
 - effect from Hurricane Camille, Aug. 17–21, 1969, summary report, 5414
 - electronics activities—
 - frequency management and electromagnetic compatibility, manual, 6326
 - terminology, Air Force manual, 10713
 - equipment—
 - current industrial reports, 8078
 - equipment, including radio, TV, and electronic components, etc., census of manufactures, 1967, industry statistics, 17530
 - Federal item identification guides for supply cataloging, supplements, 2594
 - exhaustive searching for best (20,8) code for low power (VHF) ionospheric scatter communications, 16459
 - global navigation and traffic control using satellites, 14895
 - HF communication systems, required signal-to-noise ratios, 1839
 - industry wage survey, 11546
 - information communication occupations, suggested curriculum guide, 5352
 - ionospheric channel and atmospheric noise simulators, recommended specifications, 613
 - laser communications today and tomorrow, USSR study, 18092
 - long distance facilities, technology and operations, USSR study, 10284
 - maintenance of air/ground facilities, FAA handbook, 1844
 - miscellaneous equipment, Federal item identification guide, 17738
 - PACAF basic bibliography, 13027
 - pharmaceutical communication in clinical environment, 17049
 - products and parts, census of transportation, 1967, commodity transportation survey, shipper group, 1317
 - program analysis, problem in man-computer communication, 14892
 - random access communication system, 2-signal primer for Fourier analysis, 16461
 - satellite, foreign policy implications, hearings, 11033
 - satellite act of 1962, annual report on activities, etc., under act, 6569
 - scientific and technical, Government progress, COSATI annual report, 16483
 - Scientific and Technical Society of Radio Engineering, Electronics, and Communications, session, report, USSR study, 7857

Communications—Continued
services—

excise taxes, extend, tax recommendations of the President, 15955
improvements needed in settling claims for termination, GAO report, 1890
short term ionospheric forecasts for selected southeast Asia DCA trunks, evaluation, 612
skills center project, Detroit, Mich., elementary-secondary program in compensatory education, 11220
subpoenas, outtakes, and freedom of press, appeal to media management (remarks), 7079
systems, digital, receiver decision techniques for certain fixed length binary block codes transmitted through Gaussian channel, 4632
underground, induction devices for detecting, investigation, USSR study, 5736
United States Information Agency, cross-cultural communication careers, 2278
use of Federal Aviation Administration system, Federal aviation regulations, 2571
USSR, herald of communications (periodical), 2710
vehicular, surface wave transmission line to facilitate, technical report, 16466
violence and the media, staff report to National Commission on Causes and Prevention of Violence, 4641
VLF multimode propagation predictions, theoretical, errata, 11818
see also Military communications—Optical communications—Radio communication—Signals—Space communications—Telecommunication—Telephone—Television.
Communications and Electronics Division, Army Dept., general information, 13040
Communications and Records Center, Culpeper, Va., dedication (remarks), 659
Communications satellites, *see* Satellites.
Communism:
Caribbean threat to U.S., hearings, 6809, 13744
Communist strategy and tactics of employing peasant dissatisfaction over conditions of land tenure for revolutionary ends in Vietnam, 17646
Lenin Centennial, statements by Ukrainian Academicians, 12648
Leninist principles of management in age of scientific and technical revolution, 11505
powers, groups, and organizations, obstruction of Armed Forces movement of personnel or supplies, amend Internal security act, hearings, 3870
problems (periodical), 3098
Soviet, human cost, 17708
subversion in New Left, extent, hearings, 8416, 9920, 13747, 17707
subversive influences in riots, looting, and burning, hearings, 423
USSR, Communist (periodical), translations, 3268
Communist doctrine and Soviet diplomacy, observations on international negotiation, 5265
Communist organizations, investigation, expenses, report, 5226
Warsaw Insurrection, Communist version versus facts, 8422
see also Un-American activities.
Communist China, *see* China.
Communist countries:
agricultural situation in Communist areas, review and outlook, 7001
Communist powers, American shortcomings in negotiating with, 13788
Communist Party of United States, Students for a Democratic Society, activities, hearings, errata, 8305

Communities, *see* Cities and towns—Rural communities.

Community action agencies, rural community action agencies, study of neighborhood center program, 5336
Community Action Program, *see* Economic Opportunity Office.
Community centers, residential community treatment centers, authorize admission of persons placed in probation, released on parole, or mandatorily released, hearings, 15920
Community Development Corporation, establish, report, 15878
Community development programs:
community action for environmental quality, 7706
Federal assistance programs, catalog, 13824
Federal programs (remarks), 761
green power, consumer action for the poor, 13825
high school and young adult groups, build our American communities, 11200
long-range planning (address), 9968
neighborhood center programs in rural community action agencies, study, 5336
new minority enterprises, 1371
statewide community organization for the aged, project report, 12959
water supplies in developing countries, guidelines and criteria for establishing, 5377
Community facilities:
community mental health centers act—
amend—
law, 6543
hearings, 3875
reports, 1535, 6583
amendments of 1969—
hearings, 3875
report, 1535
amendments of 1970—
law, 6543
report, 6583
data systems, description of existing programs, 4565
comprehensive community services for alcoholics, Williamsburg papers, 11775
Emergency community facility act of 1970—
hearings, 11028
reports, 12232, 13457, 16017
employment of mentally restored, involvement for community organizations (periodical), 2772
Federal grants for comprehensive community alcoholism treatment and rehabilitation services, 18265
mental health centers, bold new approach, 11774
neighborhood facilities program, 14581
Community health, *see* Health.
Community health representative, changing philosophy of Indian involvement, 8799
Community health services, *see* Health.
Community life:
impacts of Head Start centers on community institutions, national survey, 16648
summary report, 16649
naturalization candidates, Federal textbook on citizenship, home study course for helper, 16685
Community mental health center, bold new approach, 11774
Community profiles, 6890-6982, 8493-94, 12401-490, 13828-14623, 16168-374, 17751-902
Community Relations Service, annual report, 9569
Community service volunteers, volunteer assistance, for veteran-patients living in community, 4785
Commuter and municipal income tax, background paper, 10676

INDEX 1970

Commuter transportation, *see* Transportation.

Compacting, uranium mononitride compacts, fabrication, 11692

Compaction, *see* Compacting.

Compacts (interstate), *see* Interstate agreements.

Companies:
filing annual reports with SEC, directory, 7731
tank units, Army field manual, 6347

Compasses:
magnetic compass adjustment, handbook, 1020
various aircraft systems described, USSR study, 7388

Compatibility, carbonation cell materials compatibility, 2071

Compensation, *see* Pensions—Salaries—Wages.

Compensation (law), *see* Damages.

Compensation of victims of crime, hearing, 5263

Compensatory education, *see* Education—Elementary education.

Competence for all as goal for secondary education, 5346

Competition:
competitions and awards, VA voluntary service, 10660
credit cards, unsolicited mailing constitutes unfair method of competition, trade regulation rule, 10093
defense procurement, policies, hearing, 5270
drug industry, competitive problems, hearings, 524, 11148, 12383
Japan's farm commodity market, view of U.S.-Australian competition, 6999
U.S. world competitive position (statement), 9513
world wheat markets and U.S. exports,

Complaints:
analysis of complaints in selected automobile insurance markets, advisory report, 15354
how discrimination complaints system works in Federal civil service, 8122

Component combination and frame-embedding in Chinese character grammars, 4553

Components construction, *see* Buildings.

Composing machines, ribbons, changeable type style, etc., Federal standard, 10091

Composite materials:
composite ablation material with silicone-resin base, investigation of char formation and surface recession, 16999
composites with constituents of differing thermal expansion, effects of thermal loading, 14869
concrete-polymer materials, topical report, 13065
high-strength tantalum composite by thermomechanical working, 4530
stress-rupture life of discontinuous fiber composites, influence of fiber aspect ratio, 12782
tungsten alloy fiber-nickel-base alloy composites for turbojet engine applications, preliminary evaluation, 5926

Composites, *see* Composite materials.

Composition (printing), *see* Printing.

Compositions of matter, compositional properties of seeded coal combustion products, 12739

Compositors, *see* Printers.

Composting dewatered sewage sludge, 10021

Compounds which have been tested for carcinogenic activity, survey, 4556
see also Inorganic compounds—Organic compounds—also names or classes of compounds or purpose for which used.

Comprehensive community mental health center, 11777

Compressed gas cylinders, *see* Cylinders.

Compressibility:
compressibility data for helium from temperature range—5° C to 80° C and at pressures to 800 atmospheres, 5883
compressive and column strengths of aluminum tubing with various amounts of unidirectional boron/epoxy reinforcement, 14877
compressive instability and strength of uniaxial filament-reinforced epoxy tubes, 5974
compressive strength of titanium-alloy skin stringer panels, influence of salt and elevated-temperature exposure, 5961
factors for helium and carbon dioxide mixtures at -10° and -20° C and pressures to 1,000 PSIA, 12744
high speed turbulent boundary layer with heat transfer and arbitrary pressure gradient compressibility transformation general considerations, 18189
isothermal, of frozen soil and ice to 30 kilobars at -10° C, 14305
modulus of compressibility, and perpendicular component of molecular dipole moment of films spread on liquid surfaces, CDC 3800 computer program to calculate and plot, 15070
1,000 atmosphere Burnett compressibility apparatus, elastic pressure distortion of volumes of helium over temperature range 0°-75° C, 7490
potential function of compressible fluid near Mach 1, computation, 8941
reversible compression of freeze dried RTP cherries and blueberries, studies, 7986

Compressible flow, *see* Flow.

Compression:
axisymmetric mixed-compression inlet, automatic restart control system, 2121
buckling of stiffened cylinders in axial compression and bending, review of test data, 2105
mixed-compression inlets, digital electronic normal shock position sensor for, design and performance, 2126
Tezuka Refuse Compression System, preliminary report, 8564
vacuum freezing vapor compression desalting state-of-the-art, 780
vacuum freezing vapor compression process—
desalting 60,000 GPD pilot plant, evaluation, 16699
evaluation on brackish water, 14593

Compressors:
axial compressor noise, application of theory to minimize, 12757
axial-flow, noise from, effects of inlet-guide-vane configuration and relative blade velocity, 5922
current industrial reports, 4939
change, 8088
Federal item identification guides, 17739
supply cataloging, supplements, 2593
reciprocating, rotary and centrifugal, Federal item identification guide, 13783
six-inch radial bladed centrifugal compressor, effect of Reynolds number on overall performance, 11645

Comptroller General, *see* General Accounting Office.

Comptroller of Currency:
provide with rent-free space in Government-owned buildings, GAO report, 14512
report, 1968—
departmental edition, 1372
document edition, 1432

Comptrollers:
Air Force comptroller (periodical), 2314
Air Force Stock Fund, activities, procedures in support of, manual, 15458

Computations, *see* Numerical calculations.
Computer equipment analysts, *see* Computer specialists.

Computer operators:
data processing career opportunities in Veterans Administration, 7894
electronic computer, operating personnel, employment outlook, 14651
examination announcement, discontinuance notice, 248

Computer programmers, *see* Computer specialists.

Computer programs/programming:
ADMATCH users manual, census use study, 6435

BMD02R computer program, stepwise regression accuracy in network analysis, highway planning technical report, 15134

CalComp plotters, general purpose programs, 9043

calculating capital and operating costs in metallurgy recovery process, 846

CDC 3800 program, compressibility and modulus of compressibility, and perpendicular component of molecular dipole moment of films spread on liquid surfaces, calculation and plotting, 15070

COBOL, common business oriented language, fundamentals, programmers, change, 6111

COMBI plotter subroutine for meteorological flight path and 4 parameters, 8571
computer-made motion pictures and time history plots of ion-polar-molecule collisions, 14849

computer multiplication use of Markov chains to analyze a synchronous methods, USSR study, 12629

computer program abstracts (periodical), 2433

computer programs—
analysis of stationary outside-coil Lundell alternators, description and evaluation, 12796

thermal analysis of spacecraft, including all multiple reflections and shading among diffuse gray surfaces, 12824

computer simulated conventional and branching tests, comparison, 15494

computer solution of unsteady Navier-Stokes equations for infinite hydrodynamic step bearing, 11630

computerized data retrieval and manipulation, final 1970 census plans and 4 programing systems, papers, etc., 4929

corporate finance model, 9237
coupled computer code for transient thermal response and ablation of non-charring heat shields and nose tips, 18183

data processing facilities at ESSA Research Flight Facility, 5393

digital model for aquifer evaluation, 8751

ducted fan performance, prediction, 5895

economic and engineering analysis of electroanalysis process, 769

edit-insertion programs for automatic typesetting of computer printout, 8992

effectiveness analysis of moving target selection systems by computer modeling, USSR study, 11492

fault diagnostics for frequency-dependent circuits by correlation and variance techniques, 5978

flight computer and language processor study, 14809

Fortran programs—

angular scattering functions for spherical water droplets, 15062

calculating compressible laminar and turbulent boundary layers in arbitrary pressure gradients, 12772

calculation of axisymmetric temperature field, and gas turbine face seal thermal deformation, 2125

Computer programs/programming—Con.

Fortran programs—Continued

component reliability tables, binomical redundancy applications, 2097

countercurrent distribution, 1190

elastic scattering analyses, 16997

fast Fourier transform, 15074

machine computations of group tables of finite groups, errata, 10378

Marx and Langeheim calculations, apply to prediction of oil recovery by steam-flooding in Venango sands, 850

optical parametric up-conversion processes in nonlinear crystals, 2179

orbit determination methods, preliminary, 12770

plotting data points from multichannel analyzer via remote teletype, 8902

self-study course in FORTRAN programming, 12753, 14808

SIXBIT generalized reaction kinetics program, 16463

gamma and beta distribution functions applied to size distribution of mineral products, 869

high speed turbulent boundary layer with heat transfer and arbitrary pressure gradient, investigation, computer program manual, 18190

incompressible laminar and turbulent boundary layer development, calculation, 7521

INFORMAP, computerized information system for fire planning and fire control, 8712

MCDIT-21 computer code for one-dimensional elastic wave problems, errata, 18177

multiplicative generator of pseudo-random numbers, evaluation, 15493

neutron time-of-flight measurements, 4555

on-line parsing of hand-printed mathematical expressions, report, 2061

on-line programming system, 16939

PERTITAN, transport-perturbation program, 12823

predicting long-term operational parameters of high-frequency skywave telecommunication systems, errata, 7051

errata, 17952

program analysis, problem in man-computer communication, 14892

programmer's guide for CalComp plotting, 971

programming and feedback method for maintaining interpreter proficiency in computerized facility, 9358

RAPIER, multiple linear regression analysis providing internally evaluated re-modeling, 5951

replaceable electronic assembly description and English language test program requirements, military standard, 9963

simulation of structural details of high frequency over-the-horizon earth backscatter, 4630

SLENDER, plotter subroutine, meteorological straight line flight data, 5387

spaceborne multiprocessing, study, 5891

stereocomparator coordinate reduction, 15137

stereographic analysis of coal fractures and cleats, 7463

SURBAL, computerized metes and bounds, 12559

TIES computer program series, 15137

timber sales processing, 9226

TRANSOP model methodology, 8632

see also Computer science—*also* subjects.

Computer Research and Technology Division, technical reports, 971, 11779

- Computer science:
 - computer development in Soviet Moldvia, USSR study, 16744
 - computer simulation model for evaluation of health care delivery system, 17046
 - research and development in computer and information sciences, 8983-94, 11730
 - time series analysis, theory and practice, 11779
 - yearbook of office mechanization and computer technology, Hungary, 11490
- Computer Sciences and Technology Center, *see* Center for Computer Sciences and Technology.
- Computer specialists:
 - career opportunities in Federal Government, 244
 - examination announcement, discontinuance notice, 248
 - programmers, systems analysts, employment outlook, 14681
- Computer systems analysts, *see* Computer specialists.
- Computer technicians, examination announcement, discontinuance notice, 248
- Computers:
 - applications in psychotherapy, bibliography and abstracts, 9015
 - automated fingerprint identification, 14926
 - communications, capacity to govern, FCC role in development of national policy (remarks), 7077
 - computer mapping, census use study, reports now available, announcement, 3609
 - Federal item identification guide, 5307
 - Loran-C/D airborne systems, evaluation, 18369
 - on-line, use in neutron time-of-flight measurements, 4555
 - sawmill simulation, for log sawing, 4182
 - universal logic blocks, 6101
 - see also* Aeronautical Instruments—Computer science—Electronic computers—Electronic data processing systems.
- Computing machines, *see* Calculating machines.
- Concentrated foods, *see* names or classes of foods.
- Concentration ratios in manufacturing, 1967, census of manufactures, 13154
- Concentrators, solar energy, modified whirling-membrane, geometric properties, 11683
- Concepts involved in defining and identifying farms, 12494
- Concrete:
 - blocks, surface bonding, technique for erecting block walls without mortar joints, 11947
 - census of manufactures, 1967, industry statistics, 15603
 - cold concrete, 8536
 - concrete and related materials, evaluation for desalination plants, 4th annual progress report, 15144, 18318
 - concrete for military structures, standard practice, technical manual, 15491
 - concrete-polymer materials, topical report, 13065
 - fly ash increases resistance to sulfate attack, 12910
 - inspections and testing requirements in construction of low-rent public housing projects, need to strengthen, GAO report, 14508
 - lean mass, effect of stress level on creep and creep recovery, 9089
 - multiaxial prestressing, temperature effects of concrete members, USSR study, 16804
 - one-way concrete joist construction, types and sizes of forms, voluntary product standard, 10441
 - pavements, standard practice, Army technical manual, 7996
 - polymer cement concretes and polymer concretes, 15505
- Concrete—Continued
 - pore pressure measuring instruments investigation, instruments installed at Hartwell Dam, Ga., 10018
 - prestressed reinforced concrete in construction of nuclear installations, USSR study, 4331
 - reinforced concrete flat slabs, short- and long-term deflections, 8556
 - reinforced with barbed wire, concertina wire, etc., for use in southeast Asia, preliminary tests, 11255
 - slabs of concrete, shielding calculations for broad neutron beams, 9391
 - sulfur-basalt concretes, strengths, 5881
 - tilt-up concrete construction—
 - farrowing house, farm building plan, 3415
 - grain storage building, farm building plan, 31
 - machine shed, farm building plan, 30
 - training guide and reference text, Army technical manual, 13055
 - use on farm, 4810
 - wet, radioisotope X-ray methods for field analysis of quality, methodology and conceptual instrument design, 4889
 - work, special trade contractors, census of construction industry, 1967, statistics, 13133
- Concrete beams:
 - load carrying capacities, study of feasibility of methods for increasing, 14236
 - prestressed composite tee-beams, flexural behavior, 14915
- Concrete mixers, central plant concrete mixers, factors affecting productivity, 6138
- Conde, Carlos, new era, Spanish speaking people of United States, 17480
- Condemnation of property, private, for public use, how Federal income tax applies, 5637
- Condensation:
 - direct contact condensation multistage flash distillation process, development, 1949, 16698
 - effects of surface properties of water on, 18072
 - introducing additional condensation nuclei, numerical experiments in modifying kinetics of cloud spectrum formation by, USSR study, 10269
 - see also* Moisture.
- Condensed milk, *see* Milk.
- Condensers (vapor and gases):
 - and boilers for steam-powered cars, parametric analysis of size, weight, and required fan power, 11660
- Condominium housing, *see* Housing.
- Condon, Joseph L., seismic effects associated with underwater explosive research facility, 10327
- Condon, Lester P.:
 - remarks—
 - Nov. 14, 1969, 759
 - Nov. 18, 1969, 760
- Condon, Thomas J., relief, 356, 13267, 13601
- Conduct of life, our future (address), 4270
- see also* Ethics.
- Conductance, *see* Electrochemical analysis—electrochemistry.
- Conduction Development Conference, proceedings, 17072
- Conduction of heat, *see* Heat transfer.
- Conductivity (electric), *see* Electric conductivity.
- Conduits:
 - open and closed conduit systems program, hazards to people and animals from Bureau-constructed canals, #091
 - single cell rectangular conduits, criteria and procedures for structural design, 9168

Conecuh County, Ala., community profile, 13905

Cones:

- blunt hypersonic flow past with consideration of equilibrium physicochemical transformations, 8955
- elliptic, method for predicting pressures on, at supersonic speeds, 14884
- half-cone bodies with thin wings at Mach 10.03, aerodynamic interference effects on, 12820
- hypersonic flow over 15° semiapex cone in helium, angle of attack and bluntness effects on direction, intensity, etc., 14862
- large-angle, with short spikes, flow field at Mach number of 9.6, investigation, 11643
- 9° hemisphere cone, water injection into hypersonic airstream, 7553
- ram-air of attached inflatable decelerator models at Mach 3.0, static aerodynamic characteristics, pressure distributions, 11662
- right circular, approximate solution of additive-drag coefficient and mass-flow ratio for inlets utilizing, zero angle of attack, 2092
- spinning slender, with slight aerodynamic and mass asymmetries (reentry F), 16972
- supersonic conical flows, analysis, 12815
- total angle, downstream of region of air and helium transpiration cooling, exploratory heat-transfer measurements, 2100
- truncated cones, end-plane rotations under bending loads, analytical and experimental investigation, 932

Confectionery:

- census of transportation, 1967, commodity transportation survey, hipper group, 1310
- current industrial reports, 2475, 15628
- manufacturers' sales and distribution, 11983
- products, census of manufactures, 1967, industry report, 13146

Confederate States of America, Confederate soldiers who served in organizations raised directly by Confederate government, and of Confederate general and staff officers and nonregimental enlisted men, compiled service records index, microcopy, pamphlet to accompany, 11729

Confederated tribes of Umatilla Reservation, *see* Umatilla Reservation.

Confederated Tribes of Weas, Piankashaws, Peorias, and Kaskaskias, *see* Peoria Tribe of Indians of Oklahoma.

Conference committees, reports, 1448, 1450, 1452-54, 1475, 1481-82, 1499, 1507, 1512, 1531, 1552-53, 1555-56, 1560-64, 1567, 3813, 3821, 3827-3831-32, 3834, 3840, 5104, 5125, 5137-39, 6583, 6614, 6832, 6646, 6648, 6589, 6592, 8253, 9666, 9670, 9687, 9695, 10989, 10993, 10997-11012, 11015, 12199, 12202-204, 12214-215, 12218, 12234, 12245, 12249, 12251, 12254, 12256, 13419, 13424, 13432, 13434, 13440, 13450, 13455, 13477, 15846, 15855, 15870, 15873

Conferences, congresses, etc.:

- durability of insulating glass, seminar proceedings, 5997
- 18-month calendar of national meetings, 2529
- facilities engineering, grounds maintenance and land management training conferences, Army pamphlet, 1231
- International Conference on Water Pollution Research, U.S. participation, report, 6762
- international organization and conference series, 18345

Conferences, congresses, etc.—Continued
Joint Government-Industry, proceedings, 5322

National Aeronautics and Space Administration, average evoked potentials, methods, results, and evaluations, 4501
Paris Peace Conference, proceedings, 10607

planning and conducting pre-retirement seminars, 11863

2d International Conference on Accelerator Dosimetry and Experience, 13067
union conventions, 1970, list, 10299

United States conventions and trade shows, 1971-72, list, 18397

world list of future international meetings, 3366

see also names of conferences, etc., *also* subject of conference.

Confidence, checker confidence statements as affected by performance of initial image interpreter, 9362

Confidential material:

classified material released to U.S. industry under Government contracts, protect against sabotage, espionage, etc., reports, 1548, 3838

safeguarding, industrial security manual, 8480

carrier supplement, 8457

safeguarding of classified material, agreement with Norway, 9204

Configurations:

Apollo management manual, 5889

blunt lifting body at Mach 3.71, experimental heat-transfer distributions, 5935

configuration management, policy and guidance manual, Navy Dept., 17199

finding probable position fix of ship from error configuration, USSR study, 7390

magnetic configurations with shear and minimum B, 4871

wind-tunnel investigation of several large-scale all-flexible parawings, 7544

X-15 airplane configurations, hypersonic aerodynamic characteristics of 2 delta-wing, 911

Confinement facilities, *see* Disciplinary barracks.

Conflict (psychology):

optimal processes in conflict situations, USSR study, 12625

Conflict of generations:

teenagers discuss the generation gap, 4954

urban universities, rhetoric, reality, and conflict, 11247

Conformal maps:

mapping, transient method for 2 dimensional solidification of flowing liquid onto cold surface, 2113

steady frozen-layer configuration inside cold rectangular channels containing warm flowing liquids, analysis, 4529

used in small deflection of class of clamped thin plates, 16943

Conglomerate corporations, *see* Corporations.

Congo, Democratic Republic, *see* Congo (Kinshasa).

Congo (Kinshasa):

agricultural commodities, agreement, 4734, 17354

air transport services, agreement, 18349

background notes, 7795

economic trends and their implications for United States, 7342, 18082

establishing business in, 8149

mineral industry, minerals yearbook chapter, 857

Congress of Rural Physicians, Moldavian, SSR, first meets in Kishinev, 18101

Congress of United States:

access to information from regulatory boards and commissions, 15902

biographical directory, print revised edition, reports, 12192, 13686

INDEX 1970

Congress of United States—Continued
 call for cooperation, message from the President, 15118
 Chief Justice Earl Warren, tributes to service, print as House document, report, 9897
 code of Federal regulations, 11319
 congressional oversight of administrative agencies, National Labor Relations Board, report, 13745
 congressional proceedings, Federal immunity of witnesses act—
 hearings, 8309
 reports, 12198, 13421
 congressional record—
 daily, 2434
 index, 2435
 subscription price, Public Printer to fix, authorize—
 law, 12104
 reports, 5256, 12184
 90th Cong., 2d sess., bound volume—
 daily digest, 292
 index, 293
 91st Congress, 1st sess., bound volumes, 5020-27, 6528-29, 9571, 10899-901, 12086, 13260-252, 15759-760, 17572
 constitutional powers—
 documents, 16052
 hearings, 15899
 Continental Congress in New York City Hall, 1785-88, background and study, 15025
 date of meeting, 91st Congress, 2d session, law, 3752
 directory, official edition, 91st Congress, 2d sess., 3720
 legislative reorganization act of 1970, improve legislative branch—
 hearing, 5179
 reports, 11013, 12206
 summary of draft, 8320
 misbehavior in presence of either House of Congress, or any committee, or subcommittee thereof, shall constitute a misdemeanor, hearings, 8310
 reports to be made to Congress, list, 3772
 serial set, 294, 5029-35, 6532-34, 8173-75, 10903-905, 12088-90, 13253-256, 15763-764, 17574-576
 Congressional committees:
 employees, payment of compensation, report, 5108
 official reporters and expert transcribers to committee reporters, increase number of positions, report, 8621
 Congressional districts:
 Federal general data standard representations and codes, 954
 92d Congress, map, 15668
 redistricting, availability of 1970 census data, 13098
 report, 8259
 Congressional record, *see* Congress of United States
 Congressional serial set, 294, 5029-35, 6532-34, 8173-75, 10903-905, 12088-90, 13253-256, 15763-764, 17574-576
 Conical bodies, *see* Bodies of revolution.
 Conical shells, *see* Shells (structural).
 Conifers, conifer fuel-break, perennial grasses reduce woody plant seedlings, 18016
 Conneautville, Pa., railroad accident report, 11317
 Connecticut:
 air quality control region, Federal facilities, 8961
 census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 6418
 retail trade, merchandise line sales, 18101
 wholesale trade, area statistics, 168
 census of construction industries, 1967, statistics, 17484

Connecticut—Continued
 census of governments, 1967, statistics, 3567
 census of transportation, 1967, commodity transportation survey, 8070
 Connecticut-New York railroad passenger transportation compact, consent of Congress—
 law, 1415
 reports, 1451, 1628
 county business patterns, 12020
 fishery products, wholesale dealers, list, 12077
 internal revenue assessment lists, 1862-66, pamphlet to accompany microcopy, 4542
 mineral industry, minerals yearbook chapter, 856
 postal map, 6122
 southeastern, formation of modern ice-push ridge by thermal expansion of lake ice, 1800
 Connectors (electric):
 electrical connectors and associated hardware, selection and use, military standard, 6880
 Federal item identification guide, change, 1768
 parts, Federal item identification guide, 9951
 test methods, military standard, notice, 1780
 Connectors (structural):
 Federal item identification guide, 13797
 Conner, Howard E.:
 piecewise ergodic problem for gas systems, 12892
 some general properties of class of semi-linear hyperbolic systems analogous to differential-integral equations of gas dynamics, 15076
 Conner, Lonnie M.:
 glass products, 12005
 paperboard containers and boxes, 15597
 Conomos, T. J., movement of seabed drifters in San Francisco Bay estuary and adjacent Pacific Ocean, 11393
 Conquest, Robert, testimony, hearings, 3978
 Conquest of the depths, 11517
 Conspiration:
 draft reform, message from the President, 8224
 local board memoranda, 2848
 Military selective service act of 1967, amend—
 hearing, 489
 law, 1389
 reports, 377, 381, 1627
 selecting persons for induction into Armed Forces, establish new system—
 hearing, 489
 law, 1389
 reports, 377, 381, 1627
 selective service news (periodical), 3192
 selective service regulations, 3193
 selective service system, its concept, history, and operation, 17261
 Conservation, *see* Natural resources—Soil conservation—*also* subjects.
 Conservation farming, *see* Soil conservation.
 Conservation laws of linear, homogeneous systems, 12779
 Conservation of marine resources, *see* Marine resources conservation.
 Conservation of natural resources, *see* Natural resources.
 Conservation research reports, 6291
 Consoles, *see* Control boards.
 Consolidated master cross reference list, 4016, 12396, 13802, 16144
 Constitution (IX-21) (U.S.S.):
 retired officers to command, authorize—
 law, 15783
 report, 18691

Constitution of United States:

- amendments—
 - election of President and Vice President by direct popular vote, proposal, report, 13700
 - equal rights for men and women, hearings, 13746, 18067
 - equal rights, for women, memorandum, 14591
 - investigation and studies, report on actions and recommendations, 1685
 - proposed, 88th-90th Congresses, list, 447
 - print as Senate document, 454
 - reform electoral college, hearings, 12370
 - study, expenses, reports, 458, 5220
 - voting, lower age to 18, hearings, 13748
- automobile accident compensation reform, constitutional problems, 9233
- constitutional rights—
 - census questionnaires, to secure privacy and to protect individuals who ignore requests for personal information, hearings, 17709
- study—
 - authorization, report, 16023
 - expenses, reports, 464, 1605, 5221, 15989
 - subcommittee activities, report, 1681
- constitutional separation of powers between executive, judicial, and legislative branches of Govt., study, reports, 1642, 5232
- our Constitution and Government, Federal textbook on citizenship, 4291-92, 16687
- separation of powers and independent agencies, study, print additional copies, as Senate document, reports, 3823, 3921
- war powers of Congress and the President—
 - documents, 16052
 - hearings, 15899
- Constitution Week, bulletin, 14584
- Constitutional rights, see Constitution of United States.
- Construction, see Building—Construction industry—Earthworks and structures—Housing—Installations (military)—Roads and highways—Shipbuilding.
- Construction equipment, see Building machinery.
- Construction equipment mechanics, see Mechanics (persons).
- Construction industry:
 - apprenticeship schedules, building and construction trades, 11967-688
 - census, 1967—
 - advance industry reports, 2396
 - publications order form, 6411
 - area statistics, 15550-566
 - final area reports, publications order form, 15654
 - final industry reports, publication order form, 10828
 - industry statistics, 11987, 13122-143, 15567-568
 - United States summary, 15567-568
 - compensation, employment patterns, union scales and earnings, 14729
 - construction authorized, Washington, D.C., area, 2436
 - construction reports, 190, 2436-42, 9446, 10799, 12015, 13157, 17536
 - construction review, monthly industry report, 2443
 - contract compliance and equal employment opportunity, 3658
 - health and safety in Federal and federally financed construction projects, promote, legislative history, 1740
 - heavy construction, except highway and street construction, contractors, 13123

Construction Industry—Continued

- Industry Committee on Engineering and Construction Industries of National Export Expansion Council, report, 15719
- machinery, trade and tariff information summaries, 6282
- minority construction contractors, registry minority construction contractors located in selected cities, list, 8791-96
- new statistics for an old industry (address), 11548
- orderly revolution (address), 10871
- safe work guide, Department of Labor safety training programs, SWG LS series, 4369, 8859
- seasonality and manpower in construction, 14666
- selected references, 1960-69, 8853
- value of new construction put in place, reports, 2442
- see also Building.
- Construction labor, see Labor.
- Construction machinery, see Building machinery.
- Construction machinery operators, see Operating engineers.
- Construction materials:
 - aerospace structural materials, conference proceedings, 5915
 - concrete-polymer materials, topical report, 13065
 - fracture toughness of structural metals, 12893
 - lightweight sulfur foam for use in field applications, investigation, 4071
- Construction mechanic 1 & C, rate training manual, 6094
- Construction machinery, see Building machinery.
- Consuls:
 - convention on consular relations and optional protocol on disputes, text, 7825
 - convention with Belgium, report, 449
 - foreign consular offices in United States, 10601
 - U.S. despatches from—
 - Meridia, Mexico, 1843-97, pamphlet to accompany microcopy, 4536
 - Minatitlan, Mexico, 1853-81, pamphlet to accompany microcopy, 4537
 - Piedras Negras Mexico, pamphlet to accompany microcopy, 17024
 - Progreso, Mexico, 1897-1906, pamphlet to accompany microcopy, 4536
 - Tabasco, Mexico, 1832-74, pamphlet to accompany microcopy, 4538
 - Tampico, Mexico, 1824-1906, pamphlet to accompany microcopy, 11720
- Consultants:
 - foreign curriculum consultant program, for American schools, colleges, and State departments of education, 16394
 - VISTA business, opportunities to serve the poor, 6986
- Consultation in mental health and related fields, reference guide, 1051
- Consultative approach to safety, 5817
- Consumer Advisory Council, establish, hearings, 12274
- Consumer Affairs Department, establish, hearings, 6715, 12274
- Consumer Affairs Office, establish, hearings, 6715, 6803, 12274
- Consumer and Food Economics Research Division, organization and program, 6292
- Consumer and Marketing Service:
 - appropriations, 1970—
 - law, 1392
 - report, 1482
 - appropriations, 1971—
 - amendment, proposal, report, 18570
 - hearings, 8266
 - C & MS series, 526, 1747, 5286, 6819, 11151-153, 16088, 17720

INDEX 1970

Consumer and Marketing Service—Con.
 meat plants, weak enforcement of Federal
 sanitation standards, GAO report, 11383
 PMG series, 1749-50, 5291-92, 12387-888,
 16095
 posters, 12391
 Consumer credit, *see* Installment credit.
 Consumer Finance Commission, *see* National
 Commission on Consumer Finance.
 Consumer finance companies, *see* Finance
 companies.
 Consumer goods, *see* Commercial products.
 Consumer income, *see* Income.
 Consumer Information Foundation, *see* Na-
 tional Consumer Information Foundation.
 Consumer Interests, President's Committee
 on, *see* President's Committee on Consumer
 Interests.
 Consumer Protection Agency, establish, hear-
 ings, 12274
 Consumer Protection and Environmental
 Health Service:
 appropriations, 1970—
 hearings, 1700
 reports, 1563, 1683, 3834
 public advisory committees, authority,
 structure, functions, members, 1752
 Consumer Protection Division, establish
 within Justice Department, hearings, 6803
 Consumer Research Institute, establish, hear-
 ings, 6715
 Consumer Safety Office, establish, hearings,
 6715
 Consumers:
 aspects of aging, hearings, 1697
 bargain, freezer meats, there may be a
 catch to it, 4164
 business-consumer relations (address),
 10864
 buying indicators, series, 224, 1334, 6450,
 10823-824, 13177, 15653
 class action and other protection proce-
 dures, hearings, 8306, 9919
 Class action jurisdiction act, hearings, 9919
 Consumer agricultural food protection act
 of 1969, hearings, 9886
 consumers, and business role (address),
 17560
 consumer bulletins, 4164, 5468
 consumer information—
 Federal motor vehicle safety standards
 and regulations, supplement, 6033
 series, 4561
 consumer involvement in rehabilitation,
 7738
 consumer legislative monthly report, 18301
 Consumer products guaranty act, hear-
 ings, 8387
 Consumer products warranty and guaranty
 act, report, 9872
 Consumer Protection Agency act of 1969,
 hearings, 12274
 consumer protection programs—
 establishments, circuits and officials, di-
 rectory, 2512
 sanitation handbook, 3173, 16096
 consumer relations newsletter, 2448
 Consumer representation act of 1969 hear-
 ings, 12274
 credit, protection against arbitrary, errone-
 ous, and malicious information—
 hearings, 13499
 report, 1617
 credit protection act, amend, law, 13319
 crucial consumer (remarks), 9499
 Federal role in consumer affairs, govern-
 mental structure for consumer protec-
 tion, establish, hearings, 6803
 Federal safety legislation, automobile
 safety, flammable fabrics and hazardous
 substances programs, study, 11767
 food quality and consumer protection (ad-
 dress), 12972
 gold and silver articles, misrepresentation
 of quality, provide civil remedy, hearing,
 8872

Consumers—Continued
 green power, consumer action for the poor,
 community action program, 13825
 HEW consumer newsletter, 2711
 household, acceptance of experimental dry
 whole milk, 9306
 Independent consumer council act, hear-
 ings, 5260
 knowledge and use of Government grades
 for selected food items, 7925
 legislation (speech), 15735
 meat and poultry standards, 20
 organizing Federal consumer activities by
 coordination of programs and operations
 among Federal agencies, hearings, 12274
 price indexes—
 average for groups, subgroups, and se-
 lected items, 16857
 city average and selected items, 2447
 components, relative importance, 8874
 urban wage earners and clerical workers,
 4385
 prices, 1959-68, United States, trends and
 indexes, 16828
 protection act of 1970—
 hearings, 8383, 13717, 16066
 print additional copies, reports,
 13682-683
 report, 13701
 protection against fraudulent practices of
 unscrupulous operators—
 hearings, 8383, 13717
 print additional copies, reports,
 13682-683
 report, 13701
 protection in corporate equity ownership
 and in corporate takeover bids, reports,
 9895, 15985
 protection of interests, message from the
 President, 344
 service, USDA's report (periodical), 3195
 standards and the consumer (address), 282
 unsolicited credit cards, safeguard by re-
 quiring greater care in issuance and
 limit liability of consumers for un-
 authorized use, hearings, 3958
 Consumption (economics) *see* names or
 classes of commodities.
 Contacts (electrical), *see* Electric contacts.
 Contagion and contagious diseases:
 CDC veterinary public health notes, 2394
 communicable disease and immunization
 programs, hearings, 8307
 communicable disease control amendments
 of 1970, reports, 9718, 12242
 grants for communicable disease control,
 authorization, reports, 470, 9718, 12242
 infectious diseases, reducing incidence of,
 USSR study, 11510
 infectious multiple drug resistance, genet-
 ics, molecular nature and clinical im-
 plications of R factors, symposium,
 16529
 isolation techniques for use in hospitals,
 12854
 morbidity and mortality weekly report,
 2914
 socio-economic importance of infectious
 diseases, USSR method of studying,
 1987
 Containerization:
 container age in world shipping (remarks),
 16496
 containerized unit loads, military stand-
 ard, 13804
 containership, launching of SS American
 Apollo (remarks), 12728
 containerships under construction and on
 order (including conversions) in United
 States and foreign shipyards, June 30,
 1969, list, 5836
 development and Federal Maritime Com-
 mission (remarks), 7098
 flag containerships and flag ships with par-
 tial capacities for containers and/or
 vehicles, U.S., June 30, 1969, list, 5839
 Government's role imperative to greater

Containerization—Continued
 utilization in shipping (remarks), 8879
 growth of U.S. maritime industry entails greater use (remarks), 8880
 intermodal system of transportation (remarks), 14372
 streamlining of administrative paperwork (remarks), 5424

Containers:
 cargo, foreign oceanborne trade of United States, selected trade routes, 2860
 closures, current industrial reports, 2475
 Federal item identification guides for supply cataloging, supplements, 2592
 future (remarks), 8882
 glass, current industrial reports, 2475
 industry report, 2449
 metal, machinery for making, industrial plant equipment handbook, 1759
 paperboard, census of manufactures, 1967, industry statistics, 15597
 partially filled axisymmetric container of general shape, nonlinear fluid oscillations, 11657
 radioactive materials, shipping containers, directory, 15534
 shipping golden delicious apples in tray-packed boxes, feasibility, 9303
 sources of information, 150
 spheroidal, low-gravity liquid-vapor interface configuration, 8938
 strawberries packed in various containers, market quality and precooling rates, 27
 stuffing containers, guidelines, transportation and travel, 15482
 symbols for hazardous industrial chemicals and materials, military standard, 16152
 wooden, census of manufactures, 1967, industry statistics, 12002

Contaminants:
 contaminant gases, study of application of photolionization mass spectrometer to analysis, 8927
 detergents and associated contaminants in ground water at 3 public-supply well fields in southwestern Suffolk County, Long Island, N.Y., 8762
 dispersal of sewage contaminants in ground water and surface water, South Farmingdale-Massapequa area, Nassau County, N.Y., 18052
 trace contaminant adsorption and sorbent regeneration of activated carbon, 16933

Contamination:
 control handbook, 898
 level, effect on weldability of refractory metal alloys, 18179
 mercury in natural environment, bibliography, 14604
 polymeric, visual appearance, 11675
 radiation transport in ablation product contaminated boundary layers, advanced methods for calculating, 16942
 radioactive, of environment, by underground nuclear explosions and methods of forecasting it, USSR study, 8004
 refractory metals by oxygen, water vapor, and carbon monoxide, 11607
 sealing through contaminated pouch surfaces, 13043
 water plant isolation from contamination, study, 8805

Contested elections:
 Federal contested election act, revise law—law, 1403
 reports, 371, 1640

Contests, tax information, sponsors of contest and sporting events, 5871
see also names of contests or subjects involved.
 and State Department 1785-90, foreign letters, microcopy, pamphlet to accompany, 14910

Continental Congress:
 New York City Hall, 1785-88, background and evaluation study, 15025

Continental Divide Trail study, progress report, 11822

Continental Oil Co., oil rig 43-A, explosion and fire with no loss of life, Gulf of Mexico, Oct. 24, 1967, marine casualty report, 7656

Continental Shelf:
 Atlantic, and slope of U.S.—
 gravels of northeastern part, 18042
 heavy minerals, from southern Nova Scotia to northern New Jersey, 10175
 ostracode zoogeography in southern Nova Scotian and northern Virginia faunal provinces, 10174
 shallow structure, 5548
 continental margin off Florida, detailed stratigraphic description of JOIDES cores, 4245
 drilling on continental margin off Florida (series), 4245
 fishery resources of U.S., penalties for illegal fishing, strengthen, report, 13487
 nearshore, geomorphology and sediments, Miami to Palm Beach, Fla., 4066
 northwestern U.S., surface currents as determined by drift card releases, 11891
 outer, role of petroleum and natural gas in national supply, 16871
 resources, protection, hearings, 16043
 seaward boundary, establish, hearings, 6806, 17703
 selected materials on, memorandum, 8412
 territorial sea boundaries, hearings, 12264

Contour farming, 9133

Contraception, *see* Birth control.

Contraceptives:
 importing, transporting, and mailing, permit, report, 9710
 oral contraceptives, competitive problems in drug industry, hearings, 11148, 12383

Contract Appeals Board:
 decisions, 2750
 Veterans Administration, contract appeals decision, index-digest, 17406

Contractions, *see* Abbreviations.

Contractor report NASA CR (series), 889-895, 2060-75, 4489-99, 5891-5907, 7506-22, 8921-29, 10343-364, 11601-625, 12752-767, 14807-835, 16932-950, 18177-192

Contractors:
 annual contractors conference of artificial kidney program of National Institute of Arthritis and Metabolic Diseases, proceedings, 15008
 census of construction industry, 1967, statistics—
 general building contractors, 13122
 heavy construction, except highways and streets, 13123
 special trade contractors—
 carpentering, 13130
 concrete work, 13133
 electrical work, 13126
 excavating and foundation work, 13138
 floor laying and other floor work, 13131
 glass and glazing work, 13137
 masonry, stone setting, and other stonework, 13127
 plastering and lathing, 13128
 installation or erection of building equipment, 13140
 not elsewhere classified, 13141
 ornamental metalwork, 13136
 painting, paperhanging, and decorating, 13125
 plumbing, heating (except electric), and air conditioning, 13124
 census of construction industry—con.
 special trade contractors—continued

INDEX 1970

Contractors—Continued

- roofing and sheet metal work, 13132
- structural steel erection, 13135
- terrazzo, tile, marble, and mosaic work, 13129
- water well drilling, 13134
- wrecking and demolition work, 13139
- contractor and in-house technical and management data, NASA data requirement description (DRD) for acquisition, 8930
- contractor-built one-family homes, 228
- errata, 6456
- data and reports, management, list, 49, 7960
- defense contractors in aircraft industry, standard classification system for indirect costs, 6320
- FHA property improvement loans, guide, 4273
- grantees of USAMRDC, abstracts from submitted annual and technical reports, 8000
- highway and street construction, census of construction industry, 1967, industry statistics, final report, 11997
- how to do business with GPO, guide, 5569, 16647
- minority construction contractors registry, minority construction contractors located in selected cities, list, 8791-96
- NASA contractors trim cost, 10365
- national, zero defects seminar, Defense Supply Agency, proceedings, 6884
- noncompetitive price proposals, questionable waivers, of preaward audits, GAO report, 14513
- overseas contractors, opportunities for improvement in management of Government materials provided, GAO report, 12580
- parts control and standardization program, military standard, 16150
- reliability program provisions for aeronautical and space system contractors, 8956
- technical publications acquisition management, Air Force manual, 6332
- see also Government contracts.
- Contracts:
 - be sure before you sign, 17215
 - contract compliance and equal employment opportunity in construction industry, 3858
 - electric system construction contract, labor and material, 12911
 - Farmers Home Administration obligations under Consolidated Farmers Home Administration act and Housing act, opinion of Attorney General, 8851
 - REA distribution line extension construction contract, 15151
 - see also Government contracts.
- Control (vehicle), see Aircraft.
- Control areas and zones, see Airways.
- Control boards, consoles, Federal item identification guide, 16120
- Control equipment, see Ships.
- Control systems:
 - accident cost control, 4371
 - adaptive controller for space base spin plane orientation, 14878
 - AFOTC management, 1969 updating of data file, 13013
 - automatic, USSR study, 16767
 - automatic restart control system for axisymmetric mixed-compression inlet, 2121
 - computer control system for 60-ft. X-band antenna, operating procedures, NRL Microwave Space Research Facility, 15092
 - contractor data and reports, management, list, 49, 7960
 - control of linear systems with large time delays in control, 7519
 - control systems, and role of management, USSR study, 12661

Control systems—Continued

- controllability of nonlinear systems with linearly occurring controls, 2064
- cybernetics and regulation theory, USSR study, 5779
- digital control unit for NRL receiving unit, design, 6098
- dual-rate, finite-settling-time discrete systems, 10393
- engineering psychology and control systems, USSR study, 12624
- fast breeder reactor control shield and reflector materials development, report, 10756
- fine-pointing control system of soft-gimballed orbiting telescope, 11671
- flight control systems and automatic piloting of aircraft, problem of operational reliability, 14897
- generalized parameter fuel control for jet engines, computer and engine performance study, 11689
- guidance and control payload support requirements for planetary cartographic probe, 11680
- imperfect, reduced-state relay control to model-reference systems, application, 14834
- information systems, USSR study, 11504
- innovations in pneumonics, USSR study, 8839
- interim management control systems, list, 1771
- local control systems designs and pneumatic automation, USSR study, 16775
- magnetic attitude and spin control of small scientific satellite S³-A, 5925
- manual controls, NASA-University Conference—
 - papers, 14838
 - proceedings, 2076
- maximum-range thrust-limited rocket trajectories, method for computing with application to lunar transport, 16986
- merging, for highway safety, 18313
- methods of controlling large systems, USSR study, 16802
- minimum fuel attitude control of nonlinear satellite system with bounded control by method based on linear programming, 892
- miscellaneous controls, Federal item identification guide, 16133
- moving-base simulators, quasi-optimum design, 18181
- nuclear submarine atmosphere purification, chemical research, progress report, 15073
- optimal control problems as equivalent Lagrange problems, 7518
- Saturn launch vehicle, description and performance, 12809
- spacecraft wide-angle attitude control system, analysis and verification, 7546
- turboalternator with multiple load phase-controlled parasitic speed controller, experimental evaluation of volt-ampere loading and output distortion, 4518
- twin gyro attitude control system including passive compensation and nonlinear control law, performance, 14855
- voltage regulator and parasitic speed controller transient characteristics on 14.3-kilovolt-ampere, 1200-Hertz modified Lundell alternator, 18197
- Controllability:
 - handling qualities and flight characteristics of variable geometry spacecraft, study to determine, high L/D concept with single pivot 2-position skewed wing, 10351
 - handling qualities and gust-alleviation characteristics of free-wing aircraft, evaluation, 11603
 - handling qualities of XB-70 airplane in landing approach, 5967

Controllability—Continued

lateral-directional handling qualities, simulator study of coupled roll-spiral model effects in new experimental aircraft, 12769

Controllers, *see* Electric controllers.

Controlling eastern tent caterpillar, 17439

Controls (aircraft), *see* Aircraft.

Conulata, *see* Salterella.

Convection of heat, *see* Heat transfer.

Convention of American Instructors of the Deaf, proceedings of 44th meeting, 15965
print as Senate document, reports, 1673, 6662

Conventions, *see* Conferences, congresses, etc.

Conventions and treaties, *see* subjects.

Convergence of iterative methods applied to large overdetermined linear and nonlinear systems of equations using least squares, 17950

Conversation with the President, 17333

Conversion, *see* Internal conversion.

Conversion factors used with data from survey of households in United States 1965-55, 15405

Conversion (Industrial):
postwar economic conversion, hearings, 6813, 9929

Converters:

magnetic materials, cyclic and constant temperature aging effects, 10344

magnetoplasmadynamic, AEC translation, 15509

medium power DC-DC converter, design and performance analysis, 8935

series capacitor inverter-converter for multikilowatt power conversion, 11696

see also Electric current converters—Thermionic converters.

Converters (electric), *see* Electric current converters.

Conveyors, citrus fruit on moving conveyor, forced-air precooling, 9279

Conway, Edmund J., observation and mechanism of direct current quenching of alternating current electroluminescence in typical zinc sulfide phosphors, 16984

Conway, J. B.:

analysis of relaxation behavior of AISI 304- and 316 stainless steel at elevated temperature, 9377

evaluation of plastic fatigue properties of heat-resistant alloys, 17473

physical and mechanical properties of reactor materials, 9376

short-term tensile and low-cycle fatigue studies of incoloy, 800, 9379

Coogan, Charles H., Jr., development of analytical model of flash stage, 5619

Cook, Audrey A., farm index, 2563

Cook, Charles R., printing and publishing, quarterly industry report, 3097

Cook, Tacy, HUD challenge, 750, 2722

Cooking appliances, current industrial reports, 2475

Cooks, and chefs, employment outlook, 12697

Coolants, heavy-water moderated boiling-light-water-cooled reactor, evaluation, 3510

Cooley, John H., initial thinning in red pine plantations, 12561

Cooley, Roger B., inclination perturbations of polar-orbit satellites, 1030

Coolidge Dam, Ariz., Gila River drainage basin, precipitation, streamflow, and major floods at selected sites, 7248

Cooling:

forced-air precooling of citrus fruit on moving conveyor, 9279

methane or hydrogen fuel used for direct cooling of turbine stator, thermal feasibility, 18219

requirements of ball bearings lubricated by glass-fiberfilled polytetrafluoroethylene retainers in cold hydrogen gas, 8934

Cooling—Continued

steady state heat transfer in two-dimensional porous media, analytical method, 11693

strawberries packed in various containers, market quality and precooling rates, 27
transpiration, air and helium, exploratory heat-transfer measurements at Mach 10 on 7.5° total-angle cone downstream, 2100

turbine aerodynamic and cooling requirements for turbojet powered Mach 3 transport using methane fuel, 14871

turbine air cooling methods, analysis of capabilities and limitations, 16991
wall, Reynolds number and Mach number in relation power-law velocity-profile exponent variations in turbulent boundary layer, 10397

Cooling appliances, *see* Refrigeration and refrigerating machines.

Cooling systems, equipment for your home, 9292

Coon, R. M., simulator for HF atmospheric radio noise, 614

Coon Rapids, Iowa, railroad accident investigation, summary report, 10062

Cooper, Barbara S., medical care outlays for aged and nonaged persons, 11860

Cooper, Franklin D., economic potential of mineral-based insulating materials in combating noise problem in residences, 10322

Cooper, Glenn A., red oak lumber makes good shade-shelter for hogs, 16565

Cooper County, Mo., community profile, 16228

Cooper-Hewitt Museum of Decorative Arts and Design, Indian chintz collection, study, 12917

Cooperation, call for cooperation, message from the President, 15118

see also International cooperation.

Cooperative day of planning 2, report on joint meeting of State and National Advisory Councils on Vocational Education, 14806

Cooperative education programs, instructions for submitting, proposal, 16390

Cooperative Extension Service, got a forestry problem, extension foresters can help, 10700

Cooperative housing, *see* Housing.

Cooperative Investigation of Caribbean and Adjacent Areas, *see* Caribbean area.

Cooperative soil surveys in Nevada, 4683

Cooperative State Research Service:

appropriations, 1970—

law, 1392

report, 1482

appropriations, 1971, hearings, 8266

CSRS series, 8449

Cooperatives:

District of Columbia cooperative association act, amend—

law, 15775

reports, 10952, 12346, 13450

fishery cooperatives in United States, list, 12074

how to organize a co-op, moving ahead together, 570

livestock, in Southeast, 10039

see also Farmers' cooperative organizations—*also* types of cooperatives.

Coordinates:

discrete ordinate and Monte Carlo methods used in analysis of EBR-II neutron spectra, 9388

heliocentric of Ceres, Pallas, Juno, Vesta, 1928-2000, lists, 9042

plane intersections, cross-sectional plots, adaptation of APT systems, 15072

stereocomparator coordinate reduction, electronic computer program to calculate, 15137

INDEX 1970

- Coordinates—Continued
- time-varying coordinate systems, flow-diagram technique, 17196
- Coordinator's scorecard, 15687
- Coors, Dallas M., new look at export credit guarantees, insurance, 5715
- Coosa County, Ala., community profile, 13906
- Coots, hunting, possession, transportation, importation, 1970-71, Federal regulations governing Alaska, 15276
- Copan Dam, spillway, Little Caney River, Okla., hydraulic model investigation, 16450
- Cope, E. M., cost of operating automobile, 9075
- Copeland, William C., financing rehabilitation services, 7740
- Copepods:
 - Atlantic deep-sea calanoid copepoda, 15162
 - cyclopoid, of genus *Pseudanthessius* associated with crinoids in Madagascar, 11852
- Copiah County, Miss., community profile, 16229
- Coping and adaptation, behavioral sciences bibliography, 15013
- Copolymers, *see* Polymers and polymerization.
- Copper:
 - cement copper use in iron-copper-carbon powder metallurgy, alloy, 7479
 - copper-base mill and foundry products, current industrial reports, 15631
 - copper content and rolling temperature influence on creep and other properties of zinc-copper and zinc-titanium-copper alloys, 7487
 - copper vapor, laser breakdown of, 11679
 - cupric ions absorption through denuded epithelium as result of copper sulfate treatment of phosphorous burns, 14761
 - deposits in Pima County, Ariz., alluvium-covered, geochemical study, 7224
 - gallium-lubricated low speed copper slip-rings, friction and contact resistance in vacuum, 16989
 - industry—
 - mineral industry survey, monthly, 2451
 - quarterly report, 2452
 - industry report, 1969 annual statistical supplement, 11984
 - mill and foundry products, current industrial reports, 2476
 - minerals yearbook chapter, 843
 - production potential of deposits associated with Permian red bed formations in Texas, Oklahoma, and Kansas, 16912
 - red-bed ore, leach-precipitation-flotation studies using controlled atmosphere, 7497
 - Silver Bell Oxide porphyry copper deposit, comparison of triangular, polygonal, and statistical method for computing grade and tonnage of ore, 5873
 - suspension of duties on certain forms, continue—
 - law, 12122
 - reports, 10948, 11097
 - world marketing conditions (address), 17748
- Copper mills, inventories of shapes, current industrial reports, 2475-76
- Copper oxides, magnesium thermal cells, catholyte studies, 10389
- Copper sulfate:
 - cupric ion absorption through denuded epithelium, 14761
 - mineral industry survey, monthly, 2453
- Coppinger, Nell W., newsletter for research in psychology, 10861, 17396
- Copying processes:
 - sensitized materials, copying, Federal identification guide, 8475
 - change, 18791
- Copyright:
 - catalog of copyright entries, 529-530, 1753-54, 3997-98, 5294, 8451, 11156, 13770, 17723-727
 - code of Federal regulations, 8651
 - decisions of courts, 8450
 - laws, investigation, expenses, report, 5228
 - limitations on information furnished by Copyright Office, Library of Congress, 16101
 - OE's new copyright policy, 14290
 - protection, extend duration—
 - law, 3735
 - reports, 1477, 1619
 - Copyright Office:
 - bulletins, 8450
 - circulars, 5295, 16101, 17728
 - limitations on information furnished, 16101
 - publications, list, 5295
 - Register of Copyrights, annual report, 13771
- Coral, *see* Corals.
- Coral reefs and islands:
 - atoll research bulletins, 18325
 - coral islands of western Indian Ocean, 18325
- Pacific Ocean, conserve and protect coral reef resources from erosion by starfish—
 - hearing, 12366
 - law, 15809
 - reports, 8369, 13468
- Corals:
 - lithostrotionid, of Mississippian Kogruk Formation, DeLong Mountains, northwestern Alaska, 16619
 - Mississippian rugose, Peratrovich formation, Prince of Wales Island, Alaska, 16614
- Corcoran, John P., relief, 3781, 3787, 5047
- Corcoran, Vincent J., investigation of laser frequency stabilization, 2063
- Cordes, E. H., oil shale, hydraulic testing and sampling of USBM-AEC Colorado core hole 3, Rio Blanco County, Colo., 7239
- Core drilling:
 - Antarctic ice sheet, 5366
 - drilling on continental margin off Florida (series), 4245
 - USBM-AEC Colorado Core hole 3, Rio Blanco County, Colo., hydraulic testing and sampling for oil shale, 7239
- Corfien, Harold, controlled atmosphere system laboratory studies on tomatoes, 10446
- Corn:
 - economic consequences of restricting use of organochlorine insecticides, 6993
 - frozen corn-on-the-cob, U.S. standards for grades, 12390
 - futures—
 - commitments of traders, 2428
 - trading and open contracts, 2685
 - yield per acre—
 - 1964 map, 15666
 - percent change, 1939-64 map, 15667
- Corn Belt, mulch tillage, 15220
- Corn Creek unit, *see* Missouri River Basin project.
- Corona (solar), *see* Sun.
- Coronary diseases, *see* Heart diseases
- Corp., Ernest L., preliminary engineering studies to characterize marine mining environment, 8905
- Corporation for Public Broadcasting, *see* Public Broadcasting Corporation.
- Corporations:
 - capital gains, tax reform hearings, summary of recommendations, 8394
 - cemetery corporations, tax-exempt status, extend, report, 9717
 - census establishment and IRS corporation data link, 1963 enterprise statistics, 10827
 - conglomerate corporation, investigation, hearings, 18532, 15921

Corporations—Continued

consumer protection in corporate equity ownership and in corporate takeover bids, reports, 9895, 15985
corporate finance model, computer program for cash flow analysis, 9237
corporate reorganization releases, SEC, 2454
corporation farming, impact on small business, report, 3931
corporations and Federal income tax information, 5638
doing foreign banking or financing that maintain reserve accounts with Federal reserve banks, list, 5465
earnings and profits, depreciation allowed, tax reform hearings, summary of recommendations, 8400
economic report on mergers, staff report of Federal Trade Commission, hearings, 513
foreign banking and financing under Federal reserve act:
regulations, 4158
amendment, 14393
foreign, withholding tax, 5695
income tax returns, statistics, 8815, 10240
foreign corporations—
controlling stock holdings, 1962
stock holdings, 1962
foreign tax credit claimed, etc., 1962
manufacturing, quarterly financial report, 3118
multiple, tax reform, summary of recommendations, 1725
non-profit housing corporations, social objectives, development, management, etc. (address), 18059
sales, profits, and dividends, quarterly report, 3172
Corrections Department, District of Columbia:
institutions in Fairfax County, Va., transfer control to Attorney General, hearings, 5153
study, report, 5134
Corrections program, LEAA, 16814
Correlation (statistics):
automated fault diagnostics for frequency-dependent circuits, 5978
correlation analysis and scintillation for 15-GHz line-of-sight propagation channels, 10382
optical correlation of laser schlieren signals, direct measurement of most probable preferred angular velocity of turbulent structures, 17006
Correlation functions:
alpha-gamma angular correlations in reaction carbon-12, 2107
mass spectra and analytical correlations of some alkylcycloalkyl sulfides, 5882
nickel 58-reaction, alpha-gamma angular correlations, 5928
Correspondence:
Adjutant General's Office, general correspondence, 1890-1917, index, microcopy, pamphlet to accompany, 11726
form and guide letters, how to design and use, 17462
form letters, Internal Revenue Service catalogue, 10233
Secretary of Treasury relating to administration of trust funds for Chickasaw and other Indian tribes ("S" series), pamphlet to accompany microcopy, 4541
Correspondence schools and courses:
Army courses, announcements, 3472, 4859
Industrial College of Armed Forces, national security management, information booklet, 5721
Navy training manuals and correspondence courses, 9053
Corrick, John D., microbial conversion of hydrous calcium sulfate to hydrogen sulfide, 7480

Corrosion and anticorrosives:

Cb-12R Rankine system corrosion test loop, 11602
corrosion control, engineers manual, 17467
corrosion fatigue crack growth behavior, 15080
low-cost iron-base alloy to resist corrosion in hot sea water, development, 772
mechanism of stress-corrosion cracking of titanium alloys in N_2O , and aqueous and hot-salt environments, effect of composition, 7514
mild steel corrosion in 580° F NaOH solutions, long term measurements, 17195
spectrophotometric procedures for determination of ions formed within stress-corrosion cracks, 4625
change, 15061
steels, high strength, stress-corrosion cracking characterization and interpretation to failure-safe design, 9060
stress-corrosion cracking of Ti-6Al-4V alloy in methanol, some factors affecting, 2103
titanium-alloy—
skin-stringer panels, influence of salt and elevated-temperature exposure on massive compressive strength, 5961
stress corrosion cracking at ambient temperature in aqueous solutions, 894
see Scale (corrosion).
Corrugated boxes, see Boxes.
Corruption, management of military club systems, investigation, hearings, 1730, 3975
Corsets, brassieres, girdles and allied garments, current industrial report, 3630, 15625
Corson, Donald R., stabilization of hydraulic backfill with portland cement, including results with other additives, 4474
Corson County, S. Dak., community profile, 13907
Cortland County, N.Y., community profile, 13908
Corundum:
disposal from national stockpile—
law, 12153
reports, 6742, 11003
COSATI, see Scientific and Technical Information Committee.
Cosby, John T., jr., relief, 12095, 12310
Coshocton County, Ohio, community profile, 12433
Cosmetics:
commercial import detentions monthly report, 2426
Food, drug, and cosmetic act—
amend, hearings, 11141, 15917
amendments, compilation, 6551
Cosmetologists, see Beauty operators.
Cosmic rays:
cosmic rays and their interactions, 12828
elementary particles and cosmic rays, 11699
galactic cosmic-rays, calculation of dose and dose-equivalent rates to man in atmosphere, 13073
Cosmonaut Training Center, USSR, story related, 11498
Cosmonauts, story of USSR Cosmonaut Training Center related, 11498
Cossette, Ludger J., relief, 5037
Cost:
allocation plans and indirect cost rates, establishing for grants and contracts with HEW, 1917
analysis and revenue, Post Office Department, 1969 fiscal year, 17713
ARNG technicians, financial administration, report on man-year and personnel costs, pamphlet, 2144
capital and operating costs in metallurgy recovery process, computer program for calculating, 846

INDEX 1970

- Cost—Continued
 comparison of actual experience under OASDHI system with short-range cost estimates, 15166
 cost allocation plans and indirect cost proposals, establishing for grants and contracts with Federal Government, guide for local government agencies, 14565
 cost of clean air, report, 448
 cost of flotation of registered equity issues, 1963-65, 9098
 desalting cost calculating procedures, 12610
 farm costs and returns, 8498, 9972, 14268-270
 freeway explorative cost earnings study, 18311
 indirect costs of defense contractors in aircraft industry, standard classification system, 6320
 method for quantifying subjective costs of large numbers of image interpretation errors, 15495
 NASA contractors trim cost, 10365
 operating an automobile, 9075
 operating nuclear merchant ship Savannah, GAO report, 11371
 "should cost" concepts, feasibility of using in Government procurement and auditing, GAO report, 11372
 value engineering seminar, joint Government-Industry, proceedings, 5322
see also subjects.
 Cost accounting, *see* Accounts and accounting.
 Cost-Accounting Standards Board, establish, law, 13346
 Cost analysis of 6 water desalting processes, 4298
 Cost and standard of living:
 Canal Zone Government former employees, cash relief payments to provide cost of living adjustments, amend Canal Zone code—
 law, 13330
 report, 13661
 living cost abroad, State Department indexes, 7438
 retired couple, 1967-68, 3 budgets in urban areas, 8863
 social security benefits, automatic adjustments to meet higher cost of living, message from the President, 334
 special cost of living allowance paid to certain civilian employees in Republic of Vietnam, questionable justification and loose administration by State Dept., GAO report, 10152
 tenants, sharecroppers, agricultural workers, etc., improvement of conditions of life and work, ILO recommendation, 335
 Cost ascertainment report, *see* Postal service.
 Cost of living, *see* Cost and standard of living.
 Cost-of-living allowances:
 overseas uniformed personnel, affirming computation—
 hearings, 6698
 report, 5126
 Cost-push inflation, what it is and what not to do about it (remarks), 7873
 Costa Rica:
 cotton textiles, trade agreement, 6225
 economic trends and their implications for United States, 796
 investment guarantees, agreement, 4746
 meat imported into U.S., agreement, 10620, 17358
 mineral industry, minerals yearbook chapter, 16901
 Costen, Robert C., equation for vortex motion including effects of buoyancy and sources with applications to tornadoes, 18203
 Costrell, Louis:
 development and current status of stand- and nuclear instrument module, 17043
 standard nuclear instrument modules, 4891
 Cothran, Charles A., study of radiation heat transfer from cylindrical fin with base surface interactions, 12780
 Cotton:
 acreage allotments and marketing quotas, modify program, hearings, 3846
 broadwoven goods, current industrial reports, 1323, 2476
 Central America, 14424
 cloth values, cotton prices, and mill margins, etc., 16093
 cost of storing and handling, 1968-69, at public storage facilities, with 1969-70 and 1970-71 projections, 6995
 cotton and man-made fiber textiles, industry wage survey, 818
 cotton and related data, 1930-67, statistics supplement, 6316
 cotton situation, 2461
 cotton, manmade fiber staple, and linters, current industrial reports, 3632
 cotton values, fiber prices, and mill margins, etc., 17722
 cottonfields, insect pests, distribution, 29
 economic consequences of restricting use of organochlorine insecticides, 6993
 fiber and processing test results, 2455
 summary, 7914
 field-degradation effects on cotton fiber and yarn quality, 9328
 foreign agriculture circulars, 2657
 futures—
 commitments of traders, 2427
 trading and open contracts, 2682
 ginning and processing performance and cotton quality, effects of chemical additive X-78, 15436
 imports of manufacturers, foreign trade reports, 2664
 long staple cotton review, 8445
 man-made fiber staple, and linters—
 current industrial reports, 2475
 seasonal adjustment supplement, 1948-69, current industrial report, 8080
 mill margins report, 2889, 16093, 17722
 monthly cotton linters review, 2903
 prices—
 spot quotations, 3219
 statistics, 527, 16089
 monthly, 2459
 production, monthly release, 2460
 production, 1969 crops, 12016
 quality—
 effects of lint-cleaner operating parameters, 9302
 1969 crop, 13763
 report for ginnings, 3312
 supply, disappearance, carry-over, 1969-70 crop, 16090
 seed cotton in ginning, moisture conditioning as related to fiber quality and spinning performance, 4821
 Tanzania, 11342
 testing service, tests available, equipment and techniques, basis for interpreting reports, 11153
 Texas, crop insurance coverages and rates, 17967
 textiles, trade agreement with—
 Costa Rica, 6225
 Czechoslovakia, 1153
 Hungary, 18356
 Jamaica, 17350
 Malaysia, 18362
 Pakistan, 15316
 Polland, 9203
 Turkey, 15327
 United Arab Republic, 1157
 Uganda, 8679
 upland cotton program, 3386, 7910

Cotton—Continued
upland, improved programs for producers and consumers, reports, 15844, 16007, 17626
varieties planted, 12385
early producing section of Texas, 9942
variety tests, regional, results, 10677
weekly cotton market review, 3351
see also names of manufactured articles and materials.

Cotton gins and ginning:

consolidated cotton report, 2456
cotton gin operating costs in west Texas, 17444
cotton ginnings—
by counties, 2457
by States, 2458
equipment, 12384
fiber quality and ginning performance, machine picked and stripped cotton, 1964-66, southeastern area, 3408
fluorocarbon-resin film as coating for seed-roll boxes, its effects on gin stand capacity, etc., 3373
ginning and processing performance and cotton quality, effects of chemical additive X-78, 15436
lint-cleaner operating parameters, effects on cotton quality, 9302
moisture conditioning of seed cotton in ginning as related to fiber quality and spinning performance, 4821
quality report for ginnings, 3312
reducing cooperative costs in Oklahoma, 3 suggested ways, 4100
wastes, control and disposal symposium, 17014

Cotton goods, *see* Cotton.

Cottonseed:

aldicarb residues, 9276
quality, crops, 16091
see also Cottonseed oil.

Cottonseed oil:

cottonseed oils and soybean used in shortening and salad and cooking oils, trends, prices, spreads, 12992
storage temperature effects on quality of cottonseed salad oil, 10688

Cottontail rabbits, *see* Rabbits.

Cottonwood Creek:

floods, how to avoid damage, Guthrie, Okla., 17930
Guthrie, Okla., flood plain information, 16415

Cottonwoods, young plantations, spacing, thinning, and pruning practices, 16562

Cottony, Herman V., spectral approach to resolution of radar pulses in clutter, experimental verification, 9329

Cottrell, Wm. B., nuclear safety, technical progress review, 2974

Coulometers, mercury electrochemical, battery state-of-charge indicator, 12789

Coulter, Olivia W., aging, 2302

Coumestrol, and related compounds, chemical and biological properties, studies, 1204

Council of Economic Advisers:

annual report—
departmental edition, 4640
document edition, 3780

Council of Foreign Ministers:

foreign relations of U.S., documents—
departmental edition, 17331
document edition, 15819

Council of Health Advisers, establish, hearing, 17336

Council of International Civil Aviation Organization, approval of North Atlantic Ocean weather stations agreement, amended text of Annex 2, 6250

Council of Social Advisors to the President:

establish—
hearings, 8427
report, 12348

Council on Environmental Quality:

annual report, 18772
appropriation, 1971—
hearings, 8271, 11105
proposal, 13564
Chairman, nomination of Russell E. Train, hearing, 11129
ecological research performance, transfer functions to Environmental Protection Agency—
hearings, 15911, 16057
report, 15874
establish—
law, 3760
report, 1552
findings and recommendations, report, hearing, 16086
members, nominations of Robert Cahn and Gordon James Fraser MacDonald, 11129
ocean dumping, national policy, report to the President—
departmental edition, 17729
document edition, 17617

Council on Urban Growth, *see* Urban Growth Council.

Counseling:

Army recruiting and career counseling journal, 3135
counseling guide, General Services Administration, 11384
Government officials and employees, pre-retirement counseling and new work life-time patterns, Federal role in encouraging, hearing, 6782
housing counseling service, 7091
orientation, counseling, and assessment in manpower programs, 807
success in early counseling, 14276
testing and supportive services in helping disadvantaged youth, 7413
trial counsel and defense counsel, military justice handbook, Army pamphlet, 1228
Counseling psychologists, *see* Psychologists.

Counselors:

multiply disabled deaf persons, manual for rehabilitation counselors, 17250
school, rehabilitation, and employment counselors, employment outlook, 14677

Counterfeits, *see* Forgeries.

Counter guerrilla operations, 9349

Counters *see* Electronic counters.

Counties:

and county equivalents, States of United States, Federal general data standard, representation and codes, 14918
boundaries of counties and county equivalents, maps, 8103
census, 1970, availability of place of work, data access description, 3645
corn yield per acre—
1964 map, 15666
percent change, 1939-64 map, 15667
county business patterns, CBP series, 191-215, 1320-21, 3610-26, 4931-33, 9447-51, 10800-811, 12017-34, 13158-174, 15620-621
errata sheet, 15621
publications order form, 3627
U.S. summary, 3610, 15620
county veteran population, Dec. 1969, estimates, 15378
farms products sold, value per acre of land by counties—
1964 map, 15664
percent change, 1939-64 map, 15665
farms by size, 1964 map, 15662
health insurance for the aged, 1968, amounts reimbursed, 4670
need for subsidized family planning services, 6988
North Carolina, estimates of population, July 1, 1968 and 1969, 8091
percent change in size, 1940-64 map, 15663

INDEX 1970

- Counties—Continued
 role, in economic opportunity efforts (address), 1784
 southwest Arkansas, forest statistics, 706
 underemployment estimates, 4041
 urban orientation, focus for area development analysis, 9970
 errata, 11191
see also names of States, etc.—*also* subject involved.
- Counting devices, automatic cell counter, 11665.
- Counting rate meters, traffic volume counting manual, guide, 9077
- Countries, *see* Foreign countries.
- Country life, new life for the country, report of President's Task Force on Rural Development, 6124
- Countryman, Clive M., fire weather and fire behavior at 1968 Canyon fire, 10135
- Countryman, Kenneth A., some summer oceanographic features of Norwegian Sea, 1963, summer, 7680
- Coupled computer code for transient thermal response and ablation of non-charring heat shields and nose tips, 18183
- Couplings:
 Federal item identification guide, 11170
 multi-hitch trailer coupling, equip tips, 14433
 optical, tracking systems, USSR study, 7386
- Courier station design, 7997
- Courses of study, *see* Curriculum.
- Court of Claims:
 calendar, 2462
 cases decided, 531, 3999, 13773, 16103
 contract claims against nonappropriated fund activities of U.S., jurisdiction—
 law, 13325
 report, 6645
 jurisdiction, 16102
 land title bill S. 1343, referring to Chief Commissioner of Court of Claims, report, 1610
 silver-dealer claimants, refer to Chief Commissioner of Court of Claims, 13376
see also names of claimants.
- Court of Customs and Patent Appeals:
 customs bulletin, weekly, 2480
 customs cases adjudged, 9947
 patent cases adjudged, 9948
 Treasury decisions, customs bulletin, bound volumes, 1176, 17383
- Court of General Sessions, D.C., judges, increase salaries, report, 1645
- Court of Military Appeals:
 court-martial reports, holdings and decisions, 17731
 digest, annotated and digested opinions, supplement, 13817
 report, 6842
- Court reporters, *see* Reporters and reporting.
- Courtesy (military), *see* Military ceremonies, honors, and salutes.
- Courtesy examiners handbook, 13214
- Courts:
 criminal court data on pre-trial release of defendants, pilot study, 14924
 District of Columbia court reform and criminal procedure act of 1970, reports, 6623, 6629, 11015
 District of Columbia, reorganize—
 law, 12154
 reports, 6623, 6629
 modern court management, trends in role of court executive, 16817
see also District courts—*also* names of courts.
- Courts martial and courts of inquiry:
 Judge Advocates General boards of review and Court of Military Appeals, reports, holdings and decisions, 1758, 17731
- Courts martial and courts of inquiry—Con.
 manual, analysis of contents, 13049
 military justice, courts of military review, rules of practice and procedure, 6327
 military justice handbook—
 guide for summary court martial trial procedure, change, 6350
 trial counsel and defense counsel, Army pamphlet, 1228
- Courts of inquiry, *see* Courts martial and courts of inquiry.
- Courts of Military Review, court-martial reports, holdings and decisions, 17731
- Courts of United States:
 appropriations, 1970—
 law, 3738
 report, 472
 appropriations, 1971—
 hearings, 8270, 13708
 reports, 9686, 15990
 waive points of order, report, 9688
 copyright decisions, 8450
 court delay, crime in America, hearings, 5150
 Federal immunity of witnesses act—
 hearings, 8309
 reports, 12198, 13421
 Federal judicial system, study—
 expenses, reports, 461, 5225
 subcommittee report, 9865
 judicial reform act, measures to improve judicial administration, hearings, 1735
 jurisdiction and work, 9761
 jurisdiction over contract claims against nonappropriated fund activities, hearing, 428
see also District Courts.
- Cover crops:
 growing ground covers, 3406
 soil moisture trends under 3 different cover conditions, 8696
- Covers, and doors, access, Federal item identification guide, 13784
- Covington County, Ala., community profile, 13909
- Covington County, Miss., community profile, 16230
- Cowart, Ralph:
 developing your manpower, 5809
 industrial services handbook, 12948
- Cowlitz County, Wash., community profile, 6904
- Cows, automatic crowding gate for dairy cows, farm building plan, 10692
- Cox, Dennis P., lead-zinc-silver deposits related to White Mountain plutonic series in New Hampshire and Maine, 5543
- Cox, F. B.:
 expedient reinforcement for concrete for use in southeast Asia, preliminary tests of barbed wire, concertina wire, wire rope, landing mat and landing mat tie bars, 11255
 study of feasibility of methods for increasing load-carrying capacities of existing concrete beams, 14336
- Cox, Lawrence M., remarks, Mar. 9, 1970, 10212
- Coyne, J. F., Neodiprion taedae linearis, sawfly pest of loblolly and shortleaf pines, 8688
- Coyote Creek:
 floods, how to avoid damage, Santa Clara County, Calif., 17939
 San Francisco Bay to Anderson Reservoir, Santa Clara County, Calif., 16416
- Coypon, about nutria and their control, 18341
- CPE, *see* Public Broadcasting Corporation.
- CPEHS, *see* Consumer Protection and Environmental Health Service.
- Crabapples, *see* Apples.
- Cracking (fracturing):
 fatigue-crack growth under simple variable-amplitude loading, investigation, 12775

Cracking (fracturing)—Continued
 oil-shale fracturing tests near Rock Springs, Wyo., evaluation, 11584
 thermal cracking of phenolic-nylon pyrolysis products on passing through heated char, 8952
see also Fracture of metals.
 Cracking of metals, *see* Fracture of metals.
 Cracking process, thermal cracking of tar vapors and fluidized-bed, low-temperature carbonization of bituminous coal, 880
 Craft (nautical):
 pleasure craft—
 Federal requirements for motorboats, 12055
 wastes, collection, underwater storage and disposal, 10104
 small, Federal item identification guides for supply cataloging, supplements, 2598
 Crafts, *see* Arts and crafts.
 Crafts, protective and custodial employees, *see* Government officials and employees.
 Craftsmen, *see* Labor.
 Cragin, John Q., ship response instrumentation aboard container vessel S.S. *Boston*, results from 2 operational seasons in North Atlantic Service, 17268
 Craig, G. S., jr., study of flood hydrographs for small drainage basins in Wyoming, progress report, 734
 Cramer, Stephen D., radiographic test for electrodeposit porosity, 12748
 Crammate, Alan B., multiply disabled deaf persons, manual for counselors, 17250
 Crandell, Dwight, R., surficial geology of Mount Rainier National Park, Wash., 5540
 Crane, David A., developing new communities, application of technological innovations, 8780
 Crane, George E., psychotropic drugs and dysfunctions of basal ganglia, multidisciplinary workshop, 1080
 Crane, R. A., 1000-MWe LMFBR follow-on study, task 2 and 3 report, topical report, sodium parametric study, 115
 Crane, Robert, Jr., advanced figure sensors, 16944
 Crane files, *see* Files.
 Crane Prairie Reservoir, osprey management area plan, Deschutes National Forest, Oreg., 10121
 Crane shovels, *see* Shovels.
 Cranes (birds):
 hunting, possession, transportation, importation, 1970-71, Federal regulations governing Alaska, 15276
 Cranes, derricks, etc.:
 construction cranes, USSR study, 4354
 crane and crane-shovel attachments, Federal item identification guide, 16121
 Cranium, *see* Skull.
 Crapple, pond management, 17302
 Crash fires, *see* Fires.
 Crashes, *see* Motor Vehicle accidents.
 Craters:
 Cabriolet crater, engineering properties investigations, 9400
 crater dimensions and free surface displacement pulses, effects of explosive properties, 11592
 crater scaling in granite for small charges, 11594
 cratering and contained events, contribution to analysis of seismic data, Project Schooner, 13078
 hypervelocity microparticle impact craters, and associated filamentary crystal growth, 11668
 liquid-drop-impact erosion, basic research, 12762
 natural rubble slopes and their relevance to crater fallback slopes, 5375
 near-surface sink structure, Nevada test site, 6382

Craters—Continued
 nuclear cratering detonations, lidar observations of debris clouds, Project Buggy, 18085
 sinks and collapse, Nevada test site, summary of information and ideas regarding, 6381
 surface motion measurements, Project Buggy, 6384
 terrain barriers, field evaluation, Project Tank Trap, 8018
 Craters of Moon National Monument, designate certain lands as wilderness area, report, 11094
 Crates, Federal item identification guide, change, 1763
 Craven, Harold L.:
 translog, 9366
 transportation proceedings, 3289
 Craven County, N.C., community profile, 12434
 Crawford, Kenneth C., behavior of winds in lowest 1500 feet in central Oklahoma, 17947
 Crawford County, Iowa, community profile, 13910
 Crawford County, Mo., community profile, 16231
 Crawford County, Ohio, community profile, 12435
 Crawford County, Pa., community profile, 16232
 Crazed resin filtration of combined sewer overflows, self-adjusting and self cleaning filter feasibility study, 14416
 CRC, *see* Civil Rights Commission.
 Cream, fluid milk and cream report, 2651
 Creasi, Vincent J.:
 selected annotated bibliography of environmental studies of—
 Iraq, Jordan, Lebanon and Syria, 10723
 Israel, 7963
 Creativity:
 elementary and secondary education act, PACE projects to advance creativity in education, supplementary centers and services, etc., 4058
 scientist and creativity (remarks), 1278
 Crecink, John C.:
 human resources in rural Mississippi Delta, with emphasis on poor, 1785
 rural industrialization, case study of tissue paper mill in Pickens, Miss., 14266
 Credit:
 brokers and dealers, regulations—
 amendment, 10083
 supplement, 14394
 Community credit expansion act, hearings, 17691
 Consumer credit protection act, amend, law, 13319
 consumers, protection against arbitrary, erroneous, and malicious information—
 hearings, 13499
 reports, 1617
 credit and farms of future (address), 7915
 credit and financing report, financing Indian development, 7290
 credit by banks for purpose of purchasing or carrying margin stocks—
 amendment, 10084
 supplement, 14395
 Credit control act, extend—
 law, 1410
 reports, 1546, 1555, 1616, 3829
 Emergency home financing act of 1970, hearings, 11026
 law, 13326
 reports, 8351, 10960, 12251, 13407
 Fair credit reporting act—
 hearings, 13499
 report, 1617
 Federal credit programs, reevaluation (remarks), 17369

INDEX 1970

Credit—Continued

- foreign credits by United States government, status, 9246
- housing, code of Federal regulations, 8645
- low income persons, assist in meeting savings and credit needs, hearings, 17691
- mortgages credit act of 1970, hearings, 6793
- new standards for credit and monetary policy (address), 654
- sales finance companies, monthly report, 3171
- truth in lending—
 - consumer credit cost disclosure amendment to Federal Reserve regulation Z, amendment, 658
 - regulations, amendment, 14397
- Truth in lending act, amend—
 - hearings, 13499
 - report, 1617
- see also Agricultural credit—Banks and banking—Installment credit—Retail credit.
- Credit cards:
 - impact on small business, hearings, 15940
 - unsolicited—
 - mailing constitutes unfair trade practice and unfair method of competition, trade regulation rule, 10093
 - require greater care in issuance and limit liability of consumers for unauthorized use, hearings, 3958
 - restrict mailing—
 - hearings, 6723
 - reports, 6759, 6671, 13396
- Credit insurance, export credit guarantees, insurance, new look, 5715
- Credit selling, see Sales.
- Credit unions:
 - State, member accounts, Federal share insurance protection—
 - hearings, 12358, 15892
 - report, 13703
 - statistics (periodical), 2463
 - see also Federal credit unions.
- Credits (school), see School credits.
- CREEL, see Cold Regions Research and Engineering Laboratory.
- Creep of materials, creep and creep recovery of lean mass concrete, effect of stress level on, 9089
- Creep of metals, zinc-copper and zirconium-copper alloys, influenced by rolling temperature and copper content, 7487
- Creighton, C. S.:
 - field experiments on insecticidal control of cabbage loopers, 10702
 - pathogens and chemicals tested against caterpillars on cabbage, 13002
- Cremation, crematorium operated by cemetery corporation, tax-exempt status, permit, report, 9717
- Crematories, see Cremation.
- Crenshaw County, Ala., community profile, 13911
- Cresap, W. Va., coal liquefaction pilot plant start-up and initial operations, 3675
- Crescent Lake National Wildlife Refuge general information, 1118
- Cresol, isomers, as possible fish-collecting aids, with toxicities, 6207
- Creswell area, Oreg., resource data on soils for land use planning and community development, 15228
- Cretaceous period:
 - Cretaceous and Lower Tertiary stratigraphy in northwestern Puerto Rico, 1609
 - Jurassic (Tithonian) and cretaceous Buchia zones in northwestern California and southwestern Oregon (series), 4249, 10182
 - nonmarine ostracodes from Pine Valley quadrangle, Nev., 5557
 - paleogeography of southeastern Arizona and adjacent areas, 16618

Cretaceous period—Continued

- species of Aquilapollenites and Eibularpollis from localities in Alaska, 4247
- two new pollen genera with possible affinity to Illiciaceae, 7246
- upper Cretaceous and lower Tertiary rocks in south central Wyoming, stratigraphy and nomenclature, 8748
- uppermost Cretaceous and Tertiary stratigraphy of Fossil basin, southwestern Wyoming, 11397
- Creutz, Edward C., nomination, hearing, 9928
- Crever, Frederick E., water plant isolation from contamination, study, 8805
- Crews, see Flight crews
- Crime and criminals:
 - assaults on law enforcement officers, prohibit, hearings, 17706
 - comprehensive law enforcement planning and action grants under title 1, Omnibus crime control and safe streets act of 1968, guide, 7402
 - corrections program, LEAA, 16814
 - crime and delinquency field, Federal agencies role, Federal support programs, compilation, 11778
 - Crime control and prevention act of 1969, hearings, 16068
 - crime in America—
 - drug abuse and criminal justice, hearings, 409
 - illicit and dangerous drugs, hearings, 5151
 - mid-America view, hearings, 1577
 - Mid-south community response, hearings, 6703
 - organized crime, court delay, and juvenile justice aspects, hearings, 5150
 - views on marihuana, hearings, 3856
 - why 8 billion amphetamines? hearings, 5152
 - youth in trouble, hearings, 11030
 - crime in National Capital, hearings, 501, 1708, 3968, 5264, 6795, 8282, 16046
 - crimes and offenses, defendant representation, improve—
 - hearings, 15923
 - report, 13623
 - crimes of violence, staff report, 15119-120, 17216
 - Criminal justice act of 1964, amend—
 - hearings, 3978, 15923
 - report, 13623
 - criminal defendants, obtain counsel for those financially unable to pay, amend Criminal justice act, hearings, 3978
 - criminal justice expenditures and employment for selected large governmental units, 1967-68, 6458
 - criminal offender, what should be done? report of President's Task Force on Prisoner Rehabilitation, 10507
 - criminal violations of Sherman antitrust act, increase penalties, hearings, 11133
 - criminalistics programs to explore and evaluate potential applications of radioisotope excited X-ray fluorescence techniques, 9398
 - criminology, FBI laboratory, brief outline of history, etc., 632
 - District of Columbia—
 - anti-crime proposals, hearings, 3857, 6704
 - court reform and criminal procedure act of 1970, reports, 6623, 6629, 11015
 - hotels, motels, etc., offenses against, revise laws hearings, 9904
 - omnibus crime bill, hearings, 6795
 - victims of certain criminal acts, compensation, provide, hearing, 5263
 - Federal offenders in District Courts, 1968 data, 6286
 - impact of crime on small business, reports, 3924-25

Crime and criminals—Continued

- law enforcement and criminal justice in U.S. improvement and reform, hearings, 410
- nonmetropolitan delinquency, action program, 1098
- offenses and certain other acts committed on board aircraft, convention—implement—
 - hearings, 424, 9901
 - report, 13689
- multilateral agreement, 2245
- Omnibus crime control and safe streets act of 1968—
 - amend—
 - hearings, 11050, 16068
 - reports, 12189, 12212, 16029
 - discretionary grant programs, guide, 5805
- Organized crime control act—
 - hearings, 17650
 - reports, 3928, 15876
 - print additional copies, reports, 6666, 6739
- persons imprisoned on criminal charge filing tort actions, extend time, amend U.S. Code, report, 1457
- persons under supervision of Federal probation system, 1186
- preventive detention of criminals, hearings, 12371
- publication on crime, price list, 9073
- regional aspects of crime, National Capital area, hearings, 5264
- remedial manpower action (address), 804
- riots, civil and criminal disorders, investigation, hearings, 16058
- corrected print, 423
- safer, more just America, Law Enforcement Assistance Administration program, 14650
- small business—
 - crime against, hearings, 13761
 - urban areas, impact of crime, hearings, 15941
- spillover of crime from Washington, D.C., to suburbs of Maryland and Virginia, regional aspects, hearings, 5264
- uniform crime reports, 12518
- uniform reporting, quarterly release, 3307
- use of firearms in commission of crimes of violence, penalties, strengthen, hearings, 5271
- white-collar crime, nature, impact and prosecution, 16815
- youth offenders, Youth Correction Division to designate examiners to make recommendations for parole—
 - law, 13314
 - hearing, 11051
 - reports, 9864, 12216
- see also Criminal procedure.
- Crime, Select Committee on, House, hearings, 409-410, 1577, 3856, 5150-52, 6703, 6282, 11030
- investigations and studies, expenses, report, 6654
- proceedings, print, reports, 9699, 13635
- report, 6675
- Criminal jurisdiction
- criminal justice, expenditures and employment for large governmental units, 1967-68, 6458
- NATO status of forces agreement, operations—
 - hearings, 3955, 17690
 - report, 6205
- Criminal law:
 - District of Columbia, revision—
 - hearings, 501, 3968
 - report, 1633
 - investigations and studies, expenses, reports, 459, 5222
 - law enforcement and criminal justice in U.S., improvement and reform, hearings, 410

Criminal law—Continued

- new Federal criminal code, study draft and working papers, 14949
- Omnibus crime control and safe streets act of 1968, title 1, comprehensive law enforcement planning and action grants under act, guide, 7402
- penalties for acts committed in furtherance of urban terrorism, hearings, 17706
- Criminal Laws of District of Columbia, Commission on Revision of:
 - appropriations, 1971—
 - hearings, 9727
 - reports, 10963, 12234
- Criminal procedure:
 - court reporter fees for transcripts furnished to poor persons in criminal proceedings under criminal justice act, authorize payment, report, 1464
 - criminal court data on pre-trial release of defendants, pilot study, 14924
 - District Courts, rules, proposed amendments, 3369
 - District of Columbia revision—
 - hearings, 501, 3968
 - report, 1633
 - expenses, reports, 459, 5222
- Criminals, see Crime and criminals.
- Criminology, see Crime and criminals.
- Crinoids, cyclopoid copepods of genus Pseudanthessius associated with crinoids in Madagascar, 11852
- Crippen, J. R., Lake Tahoe basin, Calif.-Nev., 14556
- Critchlow, Robert V., technological changes in printing and publishing industry, 18131
- Criteria and Standards Office, radiation exposure overview, OCS series, 5382, 8561
- Critical point:
 - analytical binary solutions near critical point, 2-phase equilibria, 16895
 - behavior of fluids in vicinity of, 16949
- Crittenden County, Ark., Fish Bayou Watershed work plan for watershed protection, flood prevention, drainage, fish and wildlife water resource improvement, 15251
- Crockett County, Tenn., appraisal of potentials for outdoor recreational development, 15181
- Crom, Richard, dynamic price-output model of beef and pork sectors, 15447
- Cromack, J. Robert:
 - car ran off roadway, 17088-89, 17092
 - MV ran off roadway, 17130-131
 - MV-MV head-on impact, 17117
 - MV-MV head-on sideswipe, 17018
 - MV-MV intersection collision, rollover, 17112
 - MV-MV rear end impact, 17116, 17119
 - MV-MV, rollover, 17111
 - MV-MV-truck-intersection collision, 17114
 - pickup truck-fixed object impact, 14967
 - semi-trailer tank truck ran off roadway, 17115
 - two car head-on collision, 17113
- Cronau, Leslie H. jr.:
 - cupric ion absorption through denuded epithelium, 14761
 - effects of Marine Corps officer candidate school training on serum uric acid, levels, 14762
- Cronmeyer, Cora, farm labor developments, 2565
- Crooked Arroyo Watershed, work plan, Otero County, Colo., 10575
- Crooked Creek:
 - Harrison, Ark.—
 - flood plain information, 8539
 - floods, how to avoid damage, 8546
- Crooked River project, central Oregon, 1960-66, mosquito problems associated with development report on study, 1035
- Crooker, T. W.:
 - failure of structural alloys by slow crack growth, 2181

- Crooker, T. W.—Continued
influence of yield strength and fracture toughness on fatigue design procedures for structural steels, 12891
- Crooks, Lois A., long-term care facility administration, 6527
- Crop insurance, *see* Agricultural insurance—Hall insurance.
- Croplands, *see* Land.
- Crops:
crop production (periodical), 2464
farm crop production technology, suggested 2-year post high school curriculum, 7012
field and seed, production, farm use, etc., by States, 10630
major irrigated and non-irrigated grown in western U.S., soil conditioning rating indices, 15232
new varieties, descriptions, summer, 635
oilseed, research, Northern Regional Research Laboratory, reviews and general articles, publications, 1962-69, list, 17424
plantings prospective, 7841
root crops, freezing injury of beets, carrots, parsnips, radishes, turnips, 15435
seed crops—
field seed stocks report, 3182
forecast, 3183
prices, 3184
soil conditioning rating indices for major irrigated and nonirrigated crops grown in western United States, 17286
values, season average prices, value of production, 4759
weather and crop bulletin (periodical), 3355
see also names of crops.
- Crosby, Robert L., use of cement copper in iron-copper-carbon powder metallurgy alloy, 7479
- Cross, Mrs. Ezra L., relief, 3913, 5044
Cross-eyed stepchild no longer? (remarks), 10056
- Cross-Florida Barge Canal, geohydrology, with special reference to Ocala vicinity, 10167
- Cross sections:
cross-sectional plots of plane intersections, adaptation of APT systems, 15072
Si(n,p) and Si(n,a) reaction cross sections at 14.5 MeV neutron energy, 18200
see also Neutron capture cross sections.
- Crosslinking, processes in polymers, boundary layers, influence of solid surface on relaxation, USSR study, 18111
- Crossroads for man in uniform, 11972
- Crouser, Herman H., wind vector component accumulator, 1833
- Crow, Lester J., strengths of sulfur-basalt concretes, 5881
- Crow Creek, flood plain information, 14311
- Crow River, South Fork, Hutchinson, Minn., flood plain information, 16431
- Crowley, Michael F.:
Ph.D. scientists and engineers in private industry, 10292
technician manpower, 8864
- Crown of thorns starfish, reports, 8369, 13468
- CRREL, *see* Cold Regions Research and Engineering Laboratory.
- Crude oil, *see* Petroleum.
- Crude petroleum, *see* Petroleum.
- Crudes, *see* Tar.
- Cruikshank, Nelson H., stake of today's workers in retirement security, 16034
- Cruises:
ocean vessels, operating differential subsidy, remove certain restrictions—
hearing, 3967
law, 10811
supplemental report, 360
- Crustaceans:
genus *Harpisquilla* (Crustacea: Stomatopoda) with descriptions of 3 new species, review, 4664
Myodocopid Ostracoda (Cypridinacea) from Philippine Islands, 6160
new entocytherid ostracods with key to genera of subfamily entocytherinae, 10547
nonmarine ostracodes of Early Cretaceous age from Pine Valley quadrangle, Nev., 5557
Ostracoda in Texas bays and lagoons, ecologic study, 6155
Ostracoda (Myodocopina) from Peru-Chile trench and Antarctic Ocean, 6158
ostracode zoogeography in southern Nova Scotian and northern Virginian faunal provinces, 10174
pseudoleperditia Schneider, 1956 (Ostracoda, Crustacea) early Mississippian genus from Southwestern Nevada, 730
see also Shrimps.
- Crutcher, H. L., selected level heights, temperatures, and dew points for Northern Hemisphere, 10484
- Cryogenic Data Center, Current Awareness Service publications, etc., list, 2465
- Cryogenic liquids, *see* Cryogenics.
- Cryogenics:
cryogenic fluid density measurement system, disclosure report, 11741
cryogenic unit applicable for some surgical operations, USSR study, 12647
glass filament wound pressure vessels, static and dynamic fatigue behavior at ambient and cryogenic temperatures, temperatures, 12794
publications and reports of cryogenic interest, list, 2465
rolling-element lubrication with fluorinated polyether at cryogenic temperatures (160° to 410° R), 944
spherical tank, 1.52 meter-(5-ft-), gaseous-helium requirements for discharge of liquid hydrogen, 5939
- Cryoscopy, cryoscopic method, estimating molecular weight of anomalous component of modified water, USSR study, 5794
- Crystal diodes, quasi-optical circuit techniques in varactor multipliers, study, 2060
- Crystal structure:
and development of NaUO₃ and Na₁₁U₆O₁₈, 9380
Antarctic glacier ice, deep core studies, 10001
hematite refinement, 10324
- Crystal units, quartz and holders, military standard, 8483
- Crystalline rocks, *see* Rocks.
- Crystallization, investigation of ice production from brine in continuous crystallizer, desalination by freezing, 771
- Crystals:
filamentary crystal growth associated with hypervelocity microparticle impact craters, 11668
nematic liquid crystals, electron paramagnetic resonance study of order in several, 5954
nonlinear, computer program to analyze optical parametric up-conversion processes, 2179
single crystal high sensitivity cadmium telluride for use as gamma-ray spectrometer, research and development—
annual summary report, 15526
interim progress report, 10763
- CS-series, 2507
- CSC, *see* Civil Service Commission.
- Cserenyak, Frank J., Bureau of Mines research and accomplishments in utilization of solid wastes, 5856
- CSRS, *see* Cooperative State Research Service.

- Cuba:
 claims of American nationals, extend time—
 law, 1413
 report, 1679
 Cuba and Caribbean region, U.S. security posture hearings, 13510
 population, by age and sex, 1968-90, projections, 6454
 Cuba, N. Mex.:
 Cuba Project, reconnaissance report, 15140
 land conveyance—
 law, 13339
 reports, 8359, 13415
 Cuba Independent Schools:
 land conveyance—
 law, 13339
 reports, 8359, 13415
 Cubans:
 Castro's broken pledges to the people, memorandum, 12369
 refugees, assistance, appropriations, 1970—
 law, 5053
 reports, 3818, 3926
 refugees, health professions educational assistance program, student loans, repayment, deferment, and cancellation, guide, 7264
 Culebra Island, *see* Puerto Rico.
 Culler, R. C., objectives, methods, and environment, Gila River phreatophyte project, Graham County, Ariz., 7247
 Cullman County, Ala., community profile, 13912
 Culture:
 Afro-American studies, fellowships, 967
 archeological, historical, and cultural properties, recovery of stolen objects, agreement with Mexico, 15972
 comparison of formative cultures in the Americas, diffusion or psychic unity of man, 991
 cultural relations, agreement with—
 Saudi Arabia, 1149
 Union of Soviet Socialist Republics, 15312
 Yugoslavia, American reading rooms, 1152
 Ethnic heritage studies centers act, hearings, 11032
 history and material culture of Tonkawa Indians, notes, 4575
 international educational and cultural exchange (periodical), 2759
 international exchange of persons program, 1989, report, 11899
 international information and cultural series, 4729, 11899
 Mutual educational and cultural exchange act, amend report, 8353
 presentations, USA, 1966-67, report, 4729
 United States Information Agency cross-cultural communication careers, 2278
 Culvert pipe, *see* Pipe and pipefittings.
 Culverts:
 corrugated metal pipe, structural design criteria and recommended installation practice, 10522
 erosion and riprap requirements at culvert and storm-drain outlets, hydraulic laboratory investigation, 8555
 fish versus culverts, considerations for resource managers, 14431
 pipe-arch, hydraulic analysis, electronic computer program, 18310
 Cumberland County, N.C., community profile, 13913
 Cumberland County, Pa., community profile, 16233
 Cumberland Gap National Historical Park: Davis Tavern site, location study, 12866
 general information, 4578
 Cumberland Plateau, and mountains, soil survey interpretations for woodlands, 7781
 Cumberland quadrangle, Wash., geology and coal resources, 5551
 Cumberland River and Valley:
 Ashland City, Tenn., flood plain information, 16417
 Cumberland Steam Plant, fish monitoring, investigations, 17378
 flood plain information, Harlan, Ky., 1805
 Cuming County, Nebr., community profile, 17770
 Cummins, Robert, jr., calico scallop fishery of southeastern U.S., photoreview of latest developments, 9536
 Cupric sulfate, *see* Copper sulfate.
 Cups, paper cups and lids, Federal standard, 5467
 Curecanti National Recreation Area, general information, 11788
 Curran, G. P.:
 phase 2, bench-scale research on CSG process—
 laboratory physico-chemical studies, 254
 operation of bench-scale continuous gasification unit, 255
 studies on fluo-solid systems, 6487
 Curran, H. M., evaporative freezing process for water desalination, 5624
 Currency, *see* Money.
 Current business reports (series), 2467-71A, 2472
 Current discharge at selected stations in Pacific Northwest, 2396
 Current economic analysis, series, 2653, 2742, 3196
 Current estimates from health interview survey, 11755
 Current export bulletin, 2473
 Current Federal workforce data, 9468
 Current facility reports, 17249
 Current fishery statistics, C.F.S. series, 284-289, 1366-68, 2327, 2385, 2645, 2647, 2650, 2679, 2693, 2857, 2860, 2874-75, 2883, 2891, 2951, 2958, 2970, 3157, 3200, 3209, 3257, 3330, 3699-3702, 6518-21, 8154-61, 10882-887, 12061-65, 13231-232, 15741-743
 Current housing reports, 2474
 Current industrial reports, 217-220, 2475-76
 Current population reports, 2478
 Currents, *see* Electric Currents—Lake currents—Ocean currents.
 Curren, Joseph S., turbine performance in gas-bearing Brayton cycle turboalternator, 4519
 Curriculum:
 aeronautical science course of study, 4101
 agricultural equipment technology, suggested 2-year post high school curriculum, 4048
 automatic data processing training and methodology in Federal Government, conference report, 4062
 Coast Guard Academy, catalog of courses, 12056
 conservation education in curricula of 50 States, 7181
 course and curriculum improvement projects, mathematics, science, social sciences, 12878
 dental assisting, in Indian Health Service, guidelines, 7291-92
 distributive education in high school, suggested guide for administrators and teachers of distribution and marketing, 8514
 drug education, grades 6-12, guide, 14941
 farm crop production technology, suggested 2-year post high school curriculum, 7012
 foreign, consultant program for schools, colleges, and State departments of education, 16394
 law enforcement curriculum at State university, introducing, 16816
 selected drug education, 14941-947, 17059

- Curriculum—Continued
supervisory and administrative management occupations, guide, 8530
- Currie, Pat O., response of seeded ranges to different grazing intensities in ponderosa pine zone of Colorado, 4825
- Currituck County, N.C. community profile, 12436
- Curry, Billy R., climate of Oklahoma, 11265
- Curry, Donald M., Apollo ablator thermal performance at superorbital entry velocities, 16979
- Curry area, Oreg., soil survey report, 6192
- Curtis, George W., statistical summaries of Illinois streamflow data, 4254
- Curtis, Henry B., effect of error on spectral measurements of solar simulator surface response, 16963
- Curtis, S. B., study of radiation hazards to man on extended near earth missions, 2065
- Curtiss, D. A., chemical quality of surface water in Umpqua River basin, Oreg., 7229
- Curvature (mathematics):
birectilinear recruitment curves to assess influence of lake size on survival of sockeye salmon (*oncorhynchus nerka*) to Bristol Bay and forecast runs, 8165
curve-fitting method of least squares as applied to petroleum engineering, review, 7459
- Curves, *see* Curvature (mathematics).
- Cushing, E. M., availability of water in Mississippi embayment, 18041
- Cushioning materials:
corrugated fiberboard pads, cushioning properties of 5-layer, 1882
cushioning performance of multilayer corrugated fiberboard pads loaded at center only, 14468
uncured slab urethane foam for bedding and furniture cushioning, 4551
- Cushwa, Charles T., wildlife food plants on chopped areas in Piedmont of South Carolina, 4193
- Custer Battfield, poster, 9028
- Custer Battfield National Monument, general information, 997
- Custer County, Colo., Gem Park complex, mafic-ultramafic igneous rocks and associated carbonatites, 16617
- Custer County, Nebr., community profile, 17771
- Custer County, S. Dak., community profile, 13914
- Custodians, buildings, employment outlook, 14693
- Custom-houses, *see* Customs administration.
- Customs, *see* Tariff.
- Customs administration:
construction of customs and immigration facilities, funds, increase—
hearing, 434
report, 3826
- Customs Court:
act of 1969—
hearings, 1732, 6722
report, 1661
act of 1970—
law, 10931
report, 8261
cases adjudged, Customs Court reports, 535, 6832
customs bulletin, weekly, 2480
judicial machinery, improve, amend code—
hearings, 1732, 6722
law, 10931
reports, 1661, 8261
Treasury decisions, customs bulletin, bound volumes, 1176, 17383
- Custom districts, by continent, U.S. airborne foreign trade, summary, report, 3650
- Cut stone, *see* Stone.
- Cutler, Sylvan N., thermal and electromagnetic radiation from dust structures, 10347
- Cutlery, and flatwear, Federal item identification guide, 17736
- Cutters (boats), *see* Boats.
- Cutting machinery, tunnel boring technology, disk cutter experiments in sedimentary and metamorphic rocks, 12743
see also Gear cutting and finishing machines.
- Cutting of metals, *see* Metal cutting.
- Cutting strategies & timber yields for unbalanced even-aged northern hardwood forests, 12563
- Cutting tools, metal, industry 1965-69, shipments, 15539
- Cuyahoga County, Ohio:
community profile, 12437
Cuyahoga River—
flood plain information, 7035
floods, 7040
- Cuyahoga River and Valley:
Cuyahoga and Summit Counties, Ohio—
flood plain information, 7035
floods, 7040
- CVAN-70, *see* Aircraft carriers.
- Cyanide leaching, *see* Leaching.
- Cyanide process, percolation cyanide leaching, recovering gold from stripping waste and ore, 4485
- Cyanite, *see* Kyanite.
- Cybele (asteroid):
Jupiter's mass determined from motion of 65 Cybele, 17170
- Cybernetics:
cybernetics and diagnostics, USSR study, 16752
cybernetics and regulation theory, USSR study, 2012, 4325, 5779, 8838, 18103
cybernetics and scientific-technical revolution, USSR study, 4349
cybernetics and technical progress, USSR study, 2006
cybernetics in medicine, USSR study, 4345
cybernetics in Ukraine, USSR study, 12636
cybernetics on march, USSR study, 12643
East European abstracts, 2518
heuristic self-organization of cybernetic systems, USSR study, 16794
long-range problems of Soviet cybernetics, 16808
methods of controlling large systems. USSR study, 16802
military, USSR study, 7393
selections from the field, USSR study, 10281
systems and biology, USSR study, 16791
technology in Ukraine, USSR study, 16750
USSR abstracts, 3319
see also Neurocybernetics.
- Cyclamate sweeteners, hearings, 13519
- Cycles, *see* Motorcycles.
- Cyclic intermediates, *see* Organic compounds.
- Cycling:
cyclic and constant temperature aging effects on magnetic materials for inverters and converters, 10344
life testing small diameter thermocouples as function of thermal cycling, 9384
see also Thermal cycling.
- Cylinders:
gas, Federal item identification guide, 16126
position numbers in engine, military standard, 16149
vibration characteristics of cylinder partially filled with liquid with attached elastic drain pipe, 4495
- Cyclones:
Investigations, for steam separation in boiling water reactors, quarterly report, 1251
secondary, cloud growth associated with development of meteorological satellite views, 12771

Cyclones—Continued

- tropical, development—
 - effects of radial resolution, experiments with numerical model, 1824
 - numerical experiments with multilevel primitive equation model designed to simulate development, 1820
 - survey of experimental results obtained from numerical model designed to simulate, 8570

see also Hurricanes—Tornadoes.

- Cyclopoidae, see Copepods.
- Cyclotrons, Lewis Research Center modification, radio frequency system analysis, 2094

Cylinders:

- cylindrical bodies, radiation from slots, using geometrical theory of diffraction and creeping wave theory, 5979
- hemisphere- and cone-cylinders, shock wave shapes and surface pressures on, in low-density hypersonic flow including ablation, 11633
- stiffened, buckling in axial compression and bending, review of test data, 2105
- thin-walled cylinder of open section, coupled thermally-induced transverse plus torsional vibrations, 12826
- viscous compressible fluid flow around stationary cylinder, numerical calculations, 5893

Cyprinidaceae, see Crustaceans.

Cyprus:

- economic trends and their implications for
 - United States, 14639
- foreign trade regulations, 9508
- mineral industry, minerals yearbook chapter, 14783

Cystamines, see Cysteamines.

- Cysteamines, radioprotective effect of polymer salt of cystamine, etc., USSR study, 10268

Cytology, oral cytology, atlas, 15148

Czech language, abbreviations in Czechoslovak press, reference aid, English translation, 16737

Czechoslovak Microbiological Society, selections from bulletin, 16795

Czechoslovakia:

- abbreviations in press, reference aid, English translation, 16737
- background notes, 9186
- capsule facts for Armed Forces, 70
- cotton textiles, trade agreement, 1153
- Embassy, establish New York branch in commercial section, agreement, 4741

Czapowskyj, Mirosław M., experimental planting of 14 tree species on anthracite strip-mine spoils, 14472

D

D.C., see District of Columbia.

D.C. Transit System, Inc., financial assistance, authorize, report, 8350

D.S.A., see Defense Supply Agency.

Daane, J. Dewey:

- remarks—
 - Nov. 19, 1969, 655
 - Oct. 8, 1970, 16506

Dace (U.S.S.):

loan to Italy, extension, agreement, 10617

Dade County, Mo., community profile, 16234

Daggerhart, James A., correction of pressure data for thermal transpiration effects in pneumatic lines, 2074

Daggett County, Utah, community profile, 8493

Dahlias, growing, planting, propagating, diseases, etc., 17438

Dahnke, Harold L.:

- distribution of physical facilities among institutions of higher education grouped by level, control, and enrollment size, 11206

Inventory of physical facilities in institutions of higher education, 7015

Dahomey:

- background notes, 15288
- economic trends and their implications for
 - United States, 18087

Daily food guide, 11399

Daily river stages, 15387

Dairy cattle, see Cows.

- Dairy herd improvement associations:
 - national cooperative program, 2486
 - sire summary list, Ayrshire, Guernsey, Holstein, Jersey, Brown Swiss, Milking Shorthorn, Red Dane, Mixed Breed, and Red Poll sires, 15397

Dairy industry, see Dairying.

Dairy products:

- census of manufactures, 1967, industry statistics, 13144
- census of transportation, 1967, commodity transportation survey, shipper group, 1309
- Commodity Credit Corporation, donate to school lunch program and needy groups of U.S. and abroad—
 - law, 9598
 - reports, 382, 5207
- improved programs for producers and consumers, reports, 15844, 16007, 17626
- industry, occupations and trends, 10644
- manufactured products, 1969 production, 12944
- selected, and their substitutes, marketing margins, 11196
- Tariff Commission reports, 17373, 18379

Dairying:

- dairy herd improvement letter, national cooperative improvement program, 2486
- dairy industry, bovine mastitis, most costly problem, 9281
- dairy market statistics—
 - 1967, annual summary, 10705
 - 1969, annual summary, 7943
- dairy plants surveyed and approved for
 - USDA grading service, list, 17721
- dairy products industry, occupations and trends, 10644
- dairy situation (periodical), 2487
- economic aspects in Northeast, 11194
- foreign agriculture circulars, 2657
- outlook, problems, etc. (speech), 3426
- publications, price list, 12907
- see also Dairy products.

Dairymen, see Dairying.

DAISY, efficient program for production of neutron pseudo resonance parameter chains in unresolved energy region, 12802

Dakota County, Nebr., community profile, 17772

Dale, Charles, highway engineering economy, syllabus, 10526

Dale, John M., investigation of lightweight sulfur foam for use in field applications, 4071

Dale County, Ala., community profile, 13915

Dales, Sophie R.:

- benefits and beneficiaries under public employee retirement systems, 11859
- Federal grants to State and local governments, 12922

Dallas, Tex.:

- area wage survey, 5828
- census of transportation, 1967, commodity transportation survey, production, area series, 6430

Love Field, climatological summaries, 2253

principal electric facilities, map, 8627

Dallas County, Ala., community profile, 13916

Dallas County, Iowa, community profile, 13917

Dallas County, Mo., community profile, 16235

The Dallas Dam, fish passage report, 14302

Dalton, Beverly J.:

- thermodynamic properties of Redlich-Kwong Fluid in two-phase region, 2055
- two-phase equilibria of analytical binary solutions near critical point, 16895

Damages:

- automobile accident compensation—
 - comparative foreign studies, 9232
 - reform, constitutional problems, 9233
- causation, culpability and deterrence in
 - highway crashes, 12949
- origin and development of negligence action, role of fault in automobile accident compensation law, studies, 7861
- see also* Claims.
- D'Amico, Kathleen J., statistical summary, 884
- Dampers, yaw-rate damper, effect on flying qualities of light twin-engine airplane, evaluation, 12817
- Damping:
 - fuel slosh damping predictions effects of vortex shedding, 7541
 - isolation system with relaxation type damping, response and optimization, 10350
 - liquid oscillations in rectangular tanks, effect of wall roughness, 5973
 - mount stiffness and damping effects on dynamic behavior of air lubricated pivoted-pad journal bearing-rotor system, 5972
 - wave damping effects of screens, hydraulic model investigation, errata, 10017
- Damping of vibration, *see* Vibration.
- Dams:
 - earth and rock-fill, stability, engineering and design, DM manual, 14307
 - safety of dams investigation at Salt River Project, Ariz., field and laboratory tests, 15146
 - storage, and reservoirs on Bureau of Reclamation projects, statistical compilation, 1081
 - see also* names of dams or bodies of water.
- Dancers, employment outlook, 12687
- D'Andrea, Dennis V., crater scaling in granite for small charges, 11594
- Dangerous articles, *see* Hazardous substance.
- Daniels, Bennie A., leather gloves, luggage and miscellaneous leather goods, 12004
- Daniels, D. M., soil survey of Teton area, Idaho-Wyoming, 1111
- Daniels, Farmely C., U.S. Army research and development information program, directory of technical information points of contact, 15500
- Danielson, V. A., mineral industry of North Carolina, 862
- Daphnia, ecology, in Bull Shoals Reservoir, 1131
- Darden, Pierre S. du P., relief of estate, 12099, 12311
- Dare County, N.C., community profile, 12438
- Darien Gap Highway, construction, U.S. cooperation, authorize, hearing, 5174
- Dark, Thomas A., Pacific Ocean perch and hake studied off West Coast, 9534
- Dark adaptation, effects of varying levels of alcohol on dark adaptation time, 15754
- Darke County, Ohio, community profile, 12439
- Dartmouth Shoe Co., Brockton, Mass., women's and misses' dress shoes with leather, vinyl, or fabric uppers, Tariff Commission report, 10642
- Darwent, B. deB., bond dissociation energies in simple molecules, 4550
- DASIAC, *see* Defense Atomic Support Agency Information and Analysis Center.
- Data, *see* subjects.
- Data access descriptions, 3643-46, 6451-52, 8093-95, 13178
- Data acquisition:
 - and control of 60-ft. X-band microwave antenna, NRL computer system hardware, 15090
 - data compilations of Office of Standard Reference Data, annotated accession list, 17041

Data acquisition—Continued

- NASA data requirement descriptions (DRD) for acquisition of in-house and contractor technical and management data, 8980
- rotating shaft-mounted microelectronic data system, 5969
- slow-speed data acquisition system to record multiple time-related signals, adaptation, 7496
- Data processing, *see* Electronic data processing systems.
- Data Processing and Accounts Bureau, Social Security Administration, operations, 4671
- Data processing technicians:
 - technical assistant, examination announcement, 15699
 - 3 & 2, Navy rate training manual, 7688
- Data recorders, *see* Recording instruments.
- Data Reduction Laboratory, aid to space scientist, 7532
- Data storage and retrieval systems, *see* Information storage and retrieval systems.
- Data tabulation activities, 6436
- Data transmission system:
 - basis and application of simulation model for oceanographic system using HF radio, 14350
 - data display and analysis, 14830
 - interactive specification of data displays, 14828
- Datta, Lois-ellin, report on evaluation studies of Project Head Start, 742
- Daunomycin, chemotherapy fact sheet, 10442
- Dauphin County, Pa., community profile, 16236
- DAV, *see* Disabled American Veterans.
- Davenport, Iowa, area wage survey, 5825
- David, Edward E., Jr., nomination, hearing, 16077
- Davidson, Walter H., deer prefer pine seedlings growing near black locust, 16568
- Davidson County, N.C., community profile, 13918
- Davie County, N.C., community profile, 13919
- Davies, Don, come out from under the ivy, 7008
- Davless County, Mo., community profile, 16237
- Davis, Albert B.:
 - changes in import duties on tobacco in free world countries, 16532
 - tobacco production and trade in Republic of Korea, 11340
- Davis, C. W., brit herring along Maine's coast, 12072
- Davis, Cal C., relief, 9792, 12164, 13286
- Davis, Jackson, exploring for schooling pelagic fishes in Middle Atlantic Bight, 9533
- Davis, John G., Jr., compressive instability of strength of uniaxial-filament reinforced epoxy tubes, 5974
- Davis, John R., instabilities observed in lower E-layer alkali-plasma-cloud releases and their implications regarding sporadic E, 17192
- Davis, Joseph C., radiation errors in air ducts under nonisothermal conditions using thermocouples, thermistors and resistance thermometer, 2136
- Davis, Kenneth N., Jr.:
 - addresses, etc.—
 - Jan. 12, 1970, 3695
 - Jan. 22, 1970, 3688
 - Jan. 31, 1970, 3686
 - Mar. 9, 1970, 6517
 - May 13, 1970, 9513
- Davis, Pearl C., relief, 353
- Davis, R. M., Jr., short-term prediction of F2-layer maximum usable frequencies from local magnetic activity, 8572
- Davis, Robert T., water supply outlook and Federal-State-private cooperative snow surveys for Washington, 3844

Davis, Thomas A., forced-flow electrodesalination, 12611
 Davis, Velmar W., economic consequences of restricting use of organochlorine insecticides on cotton, corn, peanuts, and tobacco, 6993
 Davis, Yvonne, relief, 5039
 Davis County, Iowa, community profile, 13920
 Davis County, Utah, community profile, 6905
 Davis Tavern, Cumberland Gap National Historical Park, site location study, 12866
 Davison County, S. Dak., community profile, 13921
 Dawes, Richard E., relative effects of grouped physical variables, on revenue-cost system of lead-zinc mining operation, 871
 Dawes County, Nebr., community profile, 16238
 Dawson, J. H., controlling dodder in alfalfa, 17
 Dawson County, Nebr., community profile, 17773
 Dawsonite, and nahcolite analyses of Green River formation oil-shale sections, Piceance Creek basin, Colo., 18172
 Day, James V.:
 nomination, hearings, 495
 remarks—
 Mar. 10, 1970, 7094
 May 11, 1970, 10055
 Sept. 11, 1970, 14374
 Day, John G., economic regulation of insurance in U.S., 15357
 Day, M. E., brine disposal pond manual, 17239
 Day, Richard A., improved ultraviolet interferometer, 18187
 Day care of children:
 comprehensive programs, provide hearings, 11031
 day care facts, 15389
 everybody's problem, volunteer to help in your community, 8105
 food service programs under National school lunch act—
 meals for needy children, provide temporary emergency assistance—
 law, 6539
 report, 5251
 strengthen and expand—
 law, 10909
 reports, 5200, 9666
 trust funds for day care centers, employer contributions, law, 302
 Day County, S. Dak., community profile, 13922
 Day of Bread, designate, law, 307
 Dayao, Mrs. Rolando C., relief, 17622
 Days, *see* names of special days.
 Dayton, Ohio:
 area wage survey, 7434
 census of transportation, 1967, commodity transportation survey, production area series, 6425
 James M. Cox Airport, climatological summaries, 2254
 DC, *see* District of Columbia.
 DCA, *see* Defense Communication Agency.
 DCASR, *see* Defense Contract Administration Services regions.
 DDT, 1, 1-dichloro-2, 2-bis (P-chlorophenyl) ethylene, list of references, 5983
 Deaf:
 demonstration elementary school for the deaf to be maintained and operated by Gallaudet College—
 hearings, 13751, 17640
 report, 13678
 hearing loss—
 expanded, scale questionnaire development and evaluation, 10446
 hope through research, 18309

Deaf—Continued
 hearing loss—continued
 multiply disabled deaf persons, manual for rehabilitation counselors, 17250
 see also Hearing.
 Deaf, Convention of American Instructors, *see* Convention of American Instructors of the Deaf.
 Deafness, *see* Deaf.
 Dealers:
 automobile and truck, under Fair labor standards act, 17407
 credit, regulations—
 amendment, 10083
 supplement, 14394
 farm equipment and repair parts, what distributors should do with them in national emergency, 7932
 FHA property improvement loans, guide, 4273
 pesticide dealers, safety guide, 9321
 poultry, national improvement plan, participants, 4798
 retail, liquor laws and regulations, 14611
 securities, relationships, regulation, 1859
 subject to certain provisions of title 1, National housing act, list, 7090
 Dean, Alan L., first three years, 18385
 Dean, Karl C., dismantling typical junk automobile to produce quality scrap, 2059
 Dean, Lyndon A., relief, 9792, 12164, 13286
 Deans (in schools):
 graduate, United States universities, 1872-1970, directory, 11203
 Death:
 aircraft accident post mortem findings, safety significance, 8038
 coal-mine fatalities, mineral industry survey, monthly, 2411
 death and dying, selected bibliography, 11771
 fatal accidents on interstate system, 15132
 fatal and injury accident rates, 1968, on Federal-aid and other highway systems, 2209
 geochemical environments and cardiovascular mortality rates in Georgia, 4244
 infant and fetal mortality trends, relationship between fallout deposition of strontium 90, evaluation, 8557
 infant mortality, study from linked records, methods of study and registration aspects, 6017
 infants, key issues in mortality, conference, report, 9011
 morbidity and mortality weekly report, 2914
 mortalities, fish, investigating causes, 12539
 mortality of aged before and after medical care, 15164
 mortality, vital statistics of U.S., 1079
 nesting mortality in birds, analysis, 2217
 Death certificates, where to write for birth and death records, U.S. and outlying areas, 12600
 Death duties, *see* Inheritance and transfer tax.
 Death penalty, *see* Capital punishment.
 Death Valley National Monument:
 general information, 6059
 historical background study, 4579
 Deaton, Jerry W., air permeability studies of lightweight coated fabric subjected to uniaxial tensile loads with and without prior cycling, 14873
 DeBald, Paul S., timber resources of Ohio Hill country, 5518
 DeBarr, Gary L., seed orchardist's guide to handling of insecticides and calibration of spray equipment, 8716
 Debates and debating, high school topic, 1970-71, collection of excerpts and bibliography, 11063
 Debts, *see* Banks and banking.

INDEX 1970

- Debt:
 adjusting business in D.C., prohibit—
 hearing, 1578
 law, 10926
 report, 9678
 bad debts, income tax deductions, 5677
 debt collection deception guide, 17995
 farm mortgage, 9976
 foreign postal debts owed to United States,
 report, 12229
 home mortgages, estimated, quarterly,
 2547
see also Public debt.
- Decaborane, effects on liver glycogen con-
 tent of rats at ground level, and at alti-
 tude, 57
- De Carre, Suzanne E., guide to technical
 literature of oceanography, annotated
 bibliography, 17173
- Decatur County, Iowa, community profile,
 13924
- Decatur County, Tenn., appraisal of poten-
 tials for outdoor recreational development,
 15182
- Decay (timber):
 natural decay resistance of 30 Peruvian
 woods, 18024
 termites and decay guide, 8619
- Decelerators:
 aerodynamic, structural merit function,
 2091
 5-foot diameter (1.5m) attached inflat-
 able decelerators, deployment and per-
 formance characteristics from Mach
 number 2.2 to 4.4, 14850
 40-foot-diameter (12.2 meter) ringsail
 parachute, high altitude flight test at
 deployment Mach number 2.95, 11652
 ram-air inflation of attached inflatable
 models at Mach 3.0, static aerodynamic
 characteristics, pressure distributions,
 etc., 11662
 wake analysis for supersonic decelerator
 applications, 7516
- Decision analysis approach to satisfying re-
 quirements of Flammable fabrics act (ad-
 dress), 4982
- Decision-making:
 applications of research on human deci-
 sion-making, symposium, 7527
 aspects of decision-making, USSR study,
 18106
 Federal agency decision-making, citizen in-
 volvement, responses to questionnaire,
 8421
 in fuzzy environment, 10360
 in operations research, USSR study, 16760
- Decisions, *see* names of courts or depart-
 ments, etc., rendering decisions—*also* sub-
 jects.
- Declination, tables for air navigation, 18285-
 286
- Decomposition:
 Douglas-fir bark tannin decomposition in 2
 forest soils, 1883
 inorganic salts, high temperature proper-
 ties, 956
 thermal, and explosion of ammonium per-
 chlorate and ammonium perchlorate prop-
 ellant up to 50 kilobars (5.0×10^5
 N/m²), 17001
- Decompression:
 cause of hearing loss, 14765
 patterns developed by an interdependent
 electric analog, 835
 physiologically tolerable profiles for super-
 sonic transport type certification, 17478
- Decompression sickness, *see* Aeroembolism.
- Decorating, special trade contractors, census
 of construction industry, 1967, statistics,
 13125
- Decoration and ornament, ornamental metal
 work, special trade contractors, census of
 construction industry 1967, statistics,
 13136
- Decorations of honor, Air Force manual, 48
- Dedication and hope (address), 11322
- Deductions, *see* Income tax.
- Deeds:
 District of Columbia, straw party deeds in
 joint tenancies, eliminate—
 hearing, 9904
 report, 388
- Deep Fork River:
 Arcadia Reservoir, Okla., water quality
 control, engineers report—
 departmental edition, 9999
 document edition, 9620
- Deep Sea Drilling Project:
 drilling vessel Glomar Challenger,
 cruises—
 leg 1, Orange, Tex. to Hoboken, N.J.,
 1004
 leg 2, Hoboken, N.J. to Dakar, Senegal,
 6069
 leg 3, Dakar, Senegal to Rio de Janeiro,
 Brazil, 9033
- Deer:
 black-tailed, habitat management, 6183
 internal and external parasites in U.S. and
 Canada, checklist, 15406
 mule, habitat management for, 17295
 prefer pine seedlings growing near black
 locust, 16568
 white-tailed deer, habitat management,
 6184
- Dees, Lola T., edible land snails in United
 States, 17320
- Defect indicators in sugar-maple, photo-
 graphic guide, 12562
- Defender, Public, *see* Public defenders.
- Defense, *see* Civilian defense—National de-
 fense.
- Defense Atomic Support Agency Information
 and Analysis Center, special reports, 6847
- Defense Communications Agency, selected
 DCA trunks in southeast Asia, forecast of
 short-term ionospheric forecasts, 612
- Defense Contract Administration Services
 region:
 MILSCAP, military standard contract ad-
 ministration procedures, supplements,
 560, 16154
 procurement quality assurance—
 program, what is an observation?,
 change, 6851
 support manual, 16113
- Defense Contract Administration Services
 region:
 annual historical summaries—
 Chicago, Ill., 6833
 Dallas, Tex., 6834
 St. Louis, Mo., 6835
- Defense contracts, *see* Government contracts.
- Defense Department:
 accounting systems for operations, imple-
 mentation, GAO report, 10146
 advertised contracting in military con-
 struction, survey of use, 14516
 allowances for independent research and
 development costs in negotiated con-
 tracts, issues and alternatives, GAO re-
 port, 5522
 annual report, 8463
 appropriations, 1970—
 civil functions—
 amendment, 330
 law, 3734
 hearings, 397, 1570, 3849, 3950
 law, 3744
 military construction—
 hearings, 400, 1703
 law, 3743
 reports, 1460-61, 1650, 3813, 3832
 military procurement, authorization—
 law, 1386
 report, 1450
 reports, 394, 1680, 3831

Defense Department—Continued
appropriations, 1971—

hearings, 8267, 9725, 11020, 12258, 13492

military construction—

hearings, 9729, 11023

reports, 9704, 10951, 10985

waiving points of order, report, 13404

military procurement, authorization—

hearings, 8267, 8275, 11107

reports, 9657, 9662, 12352

Assistant Secretary Health and Environment, nomination of Louis M. Rousselot, hearing, 13712

Assistant Secretary (systems analysis), nomination of Gardiner L. Tucker, hearing, 3954

Blue Ribbon Defense Panel, report to the President and Secretary of Defense on Defense Dept. organization, structure, operations, etc., 13816

bus travel, opportunity for savings by reducing paper work, GAO report, 12581
career program for procurement personnel, action required to improve, GAO report, 14491

cataloging and standardization program, semiannual report, 5148

cataloging handbook, H series, 536, 1756, 2494-95, 2588-93, 2596-98, 2630-31, 2633-35, 4003, 8458-59, 9550, 16106-108, 17730

cataloging manual, M (series), 537, 1757, 6844-45, 13775-776

chemical and chemical products used for DOD laundering, military standard, 559

civilian employees to administer oaths, authorize, report, 1467

commanders digest (periodical), 2420
index, 6846

communications, management improvements needed, GAO report, 18034

construction of mess halls, basis for determining need, GAO review, 722

contractor procurement system reviews, improving effectiveness, GAO report, 14507

cost and balance-of-payments advantages of replacing foreign-made buses with American-made buses, GAO report, 5528
defense industry bulletin (periodical), 2494

defense management journal, 2495

determining graduate education requirements for military officer positions, improvements needed, GAO report, 14501

dismissal of A. Ernest Fitzgerald, hearings, 8193

DoD data elements standardization program, manual for standard data elements, 9958

DoD pamphlets, 69-78, 3456, 6343-44, 7972-75, 10218, 11437, 16689

examination into 52 Federal supply classes from Defense Department to General Services Administration, GAO report, 7209

food inspection role, need to reassess, GAO report, 11377

Foreign military sales act, amend—

hearings, 5158, 9908

reports, 6595, 6627, 9863

General Counsel, nomination of J. Fred Buzhardt, jr., hearing, 16039

glossary of mapping, charting, and geodetic terms, 1770

Government industrial plant equipment kept for possible future use, management should be improved, GAO report, 10147

Government property, make uniform laws concerning responsibility, report, 1497

handbook DSAH series, 1759, 5299-5300, 6848-51, 8461, 11159-160, 13777-778

Defense Department—Continued

High School News Service report (periodical), 2712

household furniture in United States, action taken to achieve closer adherence to established policy for providing, GAO report, 10140

improvements needed in—

negotiating prices of noncompetitive contracts over \$100,000, on basis of contractors catalog, or market prices, GAO report, 710

reclaiming usable parts from excess aircraft, GAO report, 14504

settling claims for termination of communications services, GAO report, 1890

improving use of cargo space on aircraft operated by contract, GAO report, 14492

industry symposium, proceedings, 16156

joint uniform military pay system, status of development, Defense Dept., GAO report, 14515

life cycle costing—

procurement guide (interim), 16146
series, 16146

management—

civilian hiring limitations and recruiting by Dept. of Defense is costly, GAO review, 1892

education and training, 16111

military-owned household furnishings overseas, opportunities for improvement, GAO report, 717

manual, DSAM series, 538-539, 1760, 6852-55, 11161-164, 13779, 16112-113, 17733-734

Military Affiliate Radio System, opportunities for improving management of excess property, GAO report, 5533

military budget and national economic priorities—

hearings, 323
report, 3765

military construction authorization, 1970—

hearings, 487
law, 1406
report, 476

military construction authorization, 1971
hearings, 17688

military mail reductions achieved in cost of transporting from Okinawa to points in southeast Asia, GAO report, 12580

military standards, 544-559, 1772-80, 4018-34, 5318-19, 6876-80, 8482-87, 9959-64, 11179-180, 12397-398, 13804-810, 16147-153, 17741-745

national security management, role in civil disturbances, Industrial College of Armed Forces, monograph, 10254

need for improving program for use and redistribution of excess materiel in Pacific area, GAO report, 14506

need for increased control over local currency made available to Vietnam Republic for support of its military and civil budgets, GAO report, 12578

need to improve military supply systems in Far East, GAO review, 8724

opportunity for savings by improved selection of air carriers for transporting military cargo, GAO report, 11378

overseas air passenger transportation, potential savings by centralized control, GAO report, 12582

overseas schools, extend program for allocation of funds, elementary and secondary education act amendments of 1969—

law, 6549
reports, 3932, 6646

performance standards for more efficient use of civilian production personnel, need to improve, GAO review, 1895

INDEX 1970

Defense Department—Continued

- pilot training for Federal Republic of Germany, omission of significant costs from charges, GAO report, 721
- procurement—
 - independent research and development of products, cost sharing by Government contractor, hearings, 13494
 - independent research and development program management, review, report of subcommittee, 15890
 - policies on competition and concentration, hearing, 5270
 - small business problems, before and after defense cutbacks, hearings, 17652
 - weapons systems, acquisition, hearings, 9611, 17611
- procurement data packages, military standard, 4029
- procurement quality assurance handbook supplement, 11185
- program and budget 1971, statement, 5323
- Project Transition, need to improve management, GAO report, 1896
- quality and reliability assurance handbook, 11185
- questionable waivers of preaward audits of contractors' noncompetitive price proposals, GAO report, 14513
- reports, reliability and maintainability, engineering data, military standard, 5319
- reserve forces, annual report, 13774
- savings through greater use of Government-owned shipping capacity, between New Orleans, La., and Panama Canal Zone, GAO report, 723
- specification practices, military standard, notice, 4022
- specifications and standards, index, 16145
- supplements, 2498
- spectrometric oil analysis equipment savings from joint by military department, GAO report, 18036
- standardization documents, supply classification listings, 2632, 13803
- standardization manual M (series), 3220
- standardization policies, procedures, etc., manual, 3220
- standards and specifications, order of precedence for selection, military standard, 4018
- status of acquisition of selected major weapon systems, GAO report, 5537
- surplus personal property, classes sold, 16109
- telephone directory, 2499
- travel regulations, civilian personnel, 2781
- U.S. defense activities overseas, questionable payment of taxes to other governments, GAO report, 5535
- utilization and marketing handbook, supplements, 1761-62, 11164
- vehicle maintenance in Europe, reduction of cost by improving management, GAO report, 14514
- Defense Depot Mechanicsburg, Mechanicsburg, Pa. annual historical summary, 6836
- Defense Depot Ogden, Ogden, Utah, operations and accomplishments, annual historical summary, 6837
- Defense disposal manual, changes, 1760, 4004, 8460, 16110
- Defense Documentation Center, Cameron Station, Alexandria, Va., annual historical summary, 6838
- Defense facilities, *see* Plants (Industrial).
- Defense Fuel Supply Center, operations and accomplishments, annual historical summary, 6839
- Defense Industrial Plant Equipment Center, operations and accomplishments, annual historical summary, 6840
- Defense Industrial Supply Center, Philadelphia, Pa., annual historical summary, 6841
- Defense industry bulletin (periodical), 2494
- Defense Intelligence Agency, appropriations, 1970, hearings, 3849
- Defense Logistics Services Center, DSA—DLSC handbook, 1761-62, 11164
- Defense procurement circular, 2496
- Defense production, *see* Production.
- Defense production act, *see* Production.
- Defense Production Joint Committee:
 - activities, annual report, 5196
 - print additional copies, report, 3937
 - committee print, 3762
- Defense Supply Agency:
 - Defense Industrial Plant Equipment Center, operations and accomplishments, annual historical summary, 6840
 - DSA—DLSC handbook, 1761-62, 11164
 - equal employment opportunity, affirmative action plan, 5299
 - field establishment directory, 5300
 - files maintenance and disposition, manual, change, 6854
 - handbook DSAH series, 1759, 5299-5300, 6848-51, 8461, 11159-160, 13777-778
 - how to do business with DSA, guide, 6869
 - introduction to, 6875
 - manual, DSAM series, 538-539, 1760, 6852-55, 11161-64, 13779, 16112-113, 17733-734
 - military supply system, concepts, methods, and operations, hearings, 3866, 15907
 - potential for reducing inventory investments through improved computation of stock needs, GAO report, 11379
 - procurement regulations, 4005, 8462
 - transportation and traffic management, handbook, 8461
- Defense support funds, defense manpower policy no. 4, procurement contracts and worker surpluses, questions and answers, 11913
- Defiance County, Ohio, community profile 12440
- Definitions and abbreviations, FAA, 2570
- Deflection:
 - jet streams of turbo-jet engines, systems for deflection, 14896
 - short- and long-term, of reinforced concrete flat slabs, 8556
 - small, of class of clamped thin plates using conformal mapping, 16943
- Deformations (mechanics):
 - fiberglass ceramics, preparation by mechanical deformation, 11638
 - large bending, of filamentary tubular shell typical for pressure constraint components of space suits, analysis, 2075
 - short- and long-term deflections of reinforced concrete flat slabs, 8556
 - snow under rigid plates at constant rate of penetration, 8534
 - thermal, of gas turbine face seal and computer program for calculation of axisymmetric temperature field, 2125
 - window wavefront deformations, interferograms as measure of angular deviations to line of sight, 10396
- Defrosting (food), *see* Thawing.
- Degradation:
 - biodegrading poultry excreta with house fly larvae, concept and equipment, 4797
 - field-degradation effects on cotton fiber and yarn quality, 9328
 - radiation induced nonlinear degradation of transistor gain, 14813.
 - thermal—
 - high polymers, literature survey, 13814
 - of wood components, literature review, 14464
 - see also* Scales (corrosion).
- Degradation tests for fuels and fuel container coatings (test procedure), military standard, change, 550

- Degrees (colleges, universities, etc.):
 advanced, fall 1968, students enrolled—
 institutional data, 9994
 summary data, 8529
 advanced, fall 1969, students enrolled,
 preliminary report, 12506
 men with college degrees, population char-
 acteristics, 9455
 Ph.D. scientists and engineers in private
 industry, 10292
 science and engineering doctorate supply
 and utilization, 2165
- De Haas, Thijs, system design considerations
 for development of IGOSS ocean data HF
 transmission system, 8573
- De Huff, Gilbert L.:
 cobalt, 842, 18143
 manganese, 8903
 vanadium, 16928
- Dehydration, *see* names of commodities de-
 hydrated.
- Dehydrators, *see* Dryers (industrial).
- De-icing, *see* Ice.
- Deissler, Robert G., growth due to buoyancy
 of weak homogeneous turbulence with
 shear, 17004
- De Kalb County, Ala., community profile,
 13923
- De Kalb County, Mo., community profile,
 17774
- de Lalla, Oliver F., Planquin Event, quanti-
 tative postshot distribution of close-in
 fallout, throwout, and base surge, 4894
- Delaney, Donald J., military review, 2886
- Delaney, Robert W., evaluation of low-cost
 video tape recorder, 4114
- Delaware:
 census of business, 1967—
 major retail centers, standard metropol-
 itan statistical areas, 8053
 retail trade, merchandise line sales,
 13102
 selected services, area statistics, 3542
 wholesale trade, 169
 census of construction industries, 1967,
 statistics, 15552
 census of governments, 1967, State re-
 ports, 3558
 census of manufacturers 1967, area statis-
 tics, 15572
 climatological data, 2409
 community solid waste practices, 1968, na-
 tional survey, 17308
 county business patterns, 194, 12021
 electric rate book, 4144
 fishery products, wholesale dealers, lists,
 3714, 12078
 internal revenue assessment lists, 1862-66,
 pamphlet to accompany microcopy, 7567
 precipitation data, hourly, 2718
 water resources, 16635
- Delaware County, Iowa, community profile,
 13925
- Delaware County, N.Y., community profile,
 13926
- Delaware County, Ohio, community profile,
 12441
- Delaware County, Pa., community profile,
 16239
- Delaware Creek:
 flood plain information, 4076
 floods in Irving, Tex., how to avoid dam-
 age, 4083
- Delaware River and Valley, Tocks Island
 Dam, spillway and outlet works, Pa., N.J.,
 and N.Y., hydraulic model investigation,
 16451
- Delaware River Basin Commission:
 appropriations, 1970—
 hearings, 486
 law, 3734
 appropriations, 1971—
 hearings, 11022, 13709
 report, 13697
- Delaware Water Gap National Recreation
 Area, general information, 11789
- Delegates, *see* House of Representatives.
- Delinquency, *see* Juvenile delinquency.
- Delinquent children, *see* Juvenile delin-
 quency.
- Delivering rehabilitation services, 7739
- Dell, John D.:
 building firelines with liquid explosive,
 some preliminary results, 10125
 reducing fire hazard in ponderosa pine
 thinning slash by mechanical crushing,
 8713
- Delon, Gerald L., quantitative methods for
 evaluating hospital designs, 14933
- DeLong Mountain, Mississippian Kogruk
 Formation, northwestern Alaska, carbon-
 ate facies and lithostrolioid corals, 16619
- Delta, Calif., estuary, water pollution, hear-
 ings, 6714
- Delta region, Ark., forest statistics, 14485
- Delta wings, *see* Wings (aircraft).
- Delvigs, Peter, polyimides from some di-
 aminoanthraquinones and pyromellitic di-
 hydride, 12800
- Demand, *see* Supply and demand.
- DeMarco, Carlo, relief, 13262, 13590
- DeMarco, Jack, incinerator guidelines, 11260
- DeMars, Donald J., preliminary site index
 curves for noble fir from stem analysis
 data, 14460
- Demilitarization, defense demilitarization
 manual, 17732
- Demilitarization of saline water, *see* Water.
- Democratic Party National Convention:
 Chicago, Ill., 1968, television coverage,
 subcommittee staff report, 9759
 disruption of 1968, subversive involve-
 ment, hearings, errata, 6717
- Democratic Republic of Congo (Kinshasa),
see Congo (Kinshasa).
- Demography:
 demographic differences in aptitude test
 performance, 13012
 demographic reports for foreign countries
 (series), 225, 10826
- Demolition, *see* Wrecking.
- Demonstration projects, *see* Recreational
 areas and demonstration projects.—names
 of departments, etc.—*also* subjects.
- Demonstrations, Federal handling, hearings,
 16069
- Dempsey, Richard E., atomic energy field,
 occupational employment trends, 8030
- DeNardo, T. A., proceedings of Merchant Ma-
 rine Council, 3099
- Dendrometers:
 converting dendrometer estimates of out-
 side-bark stem diameters to wood dia-
 meters, on major Southern pines, 691
 precision dendrometry, modification of
 Zeiss telemeter teletop, 4196
- Denial and probation orders currently af-
 fecting export privileges, 5698
- Denson Dam project, Lake Texoma, Red
 River, barrier to be constructed by Sher-
 man, Tex., to provide municipal and in-
 dustrial water supply, consent of Con-
 gress, report, 6683
- Denmark:
 background notes, 17323
 economic trends and their implications for
 United States, 5701, 14627
 establishing business in, 9506
 livestock and meat industry, 666
 selling in Denmark, 13226
- Dennison, R. A., effects of low level irradi-
 ation upon preservation of food products,
 126
- Denny, Evelyn O., miscellaneous textile
 goods, 15593
- Density:
 data, molten salts, errata, 4549
 density of eigenvalues in thin circular
 conical shells, 7510
 inflatable falling sphere density data, eval-
 uation, 13039
 liquid tin, 7495

INDEX 1970

Density—Continued

- low density hypervelocity flow, used in wedge-induced laminar boundary layer separation on flat plate, 140408
- modal density estimate for sandwich panels, theory and experiment, 16960
- neutron-embrittlement and flux-density considerations of Army SM-1 reactor pressure vessel analysis, 17191
- plasma, extension of range of measurement by means of laser interferometer with phase modulation of visual signal, 4869
- stratosphere and mesosphere, 14893
- variation, in sugar maple sapwood and heartwood, 12554
- yellow pine wood, minor species in United States—
 - sand pine, 4209
 - table mountain pine, 4210
- Density function, *see* Probabilities (mathematics).
- Density gauges, atmospheric densities measured by Explorer 17 density gauges, 904
- Dent County, Mo.:
 - community profile, 17775
 - Ozark National Scenic Riverways, history, basic data, 7640
- Dental assistants:
 - curriculum for dental assisting in Indian Health Service, performance requirements of assistants, guidelines, 7292
 - dental assisting curriculum in Indian Health Service, guidelines, 7291
 - employment outlook, 12679
- Dental calculus, formation rate indices in Antarctic personnel, evaluation, 10316
- Dental care, *see* Dentistry.
- Dental health, *see* Teeth.
- Dental hygienists:
 - employment outlook, 12670
 - examination announcement, 4964
- Dental instruments and apparatus:
 - census of manufactures, 1967, industry statistics, 17532
 - Federal item identification guides for supply cataloging, supplements, 2595
- Dental laboratories, dental laboratory technicians, employment outlook, 12670
- Dental mechanics, *see* Dental technicians.
- Dental officer (intern), *see* Dentists.
- Dental officers, *see* Dentists.
- Dental plaque:
 - beware of plaque it causes tooth loss through periodontal disease, 10458
 - research explores plaque, combat zone in dental disease, 6038
- Dental research:
 - dental public health grant programs for research and research training, 977
 - research explores plaque, combat zone in dental disease, 6038
 - research grant awards, National Institute of Dental Research, 1968 funds, 6036
- Dental science, handbook, 6035
- Dental supplies, Federal item identification guides for supply cataloging, supplements, 2595
- Dental technicians:
 - dental laboratory technicians, employment outlook, 12670
 - dentalman, Navy rate training manual, 6095
 - examination announcement, 4964
 - manual, dental services, Air Force, 13019
- Dentistry:
 - chairside psychology in patient education, self-instruction course, 7261
 - dental care, need among adults, health statistics, 6014
 - dental care program, title 19 of social security amendment, Chemung County, N.Y., 8763
 - dental education, research, 1933-68, abstracts, 7267

Dentistry—Continued

- dental public health grant programs for research, research training, and fellowships, 977
- dental services—
 - AFM manual, 4836, 13019
 - for American Indians and Alaska natives, annual report, 18063
- dental technician's manual, Air Force, 13019
- Health training improvement act of 1970—
 - hearings, 9924
 - report, 13651
- pharmacotherapeutics in dental practice, 2177
- preventive, 2d conference on teaching proceedings, 8767
- tax deduction for dental expenses, 5640
- USAF dental activities, administration, manual, 4836
- veterans benefits, for service since Jan. 31, 1955, 11932
- Dentists:
 - Army Medical Department early commissioning program for students, fact sheet, 8002
 - employment outlook, 12689
 - State dentist manpower reports, 1965-67, compilation, 11409
 - Veterans Administration, opportunities, 10664
- Denver, Colo.:
 - alcoholism and narcotics problem, hearings, 5275
 - area wage survey, 8870
 - census of transportation, 1967, commodity transportation survey, production, area series, 6432
 - Denver doesn't quit on problem students, 14276
 - designate as site for 1976 Olympic games—
 - law, 5050
 - reports, 1622, 3843
 - Geological Survey, activities and services, 4240
 - metropolitan, air quality control regions, Federal facilities, 8958
- Denver & Rio Grande Western R.R., narrow gauge, alternative study, for preservation, 17157
- Deoxyribonuclease, antiviral and enzymatic activity relationship, investigation, USSR study, 1986
- DEP, *see* Electronic Products Division.
- Department stores, *see* Stores.
- Dependencies, countries and areas of special sovereignty, Federal general standard representations and codes, 14919
- Dependent children, *see* Children.
- Dependents:
 - disabled, income tax deduction, 781
 - tax exemptions for dependents, 5697
 - see also* Armed Forces—Army—Pay, allowances, etc.—Pensions—Veterans.
- Deployment and performance characteristics of 5-foot diameter (1.5m) attached inflatable decelerators from Mach number 2.2-4.4, 14850
- Deportation, cases suspended, report, 15982
- Deposition, *see* Sedimentation and deposition.
- Depository libraries, *see* Libraries.
- Deposits (soldiers, etc.):
 - Armed Forces savings deposit program, allotments for prisoners of war, etc., during Vietnam conflict, waive \$10,000 limitation—
 - law, 5059
 - reports, 3810, 5209
- Depots, *see* Military depots.
- Depreciation:
 - depreciation, investment credit, amortization, depletion, tax information, 5641

Depreciation—Continued
 electric utility practices 1966, classes A and B privately owned companies, 10060
 real estate, regulated industries, and corporation earnings and profits, tax reform, summary of recommendations, 8400
 sales and other dispositions of depreciable property, tax information, 5685
 Depressants, *see* Hypnotics and sedatives.
 Dera Ismail Khan District, Pakistan, water resources and related geology, with reference to availability of ground water for development, 10186
 Derby, Thomas F., response and optimization of isolation system with relaxation type damping, 10350
 Derouin, Robert G., Weather Bureau forecast verification scores for 1968-69 and some performance trends from 1966, 11270
 Derow, H., elevated temperature instability of stellite 6B, 8928
 Desalination:
 agreement with Saudi Arabia, 7821
 biological aspects of saline water problem, 7305
 by freezing—
 final report on investigation, 7306
 investigation of ice production from brine in continuous crystallizer, 771
 cost analysis of 6 water desalting processes, 4298
 desalting plant projections, preliminary community and regional water supply data in support, 5628
 desalting plants—
 inventory report, 7302
 optimum operation of, as supplemental source of safe yield, 8807
 spray systems, method of increasing water evaporation rates to facilitate brine disposal, 774
 electrochemical, brackish water, process evaluation, 4301
 enhanced tubes for desalination plants, symposium, 18073
 evaporative freezing process, 5624
 forced-flow electrodessalination, 12611
 Freeport, Tex., Freeport Test Facility and Vertical-Tube-Evaporation Test-Bed plant, annual report, 773
 hydrodynamic aspects, by reverse osmosis, 11444
 improved membranes for reverse osmosis, 770
 multistage flash distillation desalting state-of-the-art, 779
 plants—
 evaluation of concrete and related materials, 4th annual progress reports, 15144, 18318
 materials evaluation program, continuation, MERF-MERS system, 11441
 pond linings for desalting plant effluents, 17246
 processes, Donnan softening as pretreatment, 4303
 protein films used, modification, study, 1950
 reverse osmosis—
 desalination systems, application of hollow filament technology, 11447
 membranes, development, 10223
 new synthetic membranes, 10225
 seawater desalting in combination with ammonia and power production, economics, 1948
 smooth tubes for large multistage flash evaporator desalination plants, fabrication, 10230
 2.5 MGD universal desalination plant interstage module piping Saline Water Office, hydraulic model studies, 17243
 water desalination, parametric economic and engineering evaluation study of electrodialysis process, 1954

Desalination—Continued
 Webster Test Facility and Electrodialysis Test-Bed Plant, Webster, S. Dak., 12614
see also Sea water.
 Desalting of sea water, *see* Sea water.
 Deschutes National Forest:
 Newberry Crater of central Oregon, general information, 8691
 osprey management area plan, Crane Prairie Reservoir, 10121
 Descriptors, *see* Subject headings.
 Desegregation in education, *see* Race problems.
 Desertlands, assistance for desertland entrymen, report, 3830
 Deshaies, John C., health information system, 188
 Desiccants:
 activated, military standard, 556
 brushland fuel desiccated for burning moisture contents, 18015
 Design and construction of radiation probe, 16916
 Design for regenerating a city, 7009
 Design for space qualified laser, 18186
 Design manual DM series, 2170, 7664, 11807
 Design Products Corp., Troy, Mich., relief, 17676
 Design review, *see* Reliability (mechanical).
 Designers of machinery not materially stimulated, USSR study, 12638
 Designs (aircraft):
 analysis of effect of design and measurement errors on pump performance parameters, 14868
 design reliability of solid rocket motors, application of requirement vs. capability analysis to estimating, 7511
 flutter design of stiffened-skin panels for hypersonic aircraft, 2101
 light aircraft design NACA and NASA studies, 5894, 7507-08
 space vehicle design and operations related to jimsphere wind profiles, design and operations, 14832
 trade-off study and conceptual designs of regenerative advanced integrated life support systems (AILSS), 14807
 XB-70 structural mode control system design and performance analyses, 14810
 Designs (architectural), *see* Architecture.
 Designs (industrial):
 conceptual designs of outfall systems for desalting plants, 14594
 criteria for disposal of brine by solar evaporation, 14598
 design definition and safety evaluation study of compact Co-60 heat source in space, final report, 6374
 design details, construction methods, and canopy slots, wind tunnel studies of effects on aerodynamic characteristics of small-scale all-flexible parawings, 16981
 design, fabrication and testing of foil gas-bearing test rig, 10353
 digital electronic normal shock position sensor for mixed-compression inlets, design and performance, 2126
 engineering design handbook, 13037
 fallout protection in design of new industrial facilities, 149
 gas bearings for high temperature operation, 2068
 high-frequency wattage-to-voltage converter, 5965
 hydrographs, SCS national engineering handbook, 9153
 LMFBR liquid metal fast breeder reactor, 1000 MWe, conceptual design report—
 descriptions, 8010, 9371-78
 engineering studies, 8009
 methods, 4880
 plant safety analyses, 4879
 summary, 4878

- Designs (Industrial)—Continued
 maintainability guide for design, engineering design handbook, 13037
 minimal-correction V/STOL wind tunnels, use of variable geometry in design, theoretical study, 948
 permissible stresses and their limitations for ships, 17263
 plant design and cost estimates for limestone treatment, mine water research, 7491
 potassium turboalternator preliminary design study, component parametric data and initial turboalternator analyses, 6934
 pulse-width-modulated 2.5 kVA static inverter, design, analysis and performance, 5929
 sewer fluidic regulator, combined, 14418
 ship designs for U.S. flag merchant fleet, 12730
 step-down substations, standardization of design of 110-220 KV, USSR study, 8842
 structural models for design of mining systems, encasement of strain gage networks in epoxy, 18169
 substations for rural distribution systems, guide for design, 15153
 2.5 million gallon per day universal desalting plant, universal design, report, 5631
 Designs (patents), official gazette of Patent Office, 2982
 Desk pads, Federal standard, cancellation, 1862
 Desks, Wooton's patent secretary, king of desks, 7737
 Des Lacs National Wildlife Refuge, birds, list, 4706
 Des Moines, Iowa:
 alcoholism and narcotics problem, hearings, 11135
 area wage survey, 16843
 community profile, 13927
 Des Moines River and Valley, upper basin, Iowa, floods, 14527
 Desolation Wilderness in California, designate as wilderness area, proposal, law, 298
 Desorption, CO₂ from three-component solution, 15065
 De Soto County, Miss., community profile, 16240
 Desoto National Memorial, general information, 7634
 De Soto National Wildlife Refuge, Betrand (steamship), general information, 2230
 Desulfurization:
 hydrodesulfurization of residual fuel from Wilmington, Calif. crude oil, 12747
 sea water desulfating process pilot plant, supervision, construction, and evaluation, 11451
 Detainers, Interstate agreement, enact into law, report, 8255
 Detectors:
 botanical techniques for on-site inspections of suspected underground nuclear explosions, 16605
 digital wide range neutron detection and measurement channel, 1261
 hazard-detecting instruments and apparatus, Federal item identification guide, 16129
 induction devices for detecting underground communications, investigation, USSR study, 5736
 maintaining target detection proficiency through team consensus feedback, 15496
 nomographs for use in fabrication and testing of Ge(Li) detectors, 14925
 new method for detecting micron-sized sulfate and water-soluble particles and its usage, 15472
 Detectors—Continued
 optimum detection scheme for star-field mapping system, investigation, 14890
 sensor detection capabilities study, 4234
 trimmed-mean, for noncoherent distributions, 15069
 Detention of persons, *see* Arrest.
 Detergents, *see* Cleaning compounds.
 Detonations, water supply near Enrico, N. Mex., in relation to nearby high-energy detonations, investigation, 14530
 see also Explosions—Nuclear explosions.
 Detoxification and Diagnostic Evaluation Center, St. Louis, Mo., *see* St. Louis Detoxification and Diagnostic Evaluation Center.
 Detroit, Mich.:
 area wage survey, 11540
 census of transportation, 1967, commodity transportation survey, 8069
 Communication Skills Center Project, elementary-secondary program in compensatory education, 11220
 Detroit Metropolitan-Wayne County Airport, climatological summaries, 2255
 high schools, Students for a Democratic Society plans, hearings, 6716
 Internal Revenue Service—
 automatic data processing center, consider amended lease prospectuses to increase authorized annual rental, hearing, 9940
 Data Center, space requirements, hearing, 11056
 metropolitan, air quality control region, Federal facilities, 12835
 poverty, broad outline, population characteristics, unemployment, work experience, etc., 8875
 principal electric facilities, map, 8623
 Public Health Service hospitals, closing, hearings, 514
 Deuel County, Nebr., community profile, 17776
 Deuel County, S. Dak., community profile, 13928
 Deuterons, odd strontium isotopes with stripping and pickup reactions, study, 10401
 Develkis, William D., static aerodynamic characteristics, pressure distributions, and ram-air inflation of attached inflatable decelerator models at Mach 3.0, 11662
 Development (economics), *see* Economic development—Underdeveloped areas.
 Development assistance, *see* Foreign aid.
 Development digest (periodical), 2505
 Development in aging, 1969, report, 9871
 Development of analytical model of flash stage, 5619
 Developmentally Disabled, National Advisory Council on Services and Facilities for, *see* National Advisory Council on Services and Facilities for Developmentally Disabled.
 Developments (real estate), *see* Housing.
 Deviation measuring systems, interferograms of window wavefront deformations as measure of angular deviations to line of sight, 10396
 Devices:
 integrated devices—
 design evaluation of distributed saturation characteristics in, 14858
 model for distributed saturation characteristics in, 14857
 superconducting, quarterly literature survey, 3248
 Devils Postpile National Monument, general information, 9029
 Devils Tower National Monument, general information, 6060
 Devine, E. J., instrument bearing performance in space and laboratory vacuum, 18214

- Devlin, David T., international investment position of United States, 3693
- DeVoe, James R., Radiochemical Analysis Section, summary of activities, 4554
- Dew point, temperatures and selected level heights for Northern Hemisphere, 10484
- Dewey County, S. Dak., community profile, 13929
- DeWitt, Wallace, jr., age of Bedford shale, Berea sandstone, and Sunbury shale in Appalachian and Michigan basins, Pennsylvania, Ohio and Michigan, 5541
- Dexter, H. Benson, compressive and column strengths of aluminum tubing with various amounts of unidirectional boron/epoxy reinforcement, 14877
- Dextran, radioprotective effect of propansulfonate ester of dextran, etc., USSR study, 10268
- DHEW, *see* Health, Education, and Welfare Department.
- DHIA, *see* Dairy herd improvement associations.
- DIA, *see* Defense Intelligence Agency.
- Diabetes:
literature index (periodical), 2506
cumulative edition, 12856
nurses' guide, 6145
people who have diabetes, feet first, booklet about foot care, 14569
- Diagnostics:
clinical symptoms and etiology of botulism, USSR study, 18112
diagnostics, and cybernetics, USSR study, 16752
differential, of lymphoid leukosis and Marek's disease, 9327
inpatient utilization of short-stay hospitals, 1965 statistics, 14936
laboratory of cholera, USSR study, 18100
self-training algorithm for diagnosis of diseases, USSR study, 5769
see also names of diseases.
- Diagrams, flow-diagram technique for time-varying coordinate systems, 17196
- Dialysis:
electrodialysis, improved anionic membranes, 776
electrodialysis process—
economic and engineering analysis, 769
for water desalination, parametric economic and engineering evaluation study, 1954
forced-flow electrodesalination, 12611
newly developed ion-exchange membranes, evaluation for electrodialysis and/or transport depletion, 775
- Diaminoanthraquinones, polyimides from pyromellitic dianhydrides, 12800
- Diamond, J. J.:
bibliography on high temperature chemistry and physics of materials, 958, 10430
high temperature chemistry and physics of materials, bibliography, 7573
- Diamond, W. Gene, barite, 14772
- Diatomaceous earth, wheat protectant against lesser grain borer attack in small bins, evaluation, 7924
- Diatomic molecules, *see* Molecules.
- Diatomite, minerals yearbook chapter, 16889
- Diatoms, late Miocene nonmarine diatoms from Kilgore area, Cherry County, Nebr., 16822
- Diaz, Nahid M., relief, 13610
- Diazinon, wheat protectant against lesser grain borer attack in small bins, evaluation, 7924
- Dichloro-diphenyl-trichloroethane, *see* DDT.
- Dichlorvos, control drosophila in wineries, with use of vapor generator, 6288
- Diele, Lake, Eustis, Fla., reconnaissance of quality of water, 733
- Dick, Richard A., effects of type of cut, delay, and explosive on underground blasting in frozen gravel, 7481
- Dickens County, Tex., soil survey report, 7775
- Dickey, Gylan L., guide for draining agricultural land along westside of San Joaquin Valley, Fresno County, Calif., 7765
- Dickey County, N. Dak., community profile, 13930
- Dickinson County, Iowa, community profile, 13931
- Dickson, Bly D., jr., relief, 13268, 13605
- Dictating machines, dictating is an easier way, handbook, 10659
- Dictation, dictating is an easier way, handbook, 10659
- Dictionaries:
catalogs, L.C. subject headings used, supp., 3236
communications-electronics terminology, 10713
economic and statistical terms, 1363
- Die makers:
employment outlook, 14710
learning tool and die maker trade, 10287
- Die sinkers, job grading standard, civil service, 6478
- Dieldrin, effects on juvenile tarpon and 2 associated species, 4715
- Dielectric constants, *see* Dielectric properties.
- Dielectric properties:
and loss tangents at E-band, measurements using Fabry-Perot Interferometer, 2117
dielectric materials, pyramidal and H-plane horns radiating into, reflection coefficients, 16983
- Diellectrics:
metal-dielectric-semiconductor integrated logic circuits set for automation and telemechanics systems, USSR Study, 16780
thermal inclusion with dielectric heating created for rock fragmentation, 16914
- Dienemann, Paul F., high speed ground modes, cost analyses for NMTD 8222
- Dies, *see* Taps and dies.
- Dies (metal-working):
industry, problems—
hearings, 439
report, 5117
- Diesel engines:
diesel exhaust gas, effect of cetane improvers in fuel on nitrogen oxides concentration, 870
pulverized coal-burning, research and development report, 9479
sensory evaluation of exhaust odors, 7561
- Diesel fuel, *see* Fuel oil.
- Diesel mechanics, *see* Mechanics (personal).
- Diet:
and regulations of serum cholesterol Framingham study, 7620
dietary management of hyperlipoproteinemia—
handbook for physicians, 6026 6002 18244
type 1 diet, 9007, 17067
type 2 diet, 6027, 17068
type 3 diet, 6028, 9008, 17069
type 4 diet, 9009, 17070
type 5 diet, 6029, 7599, 17071
dietetic-nutritious food, hearing, 1584
food makes the difference, ideas for economy-minded families, 39
see also Food.
- Dietaries, *see* Food.
- Dietetic interns, *see* Dietitians.
- Dietetics, *see* Diet.
- Dietitians:
and public health nutritionists in home health services, guidelines, 15757
educational opportunities, college students, etc., 6366
employment outlook, 12677
- Dietrich, Marshall W., rolling-element lubrication with fluorinated polyether at cryogenic temperatures (160° to 410° R), 944

INDEX 1970

- Differential equations, *see* Equations.
Differential thermal analysis:
simultaneous DTA-TG-EGA for oil shale and solid fuels, Mines Bureau apparatus for thermal analysis, 16917
thermal degradation of wood components, literature review, 14464
- Diffraction:
electromagnetic waves on 2 bodies, 12829
geometrical theory of diffraction and creeping wave theory, radiation from slots on cylindrical bodies using, 5979
shock wave, by circular cylindrical cavity in elastic-plastic media, numerical computation, 8535
sonic booms by buildings, laboratory investigation, 12799
waves, electromagnetic, etc., problems, 2131
X-ray, powder patterns, 18233
- Diffusion:
chemically reacting air couette flow with hydrogen injection, model study, 18224
diffusion in metals, USSR study, 16754
gas in a flow and cavitation development, USSR study, 16757
in ternary aqueous saline solutions, 5620
phosphorus, conditions for shallow-junction solar cells, 4528
rarefied by model sampling, 12786
rate of gas diffusion in crude oil, method for testing by periodic measurements of concentration profiles, 7483
self, coefficients for gaseous ammonia, temperature dependence, 2110
- Diffusion flames, *see* Flames.
- Digestion, avoidance time for 23 species of fish, 6207
- Digestive system, National digestive diseases and nutrition act hearing, 17712
- Digests, *see* Index digests—names of departments, etc., Issuing digests—also subjects.
- Diggs family, Digges family of Maryland, Warburton Manor, historic structures report, 17163
- Digital adaptive control systems, *see* Control systems.
- Digital computers, *see* Electronic computers.
- Digital diagnostic techniques, survey and recommendations, 6102
- DiGregorio, David, cost of wastewater treatment processes, 4169
- Dikeou, J. T., fly ash increases resistance of concrete to sulfate attack, 12910
- Dilatometers, dilatometer and plastometer tests of coal, repeatability, 10332
- Dimethylarsinic acid, *see* Cacodylic acid.
- Dimitriades, Basil, on function of hydrocarbon and nitrogen oxides in photochemical smog formation, 16921
- Dimitroff, George, Air Force civil engineer, 2314
- Dimond, Nancy, Navy Supply Corps newsletter, 2948
- Dimorphism (animals):
sexual, of bathypelagic fish genus *Stomias* (*Stomatidae*), 1095
- Dimple, spall, and perforation characteristics, thin plates of 9 materials under hypervelocity impact, 4524
- Dinnerman, Bernhardt V., evaluation of area navigation in Northeast Corridor, 14361
- Dinnerware, *see* Tableware.
- Diodes:
electrical noise in GaAs diode lasers, 12888
low-temperature cesium-vapor diode, voltage breakdown, 14852
miniature electromechanical tunnel diode transducer, theory, fabrication, etc., 2082
- DIPEC, *see* Defense Industrial Plant Equipment Center.
- Diphenyl:
biphenyl content, fruit condition, transit temperature, delayed loading, and biphenyl pad placement, interrelations during tests of overseas shipments of California citrus fruit, 26
biphenyl residues, decay, and soilage in oranges, effect of carton ventings, barriers, and biphenyl dosages during storage, 28
- Diplomacy:
American, toward new diplomacy in scientific age, 13514
contemporary imperialism USSR study, 7371
international negotiation—
American shortcomings in negotiating with Communist powers, 13738
observations on Communist doctrine and Soviet diplomacy, 5265
science, technology and American diplomacy, 13514
- Diplomatic and consular service, *see* Government missions.
- Diplomatic list, 2510
- Diplomatic relations, *see* International relations.
- Dipole antennas, *see* Antennas.
- Dipole moments:
dipole-dipole arrays, geometric factors, 14523
perpendicular component of dipole moment, compressibility and modules of compressibility of films spread on liquid surfaces, CDC 3800 computer program to calculate and plot, 15070
semilempirical electric dipole moment and its derivative in H₂-H₂ and H₂-H collisions, 16992
- Diptera, *see* Flies.
- Direct currents, *see* Electric currents.
- Direction finding, *see* Radio direction finding.
- Directories:
airport, airman's information manual, 2325, 8589
aluminum wire and cable, foreign free world producers, 13093
architectural, engineering, and consulting firms with certified fallout shelter analysts, 3655
area wage surveys, 2035
Army technical information, points of contact, 15500
aviation medical examiners, 8042, 10781
community health services, selected, funded under sec. 314(e) of Public Health Service act, 12085
Congress of United States—
biographical directory, print revised edition, reports, 12192, 13636
91st Congress, 2d sess., 3720
consumer protection programs establishments, circuits and officials, 2512
coordinators of children's and young adult services in public libraries serving from 100,000 people, 14277
DSA field establishment, 5300
EDA, approved projects, 2527
education 1969-70—
education associations, 14278
higher education, 12497
public school systems, 9984
State governments, 12498
employment security offices, local, 2016
Federal buying directory, 11384
Federal R & D installations, report to Federal Council for Science and Technology, 12879
foreign consular offices in United States, 10601
Forest Service organizational directory, 1878
Government periodicals and subscription publications, 2900

Directories—Continued

governmental resources, foreign affairs research, 4727
graduate deans, 1872-1970, at United States universities, 11203
health and mental health local units, 11416
industrial relations, BLS studies, 4386
information analysis centers, Federally supported, 11298
Interagency Boards of U.S. Civil Service, 1353
Interior Department, career opportunities for college students, 14592
international mail, changes, 2513
labor offices in United States and Canada, 5816
mental health directory, 7013
mental retardation, State and local resources, 4266
military assistance program address directory, 562, 1781-82, 4035, 6882-83, 8488, 11182-84, 13812-813, 16155
minority groups, organizations and people able to reach them, 17457
Missouri Basin Inter-Agency Committee, 1971 fiscal year, 12751
narcotic addiction treatment agencies, in U.S., 11776
National Institutes of Health scientific personnel, 10460
non-federal statistics for States and local areas, guide to sources, 12037
outdoor recreation, private assistance organizations, 11825
personnel responsible for radiological health programs, 15139
post offices, 18393
private programs assisting minorities business enterprise, 13217
providers of services under health insurance for the aged, hospitals, extended care facilities, etc., 4669
public elementary and secondary schools in selected districts, enrollment and staff by racial/ethnic group, 14562
public elementary and secondary day schools, 1968-69—
Great Lakes and Plains region, 9983
North Atlantic region, 11204
Southeast region, 8513
West and Southwest region, 11205
public schools offering technical education programs, 7010
qualified fallout shelter analysts, 10842
radiological health, personnel responsible for programs, 5381
recreation, national forests in Rocky Mountain region, 7200
refrigerated warehouses in United States, 9214
seafaring and labor-management affiliations, 7447
Securities and Exchange Commission, companies filing annual reports, 7731
selling to Navy, prime contractors, 2185
senior centers in United States, 9274
shipping containers for radioactive materials, 15534
social studies/social sciences, research, 1788
Spanish speaking organizations in U.S., 13095
standards laboratories in U.S., 14916
State and areawide comprehensive health planning agencies, 5018, 15756
State and local resources for the mentally retarded, 14563
State, territorial, and regional health authorities, 16657
telephone—
Agriculture Department, 7948
Atomic Energy Commission, 8034
Commerce Department, 3698
Defense Department, 2499
defense mobilization organization, 3762

Directories—Continued
telephone—continued

Health, Education, and Welfare Department, 5571, 14560
Interior Department, 11453
NASA headquarters, 2919
Senate, 5184
State Department, International Development Agency, Arms Control and Disarmament Agency, 6220, 10611
Transportation Department, 2502
interim directory, services and classified, 11917
Treasury Department, 3256
toxicology, general, information resources in U.S., 2037
urban renewal, 1082, 9095
urbanized area transportation planning programs, 17969
U.S. facilities providing cleft lip and cleft palate services, National Institute of Dental Research, supplement, 6039
U.S. Government audiovisual personnel, 8975
VISTA fact book, 3332
wage chronologies, 4387
Dirksen, Everett M.:
Federal buildings, named for—
law, 9602
reports, 5206, 6684
memorial services, 6531
Disability evaluation, under social security, handbook for physicians, 7758, 17284
Disability insurance:
birth defects and social security disability benefits, 18331
coal miners black lung benefits under Federal coal mine health and safety act of 1969, 7759
denied applicants, comparison with beneficiaries and nonapplicants, 17277
if you become disabled, social security benefits, 15175
social security—
benefit statistics, monthly, 2897, 18328
disability benefits, find out if you are eligible, 11868
rulings, 3206, 10554
your social security, 9117, 11864
see also Old age, survivors, and disability insurance.
Disabled:
birth defects and social security benefits, 18331
dependent care, income tax deduction, 781
disability, epidemiology, measurement of functional capacity limitations, 15169
goal is mobility! encountering environmental and transportation barriers, 7741
legal rights of the disabled and disadvantaged, 6164
medical care costs, 6167
neurological and sensory disabilities, estimated numbers and cost, 15021
on public assistance, 15168
persons injured and disability days due to injury, health statistics, 7584
public assistance, money payments to recipients, 17053
social security benefits for people disabled since childhood, 7752
social security survey, reports, 6167, 15168-169, 17277
see also Civil service pensions—Disability Insurance—Pensions—Rehabilitation of the disabled—Veterans.
Disabled American Veterans:
legislative recommendations, 1970, hearings, 6726
National Headquarters, Life Membership Fund, Service Foundation, financial statements, GAO examination, 7210
report, 1969 convention, 5070

INDEX 1970

Disadvantaged:

and handicapped, career opportunities in service to, HEW sponsored, 4050
jobs for disadvantaged, special impact program in Los Angeles is not meeting goal of providing, GAO report, 18037
legal rights of the disabled and disadvantaged, 6164
see also Poor.

Disadvantaged children, *see* Children.

Disadvantaged youth, *see* Youth.

Disarmament:

ABM, MIRV, SALT, and nuclear arms race, hearings, 11122
arms control & disarmament, bibliography (periodical), 2346
Arms control and disarmament act amendments—
hearings, 6706, 6799
law, 10907
reports, 6670, 6779, 9656
arms control and national security, 17458
arms control, multiple warhead missiles, diplomatic and strategic impact, report, 8290
documents, 17459
strategic arms limitation talks (address), 2238
Strategic Arms Limitation Talks, public review of issues, hearings, 6788, 11108
Disaster Assistance Office, create, hearings, 12381

Disasters:

aircraft, emergency procedures over water, *amdt.*, 259
civil defense film, in time of emergency, general information, 13190
Disaster relief act of 1969, amend—
hearings, 15934
law, 295
Disaster assistance act of 1970—
hearings, 15934
report, 13010
disaster relief, message from the President, 8223
donated foods, guide for State and local officials, 13000
educational assistance in major disaster areas, Elementary and secondary education act, amendments of 1969—
law, 6549
reports, 3932, 6646
educational assistance in major disaster areas, 1969 annual report, 5342
emergency broadcast system, basic plan, 10841
emergency food aid for Cella victims, 13001
emergency, 1967, Middle East petroleum, 2187
emergency health series, 7268, 8774-76
emergency health services selected bibliography, 7268
emergency procedures for control of civil transportation, 11916
emergency repairs afloat, boatmans pocket guide, 3680
Federal assistance permanent comprehensive program, establish, report, 16010
Federal disaster act, activities, report, 1969, 8225
Federal disaster assistance, amend existing legislation, hearings, 15934
floods, how to avoid damage—
Auburn-Lewiston, Maine, 1810
Cedar River, Dobbins Creek and Turtle Creek, Austin, Minn. 1799
Glacier Creek, Girdwood, Alaska, 1812
Harlan, Ky., 1811
HUD disaster aids, 10202
Industrial civil defense management, preparation for wartime and peacetime disaster in industry, 9460, 13189
medical planning for disaster preparedness, medical service, Air Force manual, 13018

Disasters—Continued

national defense emergencies, railroad planning for, 11485
national emergency, farm equipment and repair parts, what manufacturers, distributors, and dealers should do with them, 7932
national emergency standby regulations and instructions, FPM supplement, 2615
natural disaster damages to roads, streets, bridges, Federal assistance available, 9076
Omnibus disaster assistance act, hearings, 12381
planning and training for relief operations, Army field manual, change, 82
relief, Hurricane Camille, Federal response, hearings, 8437, 12381
search and rescue, survival, Air Force manual, 3435
Skywarn, seconds save lives, 5397
tax deduction information, 5679
timber damaged by Hurricane Camille in Mississippi, 4197
see also Relief work.
Disbursing clerks, 1 & C Navy rate training manual, 7689
Disbursing officers, Government, regulation relating to cash held at personal risk, including interest imprest funds, department circular, 10649
Discharge:
adverse action, law and regulations, FPM manual supplement, 2609
liquid hydrogen from 1.52 meter (5-ft-) diameter spherical tank, gaseous-helium requirements, 5939
measurements using radiotope velocity, integrated sample, dilution, and total count methods at Flatiron Power and Pumping Plant, Colorado-Big Thompson Project, 6389
Disciplinary barracks, Army confinement system, report of special civilian committee, 9356
Discipline, and self-control, program manual and study guide, 4952
see also Military discipline.
Discography, Sousa Band, 4392
Discover national forests of Oregon, 671
Discover the world, women in Air Force, 10722
Discoverer (ocean survey ship):
use for ocean environmental research, general information, 14352
Discrete functions:
discrete ordinate and Monte Carlo methods used in analysis of EBR-II neutron spectra, 9383
dual-rate finite-settling-time discrete systems, 10393
Discrimination, *see* Race problems.
Discrimination in employment:
age discrimination in employment act of 1967, 15386
American workers, promote equal employment opportunity—
hearings, 3982, 15893
report, 15858
construction industry, contract compliance and equal employment opportunity, 3658
DSA equal employment opportunity, affirmative action plan, 5299
equal employment opportunities enforcement act of 1970—
hearings, 3982, 15893
report, 15858
equal employment opportunity—
in action, evaluation guide, Army pamphlet, 6356
policies, supervisors, and personnel administration guide, 9065
procedures in Federal and federally assisted contracts, hearings, 1733

Discrimination in employment—Continued
 equal employment opportunity—con.
 report, 14353
 equal opportunity—
 in Federal employment, newsletter, 2544
 in State and local government for all
 people, by all people, summary of
 report, 3656
 program for State and local Govern-
 ment employment, 14564
 how discrimination complaints system
 works, 8122
 minority and women workers, utilization
 in major industries, Equal Employment
 Opportunity Commission, hearings, 1841
 minority group employment in Federal
 government, preliminary reports, 13203,
 17554
 Philadelphia Plan—
 congressional oversight of administra-
 tive agencies, hearings, 5273
 questions and answers, 7410
 revised, legality, opinion of Attorney
 General, 5807
 sex discrimination, laws, 10673
 status of equal employment opportunity
 program of federal Highway Adminis-
 tration, 2d annual report, 17971
 they have power, we have people, status
 of equal employment opportunity in
 Houston, Tex., hearings, report, 16467
 Discrimination in housing:
 fair housing U.S.A., 14573
 your housing rights, live where you want
 to live, 16682
 Disease carriers:
 influenza as anthrozoönosis, USSR
 study, 8830
 staphylococcal carriage in hospital popu-
 lation, throat vs. nasal carriage and
 persistence of nasal carriage, 15503
 Disease control service activities, public
 stockyards, animal identification, etc.,
 quarterly report, 17425
 Diseases:
 diagnosis of diseases, self-training algo-
 rithm for, USSR study, 5769
 etiology of experimental neuroparalytic
 diseases, role of toxins of certain sapro-
 phytic microbes, USSR study, 12622
 immune mechanisms in health and dis-
 ease, research grants supported by Na-
 tional Heart and Lung Institute, 1949-
 69, review, 7600
 see also Contagion and contagious dis-
 eases—Diseases of animals—also names
 or classes of diseases—also Vectors
 (biological).
 Diseases of animals:
 accredited veterinarians guide, 15400
 animal morbidity report—
 monthly, 2333
 1969 fiscal year, 3371
 disease control service activities, quarterly
 report, 17425
 see also names of diseases or animals
 affected.
 Diseases of fish:
 acute viral disease of channel catfish, 6209
 bacterial gill disease of freshwater fishes,
 10579
 fin rot, coldwater disease, and peduncle
 disease of salmonid fishes, 10583
 fish disease leaflet FDL-(series), 1116,
 6203-7, 10579-583, 11877, 15260,
 17315-316
 selected fish disease publications in Eng-
 lish, 11877
 white-spot disease of fish eggs and fry,
 10580
 see also Fish and fisheries—also names
 of diseases, or fish affected.

Diseases of plants:
 plant disease reporter, 3023
 potato diseases through 1945, with com-
 mon and scientific names, bibliography,
 12995
 southern pine nurseries, 5487
 see also names of diseases or plants
 affected.
 Diseases of waterfowl, see names of diseases
 or names of waterfowl affected.
 Disks:
 large disk suspended as pendulum, appar-
 ent mass and moment of inertia at
 different air densities, experimental de-
 termination, 12819
 nonlinear actuator disk theory and flow
 field calculations, including nonuniform
 loading, 16950
 Dislocations, dislocation channeling in irra-
 diated metals, 17188
 Disney, R. T., amplitude and time statistics
 of atmospheric and man-made radio noise,
 10024
 Disorders, see Riots.
 Disorientation:
 optically induced, quantitative evaluation,
 11979
 vestibular adaption, influence of specific
 and nonspecific gravi-receptors on nys-
 tagmus responses of angular accelera-
 tion, 8040
 visually induced, in man, motor effects
 from, 11978
 Dispatchers, see Aircraft dispatchers.
 Dispensing opticians, see Opticians.
 Dispersion:
 atmospheric, estimates, workbook, 8567
 dispersal of plating wastes and sewage
 contaminants in ground water and sur-
 face water, South Farmingdale-Massape-
 qua area, Nassau County, N.Y., 18052
 fuel elements for nuclear reactors, USSR
 study, 5766
 hydrogen, unified classical path theory
 with Stark broadening calculations,
 10427
 stream dispersion at selected sites, 12589
 theory of dispersion in granular medium,
 10171
 Displacement:
 free-surface displacement pulses and crater
 dimensions, effects of explosive proper-
 ties, 11592
 oxygen dissociation curves and red cell
 cation exchange in chronic hypercapnia,
 11567
 stress intensity and crack-opening dis-
 placement for coplanar cracks in ther-
 moelasticity, 15067
 Display systems:
 data displays—
 and analysis, 14830
 interactive specification, 14828
 display scanning, sampling, and recon-
 struction using separate main and sec-
 ondary tracking tasks, research, 14814
 en route ATC radar/display system errors,
 engineering survey and analysis, 18374
 for manual guidance of large launch vehi-
 cles utilizing X-15 airplane and flight
 simulators, study, 5940
 IFF identity readout using confidence
 evaluation developed by NRL, 4627
 image incongruence effects on location of
 common terrain in comparative cover,
 15497
 instrument displays to assist in airplane
 thrust management, simulation, study,
 18205
 moving-graph instrument display for land-
 ing approaches with helicopter, evalua-
 tion, 18210
 navigation display, multicolor micro-
 chart / map transparencies, military
 standard, 4031

INDEX 1970

- Display systems—Continued
 - weather radars & remote displays, Federal plan, 10028
- Disposal of junked and abandoned motor vehicles, hearings, 17714
- Disposal of refuse, *see* Refuse.
- Disputes, *see* Industrial arbitration—Labor disputes.
- Dissertations (academic):
 - suggested topics for university graduate thesis and dissertations, in highway safety and related fields, 7604
- Dissociation:
 - displacement of oxygen dissociation curves and red cell cation exchange in chronic hypercapnia, 11567
 - dissociation energy of vanadium and chromium dicarbide and vanadium tetracarbide, mass spectrometric determination, 7547
 - energy of yttrium dicarbide and tetracarbide, and mass spectrometric investigation of vaporization thermodynamics of yttrium dicarbide-carbon system, 8937
- Distance measuring equipment:
 - aviation, system at Plaisance Airfield, agreement with Mauritius, 7830
 - V/STOL aircraft, VOR/DME error model, survey of general coverage nav aids, 10359
- Distances, closed distant stationary orbits determined from range rate method for determination of accuracy, 12818
- Distant drummer, series of films about drug abuse, 6043
- DiStefano, Angelo, relief, 9793
- Distillation:
 - digest, vols. 1-2, 11442
 - high temperature, scale control utilizing fluidized bed heat exchangers, 18068
 - large sea water distillation plants, method for evaluating system and cost effectiveness, 10229
 - solar distillation of saline water, manual, 12609
 - vacuum, of alloys, and electrodeposition, use in preparation of rare-earth and yttrium metals, 868
 - VTE process, experimental program to improve, 777
- Distilled spirits, *see* Liquors.
- Distortion:
 - perceived, decrease with repeated exposure application for naval diver training, 11568
 - radial, of inlet airflow, short length turbojet combustor insensitivity, performance, 5924
 - volt-ampere loading and output distortion for turboalternator with multiple load phase-controlled parasitic speed controller, experimental evaluation, 4518
- Distribution (economics):
 - distributive education in high school, guide for administrators and teachers, 8514
 - physical distribution system model for evaluating improvements in cattle and beef industry, feasibility.
 - see also* names of commodities.
- Distribution (statistics):
 - approximation for flow properties in angle-of-attack plane of conical flows, 14883
 - axial distribution function in magnetically confined plasma, effect of aperture on measurement, 10394
 - gamma and beta distribution functions applied to size distribution of mineral products, 869
 - longest temperature duration in a month, 1221
 - mass distributions and unaccelerated velocity of photographic meteors, empirical analysis, 10338
 - Pearson type III distribution, new tables of percentage points, 9167
- Distribution (statistics)—Continued
 - physical facilities among institutions of higher education grouped by level, control, and enrollment size, 11206
 - Distribution system, *see* Military supplies.
 - Distributors, *see* Markets and marketing.
 - Distributors (apparatus):
 - distribution equipment, Federal item identification guides for supply cataloging, supplements, 2494
- District Courts:
 - civil procedure rules, as amended, 11053
 - contract claims against nonappropriated fund activities of U.S., jurisdiction—law, 13325
 - report, 6645
 - criminal procedure rules, proposed amendments, 3369
 - Federal rules of appellate procedure, with forms, 11052
 - judges, additional, appoint—hearings, 3879
 - law, 10932
 - reports, 5141, 6628, 9695
 - Louisiana, middle district, create, report, 1660
 - Madison County, Fla., include in northern judicial district of Florida, report, 9671
 - Mississippi, southern district, terms to be held at—Gulport, report, 13641
 - Natchez, report, 15986
 - northern district of Illinois, eastern division, Black Panther Party, Jan. 1970 report, 12400
 - opportunities for improvement in administrative and financial operations, Judicial Branch, GAO report, 16594
 - rules of civil procedure, amendments, proposal, 9619
 - three judge district court provision in Expediting act, abolish, reports, 10958, 16024
 - United States, Federal offenders, 1968 data, 6286
- District of Columbia:
 - adoption proceedings, amend D.C. Code, report, 5128
 - adults, relieve from statutory requirement of providing support for parent who willfully neglected to provide support, etc., during child's minority, report, 9679
 - airports, utilization and future, hearings, 3970, 16047
 - airspace, above, on, and below freeway rights-of-way, authorize leasing of—hearings, 8388
 - report, 13670
 - Alcoholic beverage control act, amend—law, 321
 - report, 9683
 - anti-crime proposals, hearings, 3857, 6704
 - appropriations, 1970—hearings, 399, 3951
 - law, 3739
 - reports, 1498, 1651, 3827
 - supplemental, proposals, 9786, 13356
 - appropriations, 1971—hearings, 9727, 9889
 - law, 13312
 - reports, 11101, 12234
 - area wage survey, 7427
 - Bail Agency—act, amend—hearings, 6704
 - law, 9597
 - reports, 6669, 6771
 - appropriations, 1970, increase—law, 9597
 - reports, 6669, 6771
 - bail reforms and pretrial detention, hearings, 6704
 - best bets for returning veterans in Washington, D.C. area, 2366

District of Columbia—Continued
 blood banks, licensed, transfer of blood components within the city, authorize—
 hearings, 411
 law, 10917
 reports, 387, 9838
 budget, 1970, amendments, 3771
 budget, 1971—
 departmental edition, 6406
 document edition, 6562
 capital improvements, recommended 6 year program, 10444
 census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 8054
 retail trade, merchandise line sales, 13103
 selected services, area statistics, 4916
 wholesale trade, 170
 census of construction industries, 1967, statistics, 17485
 census of governments, 1967, reports, 3599
 census of manufactures, 1967 statistics, 15573
 chanceries, property use for, amend act, report, 5132
 cherry blossoms, Washington, D.C., 2155
 Cigarette tax act, amend, law, 321
 class A liquor licenses, return and cancellation procedure, report, 5129
 code of laws—
 amend—
 hearings, 8274
 reports, 1687, 6629
 1967 edition, supplement, 5168
 commercial facilities for parking or storage of motor vehicles, improve, report, 386
 Commissioner, disposition of District owned property in Prince William County, Va., authorize, report, 12246
 Commissioner of Police, establish, hearings, 6704
 comprehensive plan, elements, 6012
 concurrent measurements of water vapor and ozone, 1967-1968 report, 9058
 construction authorized, 2436
 Cooperative association act, amend—
 law, 15775
 reports, 10952, 12346, 13450
 Corrections Department, study, report, 5134
 county business patterns, 4931, 13159
 court reform and criminal procedure act of 1970, reports, 6623, 6629, 11015
 court reorganization, original law procedures, bail, and public defender service, hearings, 3857
 courts—
 handling juveniles, revise procedures, reports, 6623, 6629
 reorganize—
 law, 12154
 reports, 6623, 6629
 crime in National Capital, hearings, 5264, 6795, 8282, 16046
 crime, spillover into Maryland and Virginia suburbs, regional aspects, hearings, 5264
 criminal law and procedure, revision—
 hearings, 501, 3968
 report, 1633
 current local civil service examinations covering metropolitan area, 247, 3664, 4967, 8120
 debt adjusting business, prohibit—
 hearing, 1578
 law, 10926
 report, 9678
 delinquency and crime in schools, hearings, 501

District of Columbia—Continued
 donors, gift of all or part of human body after death for specified purposes—
 hearing, 6794
 law, 10928
 reports, 6766, 9684
 downtown, urban renewal area landmark, 18239
 drug abuse in Washington area, study, 12363
 Dulles International Airport, Washington, D.C., climatological summaries, 7849
 Dwight D. Eisenhower National Memorial Arena and Convention Center Study, construction, maintenance, and operation, report, 5127
 economics of aging, conference of national organizations, hearings, 13706
 electric rate book, 7103
 employment aspects of aging, hearings, 13706
 Federal payment authorization act of 1970, report, 13687
 fees for certain licenses and permits, authorize District of Columbia Council to fix, report, 13684
 fees for motor vehicle registration and inspection, and for motor vehicle operators' permit, amend, law, 321
 Forest Haven institution, voluntary admission of patients to provide care, education, and treatment of substantially retarded persons, report, 16014
 Francis Asbury statue, remove, authorize—
 law, 9603
 report, 8249
 George Washington University, charter, amend, 13379, 17599, 17680
 Georgetown architecture, 15029
 northwest area, 14420
 Georgetown commercial architecture, 15028
 Government—
 accounting adjustments between appropriations, procedure—
 hearing, 15903
 report, 15857
 need for improved management of repair and maintenance of public school buildings, GAO report, 718
 governmental organization—
 commission to study, establish report, 13454
 Congressional representation etc., hearings, 12268
 Healing arts practice act of 1928, amend—
 hearings, 411
 report, 385
 health services, administration, improvements—
 hearing, 8388
 report, 13671
 highway projects, progress report, 1444
 Historic American Buildings Survey, catalog, 12867
 home rule, hearings, 12268
 hotels, motels, etc.—
 liability to guests, revise laws, hearing, 9904
 offenses against, revise laws, hearing, 9904
 housing for low- and moderate-income persons, establish revolving fund for development, hearings, 6796
 Housing revolving fund act, report, 9854
 Income and franchise tax act of 1947, amend—
 law, 321, 15780
 reports, 5131, 13685
 industrial safety act, amend—
 hearings, 3969, 8389
 report, 9837
 infant education research project, pre-school program in compensatory education, 8524

INDEX 1970

District of Columbia—Continued
 interest and usury laws, exempt FHA and VA mortgages and loans—
 hearings, 6796
 reports, 6769, 9720
 internal revenue assessment lists, 1862-86, pamphlet to accompany microcopy, 4543
 International Telecommunications Satellite Consortium, tax exemption—
 hearing, 9904
 report, 5130
 investment companies, regulated, taxation, amend act—
 law, 15780
 reports, 5131, 13635
 judges, increase salaries, report, 1645
 judges retirement act of 1964, amend survivor annuity provisions, law, 1405
 juvenile court proceedings, revise—
 hearings, 6704
 report, 1687
 kite flying, permit, report, 9681
 Light Horse Harry Lee Bridge, designate, report, 13452
 mass transit bus system, public ownership, report, 8350
 memorial for Mary McLeod Bethune, National Council of Negro Women to erect, extend time limitation authorization, law, 12105
 reports, 6687, 13625
 militia, commanding general, compensation for, report, 9648
 minority construction contractors located in selected cities, list, 8792
 Motor vehicle excise tax, amend, law, 321
 Motor vehicle parking facilities act of 1942, amend, report, 386
 National Capital area bank holding company amendment, hearings, 3956
 National Capital Interstate air quality control region, Federal facilities, 8960
 National Capital parks for all seasons, 7642
 National Capital transportation act, 1969, Federal contribution for transit development program, report, 3812
 National Guard, commanding general, salary, increase, hearings, 8274
 nonvoting delegate to House of Representatives, provide—
 law, 17605
 reports, 13453-454, 13699
 omnibus crime bill, hearings, 6795
 Plaza Hotel acquisition for additional Senate Office building, authorize—
 hearings, 8438, 15933
 report, 9873
 Police and firemen's salary act of 1958, amend—
 hearings, 502
 law, 13304
 reports, 1693, 9876, 12199
 police, firemen, and teachers' salaries, increase, hearings, 8283
 pollution of Potomac River, Washington, D.C. metropolitan area, conference, proceedings, 16517
 Potomac River and tributaries, pollution control, progress evaluation meeting, 8672
 Potomac Valley Conservancy District, compact, amendments—
 hearings, 1598
 law, 17606
 report, 13467
 pretrial detention of dangerous persons, hearings, 1708
 principal electric facilities, map, 8622
 property owned in Prince William County, Va., disposition, authorize—
 hearings, 17636
 report, 16030

District of Columbia—Continued
 Protestant Episcopal Church vestry act, amend, report, 15978
 psychology, practice of, regulate, report, 1691
 Public assistance act of 1962, amend, report, 9679
 Public defender act of 1969, hearings, 501, 3968
 public opinion regarding new freeways, 503
 public schools, students and teachers to wear protective eye devices for certain courses, require—
 hearing, 8389
 report, 1500
 publications on, price list, 9073
 rebuilding 7th, 14th streets, NW. and H street, NE, 12849
 recorder of deeds, defects, validate, amend code—
 hearing, 9904
 report, 384
 rental of space for accommodation of agencies and activities, authorize—
 hearing, 8388
 report, 13647
 reservoirs on Potomac River and tributaries, authorize commissioner to contract for payment—
 hearing, 3971
 report, 1690
 Revenue act of 1969—
 law, 321
 report, 1448
 revenues, providing additional—
 law, 321
 report, 1448
 sales tax, amend, law, 321
 straw party deeds in joint tenancies, eliminate—
 hearing, 9904
 report, 388
 students and teachers to wear protective eye devices for certain activities, require, report, 9840
 Students for a Democratic Society, activities, hearings, 9749
 suburban Washington, D.C., accuracy of air tower, pressure gages, 2139, 7575
 Teacher's salary act of 1955, amend—
 hearings, 502
 law, 13304
 reports, 1693, 9876, 12199
 teachers' retirement amendments of 1970—
 law, 10923
 reports, 5133, 9841
 transit act, report, 8350
 transportation system, policies and principles, 6012
 trust funds, legal investments, lists, 5324, 13818
 Unclaimed property, act, amend—
 hearings, 6796
 report, 9854
 Unemployment compensation act, public international organizations, exempt, law, 296
 Use tax act, amend, law, 321
 victims of certain criminal acts, compensation, provide, hearing, 5263
 Washington, D.C., air routes play important role (remarks), 8110
 water and sanitary sewer rates, increase, report, 13686
 water pollution in National Capital region, hearings, 11116
 water supply facilities of National Capitol region, hearing, 3971
 welcome to Washington, 11796
 see also Capital of United States.

District of Columbia Commission on Government, establish—
laws, 17605
report, 13699

District of Columbia Committee, House:
appropriations, 1971, report, 10963
calendar, 2800
hearings, 411, 1578, 3857, 5153-54, 6704, 8283, 12268, 17636
investigations and study, Corrections Department, report, 5134
reports, 384-388, 1500, 3812, 5127-34, 6623, 6669, 9678-79, 9681, 9683-84, 9720, 10952, 12246, 13379, 13452-454

District of Columbia Committee, Senate:
calendar, 2820
committee print, 503, 8390, 12363
hearings, 501-502, 1708, 3968-71, 5263-64, 6794-96, 8388-89, 9904, 11116, 16047
investigations and studies, expenses, reports, 468, 5212
reports, 1633, 1641, 1687, 1690-91, 1693, 6766, 6769 6771, 8350, 9837-38, 9840-41, 9854, 9876, 12346, 13647, 13670-671, 13684-687, 13699, 15978, 16014, 16030, 17680

District of Columbia Court of Appeals, judges, increase salaries, report, 1645

District of Columbia Legal Aid Agency, Director, salary, increase, report, 1641

District of Columbia Reformatory, Lorton, Va., transfer control to Attorney General, hearings, 5153

Disulfoton, chronic disulfoton poisoning at various levels, comparison of behavioral effects, 8039

Dive, standard air dives, electromyographic analysis of biceps muscle following using frequency analysis feasibility study, 18141

Divers:
diving casualties suggesting episode of thoracic squeeze, case report, 5843
helium-oxygen saturation and excursion dive to simulated depth of 1100 feet performance effects of increased ambient pressure, 8890
man underwater, USSR study, 10261
naval diver training, decrease in perceived distortion with repeated exposure, application, 11568
Navy manual, 7692
underwater man, evolution and explorations (lecture), 2219

Divide County, N. Dak., community profile, 13932

Dividends, *see* Corporations—Life Insurance—Stocks.

Diving:
casualties suggesting episode of thoracic squeeze, case report, 5843
experience, effect on visual perception under water, 10318
Navy manual, 7692
saturation-excursion diving to pressures equivalent to 800 and 1000 feet of seawater, pulmonary gas exchange and urinary electrolyte excretion, 12735

Divorce:
children of divorced couples, U.S., selected years, 6018
probabilities, current population report, 12036
vital statistics of U.S., 8998, 17051

Dixon, Sidney C., preliminary design procedure for end rings of isotropic conical shells loaded by external pressure, 16985

Dixon County, Nebr., community profile, 17777

DLSC, *see* Defense Logistics Services Center.

DME, *see* Distance measuring equipment.

DMRE, *see* Medical Radiation Exposure Division.

Do teachers make a difference? 11207

Do you get cash tips? tips means bigger social security checks, here's how you get them, 7756

Do you know that there are 5 times you should get in touch with your social security office? 9121

Do you know your economic ABC's?—patents, spur to American progress, 270
profits and American economy, 17561

Do your thing, let's get it together, 1970
census is what's happening, be counted, 8096

Dobbins Creek, floods, how to avoid damage, 1799

Docks:
floating, Federal item identification guides for supply cataloging, supplements, 2598
modern dock structures for large and medium-size ships, USSR study, 7363

Doctors, *see* Physicians.

Doctor's degrees, *see* Degrees (colleges, universities, etc.).

Documentary films, *see* Motion pictures.

Documentation, urban transportation planning system 360, program, 15136

Documents, *see* Confidential material—Government publications—Records—also subject of documents.

Documents Office, *see* Public Documents Division.

DoD, *see* Defense Department.

Dodder, control in alfalfa, 17

Dodge, Richard W., voting and registration in election of Nov. 1968, 222

Dodge, Wendell E., review of status of the porcupine (*Erethizon dorsatum* exilanthum) in western Oregon, 7789

Dodge City, Kans., Fort Dodge-Wilroads Gardens section, Arkansas River, special flood plain information, 14332

Dodge County, Nebr., community profile, 17778

Dodl, Norman R., feasibility study of Florida State University model for preparation of elementary school teachers, 11224

Doepf Crockett Hauling, motor carrier accident, Roswell, N. Mex., 14804

Doerr, Robert M., reaction of Co-Ni-V alloys with O₂ at 1,351°-1,429° K., 7494

Dogwood, flowering, growing, 15421

Doherty, Neville, rurality, poverty, and health, medical problems in rural areas, 14265

Doing business with NATO, how U.S. companies can participate, 4900

Dole, Hollis M., remarks, Oct. 21, 1970, 18066

Dollar, Alexander M., Hawaii Development Irradiator program, annual report, 3490

Dollars:
claims from Government of Vietnam, policies covering collection by International Development Agency, GAO report, 1902
foreign currencies purchased with dollars, 9272
size and shape of medical care dollar, chart book, 6172

Dolomite:
phase 2, bench-scale research on CSG process—
laboratory physico-chemical studies, 254
mechanics of fluo-solid systems, studies, 6487
operation of bench-scale continuous gasification unit, 255

Dolores County, Colo.:
geologic investigations in Slick Rock district (series), 11395
Slick Rock district and vicinity, structure, 11395

Dolph, R. E., forest pest conditions in Pacific Northwest, 1969, 5486

Dolphins:
anatomy and function of the ear, USSR study, 7304
behavior, USSR study, 7382
behavior in captivity, USSR study, 11501

- Dolphins—Continued
 brain structure, reflexes and echolocation behavior, USSR study, 1992
 radiated pulses, echolocation differentiation and characteristics, USSR study, 4329
 scientific center for study created, USSR study, 5733
see also Cetacea.
- Dombrowski, John, area handbook for Guatemala, 13053
- Domestic and international business news to use for trade association periodicals, 2514
- Domestic animals, air pollutants affecting performance, literature review, 15413
- Domestic Council:
 establish—
 disapproval, report, 8260
 hearings, 8301, 11127
 message from the President, 6574
- Domestic International Sales Corporation, proposal of Treasury Department covering tax treatment of export income, 13551
- Domestic relations courts:
 family and juvenile court acts, legislative guide for drafting, 233
 legal bibliography for family courts, supplement, 9108
- Dominica, *see* Windward Islands.
- Dominican Republic:
 agricultural commodities, agreements, 12939, 17360-361
 economic trends and their implications for United States, 7328, 14642
 meat imported into U.S., agreement, 17340
- Dona Ana County, N. Mex., White Sands Missile Range test wells, general information, 7251
- Donahue, James H., thermoelastic instability of open-section booms, 2080
- Donations, *see* Gifts.
- Donchin, Emanuel, average evoked potentials, methods, results, and evaluations, conference, 4501
- Donehoo, Irene A., guide to Soviet literature accessions in Atmospheric Sciences Library and Geophysical Sciences Library, 8579
- Donnelly, Ralph W., annotated bibliography of United States Marine Corps' artillery, 12726
- Donnelly, Thomas W., Odonata of Dominica, British West Indies, 6159
- Donnon softening as pretreatment to desalination processes, 4303
- Donovan, R. P., development of radiation resistant insulating layers for planar silicon technology, 10358
- Dooley, James E., mass spectra and analytical correlations of some alkylcycloalkyl sulfides, 5882
- Dooley, Susan, VISTA (periodical), 3331
- Doollittle, M. L., forest fire occurrence in South, 1956-65, 11357
- Door to opportunity, title 5, Economic opportunity act, 13249
- Doors, and covers, access, Federal item identification guide, 13784
- Dope (coating materials):
 Zn doping of GaAs films using coevaporation of elements, 15069
- Doppler effects:
 continuous transmission frequency modulated, studies, 13245
 doppler spectra study of radar sea-echo, 4622
 sea roughness effects on bandwidth of radar backscatter, 12889
 traveling ionospheric disturbances, observation by Doppler technique with spaced transmitters, 5394
- Doppler radar, Doppler VOR installation drawings, 17960
- Doraster constellatus, *see* Starfishes.
- Dorman, K. Robert, spray-applied polyurethane foam to insulate heated rooms excavated in permafrost, 10330
- Dormitories:
 HUD's college housing program, guide, 14575
 men's residence halls, University of Dubuque, Dubuque, Iowa, buildings with fallout protection, design case study, 13187
- Dorr, John Van N., 2d, physiographic, stratigraphic and structural development of Quadrilatero Ferrifero, Minas Gerais, Brazil, 5556
- Dorsal column system of spinal cord, its anatomy, physiology, phylogeny, and sensory function, revised pages, 17142
- Dorsch, Bernhard, error control using concatenated code, 11647
- Dosimeters, TLD-700 high sensitivity LIF ribbon for low-level environmental radiation measurements, test, 15514
- Dosimetry, accelerator dosimetry and experience, conference proceedings, 13067
- Dostal, Kenneth A., secondary treatment of potato processing wastes, 4170
- DOT, *see* Transportation Dept.
- Dotson, William P., jr., effect of object motion in Fraunhofer holography with application to velocity measurements, 918
- Doty, Maxwell S., primary productivity and plankton biological sampling program results, USC&GS ship Pioneer data, 615A
- Dougherty, James E., paper, Dec. 9-11, 1969, 7175
- Doughman, Agnes J.:
 mineral industry of—
 Algeria, 18149
 Ghana, 16903
- Douglas County, Mo., community profile, 16241
- Douglas County, Nebr., community profile, 17779
- Douglas County, S. Dak., community profile, 13933
- Douglas County, Wash., community profile, 6906
- Douglas fir, *see* Fir.
- Douglas fir beetles, *see* Beetles.
- Douglas-fir tussock moths, *see* Tussock moths.
- Douglass, Frederick, Home, *see* Frederick Douglass Home.
- Douglass, Raymond C., morphologic studies of fusulinids from lower Permian of West Pakistan, 10178
- Durron, Maria L. G., relief, 3908
- Douty, H. M., nineteenth century wage trends, 5820
- Doves, *see* Mourning doves.
- Down, *see* Feathers.
- Downey, John J., State responsibility for juvenile detention care, 15391
- Downey, Maureen E., Zoroacallida, new order, and Doraster constellatus, new genus and species, with notes on Zoroasteridae (Echinodermata: Asteroidea), 12916
- Downs, Anthony, racism in America and how to combat it, 3657
- Downs, Eldon W., Air University review, 2320
- Downs, Joseph M., Las Vegas, N. Mex., soil survey, 15234
- Down's syndrome, *see* Mongolism.
- Doyel, William W.:
 catalog of information on water data, index to areal investigations and miscellaneous activities, 7226
 national hydrologic data system for Chile, 14531
- Doyle, D. V., experimental pole-type structure, initial evaluation, 694
- Doyle, James T., establishing business in Democratic Republic of Congo, 8149
- Doyle, Robert O., long-range program in space astronomy, position paper of Astronomy Mission Board, 896

Draft (military), *see* Conscription.

Draft tubes, *see* Tubes.

Draftsmen:

employment outlook, 14675

pay, national survey, 5822

Drag (aerodynamics):

additive-drag coefficient and mass-flow ratio for inlets utilizing right circular cones at zero angle of attack, approximate solution, 2092

aerodynamic characteristics of hypersonic transport configuration at Mach 6.86, 11695

aerodynamic interference effects on half-cone bodies with thin wings at Mach 10.03, 12820

calculated wind-tunnel-boundary lift-interference factors for rectangular perforated test sections, 5943

high L/D concept with single pivot 2-position skewed wing, study to determine flight characteristics and handling qualities of variable geometry spacecraft, 10351

induced interference effects on aerodynamic characteristics of V/STOL 0.10-scale model in transition, 11635

non-continuum and turbulence effects on subsonic sphere drag, measurement, 11616

oblate spheroid and sphere at Mach numbers from 1.70-10.49, characteristics, 4515

Dragovich, Alexander, review of studies of tuna food in Atlantic Ocean, 3718

Drain pipe, *see* Pipe and pipe fittings.

Drainage:

basin characteristics generalization of stream-flow characteristics, 12593

drainage agricultural land along westside of San Joaquin Valley, Fresno County, Calif., guide, 7765

for areas other than airfields, drainage and erosion control, technical manual, 13056

pilot drainage and irrigation project, Thanh Quoi, An Giang Province, Vietnam, feasibility study, 5368

sedimentation in small drainage basins (series), 5564

small drainage basins in Wyoming, flood hydrographs, study, progress report, 734 watershed protection, and flood prevention, West Carroll Watershed, La., 9174
see also Mine drainage—Reclamation of land.

Drake, Clayton T., effect of oral administration of magnesium oxide on renal calcium excretion in crew members during submarine patrols, 8893

Drama, and works prepared for oral delivery, catalog of copyright entries, 3998, 17723

Drawings:

and specifications construction of pole lines, aerial cables and wires, and station installations, 17254

Doppler VOR installation drawings, 17960 scientific and technical, catalog of copyright entries, 17725

transmission voltages, line construction, 17255

Dredging, gold placer mining, placer evaluation and dredge selection, 8899

Dreshfield, Robert L.:

estimation of gamma phase composition in nickel based superalloys based on geometric analysis of four-component phase diagram, 11648

further observations on formation of sigma phase in nickel base superalloy (IN-100), 17003

Dresses, women's and misses', industry wage survey, 7424

Drew, Walter B., analytical method for determining melt-layer thickness and regression rates for hybrid or tribrid rocket motor, 10387

Drewes, Harald, structural control of geochemical anomalies in Greaterville mining district, southeast of Tucson, Ariz., 7223

Dried foods:

cooked freeze-dried combination meat items, responses to oxygen, 13047

freeze dried foods—

raw beef patties, effect of headspace oxygen on quality, 1223

spaghetti, cooked with meat sauce, effect of processing conditions, 1224

see also names or classes of foods dried.

Dried milk, *see* Milk.

Driers, *see* headings beginning Dryers.

Drift, movement of seabed drifters in San Francisco Bay estuary and adjacent Pacific Ocean, 11393

Drill (military), *see* Military drill.

Drilling:

deep, on Midway Atoll, 5561

drillability studies, laboratory, percussive drilling, errata, 2054, 7478

percussive, prediction of penetration rate, 10334

see also Core drilling.

Drilling machinery, *see* Drills (tools).

Drills (tools):

boring machines, industrial plant equipment handbook, 11159

drill bits, counterbores, and countersinks, Federal item identification guide, 6858

drilling machines, industrial plant equipment handbook, 6850

energetics of percussive drills, longitudinal strain energy, 2056

Driscoll, Richard S., managing public range lands, 15

Drivers, *see* Automobile drivers—Motor vehicle operators—Taxicab drivers.

Driving, *see* Automobile driving.

Dropouts, *see* School attendance.

Drops, spherical water droplets, angular scattering functions, 15062

Drosophila, *see* Flies.

Droughts, relative drought resistance of ponderosa pine seedlings, influence of anti-transpirants on water use, growth characteristics, 683

Drouths, *see* Droughts.

Drowning, hazards to people and animals from Bureau-constructed canals, 9091

Drug abuse:

alcoholism and narcotics problem, hearings, 5275, 6810, 11135

answers to most frequently asked questions, Federal source books, 9000, 14940

brother . . . don't pass it on (poster), 15011

census of manufacturers, 1967, industry statistics, 17522

community program guide, education committee, etc., 8919

comprehensive drug abuse prevention and control act of 1970, reports, 13489, 15867

comprehensive drug prevention and control act of 1970, report, 15867

comprehensive narcotic addiction and drug abuse care and control act of 1969, hearings, 8424

control amendments, 1970, hearings, 9751-52

dangerous drugs, illicit use in U.S., studies, surveys, and polls, compilation, 16930

distant drummer, film series, announcement and order form, 6043

don't blow it with drugs (poster), 15014

don't guess about drugs when you can have the facts, description and catalog of current drug abuse information education materials, 9016

INDEX 1970

Drug abuse—Continued

drug abuse—
and criminal justice, crime in America,
hearings, 409
and students, 7618
drug arrests abroad, notice, 11901
drug utilization review and control, 11752
drugs of abuse, 10341
selected bibliography, 7617
education—
act of 1969—
hearings, 3858, 5155, 16072
reports, 1447, 3804
curriculum guide, grades 6-12, Tacoma
Public Schools, Tacoma, Wash., 14941
drugs and hazardous substances, grades
K-12, San Francisco Unified School
District, Calif., 14344
films, 11763
grades K-12, South Bay Union School
District, Imperial Beach, Calif., 14943
narcotic and drug education, grades
K-12, Flagstaff Public Schools, Flag-
staff, Ariz., 14945
1968, grades 6, 9, 12, Baltimore County
Board of Education, Towson, Md.,
14942
program grades K-12, Rhode Island
State Department of Education, Provi-
dence, R.I., 17059
programs supported by State education
agencies, 7608
resource book, 1073
sociological health problems, grades
4-6, New York State Education Dept.,
Albany, N.Y., 14946
tobacco, drug and alcohol unit, grade
6, Great Falls school District no. 1,
Great Falls, Mont., 14947
education and prevention hearings, 16046
examination on problems, hearings, 1741
correction, 5276
Federal drug abuse and drug dependence
prevention, treatment, and rehabilita-
tion act of 1970, hearings, 11137
films, list, 7611
Government publications, 7612
hashish, pot, acid, speed, barbiturates,
LSD, will they turn you on or will they
turn you off (poster), 15015
information, education, and rehabilitation
programs supported by State health
agencies and voluntary organizations,
7609
information programs supported by na-
tional organizations, 7610
John was OK until his momma caught
him (poster), 15016
leaving drug world behind, 14276
misery (poster), 15018
prevention and control, reports, 13489,
15867
prevention and treatment of drug abuse
and drug dependence, comprehensive
Federal program, provide, hearings,
11137
public speaking on drug abuse prevention,
handbook for law enforcement officer,
7504
selected drug education, curricula, 14941-
947
slavery to drugs—
black version (poster), 15019
white version (poster), 15020
suggested drug abuse speech, closer look
at drug abuse, 10456
Washington, D.C., study, 12363
youthful drug use, scope, corrective meas-
ures, etc., 15392
see also Alcoholism—Marihuana.
Drug Abuse Education Advisory Commit-
tee:
establish—
hearings, 3858, 5155, 16072
reports, 1447, 3804

Drug Abuse Education Interagency Coordi-
nating Council:
establish—
hearing, 16072
reports, 1447, 3804
Drug Abuse Prevention, Treatment, and Re-
habilitation Administration, establish,
hearings, 11137
Drug addiction, see Drug abuse—Narcotic
habit.
Drug stores, see Stores.
Drugs:
adverse and toxic effects, toxicity, bibliog-
raphy, 3265
alcohol, alcoholism and drug abuse, re-
view of VA sponsored research projects
and published articles, 4754
before your kid tries drugs, 970
British drug safety system, report, 8230
census of transportation, 1967, commodity
transportation survey, shipper group,
4925
code of Federal regulations, 5443, 7123,
8643-44
combating drug abuse, proposals—
hearings, 615
message from the President, 327
commercial import detentions, monthly re-
port, 2426
controlled dangerous substances act of
1969, report, 1684
current information, FDA listing, 11337
dangerous—
and illicit, crime in America, 5151
fact sheets, 888
illicit use in U.S., studies, surveys and
polls, compilation, 16930
distribution restrictions, revises, hear-
ings, 9751-52
drug dependence (periodical), 6044
drug efficacy, hearings, 6711
drug industry, competitive problems, hear-
ings, 524, 11148, 12383
drug laws, amend—
comparison of bills to regulate, 15948
hearings, 13550
materials, 15949
statements, 15950
drug treatment in psychiatry, 6276
effects of 2 common medications on com-
plex performance, 6402
FDA handbook of total drug quality, 4174
Federal food, drug, and cosmetic act
amendments, compilation, 6551
food and drug law history, significant
dates, 10108
Food, drug, and cosmetic act, amend,
hearings, 11141, 15917
hallucinogenic drugs, adverse reactions,
conference, background papers and pro-
ceedings, 1048
immunological mechanisms of drug side
effects, USSR study, 12623
importation and exportation of drugs sub-
ject to abuse, provide control, reports,
13489, 15867
infectious multiple drug resistance, sym-
posium, genetics, molecular nature, etc.,
of R factors, 16529
laws, amend, summary of bill, 15953
leaving drug world behind, 8353
manufacturing plants and warehouses, in-
spection, increase frequency, hearing,
11141
narcotic, depressant, stimulant, and hal-
lucinogenic, protect public health and
safety by amending drug laws, hearings,
1736
national drug code directory, 8677
nursing home care and prescribed drugs
under medicare program in California,
continuing problems, Social and Re-
habilitation Service, GAO report, 14497
pharmaceutical communications in clini-
cal environment, 17049
pharmaceutical industry, competition, pres-
ent status, hearings, 524, 11148, 12383

Drugs—Continued

- pharmaceutical preparations, except biologicals, 1962-67 shipments, patterns of industrial growth, 4904
- pharmacy department intravenous additive incompatibilities, 979
- prescription drugs, identification and labeling, provide code system, hearings, 11141
- stimulant drug laws, amend, report, 1684
- stored for national emergencies, transfer to another Federal agency before shelf life expires—
law, 15808
report, 15851
- strengthened programs of international cooperation for halting illicit supply of drugs, 10609
- see also* names of drugs—Narcotics.
- Drummond, R. O., materials screened as animal systematic insecticides at Kerrville, Tex., 9322
- Drums (containers), steel shipping, current industrial reports, 2475
- Drunkness, *see* Alcoholism.
- Dry batteries, *see* Electric batteries.
- Dry cleaners and dyers, dry cleaning establishments under fair labor standards act, as amended, 9266
- Dry cleaning, candidate mothproofers, toxicity to fabric insects and persistence through washing and drycleaning, 17443
- Dry-cleaning machines, dry cleaning and laundry equipment, Federal item identification guide, 8471
- Dry kilns, *see* Kilns.
- Drydocks, facilities, Navy design manual, change, 2170
- Dryer, A. M., alternator and voltage regulator-exciter for a Brayton Cycle space power system design and development, 11601
- Dryers (industrial), driers, dehydrators, and anhydrators, industrial plant equipment handbook, 13777
- Drying:
equipment, Federal item identification guides for supply cataloging, supplements, 2593
shrinkage of handsheds during drying, measuring, 14465
see also names of substances dried.
- DSA, *see* Defense Supply Agency.
- DSA-DLSC handbook, 1761-62, 11164
- Dst (storm time variation), *see* Magnetic storms.
- Dual Independent Map Encoding, *see* Geography.
- Duane, David B., geomorphology and sediments of nearshore Continental Shelf, Miami to Palm Beach, Fla., 4066
- Dubas, Floyd J.:
Malaysia and Singapore, country market survey, 4315
market factors in Singapore, 278
- Dubos, Rene, lecture, Oct. 2, 1969, 11854
- Dubuque, Iowa, University of Dubuque, men's residence halls, buildings with fall-out protection, design case study, 13187
- Dubuque County, Iowa, community profile, 13934
- Ducar, G. J., mathematical model of sewage sludge fluidized bed incinerator capacities and costs, 14408
- Duchesne County, Utah, community profile, 6907
- Duck (textile), characteristics, reliability of critical performance, 1220
- Duck Creek, flood plain information, 4077
- Ducks:
duck virus enteritis reported in United States, 7906
puddle ducks, habits and characteristics, 15270

Ducks—Continued

- sea ducks, hunting, possession, transportation, importation, 1970-71, Federal regulations, 15276
- virus enteritis, old world disease in new world, 9320
- see also* Wood ducks.
- Duckworth, W. Donald, neotropical microlepidoptera 18, revision of genus *Peleopoda*, Lepidoptera, Oecophoridae, 10548
- Ducted fans:
performance—
computer program for prediction, 5895
theoretical study, 4496
- Ductility:
charpy-V notch ductility characteristics of neutron-irradiated A537-B and A350-LF2 steel weldments, 11819
- ductile-brittle transition and stress-strain behavior of tungsten, how affected by reactor irradiation, 16990
- neutron-embrittled pressure vessel steels, Charpy-V shelf energy degradation and yield strength increase, trends, 6110
- Ducts:
duct-mounted Helmholtz resonators, investigation of influence on sound field of model ducted propeller, 16941
- magnetospheric—
characteristics observed by Alouette-2 topide sounder, 12805
propagation, ray tracing digital computer program for study, 14842
- Dudley, Shearon, sportsman's guide to handling, smoking, & preserving Great Lakes coho salmon, 17566
- Der Duesten der U.S.A., 7880
- Duewer, Lawrence A., price spreads for beef and pork, revised series, 1949-69, 9312
- Dug Foo Wong *see* Wong, Dug Foo.
- Dugan, Duane W., role of staged space propulsion systems in interplanetary missions, 2123
- Dugan, John V., jr., computer-made motion pictures and time history plots of ion-polar-molecule collisions, 14849
- Duggar, Benjamin C., fixed base simulator versus skid pan practice in skid control training, 5378
- Duggins, Jack A., relief, 13387
- Duis, Harold F., State vocational education, statistics, 17914
- Duke, Kimoko A., relief, 12305, 17587
- Dukler, A. E.:
experimental program to improve VTE distillation process, 777
influence of high molecular weight additives on flashing process, screening study, 5626
- Dulaney, Jean B., FAR horizons, 2561
- Dulany, Bladen, papers in Library of Congress, register, 10305
- Dulles International Airport:
air traffic, forecasts for 1970-81, fiscal years, 7075
National Capital transit development program, extend rapid rail line between airport and main metro system—
report, 3812
study, 1407
- Duluth, Minn., principal electric facilities, map, 8624
- Dumping (commercial policy):
ocean dumping, national policy, report to the President—
departmental edition, 17729
document edition, 17617
- Dunavant, James C., exploratory heat-transfer measurements at Mach 10 on 7.5° total-angle cone downstream of region of air and helium transpiration cooling, 2100
- Dunaway, Gordon L., wind-weighting technique to predict velocity vector azimuth angles for unguided rockets, 13038
- Duncombe, Raynor L., heliocentric coordinates of Ceres, Pallas, Juno, Vesta, 9042

INDEX 1970

- Dundas, Peter H., induction plasma heating, measurement of gas concentrations, temperatures, and stagnation heads in binary plasma system, 5903
- Dundy County, Nebr., community profile, 17780
- Dunes:
- coastal dunes of Oregon, stabilization, 9164
 - ground-water resources of Clatsop Plains sand dunes, Clatsop County, Oreg., 18053
 - sand dune control benefits everybody, Bodega Bay story, 10567
- Dunham, R. Earl, evaluation of moving-graph instrument display for landing approaches with helicopter, 18210
- Dunklin County, Mo., community profile, 16242
- Dunn, Gordon E., Florida hurricanes, 607
- Dunn County, N. Dak., community profile, 13935
- Dunne, Thomas P.:
- addresses—
 - Feb. 20, 1970, 5326
 - May 7, 1970, 9968
 - May 12, 1970, 9492
- Dunning, Robert S., experimental determination of apparent mass and moment of inertia of large disk suspended as pendulum at different air densities, 12819
- Duplicating processes, microfilm copies, selective roll-to-roll printer, for producing, 6009
- Duplin County, N.C., community profile, 13936
- Dupuy, Trevor N., area handbook for Mongolia, 10738
- Durable goods, *see* Commercial products.
- Durham, David L., geology of Sycamore Flat and Paraiso Springs quadrangles, Monterey County, Calif., 14520
- Durham County, N.C., community profile, 18937
- Durst, Richard A., ion-selective electrodes, 2137
- Durum wheat, *see* Wheat.
- Dust, thermal and electromagnetic radiation from dust structures, 10347
- see also* Coal dust.
- Dust respirators, *see* Respiratory equipment.
- Dusting apparatus, hand operated, mobile dusters, types, etc., 11951
- Dusts and dusting, literature review of dusting technology in delcing, 10301
- Dutchess County, N.Y., community profile, 13938
- Duties, *see* Tariff—*also* names or classes of articles imported.
- Dwarf mistletoe, *see* Mistletoe.
- Dwellings, *see* Houses.
- Dwight D. Eisenhower National Memorial Arena and Convention Center:
- District of Columbia, construction, maintenance, and operation—
 - hearings, 5154
 - report, 5127
- Dyer, John A., present and future market for fish oil, 9519
- Dyes and dyeing:
- dyeing materials, duty free status, extend—
 - law, 15778
 - reports, 1518, 12324
- Galveston Bay hurricane surge study—
- effects of plan 2 Alpha and plan 2 Gamma barriers on dye dispersion, etc., hydraulic model investigation, report, 16448
 - effects of proposed barriers on dye dispersion, etc., 16447
- synthetic dyes, production and sales, 18381
- textiles, census of manufactures, 1967, industry statistics, 11999
- Dyke, James, foreign trade regulations of Ecuador, 15726
- Dynamic price-output model of beef and pork sectors, 15447
- Dynamic stability, *see* Stability of aircraft.
- Dynamics:
- behavior of air lubricated pivoted-pad journal bearing-rotor system, effects of mount stiffness and damping, 5972
 - dynamic analysis of XB-70-1 inlet pressure fluctuations during takeoff and prior to compressor stall at Mach 2.5, 11669
 - dynamic and descriptive studies of hill-slopes (series), 5559
 - dynamic response—
 - and stability of linear induction motor test vehicle, study, 14384
 - of model buried field shelter, Project LN314, Operation Prairie Flat, 10020
 - errata, 11258
 - dynamic solar conflict for Radio Astronomy Explorer satellite, analytic determination of camera operability status considering, 10384
 - dynamic tear energy, practical performance criterion for fracture resistance, 15064
 - dynamic tear test investigations of fracture toughness of thick-section steel, 15077
 - dynamic Young's modulus and flexural strength of sea ice, 14304
 - % inch dynamic tear test, standard method, 18296
 - free-stream dynamic pressures exceeding cushion pressure, and very low ground clearances, effect of these conditions on aerodynamic characteristics of air cushion models, 18209
 - lateral-directional dynamic stability of tilt-wing V/STOL transport, investigation, 5945
 - magnetoplasmadynamic (MPD) converters, AEC translation, 15509
 - nonrigidly supported ballast on slender body descending through atmosphere, effects, 4522
 - rotating shafts, 16157
 - structural—
 - dynamic technology, advancements resulting from Saturn V programs, 11608
 - problems related to Apollo-Saturn V launch vehicle, application of analysis and models, 11672
 - technology, advancements resulting from Saturn V program, 11609
 - subsurface and close-in surface dynamic effects, measurements, 13082
 - two slowly rotating point-mass vehicles connected by massless tether and in circular orbit, 4514
 - see also* Magneto-hydrodynamics.
- Dynamos, *see* Solar generators.
- Dyrness, C. T.:
- hydrologic properties of soils on 3 small watersheds in western Cascades of Oregon, 4186
 - stabilization newly constructed road black-slopes by mulch and grass-legume treatments, 18013
- Dyslexia and Related Reading Disorders, National Advisory Committee on, *see* National Advisory Committee on Dyslexia and Related Reading Disorders.
- Dytiscidae, *see* Beetles.

E

- E.E.O.C., *see* Equal Employment Opportunity Commission.
- E-region, *see* Ionosphere.
- Eagle, Colo., public lands outdoor recreation map of area, 14746

Eagle County, Colo., mineral resources of Gore Range-Eagles Nest primitive area and vicinity, 14524

Eagle Lake Timber Co., relief, 13295, 13613
Eagle Shoe Manufacturing Co., workers, Everett, Mass., men's youths', and boys' footwear of leather, Tariff Commission report 10638

Ear:
anatomy and function in dolphins, USSR study, 7394
inner ear of vertebrates, development of receptor structures, 11707

EARI, see Engineer Agency for Resources Inventories.

Early, William N., United States Air Force JAG law review, 2778

Earnings, see Salaries—Wages.

Earphones, see Headsets.

Earth:
and rock-fill dams, stability, engineering and design, EM manual, 14307

earth materials determination of cation exchange capacity by using radiotracer technique, 7033

earth-moon field, $X_r=1.00$, 2d class orbits, survey, 2089

earth's field dynamic calibrator for calibration of accelerometer, 6010

extended near earth missions, radiation hazards study, 2065

fluid movement in earth materials (series), 10171

free-surface displacement pulses and crater dimensions, effects of explosive properties, 11592

geologic time, age of earth, 4239

ground motions—
and close-in physical effects analysis, Gasbuggy event, 6385

Cabriole Project, analysis, 3496
Project Buggy, analysis, 3494

ground stresses and geologic structure, geometric relationships near Atlanta, Ga., 7489

on cosmic hydromagnetic dynamo theory, 5389

pulse of earth's magnetosphere, USSR study, 5780

resources, remote sensing, literature survey with indexes, 16955

smooth multi-section curved, propagation of electromagnetic waves over, exact theory, 7950

solid-earth and ocean physics terrestrial environment, 10354

subsurface and close-in surface dynamic effects, measurements, 13082

sun and Mars, relative geometries, 1973-2000, 7528

surface-motion—
and vented-gas temperature measurements, Cabriole Project, 8021

photographic and accelerometer measurements on Buggy cratering experiment, 6384

theology of the earth (lecture), 11854
see also Satellites.

Earth satellites, see Satellites.

Earth sciences, see Science.

Earth Sciences Laboratories:

ESSA technical report, ERL-ESL series, 5389, 16455-456, 17950

scientific and technical publications, list, 7053

Earthquakes:

abstracts of reports for U.S., 8131
Alaska, 1964—

effects on Alaska Railroad, 11394
lessons and conclusions, 18043

tectonics, 7242
Alaska reconstruction grants—

law, 15766
reports, 1669, 12230

preliminary determination of epicenters, monthly listing, 15703

Earthquakes—Continued

safety rules, 603

seismic and hydroacoustic data on T-waves (review), USSR study, 1991

United States, 257, 6494

Earthwork and structures:

construction grant program for abating, controlling, and preventing water pollution, effectiveness, Federal Water Pollution Control Administration, GAO examination, 716

earth and rock-fill dams, stability, engineering and design, 14307

engineering structures, ice pressure, 14306

floodwater retarding structures near McKinney, Tex., performance during storm of Sept. 20-21, 1964, 6187

foundations and subsurface structures in snow, 4073

pit slope structures by stiffness matrix method, systematic analysis, 5877

structural response, final report, Gasbuggy event, 8022

see also Excavation.

Earthworms, culture and uses, 17289

East (Far East):

agricultural situation, 1969 review and 1970 outlook, 8505

Far Eastern series, 1141

need to improve military supply systems in Far East, GAO review, 8724

rise of science centers in Siberia, Far East territory traced, USSR study, 16785

East (Middle East):

accessions list, Library of Congress American Libraries Book Procurement Center, Cairo, 2290

lasting peace in Middle East, American view (address), 4731

Near and Middle Eastern series, 4731

1967 petroleum emergency, 2187

refugee situation, subsequent to 6-day Arab-Israeli conflict of 1967, report, 3848

U.S. Armed Forces in certain areas, terminate resolutions, report, 9836

East (Near East):

agricultural production, 1960-69, indices, 6997

foreign relations of U.S.—
departmental edition, 1143

document edition, 324

market profiles, 13223

mineral industry, minerals yearbook chapter, 4454

Near and Middle Eastern series, 4731

Near East and South Asia, economic growth trends, 10247

Near East conflict, hearings, 13512

special study mission, report, 12272

social science research, special papers available, 11897

translations, 3276

East (U.S.):

fresh fruit and vegetable unloads in eastern cities, by commodities, States, etc., 6820

log cabins, rustic work, and unseasoned wood, protecting from injurious insects, 17434

monthly precipitation probabilities by climatic divisions, 23 Eastern States from Great Lakes to Gulf Coast, 32

oceanographic observations of coast, 1359

yellow pine, wood density survey of minor species—

sand pine, 4209

table mountain pine, 4210

East African Community, foreign trade regulations, 4998

East Chicago, Ind., census of transportation, 1967 commodity transportation survey, 9433

East Europe, see Europe.

INDEX 1970

- East Fork San Jacinto River, Cleveland, Tex., flood plain information, 16418
 East Fork Stones River, Woodbury, Tenn., flood plain information, 17922
 East Greenacres unit, *see* Rathdrum Prairie project.
 East Meadow Brook, Nassau County, Long Island, N.Y., urban development effects on direct runoff to brook, 5553
 East North Central States, *see* Central States.
 East Pakistan, *see* Pakistan.
 East River:
 New York City, spur channel to Astoria waterfront, engineers report—departmental edition, 10002
 document edition, 9778
 East-West trade, *see* Commerce.
 Easterbrook, Calvin C., study of effects of waves on evaporation from free water surfaces, 4655
 Eastern Carriers' Conference Committee, emergency board report, 1797
 Eastern Europe, *see* Europe.
 Eastern National Capital Parks, Md., Warburton Manor and Digges family of Maryland, historic structures report, 17163
 Eastern Neck National Wildlife Refuge, general information, 1130
 Eastern States, *see* East (U.S.).
 Eastern tent caterpillars, *see* Tent caterpillars.
 Eastern Utilization Research and Development Division:
 Eastern Experiment Station collaborators conference on human nutrition, abstracts and summaries, 7905
 laboratories and functions, 12964
 publications and patents, list, 10681
 Eastlund, Bernard J., fusion torch, closing cycle from use to reuse, 136
 Easton, Pa.:
 area wage survey, 16849
 census of transportation, 1967, commodity transportation survey, production, area series, 6421
 Eastport, Maine to Montauk Point, N.Y., marine weather service chart, 18402
 Eastport to Cape Cod, coast pilot, supplement, 8134
 Eat good breakfast, to start good day, 21
 Eating places, *see* Restaurants, lunch rooms, etc.
 Ebbert, Robert J., relief, 17676
 Ebel, Wesley J., salmon research at Ice Harbor Dam, 9517
 Eberle, A. R., titrimetric determination of uranium in product fuel, and scrap materials after ferrous ion reduction in phosphoric acid, 13075
 Eberlein, G. Donald, paleozoic stratigraphy in northwest coastal area of Prince of Wales Island, southeastern Alaska, 11387
 EBR, *see* Reactors (atomic).
 ECA, *see* United Nations Economic Commission for Africa.
 Eccleston, B. H.:
 comparative emissions from some leaded and prototype lead-free automobile fuels, 8913
 influence of volatile fuel components on vehicle emissions, 5871
 Echimyidae, *see* Rats.
 Echinodermata, *see* Starfishes.
 Echinoids, *see* Sea urchins.
 Echo:
 echo location process in oxygnathous bats in free flight, USSR study, 11496
 oblique echoes from large-scale horizontal gradients observed by Alouette-2 topside sounder, 4512
 precipitation echo attenuation in linearly polarized radar sets, USSR study, 16739
 radar sea-echo, study of doppler spectra, 4622
 Echo ranging equipment, *see* Sonar.
 Echo sounding:
 radar hook echo, relationship of use to size of tornado warning area, 1830
 severe thunderstorm radar echo motion and related weather events hazardous to aviation operations, 11268
 Echolocation (physiology):
 differentiation and characteristics of radiated pulses in dolphins, 4329
 dolphin, USSR study, 1992
 in nature, USSR study, 16811
 Eckel, Edwin B., Alaska earthquake, Mar. 27, 1964, lessons and conclusions, 18043
 Eckert, Philip F., NASA metric system study, 5907
 Eckstrom, Clinton V., high-altitude flight test of 40-foot diameter (12.2 meter) ring-sail parachute at deployment Mach number 2.95, 11652
 Eclipses:
 annular solar eclipse, May 20, 1966, astrometry and astrophysics, 12831
 photometry of eclipses of Galilean satellites used to infer physical properties of Jovian atmosphere, 17009
 Ecology:
 animal, radiotelemetry, radio tracking of animals, USSR study, 1999
 benthic, of Bahla de San Quintin, Baja California, 6162
 Caribbean chiton, *Acanthopleura granula* Gmelin and Chiton tuberculatus Linne, density, mortality, feeding, reproduction and growth, 17275
 closed ecological systems, significance of V.N. Sukachev's study on biogeocenosis for creating, USSR study, 10279
 daphnia in Bull Shoals Reservoir, 1131
 ecological—
 and environmental effects from local fallout from Schooner soil thermoluminescence in relation to radiation exposure under field conditions, 8020
 surveys from space, 10373
 techniques utilizing radionuclides and ionizing radiation, selected bibliography, 3499
 environmental, ecological education for survival of humane society (remarks), 8516
 heterotrophic and autotrophic populations in aquatic ecosystems, interrelation of carbon and phosphorous as means of regulating, 14413
 marine algae of Dominica, 11849
 ostracoda in Texas bays and lagoons, 6155
 plants, highway research and development news, 18312
 simplest hydroecological system, mathematical model, USSR study, 11514
 tarpon, juvenile, 4715
 theology of the earth (lecture), 11854
 see also Radioecology.
 ECOM, *see* Army Electronics Command.
 Economic Advisers Council, price-wage guides, reestablish hearings, 11034
 Economic assistance, *see* Foreign aid.
 Economic Commission for Africa, *see* United Nations Economic Commission for Africa.
 Economic conditions:
 accumulation fund of USSR, structure and effectiveness, USSR study, 5786
 American economy in 1970 (remarks), 9245
 business involvement in helping to solve our great social problems (address), 1362
 current economic situation (remarks), 17391
 debilitating effects of inflation on advanced industrialized countries (remarks), 17392
 early bird's view of 1971 (remarks), 17385
 economic basis of Russian military challenge to United States, hearings, 323

Economic conditions—Continued
 economic characteristics of and changes
 in market egg industry, 9305
 economic data for less developed countries,
 12618
 economic indicators (periodical), 2525
 economic outlook, fair and warmer (re-
 marks), 17386
 economic trends in United States and out-
 look for developing countries (remarks),
 14388
 economy at midyear 1970, with industry
 projections for 1971, 13092
 economy is powerful and stable (address),
 10865
 engineering and economic relationships in
 selection and classification of irrigable
 lands, 17240
 facing challenge of America's great social
 and economic issues (address), 3688
 financial dimensions of living with pros-
 perity (remarks), 7877
 forecasting economic activity in 1970 (re-
 marks), 14391
 foreign economic trends and their implica-
 tions for United States, ET series, 789-
 798, 1967-77, 2657A, 4314, 5700-13,
 7319-42, 8818-24, 11462-481, 14617-
 643, 16718-727, 18078-88
 growth, input and output factors promot-
 ing, 9500
 household income and selected social and
 economic characteristics of households,
 13176
 how business community can broaden its
 horizon (address), 1361
 merchant marine, stepchild of economy
 (remarks), 8621
 military budget and national economic
 priorities—
 hearings, 323
 report, 3765
 national economy—
 publications, price list, 15125
 sector income and employment multi-
 pliers, their interactions, 13008
 Soviet Union, possible peaceful applica-
 tions of nuclear explosions, review,
 6373
 national issues and problems, 10648
 1970's reasonable expectations (remarks),
 655
 patterns of U.S. economic growth, 1969
 projections, 16855
 present economic situation and outlook
 for future (remarks), 9251
 report of the President to Congress—
 departmental edition, 4640
 document edition, 3780
 extend time to file, law, 3758
 hearings, 9612, 10937
 report, 13393
 print additional copies, report, 6667
 socioeconomic aspects of mining in se-
 lected cities, urbanization and surface
 mining, Atlanta, Ga., 12741
 state of the economy, 1970 midyear re-
 view, hearings, 15817, 17613
 state of national economy, views of Chair-
 man of Federal Reserve Board, hearing,
 8380
 telling it like it really is (remarks), 18391
 toward economic security for the poor,
 report, 520
 trade union growth in changing economy,
 2036
 United States economy—
 1980 summary of BLS projections,
 12718
 use of raw materials, 6461
 USSR national economy, interbranch bal-
 ance and proportions, 10275
 USSR republic gospplans, 1969-70, reports
 on economy, finance, and planning at
 Republic Supreme Soviet sessions, 7360

Economic conditions—Continued
 what's right with American economy (ad-
 dress), 15738
 worldwide challenges of inflation, ex-
 change markets, trade, capital move-
 ments, and aid (remarks), 17390
 see also Cities and towns—also names of
 countries, States, etc.—also subjects.
 Economic contest between freedom and au-
 thoritarianism (address), 11323
 Economic development:
 African countries' plans, digest, 4993
 Arkansas programs (address), 8490
 central banking and economic develop-
 ment, record of innovation (remarks),
 17989
 countries of Eastern Europe, compendium
 of papers, 8194
 current materials, development digest (pe-
 riodical), 2505
 developing countries, and U.S., economic
 trends (remarks), 14388
 district level planning (address), 11187
 districts, composition and status, 5327,
 13821
 economic development (periodical), 2524
 Economic Development Administration,
 approved projects, directory, 2527
 Economic Development Administration's
 Public works program, evaluation—
 individual project reports, 13820
 summary of findings and survey method-
 ology, 13819
 economic growth trends, Near East and
 South Asia, 10247
 economic performance and military burden
 in Soviet Union, compendium of papers,
 15814
 economic potential of black capitalism
 (paper), 4154
 EDA district program (addresses), 5325,
 9492, 11186, 11189, 16158
 EDA planning grants, 16165
 focus for area development analysis, urban
 orientation of countries, 9970, 11191
 industrial and recreational parks help re-
 marks), 16167
 international business in changing world
 (addresses), 4987, 6503, 8142
 local leaders for local developments (ad-
 dress), 16159
 Los Angeles, Calif., south central, surveys,
 plans and studies undertaken, analysis,
 4038
 national economic problems, participation
 gap between business and government
 (address), 3695
 new minority enterprises, 1371
 patterns of U.S. economic growth, 1969
 projections, 16855
 programs—
 evaluation, hearings, 3890
 legislation and analysis, 15930
 Public works and economic development
 act of 1965, as amended, authoriza-
 tions, extend—
 hearings, 9765, 13758
 law, 12127
 reports, 9703, 12340, 13395
 qualified areas, criteria and data, 567,
 6888
 role of Economic Development Administra-
 tion in protecting environment while
 aiding economic growth (address),
 16160
 Southern Colorado economic development
 district program, (address), 5326
 toward economic development for native
 American communities, compendium of
 papers, 3766
 U.S. foreign assistance in 1970s, new ap-
 proach, 7712
 upswing in southwest Missouri, 4699
 see also Foreign aid.

INDEX 1970

- Economic Development Administration :
 annual report, 1969, jobs for America, 5328
 building communities with jobs, 16162
 business development loans, who can borrow, how to apply, 16163
 directory of approved projects, 2527
 economic development program, evaluation, hearings, 3890
 EDA technical assistance, what it is, how to apply, 16166
 grants and loans for public works and development facilities, 17750
 industrial park program, analysis of its impact, 13822
 job creating program, district development, 16164
 planning grants for economic development, 16165
 press releases, 3045
 public works program, evaluation—
 individual project reports, 13820
 summary of findings and survey methodology, 13819
 requirements for approved projects, 568
 research review (periodical), 3149
 role in protecting environment while aiding to economic growth (address), 16160
 Economic geography, *see* Geography.
 Economic geology, *see* Geology.
 Economic indicators (periodical), 2525
 Economic Joint Committee :
 committee prints, 322, 1428, 1430, 3763, 3765-66, 5065-66, 8194-95, 10939, 13350-351, 15814, 15816
 hearings, 323, 1429, 3764, 5064, 5067, 8192-93, 8196, 9611-12, 10936-938, 12156-157, 15813, 15815, 15817, 17611-613
 publications and policies governing their distribution—
 87th-91st Congresses, 13350
 91st Congress, 1st session, 3763
 report, 13393
 extend time to file, law, 3758
 print additional copies, report, 6667
 Economic Opportunity Office :
 appropriations, 1970—
 hearings, 1571, 1700
 law, 6536
 reports, 1563, 1683, 3834, 5254
 appropriations, 1971—
 hearings, 12259, 17687
 reports, 13426, 16031
 waiving points of order, report, 13429
 Assistant Director, nomination of—
 Abrahams, Albert E., hearings, 8434
 Lowitz, Donald S., hearing, 8433
 Carlucci, Frank Charles III, hearing, 8433
 community action program, 3166, 13825
 effectiveness and administration, Chicago, Ill., GAO report, 1885
 how to organize a co-op, moving ahead together, 570
 Comprehensive Health Services Program in Chicago, Ill., effectiveness and administration, GAO report, 1886
 Deputy Director, nomination of Wesley L. Hjørnevik hearing, 8433
 digest (periodical), 16375
 Economic Opportunity act of 1964, as amended—
 compilation, 12373
 text, 8495
 economic opportunity efforts, role of counties (address), 1784
 Headstart child development program, expanded, hearings, 6811
 legal services program—
 hearing, 518
 monthly account, 2793
 remarks, 17903
 New Jersey work incentive experiment, preliminary results, 5334
 Economic Opportunity Office—Continued
 news summary of war on poverty, 2965
 OEO manuals, 6983-84
 OEO news summary, 2981
 pamphlets, 5330-33, 6985-88, 14264, 16376-377, 17903
 press releases, 3046
 role (address), 4039
 salaries of certain officers and employees of organizations funded under Economic opportunity act, 1970 report, message from the President, 17616
 summer employment, 5330
 Economic planning, *see* Business.
 Economic poisons, *see* Pesticides.
 Economic policy :
 adjustment process (remarks), 10653
 American economic system and its future (address), 8139
 American economy and its opportunities for future growth (address), 4979
 change (remarks), 10654
 economic and industrial affairs, Eastern Europe, translations, 3271
 Economic opportunity act—
 amended, compilation, 12373
 continuation of programs, etc.—
 law, 3747
 reports, 453, 1501, 1511, 1560
 work experience and training program under title 5, 1964-69 summary report, door to opportunity, 13249
 economic policies and practices, Euro-dollar market and public policy implications, 5066
 economic policy and business outlook (remarks), 2268
 economic policy and restoration of price stability in United States (remarks), 11324
 economic regulation of—
 European Socialist states with south-east Asia, 4348
 insurance in U.S., 15357
 Federal assistance programs, catalog, 13824
 Federal Government, economic analysis and efficiency—
 hearings, 5064, 10936, 15813
 report of subcommittee, 5065
 foreign, for 1970's—
 multinational corporation and international investment, hearings, 17612
 survey of issues, hearings, 5067, 12156
 trade policy toward developed countries, hearings, 10938
 government, investment, and economic growth (remarks), 9247
 New Federalism, fiscal side (remarks), 1178
 1970, year of transition (remarks), 4778
 outlook for 1970 and beyond (address), 266
 postwar economic conversion, hearings, 6813, 9929
 proposed increases in International Monetary Fund quota (statement), 2273
 U.S. economy in 1980, summary of BLS projections, 12718
 USSR republic gosplans, 1969-70, reports on economy, finance, and planning at Republic Supreme Soviet sessions, 7380
 vehicle sizes and weights increased, safety and economic aspects, review, 8612
 see also Inflation (finance)—Economic development.
 Economic Research Division, Commercial Fisheries Bureau, program, 8164
 Economic Research Service :
 agricultural economic reports, 4040-42, 5337-38, 6989-93, 8496-97, 9969-71, 11190-194, 14265-267, 16378-380
 appropriations, 1970—
 law, 1392
 report, 1482
 appropriations, 1971, hearings,

Economic Research Service—Continued
 economics of agriculture, reports and publications, list, 4045
 ERS-foreign series, 6996-7002, 8500-8, 9974-75, 16382-385
 ERS series, 571-572, 1786, 4044-46, 5340, 6994-95, 8499, 9973, 11196, 12492-494, 14271-272, 16381, 17904-905
 foreign agricultural economic reports, 573-574, 5341, 7003, 9978-79, 11197, 12495-496, 14273, 16386-387
 outdoor recreation research, publications by staff, list, 16381
 reports, checklist, 2402
 Economic security, see Economic conditions.
 Economic stabilization, see Stabilization.
 Economics:
 agriculture, reports and publications, Economic Research Service, 4045
 aluminum industry, commercial secondary, impact of technology, 7457
 analysis of accelerated road construction on Bureau of Land Management's Tillamook Resource Area, 16580
 aspects of aging, toward a full share in abundance
 central suburban area, hearings, 9885
 consumer aspects, hearings, 1697
 health aspects, hearings, 3947
 homeownership aspects, hearings, 6781
 international aspects, hearings, 12356
 working paper, 8376
 converting red alder to Douglas-fir, 4207
 crop insurance, economic considerations, 12493
 do you know your economic ABC's?—
 explanation of input and output factors, etc., 9500
 patents, spur to American progress, 270
 profits and American economy, etc., 17561
 economic agenda for black Americans (remarks), 17990
 economic analysis of—
 level bench systems in forage production in North Dakota, 6291
 reconstruction of jetties 1-6 at Port Chittagong, East Pakistan, proposal, 6264
 economic and engineering analysis of electro dialysis process, 769
 economic and statistical terms, dictionary, 1363
 economic aspects—
 and silver potential in Leadville district, Lake County, Colo., 11576
 dairying in Northeast, 11194
 economic concentration, hearings, 513
 economic consequences of automobile accident injuries, 9234-35
 economic evaluation of process to produce ashless, low-sulfur fuel from coal, 9480
 economic factors affecting use of items 807.00 and 806.30 of tariff schedules of U.S., report, 18380
 economic foreign policy series, 9193
 Economic opportunity act of 1964, amend—
 hearings, 17642
 report, 13704
 text, 8495
 economic opportunity amendments of 1969—
 law, 3747
 reports, 453, 1501, 1511, 1560
 economic outlook at mid-1970 (address), 10868
 economic papers, 1966-69, FTC, 12537
 economic philosophy for 1970's (remarks), 9501
 economic problems, grassroots hearings, 8278
 economic report on influence of market structure on profit performance of food manufacturing companies, 8666

Economics—Continued
 economics and environment (remarks), 11920
 economics of aging, toward a full share in abundance, hearings, 18706, 16032
 economics of clean water—
 animal wastes profile, 10097
 detailed analysis, 10096
 inorganic chemicals industry profile, 10098
 summary report, 10099
 economics of superponics (address), 7059
 economy, energy, and environment, background study, 13351
 employment aspects of economics of aging, paper, 482
 environment in which we live and its relationship with our economy (remarks), 6271
 fog dissipation systems in France, economic studies and test results, 15341
 highway engineering economy, syllabus, 10526
 importance of uncertainty in economic outlook for 1970 (remarks), 3689
 Input-output—
 and government policy (address), 279
 potential in 1970's (remarks), 3696, 5003
 Latin America study, 8279
 minerals in world economy, minerals yearbook chapter, 7474
 parametric economic evaluation study of electro dialysis process for water desalination, 1954
 policies for American economic progress in the seventies, report, 11829
 Soviet public health and economics, 8834
 steel mill products, quantitative economic analysis and long-run projections of demand, 7461
 superponic transport, current economic studies, summary, 630
 wage-price issue, need for guideposts, hearings, 419
 war in Southeast Asia, impact on U.S. economy, hearings, 9909, 13732
 Wisconsin elementary teacher education project, pricing and economic analysis, 11228
 see also Land.
 Economies in National Government, property management and procurement of data processing equipment, hearing, 15815
 Economists:
 careers with Civil Aeronautics Board, 15673
 employment outlook, 12689
 Economos, Constantino, investigations of high speed turbulent boundary layer with heat transfer and arbitrary pressure gradient, compressibility transformation, general considerations, 18189
 Economy at midyear 1970, with industry projections for 1971, 13092
 Ecosystems, see Ecology.
 Ecuador:
 agricultural commodities, agreement, 15305
 economic trends and their implications for United States, 7319
 foreign trade regulations, 15726
 mineral industry, minerals yearbook chapter, 4423
 weather station, cooperative program at Guayaquil, reactivate, agreement, 6236
 EDA, see Economic Development Administration.
 ED&T reports, 672, 8687, 14434-435, 16540
 Eddy, Amos, technique to identify certain relative errors in radar X-Y plots, 16471
 Eddy, William H., selective flotation of minerals from North Carolina mica tailing, 877
 Eddy County, N. Dak., community profile, 13939

Eddy County, N. Mex., elemental sulfur, 11392
 Eddy currents, new eddy viscosity equations in coaxial free-jet computer code, improved data agreement by using, 11673
 Edelhertz, Herbert, nature, impact and prosecution of white-collar crime, 16815
 Edelsberg, Edward, commercial fisheries review, 2425
 Edgecombe County, N.C., community profile, 12442
 Edgerton, Curtis D., mineral industry of Maryland, 860
 Edible land snails in United States, 17320
 Edison National Historic Site:
 Black Maria site study, 993
 historical research management plan, 998
 Edit-insertion programs for automatic typesetting of computer printouts, 3992
 Edith Nourse Rogers Memorial Veterans' Hospital, Bedford, Mass., designate, report, 12187
 Editing, drafting and editing naval letters, 11813
 Edlund, Carl B., air pollution report Federal facilities, National Capital interstate air quality control region, 8960
 Edman, Victor G., prices and spreads for potatoes, sweetpotatoes and other selected vegetables sold in fresh markets, 12993
 Edmunds County, S. Dak., community profile, 13940
 Edmundson, Eldon, jr., marine radioecology, selected bibliography of non-Russian literature, 3501
 EDS, *see* Environmental Data Service.
 Edison model 117A lever-action hand pump for chemical toilet servicing, equip tips, 14432
 Education:
 adult—
 basic education program, report, 340
 basic program statistics, students and staff data, 11199
 facts about Adult, Vocational, and Technical Education Bureau, 12499
 head start employees, supplementary training, work-study career development opportunity, 8104
 vocational, and library programs, 582
 workers, projections to 1985, report, 18133
 advancing through research, development, demonstration, etc., 17906
 allowances, uniformed services members for dependents' schooling, report, 3816
 American education (periodical), 2332
 American Indians—
 national tragedy, national challenge, report, 1612
 print additional copies, reports, 1674, 6663
 problems, 1739
 appropriations, 1971, allocation, hearing, 17637
 associations, directory, 14278
 basic, experimental and demonstration programs for disadvantaged youth, 7405
 being educated in 1991, continuing, life-long learning (address), 16400
 better education for handicapped children, 16389
 better schools plus expansion of planning and research (remarks), 589
 bilingual schooling in United States, 8509
 Brazilian education system, summary, 17907
 career information center, working model, 7007
 children in federally affected areas—
 amend law, hearings, 15894, 16073
 final report, 13506
 1969 annual report, 5342
 children of refugees in federally impacted areas, extend law, hearing, 8859

Education—Continued
 compensatory program, 4051-54, 4063, 5351, 5358, 11214-220, 11242, 11244
 preschool, 4060-61, 5355-56, 7020-21, 8523-24, 11237-238
 secondary program in compensatory education, junior high summer institutes, New York City, 11243
 compensatory projects, summaries, 17910
 Conference on Problems of Education of Children in Inner City, report, 9071
 conservation education in curricula of 50 States, 7181
 continuing education in comprehensive health planning, 1969 list of projects, 5017
 continuing education program of Physician Manpower Division, 11410
 cooperative education programs, instructions for submitting, proposal, 16390
 dietitians, educational opportunities, 6366
 directory, 14278
 higher education, 12497
 public school systems, 9984
 State governments, 12498
 does anybody hear? (address), 11208
 Drug abuse education act of 1969—
 hearings, 3858, 5155, 16072
 reports, 1447, 3804
 drug abuse education programs supported by State education agencies, 7608
 education and training, studies and reports, 1969 fiscal year, 6484
 education for 1970's, renewal and reform, message from the President, 7707
 education for survival (address), 5349
 education in racially impacted areas, provide financial assistance—
 hearings, 17638, 17710
 message from the President, 9633
 education in Israel, print additional copies, report, 13449
 education 1970, new chance to reform (address), 11209
 Education professions development act, State grants program for meeting critical shortages of classroom personnel, 4056
 educational assistance benefits for veterans with service since Jan. 31, 1955, summary, 11931
 educational attainment—
 men, 17538
 population characteristics, 4941
 educational foundation and financing exchange programs, agreement with New Zealand, 10612
 educational manual, 11158
 educational opportunities—
 Air Force, 11962
 selected long-term, sponsored by Civil Service Commission, 252
 educational personnel, selected statistics, 7026
 educational reform, message from the President, 5094
 educational research and development in U.S., 14281
 educational statistics, digest, 1969 edition, 5348
 educational system of Yugoslavia, 11211
 educational technology and teaching-learning process, bibliography, 16655
 educational television and radio broadcasting facilities, construction, Federal grants, extend, law, 313
 educational 3d dimension (address), 1790
 elementary teacher education project, 581
 Emergency student loan act of 1969—
 hearings, 413
 law, 311
 enactments, 91st Congress, 1st session, 17711
 environmental, ecological education for survival of a humane society (remarks), 8516

Education—Continued

Environmental education act, report, 15852
 Environmental quality education act—
 hearings, 13503
 report, 16015
 EPDA higher education personnel training programs, 8517
 equal educational opportunities—
 annual report, 16392
 hearings, 13726, 16048, 17696
 equality of educational opportunity, study, expenses, report, 6763
 ERIC products, 1967-68, information analysis publications of ERIC Clearinghouse, 17909
 exchange programs—
 agreement with—
 Germany, Federal Republic of, 15324
 Thailand, 17347
 Union of Soviet Socialist Republics, 15312
 international educational and cultural exchange—
 periodical, 2759
 report, 11899
 Federal role in education reform (address), 12500
 Federal-State partnership for education, Advisory Council on State Departments of Education, report, 14284
 education for innovation (address), 1364
 General education assistance act, hearings, 5156
 goals for improvement (address), 591
 Government employees awards, long-term educational opportunities, 250
 handicapped children—
 better education, annual reports, 575, 14275
 breakthrough in early education, 4049
 new and expanded programs, supplement, 4059
 personnel preparation, guidelines for obtaining grants by State agencies, universities, etc., manuals, 16402-404
 health professions educational assistance program, report, 18056
 Hungarian People's Republic, history, description, etc., 8515
 idea (periodical), 9989, 11233
 Impact aid reform act of 1970, hearings, 15894, 16073
 improving education-industry relations (address), 4985
 Indian children, improvement of administration of program for aid to their public school education, GAO report, 12572
 Indian, Federal boarding school evaluations, compendium, 8425
 international educational development program, 1794
 international negotiation, when academic door to Peking opens, memorandum, 11126
 Job Corps, 5810
 leadership, U.S. Army OCS, 3462
 learning for earning, new opportunities for paycheck education, 586
 levels, relationship to AFOQT scores, 10710
 Mexico, changing, description, history, etc., 580
 migrant—
 advanced level, 6984
 intermediate level, 6983
 mountain of established structure and traditional practice must be moved (address), 12507
 Mutual educational and cultural exchange act, amend, report, 8353
 muses revisited, role of the fine arts (address), 11236
 NASA educational publications, lists, 5908, 10367

Education—Continued

National Center for Educational Media and Materials for the Handicapped, policies and procedures, 16397
 National defense education act—
 awards for modern foreign language and area study, 5345
 NDEA fellow's handbook, graduate fellowship programs, 587, 9891, 16398
 National education policy act, hearings, 5156
 national minorities in Communist China, 14279
 Nationwide educational excellence act, hearings, 5156
 Negro community (address), 12531
 new educational program (PREP) for servicemen with service since Jan. 31, 1955, 17400
 new look of Federal aid to education (address), 16399
 new minority enterprises, 1371
 new trends in nuclear engineering education (remarks), 1277
 nutrition for young children, adventures in learning, guide for teachers and aides, 741
 OE-administered programs, fiscal year 1970, guide, 9987
 opportunities and financial assistance for student nurses and registered nurses in Army, 11970
 opportunities for Indian children attending public schools, buildings to be constructed in school districts adjoining or in proximity of Indian reservations, provide, report, 9870
 people power for children, 14292
 performance contracting experiment to determine effectiveness in poverty areas, background, 13823
 persons and families Mar. 1970, selected characteristics, 10817
 physical therapists, opportunities, Army Medical Department, 8001
 planning educational change, integrating the desegregated school, 16401
 preparing way for new era of advancement (address), 5354
 preschool—
 ameliorative program, Champaign, Ill., compensatory program, 4060
 comprehensive program, provide, hearings, 11031
 language stimulation program, Auburn, Ala., compensatory education program, 5355
 learning to learn program, Jacksonville, Fla., compensatory program, 4061
 Oakland, Calif., compensatory program, 7021
 Project Early Push, Buffalo, N.Y., compensatory education program, 5356
 Professions development act, programs—
 facts, 11210
 training projects fellowships, 5350
 professions, 1968, report on people who serve our schools and colleges, 1789
 programs, administration, oversight, hearing, 17637
 progress in American education, NCERD research reports, 8527
 provoking change in education, report on 1969 Teacher Corps national conference, 14294
 public—
 progress in United States, 1968-69, report, 9992
 French edition, 11235
 Russian edition, 11240
 Spanish edition, 11212
 publications, price list, 17224
 reading, 'riting, and 'rithmetic, Federal style, 1970 (address), 8525
 regional project research, guidelines for preparing a proposal, 17913

INDEX 1970

- Education—Continued
 research in education (periodical), 3147
 index, report resume, 5357
 semi-annual index, 14295
 reviewing the commitment, report on academic exchanges, 7180
 rocky road called innovation, report of President's National Council on Supplementary Centers and Services, 7710
 scientific and educational establishments, USSR study, 5731
 sons and daughters of deceased or disabled veterans, educational assistance information, 11933
 Soviet scientific education, USSR study, 7373
 special fund for education, Philippine Science High School, agreement with Philippines, 1155
 State departments, 1971-72 foreign curriculum consultant program, 16394
 student Federal and State aid programs, 11064
 print as Senate document, report, 13626
 study of our Nation's schools, 4064
 systems analysis and other programs, long term educational opportunities, 251
 tax information on educational expenses, 5680
 Teacher Corps, futures in education, 584
 teachers, opportunities abroad, teaching, short-term seminars, 14291
 technology and educational renewal (address), 592
 to move the mountain (address), 9996
 training activities under Manpower development and training act, annual report, 7258
 trust funds for scholarships, employer contributions, law, 302
 upward bound, ideas and techniques, reference manual, 7028
 upward bound project, general information, 594
 veterans' educational assistance allowances—
 increase rates—
 law, 8178
 report, 6632
 pay in advance, hearing, 13755
 veterans educational benefits, hearings, 17653
 volunteers in education, materials for programs and the volunteer, 5573
 West Virginia, improving administration of Federal programs of aid to educationally deprived children by Education Office, GAO report, 7213
 White House Conference in 1972, authorize, hearings, 17643
 women, trends in educational attainment, 1185
see also Audio-visual education—Colleges and universities—Elementary education—Military education—Moral education—Naval education—Physical education and training—Professional education—Secondary education—Teaching—Technical education—Vocational education—*also* subjects taught.
- Education and Behavioral Science Office, Mines Bureau, news services, 5869
 Education and Labor Committee, House:
 calendar, 2801
 committee prints, 8287-88, 12269, 13505-506, 15895
 hearings, 412-414, 1579, 3858-59, 5155-57, 6705, 8284-86, 11031-32, 13503-504, 15893, 15894, 15896, 17637-643
 investigations and studies—
 expenses, report, 6652
 travel, authorization, report, 1549
 reports, 1447, 1501, 1540, 1547, 6630, 8231, 11014, 15852, 15858, 15897
 Education assistants, *see* Teachers.
 Education by television, *see* Television.
- Education for Handicapped Bureau, media services & captioned films program, research and demonstration projects, 8520
 Education Office:
 administration of higher education programs in foreign language and area studies, research and training opportunities abroad, 16406
 annual report, 14274
 1969, on administration of laws granting Federal aid to schools, 5342
 appropriations, 1970—
 hearings, 1700
 law, 3738
 reports, 472, 1563, 1683, 3834, 5104
 appropriations, 1971—
 amendments, proposal, 9784, 13354
 hearings, 6696, 8270, 9891
 law, 13347
 reports, 6686, 9868, 13424
 veto, 15829
 Federal program of aid to educationally deprived children in West Virginia, opportunities for improving administration, GAO report, 7213
 final report, 1970, on administration of laws granting Federal aid to schools, 13506
 goals and the community college (address), 577
 how it assists college students and colleges, 1792, 11232
 information, 9995
 OE-administered programs, fiscal year 1970, guide, 9987
 OE data collections, preparing requests for clearance, manual, 7019
 OE's new copyright policy, 14290
 opportunity to reduce Federal interest costs by changing loan disbursement procedures under guaranteed student loan program, GAO report, 10149
 poster, 14296
 publications, lists, 588, 16405
 research centers and laboratories, list, 1795
 strengthening, for service to the States (address), 591
 student loan insurance fund, 1968, financial statements, GAO examination, 1889
 Educational assistants, *see* Teachers.
 Educational associations, directory, 14278
 Educational boards and departments:
 current expenditures by local education agencies for free public elementary and secondary education, 17908
 grants to school boards, Equal Educational Opportunities Division policies and procedures manual, 579
 Educational institutions, *see* Colleges and universities—Schools
 Educational Materials Center, books related to English language and literature in elementary and secondary schools, bibliography, 8511
 Educational Resources Information Center:
 ERIC products, 1967-68 information analysis publications of ERIC Clearinghouse, 17909
 ERIC rules for thesaurus preparation, 590
 guide to current educational information, 4055
 how to use ERIC, 16396
 manpower research, inventory, 14289
 pacesetters in innovation, PACE program, etc., 4058
 research in education (periodical), 3147
 index, report resume, 5357
 semi-annual index, 14295
 Educational surveys, preparing evaluation reports, guide for authors, 8521
 Educators:
 Afro-Americans in Far West, handbook, 11200
 conservation tools, 7182

Educators—Continued

- education specialist and education service officer, program specialist and advisor, public health educator, examination announcement, amendment, 1345
- educational personnel, selected statistics, 7028
- employment opportunities overseas, 4036
- manpower availability from educator's viewpoint (remarks), 1276
- see also Teachers.
- Edwards, Bobby D., coast pilot manual, 3676
- Edwards, John P., basic data on economy of Israel, 6510
- Edwards, Norman T., selected readings in marine sciences, 1021
- Edwards, Robert D., directory of State and local resources for mentally retarded, 4266
- Edwards, Ronald D., soil survey, Ventura area, Calif., 9156
- Edwards, W. E., analysis of EBR-II neutron spectra by Monte Carlo and discrete ordinate methods, 9388
- Eel River and Valley:

- basin—
- English Ridge project water quality control study, 8670
- sediment yield and land treatment, 15449

EEOC, see Equal Employment Opportunity Commission.

Efficiency ratings:

- dental assisting in Indian Health Service performance requirements of assistants, guidelines, 7292
- performance standards for more efficient use of civilian production personnel, need to improve, Defense Dept., GAO review, 1895

Efinger, Avis W.:

- applying Marx and Langenheim calculations to prediction of oil recovery by steamflooding in Venango sands, 850
- optimization of thermal carbon deposition experiments in thermal oil recovery by statistical analysis, 18170

Effluents:

- large power plant effluent study [LAPPES] instrumentation, procedures and data tabulations, 14903
- outfall systems for desalting plants, conceptual designs, 14594
- plant, pond linings for desalting, 17246
- secondary, and agricultural runoff, ammonia removal by selected ion exchange, 4168
- spectroradiometric detection Cabriolet Project, 3495

Egeberg, Roger O., testimony, 17687

Egg processing plants, see Eggs.

Eggs:

- commercial egg-producing farms, costs and returns, 1969, New Jersey, 9872
- economic characteristics of and changes in market egg industry, 9305
- egg marketing guides, 5291, 12387
- eggs and egg products, world import duties and other entry charges, 1873
- foreign agriculture circulars, 2657
- futures, commitments of traders, 2428
- intrastate, intrastate, and foreign commerce, uniformity of standards—
- hearings, 1699, 17631
- report, 5198
- plants operating under USDA inspection and grading programs, list, 8444
- poultry and egg situation—
- periodical, 3030
- supplement, 6994
- price relationships, 1962-68, selected markets, trading levels, etc., 3427
- processing of eggs and egg products, ordinance and code regulating, recommendations of Public Health Service, 16528

Eggs—Continued

- product processing plants—
- chemical compounds authorized for use under USDA inspection programs, list, 528, 11154
- continuous USDA, inspection—
- hearings, 1699, 17631
- report, 5198
- production, 6255
- disposition, cash receipts, and gross income, 1968-69, by States, 9208
- monthly report, 2527A
- tests, U.S. and Canada, 1969 report, 4799

products—

- grading and inspection, regulations, 8447

liquid, frozen, solid production, 2528

products inspection act—

- hearings, 1699, 17631
- report, 5198

statistical series, selected, 6994

whole dried eggs from Holland, determination of injury to U.S. industry, 15349

Egloff, Marjorie, Neighbourhood Youth Corps, review of research, 4383

Egypt, see United Arab Republic (Egypt).

Ehrlich, George E., arthritis and rheumatic diseases abstracts, 2351

Elliotsen, Donald E., sulfur and pyrites, 8915

Eigenfunctions, density of eigenvalues in thin circular conical shells, 7510

Eigenvalues, see Eigenfunctions.

Eisenberg, J. F., tenrecs, study in mammalian behavior and evolution, 6156

Eisenberg, B. L., precipitation effects on Omega aircraft receivers, 12896

Eisenhower, Dwight D.:

- Eisenhower, trophy, NG announcement of winners, 14955
- memorial services, 6556
- 6-cent commemorative postage stamp (poster), 12901

see also President of United States.

Eisenhower, Dwight D., National Memorial Arena and Convention Center, see Dwight D. Eisenhower National Memorial Arena and Convention Center.

Eisenhower National Site, development, law, 1398

Eisenmann, John L., Donnan softening as pretreatment to desalination processes, 4303

Eisler, Ronald:

- acute toxicities of organochlorine and organophosphorous insecticides to estuarine fishes, 15277

factors affecting pesticide-induced toxicity in estuarine fish, 15277

Ejectors:

- multiple phase ejector pilot plant, 18070
- rocket-powered ejectors for pumping liquid oxygen and liquid hydrogen, analysis, 18212

roll-out clamshell ejection concept for spinning rocket vehicles, equations for study, 11658

Ela, Robert E., mineral industry of Maine, 18156

Elaeagnus angustifolia, see Russian olive.

Elastic constants, see Elasticity.

Elastic material, see Elasticity.

Elastic scattering, see Scattering.

Elastic strain, see Strains and stresses.

Elastic structures, see Elasticity.

Elasticity:

- dynamic Young's modulus and flexural strength of sea ice, 14304

elastic-plastic media, shock waves diffraction by circular cylindrical cavity, numerical computation, 8535

elastic pressure distortion of volumes of 1,000 atmosphere Burnett compressibility apparatus over temperature range 0°-75°C. 7490

Elasticity—Continued

- elastic symmetry of materials, ultrasonic method for determining, 2057
- elastically anisotropic polycrystalline and amorphous materials, suggested orientation conventions, 4477
- elastically supported corrugation-stiffened panels, natural vibration and flutter, experiment and theory, 16987
- semiclassical elastic scattering cross sections for central field potential function, 4504
- shock wave propagation in inhomogeneous elastic-plastic media, stability of difference approximation, 5365
- stress distribution around holes, 18226
- see also* Deflection.
- Elastometers, production and sales, 18382
- Elastostatics, plane elastostatic analysis of V-notched plates, 18217
- Elder, James L., technology and use of lignite, proceedings, Bureau of Mines-University of North Dakota symposium, 14774
- Elder, Robert B., oceanography of Weddell Sea, 13215
- Elderly people, *see* Aged.
- Eldorado National Forest, camping and picknicking, 18008
- Eldredge, Anan, relief, 12182, 13296, 13614
- Elections:
 - Campaign broadcast reform act of 1969, hearings, 1705
 - campaign expenditures of House candidates, special committee to investigate, appoint, report, 12197.
 - campaign information, factual, 3896, 11062, 15963
 - campaign spending for use of radio and television time, reduce, reports, 13436, 15853
 - Colorado 1st Congressional district, Sept. 8, 1970 primary election, campaign expenditures, complaint, investigation, report, 15880
 - congressional campaigns, candidates to purchase broadcast time from television stations—
 - hearings, 11043
 - reports, 15855, 15977
 - electing union officers, requirements under labor-management reporting and disclosure act, 8857
 - Elections reform act of 1970, report, 13662
 - electoral college reform, amend Constitution, hearings, 12370
 - employee representation, conducted by NLRB, reports, 2917
 - investigations and studies, authorization, report, 5244
 - law guidebook, 8343
 - print as Senate document, report, 9829
 - naturalization of aliens during period preceding general election, amend act—
 - law, 1401
 - report, 1629
 - political campaign contributions affecting House of Representatives, amend House rules, report, 12196
 - political campaigns, financing, report, 13662
 - President and Vice President—
 - amend Constitution relating to electoral college reform, hearings, 12370
 - elect by direct popular vote, amend U.S. Constitution, proposal, report, 13700
 - qualifications for union office, issue of reasonableness in court cases under Labor-Management reporting and disclosure act, 11526
 - see also* Contested elections—Voting.
- Electoral college, *see* Elections.
- Electric apparatus and appliances:
 - aircraft electrical systems, assessment of high-voltage DC electrical power, 17197

Electric apparatus and appliances—Con.

- electrical components and apparatus and allied products, production and maintenance workers of F. W. Sickles Division, General Instrument Corporation, Chicopee and Ludlow, Mass., Tariff Commission report, 15344
- electrical control equipment, Federal item identification guide, 8466
- electrical/electronic groups, sets, and assemblies, Federal item identification guide, 4007
- electrical equipment of electric power stations and transformer sub-stations, USSR study, 5728, 5800
- electrical measurement and distribution equipment, census of manufactures, 1967, industry statistics, 15610
- electrical parts, marking, military standard, 4030
- electrical products and supplies, etc., census of transportation, 1967, commodity transportation survey, shipper group, 3607
- engine electrical system components, Federal item identification guide, 16124
- equipment components, Federal item identification guides for supply cataloging, supplements, 2594
- high temperature electrical components, thermal vacuum testing, 14817
- prevention of electrical breakdown in spacecraft, 5911
- servicemen, employment outlook, 18116
- see also* Electric controllers—*also* names or types of apparatus.
- Electric arc quantitative direct-current arc analysis of random compositions of microgram residues in silver chloride common matrix, 930
- Electric batteries:
 - aluminum chlorine battery, 10349
 - copper oxide-magnesium thermal cells, catholyte studies, 10389
 - Federal item identification guide, 16117
 - fuel cells, interstitial compounds as catalysts, their preparative techniques and electrochemical testing, 7454
 - mercury electrochemical coulometer as battery state-of-charge indicator, 12789
 - porous structures used as oxygen fuel cell electrodes, factors affecting performance, 12767
- Electric cables:
 - construction of pole lines, aerial cables and wires, buried cables and wires, and station installations, specifications and drawings, 17254
 - electrical cable, cord, wire, and assemblies, Federal item identification guide, 16122
 - electrical wire and cable, engineering design handbook, 79
- Electric coils, coils, selection and use, military standard, 13808
- Electric conductivity:
 - conducting media, electromagnetic propagation handbook, 18298
 - electrical conduction in plasmas, third-order contributions, 4509
 - ground wave propagation in ionized atmosphere with arbitrary variation of conductivity with altitude, 11274
 - ionic conductivity of lanthanum fluoride, 913
 - molten salts, electrical conductance, density and viscosity, errata, 4549
 - see also* Electrochemistry—Photoconductivity.
- Electric conductors, *see* Semiconductors—Superconductivity.
- Electric connectors, *see* Connectors (electric).
- Electric contacts:
 - brush, holder, electrical contact brush, Federal item identification guide, 13787

Electric contacts—Continued
 contact/clip, electrical, Federal item identification guide, 6857, 8465
 direct contact condensation multistage flash distillation process, phase 1, development, 1949
 low-speed gallium-lubricated sliding electrical contacts of bryllium in vacuum, friction and contact resistance, 7542
 Electric controllers:
 electrical control equipment, Federal item identification guide, 8466
 Kennedy round, special report, 4316
 Electric cord, electrical cable, cord, wire, and assemblies, Federal item identification guide, 16122
 Electric current converters:
 high-frequency wattage-to-voltage converter, design and performance, 5965
 simplified DC-to-DC converter with constant average output voltage, 1031
 Electric current regulators, multiple load-phase-controlled parasitic speed controller, experimental evaluation of volt-ampere loading and output distortion for turboalternator, 4518
 Electric currents:
 alternating current electroluminescence in typical zinc sulfide phosphors, observation and mechanism of direct current quenching, 16984
 azimuthal and microwave radiation of the pinch plasma, investigation of growth, 8003
 basic fundamentals of electronics, alternating currents, change, 10494
 counter-current distribution, computer programs, 1190
 high-current relativistic beams in plasma physics, possibilities for using, 113
 high-voltage DC electrical power in aircraft electrical systems, assessment, 17197
 new techniques in direct-current resistivity exploration (series), 14523, 18039
 volt-ampere loading and output distortion for turboalternator with multiple load phase-controlled parasitic speed controller, experimental evaluation, 4518
 Electric discharges, and sounds in some species of nonelectric fish of Black Sea, USSR study, 12656
 Electric distribution boards, electric distribution equipment, census of manufactures, 1967, industry statistics, 15610
 Electric energy, *see* Electricity.
 Electric engineering:
 East European abstracts, 2520
 USSR abstracts, 3320
 Electric equipment, *see* Electric apparatus and appliances.
 Electric fields:
 atmospheric potential-gradient measurements at sea, 11820
 weak induced pressure and temperature gradients in plasma as result, 7550
 Electric fluids, influence in liquid flow in channels, capillaries, and porous media, 4481
 Electric furnaces, electric-furnace smelting processes, methods for studying, improving, and optimizing, 11578
 Electric generators:
 alternator and voltage regulator-exciter for Brayton cycle space power system—
 design and development, 11601
 unbalanced electromagnetic forces, 10343
 Brayton space power system, steady-state analysis, 5964
 electrical generating equipment and switch gear, report of Industry Committee, National Export Expansion Council, 273

Electric generators—Continued
 14.3 kilovolt-ampere 1200 Hertz modified Lundell alternator, transient characteristics of voltage regulator and parasitic speed controller, 18197
 gasoline driven generator set, rigged with portable floodlight set, airdrop procedures, Army technical manual, 13058
 potassium turboalternator (KTA), preliminary design study, alternator parametric design, 12754
 stationary outside-coil Lundell alternators, description and evaluation of digital computer program for analysis, 12796
see also Electric power plants—Solar generators.
 Electric goods, *see* Electric apparatus and appliances.
 Electric lamps:
 current industrial reports, 2475-76, 9452
 fluorescent, ballasts, current industrial reports, 2476
 production and shipments, 1958-67, patterns of industrial growth, 6408
 Electric lighting, *see* Electricity.
 Electric lines:
 Celilo-Mead Transmission Line project, assurance needed that cost will be recovered, GAO report, 14493
 construction of pole lines, aerial cables and wires, buried cables and wires, and station installations, specifications and drawings, 17254
 electric system construction contract, labor and material, 12911
 electric transmission systems environmental criteria, 16691
 high voltage transmission line of Potomac Edison Company, esthetic impact on Chesapeake & Ohio Canal National Monument—
 hearing, 8297
 report, 9694
 Mead-Liberty transmission line, Pacific Northwest-Pacific Southwest Intertie, uplift resistance of straight auger and belled auger footings in sandy silt, 9088
 specifications and drawings, line construction, 17255
 surface wave transmission line for vehicular communications, technical report, 16466
 Electric measurements:
 atmospheric neutral-electrical interactions, 15470
 electrical properties of seeded coal combustion products, 12739
see also Measurements.
 Electric measuring instruments:
 electrical measurement equipment, census of manufactures, 1967, industry statistics, 15610
 Kennedy round, special report, 4316
 Electric meters, high-frequency wattage-to-voltage converter, design and performance, 5965
 Electric motors, high-temperature electrical components, thermal-vacuum testing, 14817
 Electric networks, modern network theory application to analysis of complex systems, 916
 Electric plants, *see* Electric power plants.
 Electric potential:
 atmospheric neutral-electrical interactions, 15470
 atmospheric potential-gradient measurements at sea, 11820
 one dimensional time-dependent interaction of satellite with ionospheric plasma, 8954
 Electric power, *see* Electricity.
 Electric power distribution, *see* Electricity—
 Electric substations.

- Electric power plants :
 - and transformer sub-stations, electrical equipment, USSR study, 5728
 - capacity of electric generating plants and production of electric energy, world power data, 10059
 - electrical equipment, USSR study, 5800
 - environmental effects of producing electric power, hearings, 3761, 15812
 - hydroelectric, 1968, construction cost and production expenses, 14375
 - hydroelectric projects on Middle Snake River, licensing, prohibit—
 - hearings, 9917
 - report, 9856
 - improvements in substation operations, USSR study, 16763
 - mercury-transformer and semiconductor substations, USSR study, 11507, 16741
 - site selection and construction of bulk power facilities promote intergovernmental coordination for environmental and coordination purposes, hearings, 13737
 - steam-electric plants, construction cost and production expenses, 7101
 - see also* Nuclear reactor power plants.
- Electric propulsion, *see* Propulsion.
- Electric railroads, transport statistics, 5720, 18090
- Electric relays :
 - 15 GHz relay, rain attenuation study for design, 15342
 - imperfect reduced-state relay control to model-reference systems, application, 14834
 - miscellaneous relay and switch components, Federal item identification guide, 13789
 - relays, current industrial reports, 8089
 - selection and application, military standard, notice, 554
- Electric resistance :
 - contact resistance and friction for gallium lubricated low-speed copper sliprings in vacuum, 16989
 - electrical resistivity measurements on 8 additional pure metals in temperature range 0 to 273 K, survey, 18236
 - electrical resistivity sounding with L-shaped array, 18039
 - new techniques in direct current resistivity exploration (series), 14523, 18039
 - uplift resistance of straight auger and belled auger footings in sandy silt, uplift resistance, Mead-Liberty transmission line, Pacific Northwest-Pacific Southwest Interlie, 9088
- Electric resistors :
 - Federal item identification guide, 16132
 - thermal, Federal item identification guide, change, 541
 - selection and use of, military standard, 4020
- Electric resolvers, Federal item identification guides, 5312, 8478
- Electric sign servicemen, *see* Electricians.
- Electric slip rings :
 - gallium lubricated low-speed copper sliprings, friction and contact resistance in vacuum, 16989
 - low-speed gallium-lubricated sliding electrical contacts of beryllium in vacuum, friction and contact resistance, 7542
- Electric substations :
 - 110-220 KV step-down substations, standardization of design, USSR study, 8842
 - rural distribution systems, guide for design, 15153
- Electric switches, *see* Electric switchgear.
- Electric switchgear :
 - electrical generating equipment, report of Industry Committee, National Export Expansion Council, 273
 - maintenance, handbook, 1041
- Electric switchgear—Continued
 - miscellaneous relay and switch components, Federal item identification guide, 13789
 - switch, sensing, Federal item identification guide, 13793
 - switches and associated hardware selection and use, military standard, 548
 - switches, RF transmission line and waveguide, Federal item identification guide, 9955
 - switchgear, switchboard apparatus, relays, and industrial controls, current industrial reports, 8089
- Electric testing, microelectronics, test methods and procedures, military standard, 8485
- Electric transformers :
 - electric power stations and transformer sub-stations, electrical equipment, USSR study, 5728, 5800
 - high temperature electrical components, thermal-vacuum testing, 14817
 - mercury-transformer and semiconductor substations, USSR study, 11507, 16741
 - selection and use, military standard, 13808
 - Soviet power transformers, USSR study, 2009
 - transformer-type high-current accelerator, USSR study, 7368
- Electric utilities :
 - depreciation practices, 1966, classes A and B privately owned companies, 10060
 - light water reactor powerplants for utilities, cost trends, 9406
 - private and Federal projects, 1965-68, sales of firm electric power for resale, 11312
 - statistics, 1968—
 - classes A and B privately owned companies, 1855
 - publicly owned, 5431
- Electric waves, *see* Electromagnetic radiation.
- Electric wire and wiring :
 - aircraft electric wiring installation practices, organizational DS, GS, and depot maintenance manual, 17469
 - devices and supplies, current industrial reports, 15645
 - electrical cable, cord, wire, and assemblies, Federal item identification guide, 16122
 - electrical wire and cable, engineering design handbook, 79
 - equipment, census of manufactures, 1967, industry statistics, 12008
 - Federal item identification guides for supply cataloging, supplements, 2594
 - printed wiring for electronic equipment, military standard, 11180
 - rural, open wire construction, specifications and drawings, 17256
 - tabulated wiring data lists and pictorial wiring diagrams, military standard, 1776
 - visual and mechanical defects for equipment, electronic, wired, and other devices, classification, 6876
- Electrical, *see* headings beginning Electric.
- Electrical equipment, *see* Electrical apparatus and appliances.
- Electricians :
 - aviation electrician's mate 3 & 2, rate training manual, 6089
 - construction—
 - employment outlook, 14699
 - 1 & C, Navy training manual, 6093
 - electric sign servicemen, employment outlook, 18118
 - electrical trades, apprenticeship schedules, 11966
 - interior communications, 3 & 2, rate training manual, 9052
 - maintenance, employment outlook, 14706

Electricity :

all electric homes, annual bills, 646
 atmospheric neutral-electrical interactions
 15470
 basic, Navy training course, 6090
 Bonneville power generation and sales statistics, 8043
 capacity of electric generating plants and production of electric energy, world power data, 10059
 civilian power and communications, problems caused by electromagnetic pulse, 4887
 economy, energy, and environment, background study, 13351
 electric lighting equipment, census of manufactures, 1967, industry statistics, 12008
 electric lighting-fixtures, current industrial reports, 15632
 electric power and environment, report, 17258
 electric power industry—
 employment outlook, 16839
 national power survey, 1970, guideline for growth, advisory reports, 14379
 electric power statistics, 2530
 electrical technology, selected advances, 1090
 electrical work, special trade contractors, census of construction industry, 1967, statistics, 13126
 environmental effects of energy generation on Lake Michigan, hearing, 12361
 Federal power act, regulations, 3139, 7104
 forward electrical characteristics, analysis, effects of nuclear radiation on high reliability silicon power diodes, 11637
 governors for hydroelectric units, 7721
 high-temperature combustion of coal seeded with potassium carbonate in MHD generation of electric power, 7405
 high-voltage DC electrical power in aircraft electrical systems, assessment, 17197
 hydroelectric power evaluation, supplement, 5430
 letter symbols for quantities, military standard, 1774
 magnetohydrodynamics (MHD), pollution-free production of electrical energy from low-grade coal, hearings, 5267, 9916
 Middle Snake River, hydroelectric projects, licensing, prohibit—
 hearings, 9917
 report, 9858
 Montana electric power contract oversight, hearing, 11130
 multikilowatt power conversion, use of series capacitor inverter-converter, 11696
 national electric rate books, 647-650, 1856-57, 2927, 4144-48, 5432-33, 11313-314, 12527-529, 14376-378
 power and distribution equipment, Federal item, identification guides for supply cataloging, supplements, 2494
 power engineering, technical progress, USSR study, 16745
 power, inappropriate source used as basis for allocating costs of water resources projects, Corps of Engineers (civil function), 11376
 precision measurement and calibration, 14922
 principal electric facilities, maps—
 Alaska, Hawaii, Puerto Rico, Virgin Islands, 8629
 Great Lakes region, 8623
 north central region, 8624
 northeastern region, 8622
 northwestern region, 8625
 south central region, 8627
 southeastern region, 8628
 southwestern region, 8626

Electricity—Continued

retail prices and indexes, 3151
 rural—
 distribution systems, guide for design of substations, 15153
 materials acceptable on systems of REA borrowers, list, 1083, 2839, 6150, 15152
 REA distribution line extension construction contract, 15151
 specifications and drawings for underground electric distribution, 15154
 statistical bulletin, 3123
 Rural electrification act, amend, hearing, 484
 sales of firm electric power for resale, 1965-68, by private electric utilities, by Federal projects, 11312
 sales statistics, TVA retail distribution, 2531
 service to induction motors, engineering and operations manual, 4656
 shipboard systems, Navy, 6096
 steady state electrical performance of 400-hertz Brayton cycle turboalternator and controls, 5953
 theory of electricity, brochure from exhibit in Hall of Electricity, 992
 transformer-type high-current accelerator, USSR study, 7368
 TVA municipal and cooperative distributors, 1969 operations, 4772
 typical bills, residential, commercial, and industrial services, 7100
 Electroanesthesia, *see* Electroshock therapy.
 Electrocardiography, and cardiac monitoring aboard nuclear powered submarine on patrol, 16884
 Electrochemical analysis :
 electrochemical testing and preparative techniques for interstitial compounds as fuel cell catalysts, 7454
 electrolytic conductance and conductances of halogen acids in water, 10429
 Electrochemistry :
 Conduction Development Conference, proceedings, 17072
 electrochemical desalination process for brackish water evaluation, 4301
 electrochemical recovery of high-purity nickel and cobalt from crude nickel and ferronickel, 11587
 ion-selective electrochemical sensors, 4299
 USSR studies, 18099
 see also Electrochemical analysis.
 Electrodeposition, and vacuum distillation of alloys, use for preparation of rare earth and yttrium alloys, 868
 see also Electroplating.
 Electrodes :
 amalgam, use to measure activity coefficients of metal salts in multicomponent salt solutions, 1953
 electrical resistivity sounding with L-shaped array, 18039
 electrode potential used in proposed combined sewer control, 16521
 ion-adsorption electrodes, research for use in demineralization of saline water, 8804
 ion-selective electrodes, proceedings of symposium, 2137
 magnesium in molten mixtures of lithium chloride, etc., anolyte studies, 5952
 porous structures used as oxygen fuel cell electrodes, factors affecting performance, 12767
 used in producing aluminum, suspension of duty, continue, report, 9692
 Electrolysis, *see* Dialysis.
 Electrodynamics, nonlinear, and optics II, wave equations approximating precise solutions for USSR study, 8007
 Electrohydraulic effect :
 potential application in rock fragmentation, 875

Electrohydraulic effect—Continued
vibration isolation of commercial jet transport pilots during turbulent air penetration, 14811

Electroluminescence, *see* Luminescence.

Electrolysis:
electrolytic installations for production of hydrogen and oxygen, operation, USSR study, 10277
electrolytic oxidation of cinnabar ores for mercury recovery, 12750
electrolytic preparation of tungsten metal and tungsten carbide, from wolframite, 5878
electrowinning—
aluminum from aluminum (chloride, operation of single-compartment cell, 5884
beryllium anode materials and operating conditions, 5880
misch metal from treated bastnasite concentrate, 11585
electrowon tungsten sheet, evaluation, 10325
water-vapor electrolysis unit, study, 10348

Electrolytes:
electrolyte solutions, kinetics of ice nucleation from water and electrolyte solutions, 5617
electrolytic conductance and conductances of halogen acids in water, 10429
ionic solvation study, 14601
urinary electrolyte excretion during saturation-exursion diving to pressures equivalent to 800 and 1000 feet of seawater, 12735

Electrolytic cells, copper oxide-magnesium thermal cells, catholyte studies, 10389

Electrolytic separation processes, electrolytic installations for production of hydrogen and oxygen, operation, USSR study, 10277

Electromagnetic fields:
electromagnetic trap investigation, 1242
equilibrium and stability of current plasma in toroidal systems, 4875
hazardous, quantifying, practical considerations, 8987
natural electromagnetic fields method used in measurement equipment for aerial electrical prospecting, USSR study, 5735
new measurement techniques in studying effect of superhigh frequency fields on biological subjects, USSR study, 1983

Electromagnetic measurements, frequency management principles, spectrum engineering measurements, 4109

Electromagnetic pulses, problems caused in civilian power and communications, 4887

Electromagnetic pumps, *see* Pumps.

Electromagnetic radiation:
amplifying through use of averaged high-frequency field forces, study of possibility, 4872
azimuthal surface wave, launching on cylindrical impedance boundary, 7951
diffraction of electromagnetic waves, on 2 bodies, 12829
electromagnetic compatibility and frequency management, Air Force communications-electronics activities, manual, 6326
electromagnetic propagation in conducting media, handbook, 18298
electromagnetic radiation from dust structures, 10347
electromagnetic signals, pulse propagation through solar corona, study, 14815
nonlinear particle-wave interaction in plasma, introduction to statistical theory, 4877
propagation of electromagnetic waves over multi-section curved earth, exact theory, 7950
quantifying hazardous microwave fields, analysis, 8989

Electromagnetic radiation—Continued
unbalanced electromagnetic forces in alternator and voltage regulator-exciter for Brayton cycle space power system, 10343
wave equations approximating precise solutions for nonlinear electrodynamics and optics II, USSR study, 8007
waves obliquely incident upon plasma slab, theoretical investigation, 10414

Electromagnetic spectrum, *see* Spectrum.

Electromagnetic waves, *see* Electromagnetic radiation.

Electromagnetism:
electromagnetic phenomena in sea, USSR study, 7879
galvanomagnetic effects in metals, theory, 2119
low frequency electromagnetic properties of turbulent plasma, theory, 112

Electromechanical transducers, *see* Transducers.

Electrometallurgy:
electrowon tungsten sheet, evaluation, 10325
high-purity zinc and tin by amalgam electrorefining, 872
see also Electrolysis.

Electromyographs, electromyographic analysis of biceps muscle following standard air dives using frequency analysis, feasibility study, 18141

Electron beams:
beam handling techniques for electron linear accelerators, 7580
electron-beam induced fluorescence in hypersonic flow, spectroscopic analysis, 18207
electron-beam-welded hollow balls, performance of 75-millimeter-bore bearings to 1.8 million DN, 11653
errata, 16962
energy distribution of spiralling electron beam, 2086
interactions with plasma, high frequency instabilities during, studies of threshold, AEC translation, 15508

Electron diffraction:
interaction of methane, etc., with iron (001) surface and their influence on adhesion studies with LEED and auger, 11666
LEED study, of adhesion of oxygen on clean iron (001) and (011) surfaces, 8943

Electron microscopy, study of inclusions in lead telluride thermoelectric elements, 2081

Electron probe microanalysis, quantitative, present state of classical theory, 12847

Electron scattering, *see* Scattering.

Electron spin, *see* Spin (atomic).

Electron tubes:
and associated hardware, Federal item identification guide, 16123
selection, military standard, notice, 12397
test methods, military standards, 551, 9962, 17744
USSR electron devices, tabulation of published data, 18237

Electronic circuits, *see* Circuits.

Electronic computer operators, *see* Computer operators.

Electronic computers:
advances in electronic and analog computers, USSR study, 16813
analog, decompression patterns developed, 835
automatic analog scaling program, using digital optimization techniques, 10381
calculating parameters of memory subsystem with MOS transistors of single type, USSR study, 11493
computer aids highway construction quality assurance, 6187

Electronic computers—Continued

computer process control, manpower implications for process industries, outlook, 14730

computer revolution (remarks), 15712

computer technology in physiology and medicine, USSR study, 5726

digital—

COBOL, common business oriented language, fundamentals, programmers, change, 6111

diagnostic techniques, survey and recommendations, 6102

permanent memories, USSR study, 5790

receiver decision techniques for certain fixed length binary block codes transmitted through Gaussian channel, 4632

East European abstracts, 2518

electronic computers, review of costs, 17654

fast, flexible, highly parallel associative processor, 15063

flight computer and language processor study, 14809

maintaining interpreter proficiency in computerized facility, programming and feedback method, 9358

management and procurement of data processing equipment in Federal Government, hearing, 15815

NBS secondary standard magnetic tape (computer amplitude reference), calibration using reference tape amplitude measurement process A, 957

onboard, and strapdown inertial reference systems for attitude control of spacecraft, 16974

operating procedures of computer control system for 60-ft. X-band antenna, NRL, 15092

small computer used in photographic calibration of emission spectrography, 18174

system hardware for data acquisition and control of 60-ft. X-band microwave antenna, NRL, 15090

transistorized dynamic elements in digital computers, USSR book, 7380

USSR abstracts, 3319

vector analog computer, model 5A, area navigation equipment, evaluation, 10637

see also Cybernetics.

Electronic counters:

automatic cell counter, 11665

electronic strain-level counter for aircraft structural members, 16971

electronic traffic counters, guide to installation, operation, and maintenance, 10113

Electronic data processing systems:

automated data processing systems, techniques of water-resources investigations, 8751

automated multiphasic health testing, bibliography, 14366

automated system of medical data processing, USSR study, 18098

automatic cell counter, 11665

automatic data processing systems and procedures, PCAM (punched card accounting machine) utilization, 7596

automatic data processing training curriculum & methodology in Federal Government, conference report, 4082

career opportunities for college graduates, in electronic data processing, at Government Printing Office, 14557

census tabulation available on computer tape series, 8094

computer systems in experimental nuclear physics, Skytop conference proceedings, 1247

data display and analysis, 14830

data processing—

career opportunities in Veterans Administration as programmers, systems analysts computer operators, 7894

Electronic data processing systems—Con.

data processing—continued

technician 3 & 2, Navy rate training manual, 7688

equipment, Federal item identification guides for supply cataloging, supplements, 2597

equipment management needs to be improved, USSR study, 11503

equipment, NASA management procedures, 7505

ESSA Research Flight Facility, data, processing procedures, 5393

fast, flexible, highly parallel associative processor, 15063

Federal information processing standards publications, FIPS, pubs, 954, 14917-919

flight computer and language processor study, 14809

hybrid memory systems, USSR study, 16771

information acquisition, sensing and input, selective literature review, research and development in computer and information sciences, 8983

Internal Revenue Service center at Fresno, Calif., Memphis, Tenn., Suffolk County, Long Island, N.Y., and Detroit, Mich., consider amended lease prospectuses to increase authorized annual rental, hearing, 9940

inventory of equipment in Federal Government, 7161, 14399

maintenance engineering analysis data system, integrated logistics support (ILS), Army technical manual, 10746

management and procurement of data processing equipment in Federal Government, hearing, 15815

management of data processing in Federal Government, training program, ADP Management Training Center, 15194

NAS en route stage A, radar video data processor modifications, 17965

Naval Oceanographic live atlas, data base, 9045

NODC computer archive format, ocean station format, 1015

overall system design considerations, selective literature review, research and development in computer and information sciences, 11730

processing, storage, and output requirements in information-processing systems, selective literature review, research and development in computer and information sciences, 8984

standard data elements, DoD data elements standardization program, manual, 9958

summary tapes from 1970 census of population and housing—

first count, 5094

fourth count, 8095

general information about use, by Census Bureau, 10824

tabulated wiring data lists and pictorial wiring diagrams, military standard, 1776

timber sales, processing by computer, 9226

working group on automatic data processing for House of Representatives, progress report, 8302

Electronic equipment:

administration and supply, Navy training text, 18289

component parts, environmental requirements, military standard, 16148

components, Federal item identification guides for supply cataloging, supplement, 2594

electrical/electronic groups, sets, and assemblies, Federal item identification guide, 4007

electronic parts, marking, military standard, 4030

INDEX 1970

Electronic equipment—Continued

- FAA electronic equipment type designations index, handbook, 5407
- guided missiles preferred items list, military standard, 4033
- limited shelf life, electronic equipment and parts, preparation for delivery of, military standard, 553
- parts, selected standards for—
 - electro mechanical parts, military standard, 16147
- R. F. and acoustical parts, military standard, 13805
- printed wiring, military standard, 11180
- reliability, maintainability and logistics support, method for achieving, 4763
- replaceable electronic assembly description and English language test program requirements, military standard, 9963
- selected electronic and associated products—
 - current industrial reports, 15637
 - shipments, patterns of industrial growth, 8048
 - standard general requirements, military standard, 13806
- test provisions for electronic systems and associated equipment, design criteria for, military standard, 9961
- theory and use of test equipment, technical manual, change, 15492
- visual and mechanical defects for equipment, electronic, wired, and other devices, classification, 6876
- USSR electron devices, tabulation of published data, 18237
- see also* names of equipments.
- Electronic modules, potting, report, 4505
- Electronic Products Division, DEP series, 4086
- Electronic switches:
 - microwave switching schemes and variable power-division networks using phase shifters, review, 15083
 - switching inverter with sine-wave output, 15088
- Electronic technicians, aviation, 3 & 2, rate training manual, 4613
- Electronics:
 - and communications, communications-radio set AN/PRR-9, and transmitting set AN/PRT-4, operator training course, 13050
 - communications activities—
 - frequency management and electromagnetism compatibility, manual, 6326
 - terminology, Air Force manual, 10713
 - East European abstracts, 2520
 - electronic trades, apprenticeship schedules, 11966
 - fundamentals, change, 10494
 - glossary of terms for electronic and weapons control interface functions in naval ship combat system, military standard, 6879
 - high-efficiency low-noise antennas, optimization of basic electronic characteristics, USSR study, 18110
 - installation and maintenance book, change, 4633
 - letter symbols for quantities, military standard, 1774
 - manufacturing, employment outlook, 14718
 - materials and defect simulator for calibrating ultrasonic equipment used in nondestructive testing or inspection, 9059
 - microelectronics, test methods and procedures, military standard, notice, 8485
 - PACAF basic bibliography, 13027
 - rotating shaft-mounted microelectronic data system, 5969
 - Scientific and Technical Society of Radio Engineering, Electronics, and Communications, session report, USSR study, 7357

Electronics—Continued

- semiconductor electronics, yesterday, today and tomorrow, USSR study, 11518
- USSR abstracts, 3320
- see also* Radar.
- Electrons:
 - electron beam injected into space, stability, 12803
 - electron-paramagnon interaction effects in nearly ferromagnetic metals, 12897
 - defense and regulation (lecture), 7908
 - electron-acoustic instability, development during turbulent heating of plasma ions, 4870
 - electron paramagnetic resonance study of order in several nematic liquid crystals, 5954
 - kinetic electron temperature measurement techniques for helium, 12806
 - magnetospherically trapped particles, sources, losses, and transport, 16464
 - 1.0 to 3.0-MeV electrons, incident on some metals and alloys, transmission and backscatter coefficients, 8942
- Electrophoresis, electrophoretic-specific gravity separation of pyrite from coal, laboratory studies, 16924
- Electroplaters, employment outlook, 16834
- Electroplating:
 - radiographic test for electrodeposit porosity, 12748
 - wastes by waste-plus-waste method as means of recovering metals, 14789
- Electrorefining, *see* Smelting.
- Electroshock therapy, clinical and physiological investigations dealing with electro-sleep and electroanesthesia, USSR study, 10276
- Electrosleep, *see* Electroshock therapy.
- Electrosorption, electrosorb process for desalting water, 5627
- Electrostatics:
 - charging tendency of jet fuels, effect of static dissipator additive on, 6104
 - electrostatic acceleration system for hypervelocity microparticles with selected kinematic properties, 8946
 - Navy special fuel oil effects on charging tendency of jet fuel, 4626
 - static electricity in Apollo spacecraft, 2114
- Electrotypers, employment outlook, 14712
- Electrowinning, *see* Electrolysis.
- Elementary education:
 - books related to English language and literature in elementary schools, bibliography, 8511
 - compensatory—
 - afternoon remedial and enrichment program, Buffalo, N.Y. 4051
 - Plus Program, Buffalo, N.Y., 4054
 - program, 4051-54, 5351, 11213, 11215-220
 - current expenditures by local education agencies for free public elementary and secondary education, 17908
 - demonstration elementary school for the deaf to be maintained and operated by Gallaudet College—
 - hearings, 13751, 17640
 - report, 13678
 - Elementary and secondary education act—
 - amend—
 - hearings, 11032
 - law, 10920
 - amendments of 1969—
 - law, 6549
 - reports, 3932, 6646
 - text, 16391
 - improving education, 12 stories, 8518
 - PACE project to advance creativity in education, supplementary centers and services, etc., 4058
 - programs, authorization, extend, hearing, 17637

- Elementary education—Continued
 Elementary and secondary education act amend—Continued
 title 1—
 education of the disadvantaged, evaluation, report, 14280
 neglected and delinquent children, program, questions and answers, 7022
 free public elementary and secondary education, 1967-68, current expenditures by educational agencies, 578
 needs for 1970's—
 hearings, 5156
 policy papers, compendium, 13505
 PACE report, 3002
 preprimary enrollment, 14293
 principals, competence for all as goal (address), 5346
 public schools—
 fall 1969, statistics of public schools, advance report, 7011
 selected districts, enrollment and staff by racial/ethnic group, directory, 14562
 school principals, role in achieving right to read goal (address), 8528
 social studies in schools, bibliography, 576
 systems analysis and learning systems in development of elementary teacher education models, 5360
 teacher education program, feasibility study—
 behavioral science teacher education program, final report, 11221
 Florida State University model, 11224
 Georgia model—
 basic report, 11223
 job descriptions, 11223
 technical report, 14282
 Ohio Consortium, 11222
 Oregon, plan for managing development, implementation and operation of model, project report, 11226
 Syracuse University specifications for comprehensive undergraduate and inservice teacher program, 11227
 University of Massachusetts, 11225
 Wisconsin—
 pricing and economic analysis, 11228
 program and support systems, 11228
 teachers—
 education, short summary of 10 model programs, 5359
 specifications for model education programs, analytic summaries, 5343
 Wisconsin University education project, 5361
see also Schools.
 Elementary education schools, program for students to study cultural heritage of major ethnic groups in Nation, establish, hearings, 11032
 Elements:
 finite element analyses of Port Allen and Old River Locks, 16445
 sensitive, used on spacecraft for scientific missions, USSR study, 7367
 Elements (chemical), *see* Chemical elements—Transition elements.
 Elements of comprehensive plan for National Capital, 6012
 Elevator constructors, *see* Mechanics (persons).
 Eleven Point River and Valley:
 Mark Twain National Forest—
 classification, boundaries, and development plan as unit of national wild and scenic rivers systems, 337
 general information on scenic river, 14430
 Elford, C. Robert, climate of California, 14340
 Elk, national wildlife refuge for tule elk, establish, hearings, 9902, 12280
 Elk County, Pa., community profile, 16243
 Elkins, Douglas A., possible applications of plasma technology in minerals processing, 852
 Ellinger, Werner B., classification, class K, law, draft outline, 18136
 Ellingson, Harold V., effect of space environment on man's response to infection, review of literature and annotated bibliography, 2073
 Elliott County, Ky., fresh water, occurrence in Lee formation, 8759
 Ellipticity, elliptic cones, methods for predicting pressures on, at supersonic speeds, 14884
 Ellis, Ian H., otter trawling introduced to Columbia River smelt fisheries, 9531
 Ellwood, Eric, investigation of certain physical and mechanical properties of wood-plastic combinations, 125
 Elyson, W.J., soil survey, Wool and Wirt Counties, W. Va., 9157
 Elm Fork Trinity River, Trinity River basin, Tex., hydrologic data, compilation, 4238
 Elmore County, Ala., community profile, 13941
 El Paso County, Tex.:
 place in mountain standard time zone—
 hearing, 1558
 law, 8187
 reports, 1523, 6767
 land use restrictions, release—
 law, 5061
 reports, 3825, 3938
 El progreso de la instruccion publica en los Estados Unidos de America, 11212
 Elrod, Joseph H., estimates of vital statistics of northern pike, walleye and sauger populations in Lake Sharpe, S. Dak., 7792
 Elrod, Robert H., sector income and employment multipliers, their interactions on national economy, 13008
 El-Sabban, M. Zaki, chemical thermodynamic properties of hydrocarbons and related substances, properties of 25 organic sulfur compounds in ideal gas state from 0° to 1,000°K, 10320
 El Salvador:
 economic trends and their implications for United States, 5702
 mineral industry, minerals yearbook chapter, 16901
 Elutriators, horizontal plate elutriator and 10 mm nylon cyclone elutriator, evaluation of penetration characteristics, 5886
 Ely, Norcutt, summary of mining and petroleum laws of world, Western Hemisphere, 16893
 Elyria, Ohio, census of transportation, 1967, commodity transportation survey, 8067
 EM series, 14307, 17919
 Embassies, *see* Foreign Service.
 Embedding compounds, component combination and frame-embedding in Chinese character grammars, 4553
 Embreeville, Pa., floods, how to avoid damage, 17918
 Embrittlement, *see* Fracture of metals.
 Embryology, child health and human development, progress 1963-70, report, 18264
 Embryos:
 culture of apical meristems and embryonic shoots of Picea abies, approach and techniques, 9326
 mice, early stages cultivated in vitro, effect of serotonin and antiserotonin preparations on development, USSR study, 5730
 Emergencies, *see* Disasters.
 Emergency Board, report, National Railway Labor Conference, 1707

INDEX 1970

- Emergency community facilities act of 1970, reports, 13457, 16017
- Emergency home finance act of 1970 : law, 13326 reports, 8351, 10960, 12251, 13407
- Emergency loans for milk farmers, hearing, 16035
- Emergency Preparedness Office : appropriations, 1971— amendment, proposal, 12290 hearings, 8271, 11105 Assistant Director Office, abolish— hearings, 8300 proposal, 5079 report, 6643 Deputy Director, nomination of Darrell M. Trent, hearing, 16039 press releases, 3047
- Emerson, David E., improved method and apparatus for analysis of impurities in helium, 18171
- Emery, Phillip A., irrigation and municipal wells in San Luis Valley, Colo., 4241
- Emery County, Utah, community profile, 6908
- Emigrant Basin Primitive Area, Calif., mineral resources, 12587
- Emigration, *see* Immigration and emigration.
- Eminent domain : Federal-aid highway relocation assistance and payment statistics, 4649 relocation payments and services for persons, businesses, farmers, and nonprofit organizations, result of construction financed under higher education facilities act of 1963, hearings, 6705
- Emission : air pollution, national emission standards study, HEW report, 11717 print as Senate document, report, 12319 air pollutant, nationwide inventory, 17018 atmospheric emissions from wet process phosphoric acid manufacture, 7560 carbon monoxide, control techniques from— mobile sources, 5989 stationary sources, 5988 comparative, from some leaded and prototype lead-free automobile fuels, 8913 exhaust, from spark ignition engine, effect of fuel composition on their nature, 16913 future carbon monoxide and concentrations, calculating from urban traffic data, 17016 hydrocarbon and organic solvent from stationary sources, control techniques, 5991 low-emission motor vehicles, stimulate development, etc.— hearings, 8386 report, 8349 National air quality standards act of 1970, report, 16020 National emission standards act— hearings, 12380, 11143, 16084 nitrogen oxide from stationary sources, 5990 spectrography, photographic calibrations using small computer, 18174 stimulated, in argon pinch discharge, detection and investigation, 4876 vehicle emissions, influence of volatile fuel components, 5871 *see also* Radiation emission—Thermionic emissions.
- Emittance : measurement study, 10357 spectral, of soot, 7533
- Emitters : thermionic converter with chloride vapor deposited tungsten emitter (110), and collector of molybdenum deposited on niobium, characteristics, 18192
- Emitters—Continued tungsten (112) to (114) oriented, and niobium collector with oxygen present used in operation of thermionic converter, 16945
- EMMA (expeditions monitor and maintenance analyst), *see* Maintenance.
- Emmet County, Iowa, community profile, 13942
- Emmett, William W., hydraulics of overland flow on hillslopes, 5559
- Emmons County, N. Dak., community profile, 13943
- Emory River, Tennessee Valley streams, their fish, bottom fauna, and aquatic habitat, 10643
- Emotions, and conflicts, more on scientific research, USSR study, 4352
- Empirically determined wind and scale effects on hot gas recirculation characteristics of jet V/STOL, 891
- Employee appraisal, *see* Efficiency ratings.
- Employee benefit plans : advance summary, 9115 code of Federal regulations, 8642 metropolitan areas, 1968-69, area wage surveys, 7422 national union benefit plans, 8856 your employee benefit plans, how to find out what they provide, 810
- Employee training, *see* Apprentices.
- Employees : diplomatic missions, list, 10606 discharged, why arbitrators reinstate, 821 employees of business and industry, programs in 2-year colleges to up-grade (paper), 11239 Federal wage garnishment law, basic information, 7895 health and insurance plans for salaried employees, digest of 50 plans, 2023 moving expenses, tax information, etc., 5655 recording employee injuries, 11528 withholding taxes from your employee's wages, 5696 *see also* Government officials and employees—Railroad employees—also names of departments, etc., where employed.
- Employees' Compensation Appeals Board, decisions, 7029
- Employer-employee relations, *see* Industrial relations.
- Employers : contributions to educational trust funds, etc., law, 302 contributions to jointly administered trust funds for product promotion, permit— hearings, 517 reports, 1547, 3837, 5199 moving expenses, tax information, etc., 5655 tax guide, 10234 unaffiliated intrastate and single-employer unions, 2024
- Employers' liability and workmen's compensation : decisions involving ionizing radiation exposure and delayed injury, digest, 6399 Federal employees compensation act and related provisions, 7030 State laws, summarization of main provisions, 4368 State workmen's compensation laws, summary, 5818 workmen's compensation— and radiation injury, studies, 6399 how laws changed during 1969, 7418 insurance arrangements, 8858 payments and costs, 2221 publications, price lists, 15126

Employment:

act of 1946
 amend, hearings, 419, 11084
 amend, with related laws and rules, 1428
 aliens approved by occupation and by continent of birth, tables, 11914
 area trends in employment and unemployment, 2344
 Army Materiel Command, current openings, GS-11 and above, bulletin, 2534
 aspects of aging, Washington, D.C., hearings, 13708
 atomic energy field, occupational employment trends, 8030
 BLS establishment employment estimates, revised to Mar. 1969 benchmark levels, 14659
 breakthrough for disadvantaged youth, 2015
 bridge to future, Veterans Administration special employment and training for youth, 6278
 census, 1970, data access description of items included, 3843
 changing patterns, report on Federal women's program, review seminar, 245
 city government employment, 8098
 concentrated employment program—Chicago, Ill., effectiveness and administrative efficiency, GAO report, 713
 St. Louis, Mo., effectiveness and administrative efficiency, GAO report, 1887
 data and expenditures for criminal justice activities of large governmental units, 1967-68, 6458
 doorway to seventies, activities under Manpower development and training act, annual report, 7258
 employment and earnings (periodical), 2532
 Employment and training opportunities act of 1970, report, 13704
 employment aspects of economics of aging, paper, 482
 employment patterns, union scales and earnings, construction industry, 14729
 employment situation, monthly release, 2537
 farm labor developments, 2565
 farm, statistical series of Agriculture Department, 12
 EDA, building communities with jobs, 16162
 civilian, in U.S., by geographic area, annual report, 9474
 employment of noncitizens, 17553
 equal opportunity, newsletter, 2544
 physically handicapped, mentally restored, mentally retarded, rehabilitated offender, selective placement, handbook, 15689
 Federal budget, inflation and full employment—
 hearings, 3764
 report, 322
 Forest Service, nonprofessional jobs, guide, 4822
 good training, good jobs, MDTA—
 facts for manpower administrators, 12501
 project transition, 7013
 government employment series, 8097-98
 governmental, historical statistics, 1308
 hiring standards and job performance, 11524
 incentives and training for members of needy families with dependent children—
 bill form, 11117
 brief summary of act, 13548
 hearings, 8319, 9905
 material related to Administration revision of bill, 17697
 work and training provisions, 17698

Employment—Continued

incentives and training for members of needy families with dependent children—continued
 material related to bill, 13727
 revision as resubmitted by Administration, 11118
 reports, 8227, 8252
 industrial services handbook, 12948
 job creating program, EDA economic development districts, 16164
 job patterns for minorities and women in private industry, 14353
 job placement, creation, and development, experimental and demonstration programs for disadvantaged youth, 7408
 jobs and advancement in public agencies, public service careers, 5814
 jobs for America, Economic Development Administration, annual report, 5328
 jobs for disadvantaged, special impact program in Los Angeles is not meeting goal of providing, GAO report, 18037
 JOBS '70, introducing programs, 14655
 learning for earning, new opportunities for paycheck education, 586
 long climb back to full employment with price stability (address), 15717
 looking for a job, general information for youth, 10509
 management of civilian hiring limitations and recruiting by Dept. of Defense is costly, GAO review, 1892
 mentally handicapped, fresh views, special report (periodical), 3216
 mentally restored, involvement for community organizations (periodical), 2772
 mentally retarded, these, too must be equal, America's need, 2202
 multiple jobholders, May 1969, special labor force report, 12721, 18134
 multipliers and sector income, their interactions on national economy, 13008
 Northwest forest industries, 3100
 occupational health and safety program—
 hearings, 5157
 report, 11014
 opportunities, educators overseas, 4036
 outlook—
 accountants, 12664
 advertising, marketing research, public relations workers, 12665
 agriculture, 14715
 air-conditioning, refrigeration, and heating mechanics, 18115
 aircraft, missile and spacecraft manufacturing, 14717
 aluminum industry, 12705
 apparel industry, 12706
 appliance servicemen, 18116
 architects, 12680
 asbestos and insulating workers, 14695
 atomic energy field, 16838
 automobile salesmen, 14688
 automobile service occupations, 14704
 banking, 14724
 barbers, cosmetologists, 12696
 blacksmiths, 12703
 boilermaking occupations, 18119
 bookkeeping workers, office machine operators, 14686
 bowling-pin machine mechanics, 18117
 bricklayers, stonemasons, marble setters, tile setters, terrazzo workers, 14696
 building custodians, 14693
 business machine servicemen, 12702
 carpenters, painters and paperhangers, glaziers, 12700
 cashiers, 12682
 cement masons, lathers, plasterers, 14697
 chiropractors, 12674
 civil aviation, 14723
 clergy, Protestant clergymen, rabbis, Roman Catholic priests, 12681

INDEX 1970

Employment—Continued outlook—continued

commercial artists, industrial designers,
interior designers and decorators, 14676
conservation occupations, 12682
construction laborers and hod carriers, 14698
cooks and chefs, waiters and waitresses, 12697
counseling and placement occupations, 14677
dental hygienists, dental assistants, dental laboratory technicians, 12670
dentists, 12669
diesel and farm equipment mechanics, 14705
dietitians, 12677
dispensing opticians, optical mechanics, 14708
driving occupations, over-the-road and local truckdrivers, routeman, intercity and local busdrivers, taxi drivers, 14709
electric power industry, 16839
electric sign servicemen, 18118
electricians (construction), 14699
electronics manufacturing, 14718
elevator constructors, structural and other iron workers, 14700
engineers, 12679
environmental scientists, geologists, geophysicists, meteorologists, oceanographers, 14673
factory operatives, assemblers, electroplaters, inspectors, 16834
FBI special agents, 12698
firefighters, 12699
floor covering installers, 14701
foremen, 18120
furniture upholsterers, 12704
Government (except post office), 14727
home economists, 12683
hospital administrators, 14671
hotel occupations, 14726
industrial chemical industry, 14719
industrial traffic managers, purchasing agents, 12667
instrument repairmen, 16831
insurance agents and brokers, 14689
insurance business, 14725
iron and steel industry, 14720
jewelers and jewelry repairmen, watch repairmen, 16832
landscape architect, 12684
lawyers, 12685
librarians, library technicians, 12686
life science occupations, life scientists, biochemists, 14674
machining occupations, 14710
maintenance electricians, industrial machinery repairmen, millwrights, 14706
mathematicians and related occupations, 14678
meat cutters, 14711
medical laboratory workers, 14668
medical record librarians, 14670
merchant marine occupations, 16840
models, 14679
motion picture projectionists, 16835
motor vehicle and equipment manufacturing, 14721
operating engineers (construction), 14702
optometrists, 16829
paper and allied products industries, 14722
performing arts occupations, actors and actresses, dancers, 12687
personnel workers, 12666
petroleum and natural gas production and processing, petroleum refining, 14716
pharmacists, 12672
photographers, photographic laboratory occupations, 14680

Employment—Continued outlook—continued

physical therapists, 12675
physicians, osteopathic physicians, 12668
plumbers and pipefitters, 12701
podiatrists, 12673
police officers, State police officers, 14694
post office occupations, 14728
printing occupations, 14712
private household workers, 16830
programmers, systems analysts, electronic computer operating personnel, 14681
psychologists, 12688
radio and television broadcasting, radio and television announcers, broadcast technicians, 16841
radiologic technologists, 14669
railroads, 16842
real estate salesmen and brokers, 14691
receptionists, 12693
recreation workers, 14682
registered nurses, licensed practical nurses, hospital attendants, 12671
restaurant occupations, 18122
retail and wholesale trade salesworkers, manufacturers' salesmen, 14690
roofers, sheet-metal workers, 14703
sanitarians, 14672
securities, salesmen, 14692
shipping and receiving clerks, 14687
shoe repairmen, 14713
social workers, 12690
speech pathologists and audiologists, 12676
stationary engineers, Stationary firemen (boiler), 16836
stenographers and secretaries, typists, 12694
surveyors, 12691
teachers, 14683
technicians, engineering and science technicians, draftsmen, 14675
telephone industry, 18121
telephone operators, 12695
television and radio service technicians, 14707
tomorrow's jobs, 12663
urban planners, 14684
venting machine mechanics, 16833
veterinarians, 12678
waste water treatment plant operators, 16837
welders, oxygen and arc cutters, 14714
writing occupations, newspaper reporters, technical writers, 14685
Philadelphia plan, questions and answers, 7410
project report on employment referral, designs for action for older Americans, 5
public, 8097
scientist and engineer, Federal spending and its impact, study in measurement, 16853
security amendments of 1969, reports, 391, 3807
security amendments of 1970—
hearings, 6770, 8403
law, 13340
report, 9670
security programs, Federal-State funds to finance cost of administering hearings, 8403
self-employed—
reporting your income, 15174
retirement plans, tax information, 5663
questions and answers, 5658
self-employment tax, information, 5649
social scientists, anthropologists, economists geographers, historians, political scientists, sociologists, 12689
Spanish surnamed American employment in Southwest, 10037
State and local government, 3221

Employment—Continued
 statistics, 1939-63, States and areas, 2019
 summer—
 employment, Economic Opportunity Of-
 fice, 5330
 juniors in veterinary medicine and veter-
 inarian trainee, examination an-
 nouncement, 17557
 youth opportunity campaign, 1969, con-
 tractors and State highway depart-
 ments, 4135
 textile industry, changes, use of input-
 output analysis in studying problems,
 4828
 urban employment survey, reports, 8875
 veterans' job rights, facts, 12952
 what happens now? guide to your future
 after Job Corps, 809
 workers covered by State unemployment
 insurance laws, 2533
 young workers, message about Fair labor
 standards act, 9267
 youth, job guide for young workers, 805
 see also Civil service—Discrimination in
 employment—Government officials and
 employees—Manpower—Occupations—
 Veterans—Work.
 Employment agencies, see Employment of-
 fices.
 Employment of the Handicapped, President's
 Committee on, see President's Committee
 on Employment of the Handicapped.
 Employment offices, project report on em-
 ployment referral, designs for action for
 older Americans, 5
 Employment security activities, see Unem-
 ployment insurance.
 Employment Security Bureau :
 BES series, 4065, 15367
 local offices, directory, 2016
 Employment Service :
 agencies, work incentive program, survey,
 15957
 statistics (periodical), 2536
 Employment taxes :
 internal revenue bulletin, cumulative in-
 dex-digest supplement system, 7314,
 16705
 IRS looseleaf regulations system, 2854,
 10237, 14612-613, 16706, 18075
 unemployment insurance tax rates by in-
 dustry, 15369
 Emulsions :
 radiation-initiated emulsion oxidation,
 4893
 sensitized materials, photographic and
 copying, Federal item identification
 guide, 6864, 8475, 13791
 En route air traffic control, 62, 4840, 9343,
 13031
 Enamel, porcelain, exposure test, 1964, on
 aluminum, 3 year inspection, 7569
 Encephalitis :
 annual summary, National Communicable
 Disease Center neurotropic viral dis-
 eases, 1065
 reported arthropod-borne encephalidites in
 horses and other equidae, 3379
 Endes, Arthur P., jr., election law guide-
 book, 8343
 Endocrinologists, Soviet endocrinologist L.M.
 Gol'ber, profile, 5744
 Endocrinology, index (periodical), 2538
 Endodontics, Navy training course, 1025
 Endowments, commentary, financial statis-
 tics, institutions of higher education,
 14285
 Endrin :
 impregnating and coating Douglas-fir seed
 to protect from rodents, 8709
 storing endrin-coated and endrin-impreg-
 nated Douglas-fir seed, 8710
 Energy, see Atomic energy—Electricity—
 Force and energy—Radiant energy.

Energy absorption :
 frangible-tube energy-absorption system
 for protection of nuclear aircraft reac-
 tor, parametric study, 12781
 landing energy absorption, approximate
 analytical models for, including effect
 of penetration by payload into its crush-
 able casing, 12801
 Energy conversion :
 char oil energy development, interim re-
 port, 10851
 efficiency of lithium fluoride and thermo-
 luminescence spectrum of lithium fluo-
 ride, 9389
 Energy dissipation, energy and environment
 (remarks), 9407
 Energy metabolism, see Metabolism.
 Energy resources, see Power resources.
 Enforcement of law, see Law enforcement.
 Engdahl, Richard B., solid waste processing,
 state-of-the-art report on unit operations
 and processes, 8562
 Engel, O. G., basic research on liquid-drop-
 impact erosion, 12762
 Engelmann spruce, see Spruce.
 Engen, Trygg, feasibility of olfactory coding
 of noxious substances to assure aversive
 responses in young children, 15755
 Enghardt, Hans G., pruning to reduce fusil-
 form-rust damage not justified on young
 slash pines, 686
 Engineer Agency for Resources Inventories,
 EARI development research series, re-
 ports, 5367, 16412
 Engineering :
 and economic analysis of electrodialysis
 process, 769
 cold regions science and engineering mono-
 graphs, 1803, 4073-74, 14306
 college students as trainees, vacation
 work-study programs, opportunities,
 15691
 computation standards for engineering
 work, 4684, 15195
 contracting for construction and architect-
 engineering services for Atomic Energy
 Commission, 11975
 data for reliability and maintainability of
 reports, military standard, 5319
 design handbooks, 79-80, 1213, 3457-59,
 4848-49, 13037
 doctorate supply and utilization, 2165
 East European abstracts, 5221
 engineering and design—
 manual, 17919
 stability of earth and rockfill dams, EM
 manual, 14307
 engineering and economic relationships in
 selection and classification of irrigable
 lands, 17240
 engineering monograph, 15142
 engineering technical information system,
 technical report ETR (series), 8685,
 10113, 14431
 Federal jobs in engineering, physical sci-
 ences, & related professions, 17549
 field tables, 7191
 high contrast cathode ray tube engineer-
 ing report, 14819
 highway engineering economy, syllabus,
 10528
 imaging what you could do in real world
 of engineering, 4595
 Industry Committee on Engineering and
 Construction Services of National Ex-
 port Expansion Council, report, 15719
 integrated logistics support (ILS), main-
 tenance engineering analysis data sys-
 tem, 10746
 investigation of sewer overflow problem,
 detailed investigation into cause and
 effect of sanitary sewer overflows and
 recommended remedial measures for
 Roanoke, Va., 18001
 journal of research, National Bureau of
 Standards, 2787

INDEX 1970

Engineering—Continued

land resource inventory and engineering surveys using photogrammetry, 8635.
 LMFBR, liquid metal fast breeder reactor, 1000 MWe, conceptual design report, engineering studies, 8009
 maintenance engineering analyses control numbers (MEACNS) and work unit codes for aeronautical equipment, uniform numbering system, 6877
 management of design and construction of facilities of National Aeronautics and Space Administration, 8321
 PACAF basic bibliography, 13026
 parametric engineering evaluation study of electrodiagnosis process for water desalination, 1954
 power engineering, technical progress, USSR study, 16745
 relations of science and engineering analyzed, USSR study, 1984
 research, 1968-69, report of progress, water resources technical publication, 10534
 SCS national engineering handbook, notice, 10568
 structures, effects of ice pressure on designs, 14306
 technical assistant, examination announcement, 15699
 technicians, employment outlook, 14675
 test data for soil samples from 10 profiles in Bernalillo County, N. Mex., 17290
 trainees in vacation work-study programs, examination announcement, amendment, 4963
 USSR abstracts, 3321
 Weather Bureau engineering handbook series, 4790
 with nuclear explosives, symposium proceedings, 13069
see also Biomedical engineering—Civil engineering—Earthwork and structures—Environmental engineering—Hydraulic engineering—Marine engineering—Military engineering—Nuclear engineering—Value engineering.
 Engineering aids:
 1 & C, rate training manual, 4616
 3 & 2, rate training manual, 12886
 Engineering equipment:
 East European abstracts, 2521
 equipment and facilities maintenance reporting, 4790
 USSR abstracts, 3321
 Engineering geology, contributions to engineering geology (series), 725
 Engineering psychology:
 and control systems, USSR study, 12624
 aviation and space medicine, psychophysiological and engineering-psychological aspects, USSR study, 10259
 Engineering technicians, examination announcement, 6473, 13196
 Engineers:
 and scientist employment, Federal spending and its impact, study in measurement, 16853
 careers, Naval Air Systems Command, imagine what you could do, 4595
 certified fallout shelter analysts, directory of firms, 3655
 compensation, 1969 national survey, 4897
 employment outlook, 12679
 engineer soldier's handbook, Army field manual, 4854
 engineers and related professions, examination announcement, amendment, 6471
 Federal Government, bibliography, 9476
 field data, Army field manual, 4855
 from abroad, 1968 fiscal year, reviews of data on science resources, 4591
 nuclear defense design, professional development courses, 12044

Engineers—Continued

pay, national survey, 5822
 Ph.D. engineers in private industry, 10292
 procurement of architect and engineer services by Federal government, establish policy—
 hearing, 13522
 report, 15868
 research and development in industry, 1967, funds, 1967, engineers, Jan. 1968 report, 4590
 role in developing public policy (address), 8151
see also Civil engineers—Engineering aids—Operating engineers—Sanitary engineers.
 Engineers Corps, Army:
 appropriations, 1970, amendment, 330
 appropriations, 1971—
 hearings, 8272, 11106
 reports, 12207, 13697, 15873
 civil functions, improved guidance needed for relocating railroad facilities at water resources projects, GAO report, 11373
 development of water resources, California, 14333
 Honolulu District, technical report, 12510
 manuals, 14307, 17919
 our waters and wetlands, to help prevent destruction and pollution, report, 8229
 pamphlet EP series, 7041
 power, inappropriate source used as basis for allocating costs of water resources projects, GAO report, 11376
 regulations, ER series, 4085
 report 1968, civil works activities—
 departmental edition, 7031
 document edition, 6552
 shore protection program, information, 16444
 streambank erosion in United States, report on study, 8317
 water resources development program in Montana, status report, hearings, 1599
 Engineer's digest (periodical), 2540
 Engines:
 accessories, Federal item identification guides for supply cataloging, supplements, 2590
 census of manufactures, 1967, industry statistics, 15609
 emergency repairs afloat, boatman's pocket guide, 3680
 engine electrical system components, Federal item identification guide, 16124
 engines and components, Federal item identification guides for supply cataloging, supplements, 2590
 gasoline, air-cooled, 6BHP, military design, model 4A032 installation procedures, military standard, 6878
 internal combustion—
 current industrial reports, 8084
 shipments 1958-67, patterns of industrial growth, 4903
 spark ignition, effect of fuel composition on exhaust emissions, 16913
 starter, electrical, Federal item identification guide, 8476
 Engines (aircraft):
 aircraft, engine and systems failure and human error, types of accidents, improvements required to reduce, data report on general aviation data acquisition and analysis, 7058
 airworthiness standards, Federal aviation regulations, 16473
 axial compressor noise, application of theory to minimize, 12757
 current industrial reports, 2475, 15627
 48-module swirl-can turbojet combustor segment at high temperatures using ASTM-A1 fuel, 2124

- Engines (aircraft)—Continued
 full-scale annular ram-induction combustor for Mach 3 cruise turbojet engine, 18218
 generalized parameter fuel control for jet engines, computer and engine performances study, 11689
 jet-engine exhaust and trailing vortex wakes, introduction, 13024
 nacelle aerodynamic effects, flutter studies to determine on fan-jet transport model for 2 mount systems and 2 wind tunnels, 16998
 position number of engines, military standard, 16149
 pylon mounted dummy ramjet engine on X-15-2 airplane local flow field around, for Mach numbers from 2.0-6.7, 5946
 reciprocating engine and exhaust vibration and temperature levels in general aviation aircraft, 4118
 simplified modular turbojet combustor, preliminary tests, 12773
 6-foot-diameter fan for turbofan engines, acoustic and aerodynamic performance, design of facility and QF-1 fan, 14856
 turbofan powerplant installation, in-flight fire protection, investigation, 4117
 turbojet—
 combustor using natural gas fuel heated to 1200° performance, 5963
 engines, systems for deflections of jet streams, 14896
 tungsten alloy fiber-nickel-base alloy composites, preliminary evaluation, 5926
 twin-turbofan subsonic transport with nacelles mounted under wings, longitudinal aerodynamic characteristics, 16980
 type certificate data sheets and specifications, 2321, 10040
 underground blower unit, turbocair fog dispersal method, development and testing, 18373
 VTOL jet-transport model with powered lift engines in pads at wing midspan or inboard, wind-tunnel investigation, 10403
 wake effect of panel tip-mounted fan-jet engine on lift-induced vortex, exploratory wind-tunnel investigation, 11636
see also Rockets.
- England, *see* Great Britain.
- Englert, Gerald W., simulation of Fokker-Planck equation by random walks of test particles in velocity space with application to magnetic mirror systems, 5962
- Englert, George H., charts for calculating dimension yields from hard maple lumber, 4198
- English Camp, San Juan Island National Historic Park, historic structures report, 2157
- English Channel, lights and fog signals, list, 6087
- English language:
 and literature, books, related to, elementary and secondary schools, bibliography, 8511
 English and Government, Federal textbook on citizenship, 1946
 English and your career, 16859
 naturalization, candidates—
 Federal textbook on citizenship, home study course for helper, 16685
 home study course, 765, 16686
 perk up your grammar, workshop in effective English, 3673, 13204
- English Ridge project, water quality control study, Bel River basin, Calif., 8670
- Engraving and Printing Bureau, fund, financial statements, 1968-69, GAO examination, 12573
- Eniwetok Atoll, *see* Marshall Islands.
- Enlisted personnel, *see* Air Force—Armed Forces—Navy.
- Ennis, C. E., supervision, construction, and evaluation of sea water desulfating process pilot plant, 11451
- Enochian, Robert V., prospects for agriculture in Caribbean, 7003
- Enrico, N. Mex., water supply in relation to nearby high energy detonations, investigation, 14530
- Enright, Frank J., relief, 13273, 13593
- Enrollment, *see* Colleges and universities—Elementary education—Schools.
- Enteritis:
 duck virus—
 enteritis reported in United States, 7906
 old world disease in new world, 9320
- Enterotoxins, rate of enterotoxin production by staphylococci in food products, USSR study, 11509
- Enterprise statistics, 1967, preliminary reports, 2541
- Enterprise statistics, series ES, 10827
- Entertainers, performing arts occupations, employment outlook, 12687
- Entertainments, *see* Amusements.
- Enthalpy, and entropies, high temperature, of chalcopyrite and bornite, 16923
- Entocythere, *see* Crustaceans.
- Entocytheridae, *see* Crustaceans.
- Entomologists, examination announcement, discontinuance notice, 8121
- Entries of land, *see* Desert lands.
- Entropy:
 and enthalpies, high temperature, of chalcopyrite and bornite, 16923
 entropy and low-temperature heat capacities at 298.15° K of goethite and pyrophyllite, 7492
- Entry into atmosphere, *see* Atmospheric entry.
- Envelopes, stamped, history, 7698
- Environment:
 agriculture contribution to environmental quality (address), 7911
 basic concepts, engineering design handbook, 1213
 case for national environmental laboratories, report by Ad Hoc Nel Concept Committee, Oak Ridge National Laboratory, 9937
 civilization's dilemma, is there a solution? (remarks), 3512
 coal program, 1969, Bureau of Mines, review, 11582
 cold regions science and engineering monograph, 4072
 Colorado, improved environment through resource conservation and development, 10559
 community environmental management series, 5376, 7044, 11259
 control, physical environment safety in industry, 811
 decision-making in fuzzy environment, 10360
 economics and environment (remarks), 11920
 economy, energy, and environment, background study, 13351
 educational programs, curriculum, etc., for environmental quality and ecological balance, establish—
 hearings, 12374, 13503
 reports, 15852, 16015
 effects of 2, 4, 5-trichlorophenoxyacetic acid on, hearings, 12360
 electric power and environment, 17258
 electronic parts requirements, military standard, 16148
 energy and environment (remarks), 9407
 engineering design handbook environmental series, 1213
 environmental and chemical hazards series, 811

INDEX 1970

Environment—Continued

environmental and ecological effects from local fallout from Schooner soil thermoluminescence in relation to radiation exposure under field conditions, 8020
 environmental and sociological quality of urban life, hearings, 13501
 environmental barriers encountered by the disabled, goal is mobility! 7741
 environmental conference, thrust of 70's (remarks), 5610
 environmental criteria for electric transmission systems, 16691
 environmental dangers of open-air testing of lethal chemicals, report, 392
 environmental decade, action proposals for the 1970's—
 hearings, 11035
 report, 10949
 environmental, ecological education, for survival of humane society (remarks), 8516
 Environmental education act, report, 15352
 environmental effects of energy generation on Lake Michigan, hearing, 12361
 environmental effects of producing electric power, hearings, 3761, 15812
 environmental effects on airport pavement groove patterns, final report, 7850
 Environmental financing act of 1970, hearings, 16087, 17719
 environmental geochemistry, geochemical survey of Missouri, plans and progress for first six-month period, 7235
 environmental health planning, identification of leaders, and their involvement in planning process, 7044
 environmental management, Okanogan National Forest, 8686
 environmental pollution—
 selective bibliography, 18275
 USSR study, 8850
 environmental problems and mining industry (address), 15707
 Environmental quality education act—
 hearings, 12374, 13503
 report, 16015
 Environmental quality improvement act of 1970, report, 6648
 environmental quality, 37 point administrative and legislative program recommendations, message from the President, 7559
 environmental science centers at institutions of higher education, survey, 9766
 environmental scientists, employment outlook, 14673
 environmental studies of—
 Iraq, Jordan, Lebanon, and Syria, selected annotated bibliography, 10723
 Israel, 1960-69, bibliography, 7963
 Poland, selected annotated bibliography, 15461
 environmental test methods, military standard, 4025-26
 Federal outdoor recreation programs and recreation related environmental programs, 10498
 fluctuating pressure environments, vibration responses of shells and plates, study, 12755
 general environmental requirements, testing procedures and sampling for aerial photographic reconnaissance equipment, military standard, notice, 1772
 geochemical environment, and cardiovascular mortality rates in Georgia, 4244
 geologic environmental map of greater Los Angeles area, Calif., pertinent to nuclear facility siting and design, preliminary, 10768
 health series—
 air pollution, 8567
 radiological health, 1054

Environment—Continued

Humboldt Bay environmental radiation survey, 9374
 improving quality (remarks), 9255
 influence of natural environment on MAD operations, 9049
 Intergovernmental coordination of power development and environmental protection act, hearings, 13737
 littoral environment observation program in California, preliminary report, 10000
 low-level environmental radiation measurements made by TLD-700 high sensitivity LIF ribbon, tests, 15514
 man and his environment, view toward survival, 13th National Conference of United States National Commission for UNESCO, memo, special issue, 15335
 man's challenging environment, the seas (remarks), 5427
 man's environment, conference proceedings, 1248
 man's health and the environment, some research needs, 15010
 marine and atmospheric, research, development, technical services, exploration, and utilization long-range national program, establish, hearings, 11115, 16043
 marine mining, preliminary engineering studies to characterize, 8905
 mercury poisoning, effects on man and the environment, hearings, 17693
 N₂O₄ and aqueous and hot-salt, effect of composition on mechanism of stress-corrosion cracking of titanium alloys in, 7514
 national environmental data bank, provide, hearings, 15925
 National environmental policy act of 1969—
 hearings, 15925, 17715
 law, 3760
 report, 1552
 national environmental study area, guide, 11791
 natural, mercury contamination, bibliography, 14604
 noise environments of traveler and spectator (address), 9242
 nuclear power and environment, 1281
 conference proceedings, 6398
 objectives, and methods, Gila River phreatophyte project, Graham County, Ariz., 7247
 ocean dumping, national policy, report to the President—
 departmental edition, 17729
 document edition, 17617
 petroleum industry problems (address), 4296
 physical—
 ESSA, improving quality and safety of human life and prospects, 5385
 how can it best be controlled and developed? national debate topic for high schools, 1970-71, collection of excerpts and bibliography, 11063
 planning paper, 16659
 pollution—
 control, private enterprise role (address), 9491
 discharge of raw human waste, garbage, etc., from railroad trains, hearing, 15905
 investigations and studies, authorization, 5240
 population—
 growth effects, hearings, 417
 trends and environmental policy (periodical), 4306
 Procurement and environmental enhancement act of 1970, hearings, 16087, 17719

Environment—Continued
quality—

community action, report of Citizens Advisory Committee on Environmental Quality, 7706
environmental improvement, legislative proposals and administrative actions, message from the President, 5082
radioactive contamination by underground nuclear explosion and methods of forecasting it, USSR study, 8004
relationship of Civil Aeronautics Board to environmental problems (remarks), 15676
resource and environmental improvement (address), 9283
river of life, water, environmental challenge, 16690
role of Economic Development Administration in protecting environment while aiding economic growth (address), 16160
simulated space environment, manned operations for Apollo lunar module, 10399
\$600,000 environmental grant announcement to Public Broadcasting Corporation (remarks), 11201
space environment—
 lean detector for use in, 11676
 man's response to infection, review of literature and annotated bibliography, 2073
 trade-off study and conceptual designs of regenerative advanced integrated life support systems (AILSS), 14807
 spacecraft, visual detection, experimental and analytical study, 14812
 student conference on environment, and summaries of other regional conferences, 8674
 student involvement, so you want to get involved, 11452
 technology assessment and environment, hearings, 13541
 terrestrial, solid-earth and ocean physics, 10354
 theology of the earth (lecture), 11854
 transportation, progress vs. environment (address), 9243
 United Nations Conference on Human Environment, U.S. participation in 1972—
 hearing, 5159
 report, 6677
 urban, some physical problems (address), 5593
 urban-suburban environment of the 70's (speech), 4289
 urban university and environment (address), 8531
 water in urban environment (series), 5545-46, 3762, 11389, 14526, 18055
 water pollution control and environmental quality laws of U.S., compilation, 15931
 we live in, and its relationship with our economy (remarks), 6271
 who should pay for the cleanup? (address), 15740
 see also Life support systems.
Environment and Technology Joint Committee, establish, reports, 9665, 10950
Environment and Urban Systems, Office of Assistant Secretary for, see Assistant Secretary for Environment and Urban Systems, Office of.
Environment, Human, United Nations Conference, see United Nations Conference on Human Environment.
Environment Joint Committee, establish, report, 12355
Environmental Control Administration:
 Analytical Reference Service studies, 1815, 8566
 grant activities, support program, 12512
 environmental control systems, see Control systems.

Environmental Data Bank, National, see National Environmental Data Bank.
Environmental Data Service:
 ESSA technical memorandum, EDSTM series, 1817
 ESSA technical report, EDS series, 14345 services and publications, 14342
Environmental Education Advisory Committee, see Advisory Committee on Environmental Education.
Environmental Education Office, establish, report, 16015
Environmental engineering:
 engineering design handbook, environmental series basic environmental concepts, 1213
 environmental health engineering handbook, air pollution, 7958
Environmental Financing Authority:
 create—
 hearings, 16087, 17719
 proposal, 5082
 statement, 11924
 Environmental health, see Health.
 Environmental Health Commission, Pesticides and Their Relationship to, see Pesticides and Their Relationship to Environmental Health Commission.
Environmental Health Service:
 Analytical References Service studies, 7046
 appropriations, 1971, hearings, 11021
 public advisory committees, authority structure, functions, members, 11263
Environmental Protection Agency:
 create—
 hearings, 15911, 16057
 message from the President, 12162-163
 reports, 15874
 employment of Public Health Service commissioned officers, report, 16018
Environmental Quality, Council on, see Council on Environmental Quality.
Environmental Quality Education, Advisory Committee on, see Advisory Committee on Environmental Quality Education.
Environmental Quality Office, appropriations, 1971, amendments, proposal, 13564
Environmental safety, see Safety of life.
Environmental Science Services Administration:
 Commissioned Officer Corps, science and service career, 10033
 ESSA flowing afterglow system, reaction rate constants measured, compilation, 4088
 ESSA world, official employee publication, 2546
 news, 2545
 oceanographic research and survey ships, economics obtainable by increasing days at sea, GAO report, 4218
 press releases, 3048
 professional papers, 16453
 publications, list, 4096
 technical memorandums, 604-610, 1817-38, 7049, 8570, 11267-271, 14343-344, 16454, 17946-947
 technical reports, 611-615, 1839-40, 4088-93, 5386-94, 7050-51, 8571-76, 10022-27, 11272-276, 12513, 14345-350, 16455-465, 17948-952
 transfer functions to National Oceanic and Atmospheric Administration—
 hearings, 15912, 16057
 report, 15875
Environmental Technical Applications Center, technical notes, 51-52, 7962-63, 10723, 15461
Enz, Richard W.:
 snow survey measurements for Arizona, 18335
 water supply outlook and Federal-State-private cooperative snow surveys for Arizona, 3337

INDEX 1970

Enzymes:

- enzymatic and antiviral, activity of deoxy-ribonuclease relationship, investigation, USSR study, 1986
- serum enzymes, indicators of changes in physical condition, 7451

Eocene period:

- Jackson Group, Mississippi, illustrations of plant microfossils from Yazoo clay, 8745

late

- Eocene fossils from Eua, Tonga (series), 5555, 8744
- larger foraminifera from Eua, Tonga, 5555
- smaller foraminifera, from Eua, Tonga, 8744

EP series, see National Aeronautics and Space Administration.

EPDA, see Education.

Ephemerides, American ephemeris and nautical almanac, 4597

Epicenter, see Earthquakes.

Epidemiology:

- and prevention of cholera, urgent problems, USSR study, 16749
- and prophylaxis of cholera, USSR study, 18097
- epidemiology of disability, measurement of functional capacity limitations, 15169
- mathematical methods used in report, empirical and theoretical distributions, USSR study, 16801
- mental disorders, 1966-68, bibliography, 12857
- reports from world press, 2542
- sheep and cattle scabies eradication, cooperative State-Federal progress report, 7907
- USSR urgent problems of modern epidemiology, 10265

Epilepsy:

- abstracts (periodical), 2543
- cumulation, 4568

Epithelium, denuded, cupric ion absorption, 14761

Epoxy compounds:

- boron/epoxy reinforcement of aluminum tubing in various amounts, compressive and column strengths, 14877
- encasement of strain gage networks in epoxy, structural models for design of mining systems, 18169
- flexibilized epoxy adhesive films, tensile stress-strain behavior, 10127
- reactions, by radical mechanism, USSR study, 10262
- uniaxial filament-reinforced epoxy tubes, compressive instability and strength, 5974

Eppley, David B.:

- OAA recipients in 1965, health conditions and health services, 11757
- program facts on federally aided public assistance income maintenance programs, 6020

Epstein, Arnold S., design and fabrication of gallium phosphide rectifiers, 18188

Epstein, Sidney, effects of image incongruence on location of common terrain in comparative cover, 15497

Equal educational opportunities, annual report, 16392

Equal Educational Opportunities Division, grants to school boards, policies and procedures manual, 579

Equal Educational Opportunity, Select Committee on, Senate:

- hearings, 13726, 16048, 17696
- investigations and study, expenses, report, 6763

Equal employment opportunity, see Discrimination in employment.

Equal Employment Opportunity Commission:

- appropriations, 1970—
law, 3738
reports, 472, 5104
- appropriations, 1971—
hearings, 8270, 13708
reports, 9686, 9688, 15990
- enforcement powers, strengthen—
hearings, 15893
report, 15858
- Member, nomination of Colston A. Lewis, hearing, 16076
- they have power, we have people, status of equal employment opportunity in Houston, Tex., hearings, report, 16467
- utilization of minority and women workers in major industries, hearings, 1841

Equal rights, see Women.

Equations:

- base techniques for ceiling and visibility prediction, development, 18371
- basic pulse-radar maximum-range calculation, guide equations, definitions and aids to calculations, 15060
- class of semilinear hyperbolic systems analogous to differential-integral equations of gas dynamics, some general properties, 15076
- cybernetics and regulation theory, USSR study, 18103
- differential, using Obrechhoff corrector formulas, numerical solution, 2084
- diffusion in ternary aqueous saline solutions, 5620
- digital simulation of rotational kinematics, 900
- directional-mean-free-path method for gas flow in translational nonequilibrium, study, 12785
- discontinuous flows and free streamline solutions for axisymmetric bodies at zero and small angles of attack, 5942
- equations for study of roll-out clamshell ejection concept for spinning rocket vehicles, 11658
- error propagation in Runge-Kutta type integration formulas, experimental results, 17010
- Flalkow-Gerst theorem, extension, use for cascade impedance synthesis, 943
- Fokker-Planck equation, simulation, by random walks of test particles in velocity space with application to magnetic mirror systems, 5962
- hybrid phase-lock loop, analysis, 11626
- large overdetermined linear and nonlinear systems of equations using least squares, application of convergence of iterative methods, 17950
- laser radar range equation considerations, 6106
- magnetohydrodynamic, for plasmas, Grad approximation for closing out, critical analysis, 2128
- Maxwell, diffraction of electromagnetic waves on 2 bodies, 12829
- Maxwell-Vlasov, electromagnetic waves obliquely incident upon plasma slab investigated, 10414
- multilevel primitive equation model designed to simulate development of tropical cyclones, numerical experiments, 1820
- new eddy viscosity equations in coaxial free-jet computer code, improved data agreement by using, 11673
- nonsimilar laminar boundary-layer equations, including foreign gas injection, method for solving, 919
- piecewise ergodic problem for gas systems, 12892
- pile driving by means of longitudinal and torsional vibrations, 16410
- plane Poiseuille flow with heat transfer, stability, 17005
- radiant heating USSR, articles, 8835

- Equations—Continued
 randomly oriented armor thickness for meteoroid protection, 10400
 Redlich-Kwong fluid in two-phase region, thermodynamic properties, 2055
 separation of variables for linear partial differential equations of 2d order in 2 independent variables, theory, 11650
 simplified ballistic-limit expressions for thin sheets, 2102
 some labeling theorems for planar linear graphs, contributions to 4-color problem, 4621
 two-phase equilibria of analytical binary solutions near critical point, 16895
 van der Waerden's theorem on arithmetic progressions, note, 15082
 vibrations of floating ice sheet, 16409
 Vlasov-Poisson, solutions for oscillations of nonuniform plasma, 1818
 vortex motion equation including effects of buoyancy and sources with applications to tornadoes, 18203
 wave, approximating precise solutions for nonlinear electrodynamics and optics II, USSR study, 8007
 wind-driven circulation in shallow lake or sea, method for obtaining analytical solutions, 16988
 wind-tunnel-boundary lift-interference factors for rectangular perforated test sections, 5943
 see also Fokker-Planck equation.
- Equations of motion:
 calculation of motion of low-thrust spacecraft, 2130
 equivalent Lagrange problems as approach to optimal control problems, 7518
 helicopter rotor in forward flight, method for analyzing aeroelastic stability, errata, 16932
 novel inertial navigation system, analysis and evaluation, 906
 piecewise ergodic problem for gas systems, 12892
 relativistic equations of motion of artificial earth satellite, integration, 14894
 shock-tube flow analysis with dimensionless velocity number, 920
 stability of electron beam injected into space, 12803
 unsteady Navier-Stokes equations for infinite hydrodynamic step bearing, computer solution, 11630
- Equatorial Guinea, *see* Guinea.
- Equilibrium:
 and stability of current plasma in toroidal systems, 4875
 collective motions of one-dimensional self-gravitating system, 935
 critical phenomena in fluids and mixtures, comprehensive bibliography with keyword descriptors, 12844
 radiating, nonadiabatic, equilibrium inviscid flow over blunt body, inverse-method solution, 14863
 radiation transport in ablation product contaminated boundary layers, advanced method for calculating, 16942
 stars with steady state extended atmospheres, spectrum formation, symposium proceedings, 18235
 steady-state—
 analysis of Brayton space-power system, 5964
 electrical performance of 400-hertz Brayton cycle turboalternator and controls, 6953
 heat transfer in two dimensional porous media, analytical method for, 11693
 turboalternator gas-bearing system performance at steady-state conditions, 2093
 two-phase equilibria of analytical binary solutions near critical point, 16895
- Equine encephalitis, *see* Encephalitis.
- Equine piroplasmosis, *see* Piroplasmosis.
- Equipment development ED&T report, 672, 8687, 14434-435, 16540
- Equipment Development Laboratory, ESSA technical memorandum WBTM-EDL series, 1833
- Equipment maintenance, maintenance management, Air Force manual, 4831
- Equipment operators, 3 & 2, rate training manual, 9051
- Equipments, *see* Dental instruments and apparatus—Electric apparatus and appliances—Electronic equipment—Handling equipment—Military supplies—Production equipment—Veterinary instruments and apparatus—also names or types of equipment.
- Equity:
 consumer protection in corporate equity ownership and in corporate takeover bids, reports, 9895, 15985
 securities, registered issues, 1963-65, flotation cost, 9098
 Eradicating cattle scabies, 3419
- Erben (U.S.S.):
 loan to Korea, Republic, extension agreement, 9205
- Ergonomics, *see* Human engineering.
- ERIC, *see* Educational Resources Information Center.
- Eriksen, George E., mineral resources of Black Range Primitive Area, Grant, Sierra, and Catron Counties, N. Mex., 16607
- Erickson, Larry L., modal density estimates for sandwich panels, theory and experiment, 16960
- Erickson, Wayne D., analytical chemical kinetic study of effect of carbon dioxide and water vapor on hydrogen-air constant-pressure combustion, 10402
- Erie, Pa., census of transportation, 1967, commodity transportation survey, 8067
- Erie Canal, Irish immigrant participation in construction, 2161
- Erie, Lake:
 and its tributaries, pollution, conference proceedings, 5469-70
 commercial fishing, brief history, 9538
- Erie County, N.Y., community profile, 13944
- Erie County, Ohio, community profile, 13945
- Erie County, Pa., community profile, 16244
- Erie National Wildlife Refuge, birds, list, 1125
- ERL, *see* ESSA Research Laboratories.
- Erlandson, Ray S., starting and managing small retail music store, 15159
- Erosion:
 and riprap requirements at culvert and storm-drain outlets, hydraulic laboratory investigation, 8555
 drainage and erosion control, drainage for areas other than airfields, technical manual, 13056
 enemy of the people, 15205
 liquid-drop-impact erosion, basic research, 12762
 multiple liquid impact erosion, experimental and analytical investigation, 16937
 see also Coast changes—Soil erosion.
- Error analysis:
 analysis of effect of design and measurement errors on pump performance parameters, 14868
 automated fault diagnostics for frequency dependent circuits by correlation and variance techniques, 5978
 effect of error on spectral measurements of solar simulators on surface response, 16963
 error propagation in Runge-Kutta type integration formulas, experimental results, 17010
 exhaustive search for best cyclic (20, 8) code, for low power (VHF) ionospheric scatter communications, 16459

INDEX 1970

Error analysis—Continued

- finding probable position fix of ship, USSR study, 7390
- human error types of accidents, aircraft, engine, and systems failure, improvements required to reduce, data report on general aviation accident data acquisition and analysis, 7058
- metalization systems for integrated circuits, 11687
- principle of conditional analysis, some applications, 14479
- rotary inductosyn, general information, USSR study, 7389, 10283
- streamflow data for alluvial stream, 7249
- technique to identify certain relative errors in radar X-Y plots, 15471
- two-dimensional point resolution, 18293
- Error-correcting codes, *see* Codes.
- Error function, *see* Populations (mathematics)—Probabilities (mathematics).
- Errors:
 - error: control using concatenated code, 11647
 - errors in measuring liquid precipitation at Vovyrkovo, preliminary results of study, USSR study, 11516
 - four dimensional parameter in single plane, presentation of errors, 5886
 - large numbers of image interpretation errors, method for quantifying subjective costs, 15495
 - launch vehicle sensitivity study, 5989
 - repeatability, accuracy, portability, and errors of portable alignment gyrocompass system, 14846
 - rotary inductosyn, general information and error theory, USSR study, 4337
- ERS, *see* Economic Research Service.
- ERTS (earth resources technology satellites), *see* Satellites.
- Erythropoiesis, effect of hypoxia on, experience of investigating mechanism, USSR study, 16798
- ESC (series), 7082, 8609
- Escambia County, Ala., community profile, 13946
- Escambia River and Valley, basin, pollution of interstate waters, Alabama-Florida; conference proceedings, 12538, 14401
- Escape capsules, emergency escape capsule recovery systems, testing program, military standard, 1778
- Escape systems:
 - Apollo launch escape vehicle configuration aerodynamic pressures, wind-tunnel investigation, 10385
 - lunar escape systems (LESS) feasibility study—
 - final technical report, 16935
 - summary report, 11623
 - submarine escape—
 - experimental training for open-seas, 12737
 - immersion equipment, open sea surface evaluation, 12734
 - simulated escape from 495 feet of sea water, 12736
- Escapees, *see* Refugees.
- Escondido Creek:
 - floods, how to avoid damage, Kingsville, Tex., 17932
 - Kingsville, Tex., flood plain information, 16432
- ESEA (Elementary and secondary education act), *see* Elementary education—Secondary education.
- Esgar, Jack B., analysis of capabilities and limitations of turbine air cooling methods, 16991
- Eshleman, Ronald L., shock and vibration digest, 3199
- ESL, *see* Earth Sciences Laboratories.
- Esparza-Montoya, Jose G., conferring citizenship posthumously, 13289, 13377, 13616

- Espeland, L. R., exhaustive search for best cyclic (20, 8) code, 16459
- Espionage, internal security laws, etc., investigation, expenses, report, 5226
- ESSA, *see* Environmental Science Services Administration.
- ESSA (meteorological satellites), *see* Satellites.
- ESSA Research Laboratories:
 - ESSA technical memorandums—
 - ERLTM-AL series, 1818
 - ERLTM-ITS series, 1819
 - ERLTM-NHRL series, 1820-24, 8570
 - ERLTM-NSSL series, 1825, 11267-268, 17946-947
 - ESSA technical reports—
 - ERL-AL series, 4088
 - ERL-AOML series, 14347
 - ERL-APCL series, 4089, 5386-88, 7050, 8571, 10022
 - ERL-ESL series, 5389, 17950
 - ERL-ITS series, 612-615, 1839, 4090-93, 5390-91, 7051, 8573-74, 10023-25, 11273-274, 12513, 14348-350, 17951-952
 - ERL-OD series, 5392, 8575
 - ERL-RFF series, 5393
 - ERL-SDL series, 5394, 10026, 11275
 - ERL-WPL series, 1840, 8576, 10027
 - programs and resources, 8569
- ESSA world, official employee publication, 2546
- Essays, writing, VAVS-sponsored competitions, 10660
- Essences and essential oils, *see* Flavoring extracts.
- Essential services of community mental health center, 1055-56
- Essentials for peace in Asia (remarks), 1141
- Essex County, N.Y., community profile, 13947
- Estate tax, *see* Inheritance and transfer tax.
- Estep, Raymond, role of military in Peruvian politics, 3445
- Esters:
 - cellulose membranes, research and development, 14595
 - glass fiber reinforced polyester lining, 18320
 - polyester chemical-resistant process equipment, custom contact-molded reinforced, voluntary product standard, 11743
 - radioprotective effect of propanesulfonate ester of dextran, etc., USSR study, 10268
- Estes, Kenneth M., foliar spraying of sprouting tan oak plants best in late summer, 18019
- Esthetics, plants, highway research and development news, 18312
- Estimation and sampling variance in health interview survey, 14934
- Estlin, Arthur J., precision measurement and calibration, electricity-radio frequency, 14922
- Estonian Soviet Socialist Republic, science, progress, 5749
- Estrin, Joseph, secondary nucleation of ice in suspension of crystal in turbulent, cylindrical couette flow, 5616
- Estuaries:
 - Chesapeake Bay in legal perspective, 8671
 - estuarine dependence of Atlantic coastal fishes studies, correction, 4714
 - estuarine fishes—
 - acute toxicities of organochlorine and organophosphorous insecticides, 15277
 - factors affecting pesticide-induced toxicity, 15277
 - estuarine pollution study series, 8671
 - National estuarine and coastal zone management act of 1970, hearings, 16043
 - national estuarine pollution study, report, 13559
 - print as Senate document, report, 6665

- Estuaries—Continued
 national estuary study—
 departmental editions, 15262-268
 document editions, 13353, 13355
 protecting America's estuaries, hearings,
 15909
 San Francisco Bay and Delta, Calif., water
 pollution—
 hearings, 6714
 report, 13488
 San Francisco Bay, preliminary study of
 effects of water circulation, 11393
 Etching liquid, *see* Plate etch.
 Ethan Allen, Vt.:
 Army National Guard Facility, adjust
 legislative jurisdiction—
 law, 1420
 report, 3824
 Ethanes, interaction of methane, ethane,
 ethylene, and acetylene with iron (001)
 surface and their influence on adhesion
 studies with LEED and auger, 11666
 Ethics:
 half-truths can make us slaves (address),
 10869
 moral and military aspects of war in south-
 east Asia, hearings, 11124
 standards of official conduct for Members
 of House of Representatives, proposals,
 hearings, 6725
 they labor in vain (remarks), 16507
 Ethiopia:
 background notes, 7796
 economic trends and their implications for
 United States, 795
 U.S. security agreements and commitments
 aboard, hearings, 17701
 Ethnic heritage, *see* Tradition.
 Ethnic types, Ethnic heritage studies centers
 act, hearings, 11032
 Ethnology, ethnographic study series, minor-
 ity groups in Thailand, 6355
 Ethylene, interaction of methane, ethane,
 ethylene, and acetylene with iron (001)
 surface and their influence on adhesion
 studies with LEED and auger, 11666
 Ethylene oxide, and vinyl chloride adsorp-
 tion on iron (011) surface and effect of
 these films on adhesion, 16996
 Etiology:
 clinical symptoms and etiology of botu-
 lism, USSR study, 18112
 experimental neuromuscular diseases, role
 of toxins of certain saprophytic
 microbes, USSR study, 12622
 Etowah County, Ala., community profile,
 13948
 Eua Island, *see* Tonga Islands.
 Eucalyptus:
 lemon-gum, direct seedling in Hawaii, 4192
 robusta, bark thickness measurements not
 biased by position, 4196
 Eufaula National Wildlife Refuge, birds,
 list, 4711
 Eugene, Oreg., principal electric facilities,
 map, 8625
 Euler's theorem on rotation, *see* Control
 systems.
 Eulogies, *see* Memorial services.
 Eureka, Colo., and adjoining districts, San
 Juan Mountains, Colo., geology and ore
 deposits, 10176
 Euro-dollar market and public policy im-
 plications, 5066
 Europe:
 Defense Dept. vehicle maintenance in
 Europe, reduction of cost by improving
 management, GAO report, 14514
 Eastern—
 agricultural development and trade, pat-
 terns and perspectives, 14273
 economic and industrial affairs, transla-
 tion, 3271
 economic developments, compendium of
 papers, 8194
 Europe—Continued
 Eastern—Continued
 market for U.S. soybeans and soybean
 meal, 8681
 political, sociological, military affairs,
 translations, 3272
 population of Communist countries, by
 age and sex, 1969-90, projections,
 3647
 scientific abstracts, 2516-23
 scientific affairs, translation, 3273
 trading with, 15733
 United States trade with Communist
 areas, 12059
 European and British Commonwealth
 series, 4726
 European Community, grain, rising protec-
 tion and falling imports, 11341
 European countries, mineral industry,
 minerals yearbook chapter, 7469
 NATO and defense of Europe, United
 States foreign policy issues, 7816
 northern, immigration from, effect of 1965
 law, hearings, 15924
 Socialist states, economic relations with
 Southeast Asia, 4348
 special study mission, report, 9737
 tide tables, 10853
 U.S. Army, 1st Army in Europe, 1943-45,
 operations, 442
 United States relations with Europe in
 1970's, hearings, 9740
 west coast, lights and fog signals, list,
 change, 10488
 Western—
 agricultural situation, 1969 review and
 1970 outlook, 7000
 market profiles, 13221
 nautical charts and publications,
 catalog, 4602
 social science research, special papers
 available, 15293
 special job creation for the hard-to-
 employ, 8855
 translations, 3287
 wheats in breadmaking, U.S. wheats as
 supplements, study, 3375
 European chafers, *see* Beetles.
 European Economic Community:
 common agricultural policy implications
 for U.S. trade, 573
 quality wheat—
 and other grains, trade agreement, sus-
 pend, 1160
 trade agreement, 1159
 European War, 1914-18, naval aviation,
 1022
 European War, 1939-45, *see* World War,
 1939-45.
 Eustis, Fla., Lake Dicle and West Crooked
 Lake, reconnaissance of quality of water,
 733
 Euthalenessa Darboux, *see* Polychaeta.
 Eutrophication:
 phosphates in detergents and eutrophica-
 tion of America's waters—
 hearings, 8296
 report, 6690
 Evacuation:
 patients by military aircraft, subsistence
 without charge, authorize—
 hearing, 404
 report, 1510
 Evaluation as teaching tool, 4617
 Evaluation of schools, *see* Educational sur-
 veys.
 Evans, Carson D., balance sheet of farming
 sector, 3398
 Evans, David G., turbine aerodynamic and
 cooling requirement for turbojet powered
 Mach 3 transport using methane fuel,
 14871
 Evans, Donald B., electron microprobe study
 of inclusions in lead telluride thermo-
 electric elements, 2081

INDEX 1970

- Evans, George C., mineral industry of Massachusetts, 18157
- Evans, James, about nutria and their control, 18341
- Evans Creek, Washoe County, Nev., watershed work plan, 7785
- Evangdale, Iowa, floods, how to avoid damage, Cedar River, 17915
- Evanston Formation, southwestern Wyoming, Paleocene mammals in Evanston Formation, new occurrence, 2216
- Evaporated milk, *see* Milk.
- Evaporation:
- coevaporation of elements used in Zn doping of GaAs films, 15089
 - effects of—
 - surface properties of water on, 18072
 - waves on evaporation from free water surfaces, study, 4655
 - evaporative freezing process for water desalination, 5624
 - pump intake manifold and evaporation trays, San Diego Saline Water Test Facility, Saline Water Office hydraulic model study, 7725
 - reduction research, progress in Reclamation Bureau, paper, 7722
 - solar, disposal of brine—
 - data, 11445
 - design criteria, 14598
 - field experiments, 14597
 - laboratory experiments, 11446
 - water evaporation rates, spray systems, method of increasing to facilitate brine disposal from desalting plants, 774
- Evaporators:
- analytical model of flash stage, development, 5619
 - IVS-3, improving performance, USSR study, 12652
 - smooth tubes for large multistage flash evaporator desalination plants, fabrication, 10230
 - vertical tube, utilizing vortex flow and interface enhancement, 16700
- Evapotranspiration:
- by woody phreatophytes in Humboldt River Valley near Winnemucca, Nev., 10172
 - evapotranspiration tent, modifications and evaluations, 699
 - studies (series), 10172
- Evening and continuation schools, *see* Schools.
- Everett, Wash.:
- area wage survey, 11534
 - census of transportation, 1967 commodity transportation survey, production area series, 6433
- Everett McKinley Dirksen Building East:
- designate Federal office building and U.S. courthouse in Chicago, Ill.—
 - law, 9602
 - reports, 5206, 6684
- Everett McKinley Dirksen Building West:
- designate Federal office building to be constructed in Chicago, Ill.—
 - law, 9602
 - reports, 5206, 6684
- Everglades National Park:
- additional lands, acquisition—
 - laws, 304, 15810
 - reports, 13658, 15872
 - general information, 9030
 - water supply—
 - hearings, 9938
 - meeting arranged by subcommittee, 8377
- Everly, Elaine, records of Assistant Commissioner for State of Georgia, Bureau of Refugees, Freedmen, and Abandoned Lands, 1865-1869, 4546
- Evernden, J. F., chronology of emplacement of Mesozoic batholithic complexes in California and western Nevada, 9273
- Every 10th American, 9273
- Evidence, testimony by FAA employees in legal proceedings, Federal aviation regulations, 2571
- Evjen, Victor H., Federal probation, journal of correctional philosophy and practice, 2618
- Evolution, tenrecs, mammalian behavior, study, 6156
- Ewing, W. Maurice, covering leg 1 of cruises of drilling vessel, Glomar Challenger, Orange, Tex., to Hoboken, N.J., 1004
- EXAMETNET, *see* Experimental Inter-American Meteorological Rocket Network.
- Examinations, *see* Civil service—also type or subjects of examinations.
- Excavating machinery, equipment, Federal item identification guides for supply cataloging, supplements, 2590
- Excavation, excavating and foundation work, special trade contractors, 1967 statistics, 13138
- Excess property, *see* Surplus property.
- Exchange Stabilization Fund, audit by General Accounting Office, authorize, hearings, 8280
- Exchange stabilization funds, *see* Funds.
- Exchanges (international), *see* International exchanges.
- Excise taxes:
- automobiles and communication services, tax recommendations of the President, hearings, 15954
 - imported foreign-made automobiles, information, 11454
 - information on 1970 excise taxes, 5647
 - internal revenue bulletin, cumulative index-digest supplement system, 2730, 7315, 14608
 - IRS looseleaf regulations system, 785, 2855, 4310, 5653, 8812-13, 11455-456, 14614
 - see also* names of items taxed.
- Exciters (voltage-regulating):
- voltage regulator-exciter for Brayton Cycle space power system—
 - design and development, 11601
 - unbalanced electromagnetic forces, 10343
- Excreta, *see* Feces.
- Executive departments, technology assessment system for Executive Branch, report, 13543
- see also* Government offices—Government supplies.
- Executive Mansion:
- Executive Protective Service, authorize—
 - hearing, 3989
 - law, 8176
 - reports, 1517, 3828, 3941
 - general information, 12876
- Executive Office of the President:
- appropriations, 1971—
 - hearings, 6693, 13710-711
 - law, 17608
 - reports, 8247, 16009
 - reorganization—
 - disapproval, report, 8260
 - hearings, 8301, 11127
 - message from the President, 6574
- Executive offices, *see* Government offices.
- Executive orders, *see* subjects.
- Executive Papers, Joint Committee on Disposition of:
- abolish—
 - law, 12114
 - reports, 1534, 11085
- Executive Protective Service:
- designate—
 - hearings, 3989
 - law, 8176
 - reports, 1517, 3828, 3941
- Executives:
- ACE, Active Corps of Executives, Small Business Administration, 9100
 - court, trends in role, modern court management, 16817

- Executives—Continued
executive management bulletin (series), 8044
Federal Aviation Administration, executive selection and inventory system, handbook, 16475
Federal executive, characteristics, 246
Executors, *see* Administrators.
Exercise, *see* Physical fitness.
Exhaust plumes, *see* Jet plumes.
Exhaust systems:
diesel, sensory evaluation of exhaust odors, 7561
reciprocating engine and exhaust vibration and temperature levels in general aviation aircraft, 4118
scaling of VTOL recirculation effects, 14827
Exhibitors:
exhibitor's export market guide (series), 2762
explorations, shown at National Collection of Fine Arts Apr. 4-May 10, 1970—
artists, list, 11764
exhibition contents, 11765
international, convention, protocol, 17338
international expositions held in United States, Federal Government recognition and participation—
law, 10929
report, 8242
Man and his World, Canada exposition, dedication of U.S. pavilion (remarks), 11929
United States conventions and trade shows, 1971-72, list, 18397
worldwide, schedule 1970-71, for U.S. businessmen, 16717
see also subjects.
Eximbank, *see* Export-Import Bank of United States.
Expanding opportunities, women in Federal Government, 9473
Expanding role of atom in humanities (lecture), 139
Expansion (thermal):
thermal expansion of lake ice in southeastern Connecticut, formation of modern ice-push ridge, 1800
Expediting act, *see* Trusts (industrial).
Expedition monitor and maintenance analyst, *see* Maintenance.
Expenditures:
capital, in public sector, 3 methods of evaluating, 8019
criminal justice activities of large governmental units, 1967-68, 6458
see also Finance—*also* names of departments, etc., *also* subject for which expenditures are made.
Expenditures of United States Government: combined statement, 4794
illegal expenditure of funds for construction of research facilities by Air Force, GAO report, 5530
monthly statement, 2908
Experience records, analysis of experience under supplementary medical insurance program according to payment-record data, 7745
Experiment stations, *see* Agricultural experiment stations.
Experimental InterAmerican Meteorological Rocket Network, meteorological rocket observation data, etc., 1968 annual report, 14839
Experimental prescribed burn to reduce fuel hazard in chaparral, 18021
Experimental safety cars study, 4562
Experiments and experimentation:
analytical and experimental investigation of high entrainment jet pumps, 14820
Experiments and experimentation—Con.
apparent mass and moment of inertia of large disk suspended as pendulum at different air densities, experimental determination, 12819
experimental and analytical study of visual detection in spacecraft environment, 14812
experimental determination of equivalent solid bodies to represent jets exhausting into Mach 2.20 external stream, 2099
experimental investigation of single particle behavior in axisymmetric magnetic field, 18221
gamma-prime strengthened cobalt-nickel base alloy, statistical design and analysis of optimum seeking experiments, 2118
ionospheric channel model, experimental verification, 4090
natural vibration and flutter of elastically supported corrugation-stiffened panels, 16987
statistics—
experimental, engineering design handbook, tables, 3458
special topics, Army equipment performance, etc., 3457
water, structure, thermodynamics and kinetic behavior, 1955
see also Turboalternators—*also* subjects.
Exploding wires, experiments, shock effects on frozen materials, 11252
Explorations:
bottom trawl explorations, 1963-65 in Northern Lake Michigan, 3703
precious metal exploration, neutron activation techniques, 133
schooling pelagic fishes in Middle Atlantic Bight, 9533
see also Outer space.
Explorations, exhibitions, 11764-766
Explorer, *see* Satellites.
Exploring new directions, annual report 1969, National Capital Housing Authority, 10443
Explosions:
accidental, structures to resist effects, Army technical manual, 3480
and thermal decomposition of ammonium perchlorate and ammonium perchlorate propellant up to 50 kilobars (5.0×10^9 N/m²), 17001
crater scaling in granite for small charges, 11594
dynamic response of model buried field shelter, Project LN314, Operation Prairie Flat, 10020
errata, 11258
explosive properties, effects on free surface displacement pulses and crater dimensions, 11592
explosives, explosions, and flames, research and technologic work, 18147
physical and explosion characteristics of hydrazine nitrate, 5854
research and technologic work, 4409
seismic effects associated with underwater explosive research facility, 10327
tire explosion, multidisciplinary accident investigation, 14978
underground blasting in frozen gravel, effects of type of cut, delay, and explosive, 7481
see also Mine explosions—Nuclear explosions.
Explosive guns, high velocity explosively driven guns, 11605
Explosives:
and blasting agents, industrial, in United States, 1968, consumption, 5847
building firelines with liquid explosives, some preliminary results, 10125
effect of sodium nitrate on incendiarity, in coal dust-gas-air mixtures, 876
effects on underground blasting in frozen gravel, 7481

Explosives—Continued

explosions, and flames, research and technologic work, 18147
 Federal item identification guides for supply cataloging, supplements, 2598
 illegal use, transportation, or possession, etc., penalty, amend U.S. Code, report, 16025
 permissible explosives and blasting devices, active list, 16898
 properties and preparation, USSR study, 5801
 research and technologic work, 4409
 underwater research facility, seismic effects, 10327
see also Atomic blasting—*also* names of explosives.

Exponential functions, *see* Mathematics.

Export control act of 1949, *see* Exports.

Export-Import Bank of United States:

appropriations, 1970—
 hearings, 1702
 law, 5053
 reports, 1521, 1561, 3840, 3926
 appropriations, 1971—
 hearings, 9728
 reports, 10962, 13400
 audit reports, 9631, 10141
 budget, 1970, amendments, proposal, 5186
 new look at export credit guarantees, insurance, Eximbank programs, 5715
 1969 report, 4098

Export insurance, export credit guarantees, insurance, new look, 5715

Export Marketing Service, appropriations, 1971, hearings, 9724

Exports:

activities, glossary of terms used in ASCS and related programs, 13
 airborne, foreign trade reports, 2672, 3650
 aircraft, export airworthiness approval procedures, 618
 CCC export credit sales program, general information, 8580
 combination export manager program (address), 5716
 control act of 1949—
 extend—
 law, 1383
 reports, 361, 366, 1499, 1567, 1611
 control, quarterly report, 2550
 control regulations, 2552, 10245
 current export bulletin, 2473
 current U.S. role in export trade and proposals for future improvement (address), 11460
 exhibitor's export market guide (series), 2762
 Expansion and regulation act, amend, reports, 369, 6586
 Export administration act of 1969, law, 3754
 export and profit (address), 271
 export challenge of the seventies (address), 10244, 11461
 export control bulletin, 2551
 export credit sales program, how it works, 8170
 export expansion, where do we go from here? (address), 4983
 export opportunities—
 address, 268
 information sources, 3524
 export promotion programs (address), 9489
 exporting, introductory guide, 12617
 exporting, looking ahead in 1970's (addresses), 16714-716
 financing, Action Committee on Export Financing, report, 281
 financing sources, 14644
 foreign trade reports, 2666, 2669, 2678, 10831, 12041
 licenses approved and reexports authorized, list, 2553

Exports—Continued

log export restrictions of Western States and British Columbia, 4208
 manufacturers' sales and orders of durable goods, current industrial reports, 2475
 Mutual defense assistance control act of 1951 (Battle act) report, 17332
 National Export Expansion Council's Industry Committee on Engineering and Construction Services, report, 15719
 privileges, denial and probation orders currently in effect, 5698
 problems and policy (address), 15713
 promoting foreign trade (address), 10241
 regulation, continue authority, law, 3754
 sales promotion announcements, 2554
 services, foreign agriculture circulars, 2657
 statistical classification, schedule B, 189, 3175
 tax treatment of export income, Domestic International Sales Corporation proposal of Treasury Department, 13551
 U.S. commodities, as related to output, 17541
 world markets for U.S. exports (series), 2762
 you and PL 480 exports, how small business can benefit, 5399
see also Export insurance Tariff—*also* names or classes of articles exported.

Expositions, *see* Exhibitions.

Exposure:

elevated temperature influence on maximum compressive strength of titanium-alloy skin-stringer panels, 5961
 high temperatures, complex performance during exposure, 6403
 intermittent exposure to 3% CO₂ effect on respiration, 11570
 repeated, decrease in perceived distortion application for naval diver training, 11568
 to intense low frequency tones, effects on hearing and performance, 12733
 vacuum, and heat sterilization effects on some low-density heat shield materials, 7538

Extension of Ghazala's method to incompletely specified multiple-output functions, 10497

Extension Service, *see* Cooperative Extension Service—Federal Extension Service.

Extension work:

food and nutrition, basic lessons for training extension aides, 17955
 health for better living, guide for workers, 6310

Extortion, enforcement report of Postal Inspection Service, monthly, 2539

Extraction (chemistry):

nickel and zinc from waste phosphate solution, 5874

Extracts, *see* names of extracts.

Extradition:

continued application to Swaziland of United States-United Kingdom treaty of Dec. 22, 1931, agreement with Swaziland, 18348
 treaty with France—
 message from the President, 9788
 report, 15974
 treaty with New Zealand—
 message from the President, 6730
 report, 11067

Extraterrestrial matter, 7th annual working group on extraterrestrial resources, proceedings, 16952

Extrusion processes, profile extrusions, rigid polyvinyl chloride, voluntary product standard, 17044

Eye protectors:

effects of near infrared radiation on visual performance, preliminary investigation, 7452

Eye protectors—Continued
protective devices, to be worn by students
and teachers for certain courses in
District of Columbia public schools,
require—
hearing, 8389
reports, 1500, 9840
Eyes, breadboard remote oculometer, design,
7506

F

F.A.A., *see* Federal Aviation Administration.
F.B.I., *see* Federal Bureau of Investigation.
F.C.C., *see* Federal Communications Commission.
F-4, *see* Fighter planes.
F.H.A., *see* Farmers Home Administration—
Federal Housing Administration.
FAA, *see* Federal Aviation Administration.
Fabre R., turboclar fog dispersal method,
development and testing of underground
blower unit, 18373
Fabretto, Marcella C., relief, 13298, 13378,
17659
Fabricated materials:
fabricated metal products, except cans,
census of transportation, 1967, com-
modity transportation survey, shipper
group, 1313
nonmetallic, Federal item identification
guides for supply cataloging, supple-
ments, 2596
textiles products, census of manufactures,
1967, industry statistics, 17518
Fabrication, *see* names of materials fabri-
cated.
Fabrics, *see* Textiles—also names of mate-
rials.
Fabry-Perot interferometer, Fabry-Perot
use in measurements of dielectric constants
and loss tangents at E-band, 2117
Fabuss, Bela M., investigation of anomalous
water, 12612
Facial disfigurement, maxillofacial prosthe-
tics, interprofessional conference, pro-
ceedings, 6145
Facilities handbook series, 1040, 2195, 18394
Facility management handbooks, 63, 4841,
7966, 13032
Fact book of U.S. agriculture, 6307
Factories:
Central Arizona project, water for fac-
tories, 9080
factory operatives assembler, electro-
platers, power truck operators, produc-
tion painters, employment outlook,
16834
industrial buildings, etc., USSR study,
10271
labor turnover, monthly release, 2559
Facts about osteoporosis, 7717
Facts for teenagers, smoking, health, and
you, 13183
Factual campaign expenditures, 3896
Factual campaign information, 11062, 15963
Fagan, Charles A. III, remarks, Mar. 30,
1970, 6889
Fahey, D. J., effect of forming conditions of
wet web on mechanical properties of kraft
papers, 10128
Fahnestock, George R., two keys for ap-
praising forest fire fuels, 14476
Failure analysis, *see* Error analysis.
Failure free systems, *see* Reliability (me-
chanical).
Fain, Richard A., ship response results from
first operational season abroad container
vessel S.S. Boston, 17287
Faine, Robert C., analysis of title 19 dental
care program in Chemung County, N.Y.,
8763
Fair, Gale, theory of galvanomagnetic effects
in metals, 2119

Fair employment practices, *see* Discrimina-
tion in employment.
Fair housing U.S.A., 14573
Fair labor standards act, *see* Labor stand-
ards.
Fair packaging and labeling act, *see* Pack-
aging.
Fair plan, fire and extended coverage insur-
ance, 8781
Fairbanks, Alaska, lode mines and prospects
in district, 729
Fairfax County, Va., District of Columbia
correctional institutions, transfer control
to Attorney General, hearings, 5153
Fairfield County, Conn., community profile,
6903
Fairfield County, Ohio:
community profile, 13949
soil survey report, 4697
Fairland, Ind., aircraft accident report,
17168
Fairness doctrine, *see* Radio broadcasting.
Fairs:
mobile trade, continue program, hearings,
13535
science fair participants, guide to agri-
cultural quarantines, 1193
Faison, Richard W., analytical and experi-
mental investigation of end-plane rota-
tions of truncated cones under bending
loads, 932
Faison, T. K., performance of louvered de-
vices as air mixers, 8979
Fakan, John C.:
application of modern network theory to
analysis of—
complex systems, 915
manned systems, 18213
Falanga, Ralph A., inverse-method solution
for radiating, nonadiabatic, equilibrium
inviscid flow over blunt body, 14863
Falarski, Michael D., wind-tunnel investi-
gation of several large-scale all-flexible,
parawings, 7544
Falk, C. E., science and engineering doc-
torate supply and utilization, 2165
Falkner, Frank:
child health and human development,
progress 1963-70, report, 18264
key issues in infant mortality, 9011
publications of Centre International de
l'Enfance coordinated growth studies,
8886
Fall River, Mass., subversion in New Left,
extent, hearings, 17707
Fall River County, S. Dak., community
profile, 12950
Fallout, *see* Radiation—Radioactivity.
Fallout shelters, *see* Radioactivity.
Falls:
hurt, safety precautions, 6303
trips, slips, and falls, occupational safety
aid, 4370
Falls of Ohio Interstate Park:
compact, consent of Congress—
law, 17602
reports, 10957, 15983
Falvey, Arthur E., mineral industry of
Nebraska, 4445
Falzgraf, Bryan G., preparation of terminal
forecast worksheets, 3442
Families:
AFDC program, welfare policy and con-
sequences for recipient population,
7743
AFDC study—
1967 findings, data by State and census
division, demographic and program
characteristics, 17052
1969, preliminary report, 11758
aid to families with dependent children—
cost standards for basic needs and
percent of standards met, 6021
financial assistance, material related to
Administration revision, 17097
work and training provisions, 17698

INDEX 1970

Families—Continued

- aid to families with dependent children—continued
 - financial assistance, provide basic level—
 - bill form, 11117
 - brief summary of act, 13548
 - hearings, 8319, 9905
 - related material, 13727
 - reports, 8227, 8252
 - revision as resubmitted by Administration, 11118
 - New York City, report of findings of special review, 8329
 - services under Social Security act, annual report, 15952
- characteristics of persons and families, Mar. 1970, income, poverty, etc., 10817
- economy-minded—
 - food, ideas for leaders working with, 42
 - food makes the difference, ideas and suggestions, 39
- Family assistance act (speech), 7406
- Family assistance act of 1970—
 - bill form, 11117
 - brief summary, 13548
 - hearings, 8319
 - material related to Administration revision, 17697
 - work and training provisions, 17698
 - related material, 13727
 - reports, 8227, 8252
 - revision as resubmitted by Administration, 11118
- Family assistance act of 1971, hearings, 9905, 9932
- family benefits under 1969 amendments, old-age, survivors, and disability insurance, illustrative total monthly, 12919
- family economics review, 2560
- family fare, guide to good nutrition, 9289
- family heads, occupation and earnings in 1969, 1965, and 1959, current population reports, 15652
- family health survey, census use study, reports now available, announcement, 3609
- family in hospital, lessons from developing countries, 6045
- family status—
 - Mar. 1968, population characteristics, errata, 221
 - Mar. 1969, population characteristics, 6441
- food budgeting for good meals and good nutrition, 3402
- food for family with young children, 10685
- homeownership for lower income families, 8790
- household and family characteristics, current population reports, 6090
- ideas for using donated foods, 40
- low-income—
 - Agriculture Department food stamp program, more food, better diets, 38
 - homeownership, assistance under new FHA program, 5596
 - toward better housing for, report of President's Task Force on Low Income Housing, 11833
 - police trained as specialists in family crisis intervention, 16819
 - retired serviceman's family protection plan, 3456
 - rural, low-income, self-help housing, 7933
 - services to AFDC families, annual report to Congress, 17571
 - social security in your financial planning, 1104
 - social security information for young families, 7754
 - social services for families and children, 18241
 - subsidized planning services, need for, survey of U.S., each state and county, 6988

Families—Continued

- urban family of 4 persons, 3 budgets, preliminary spring 1969 cost estimates, 16867
- see also Income.
- Family courts, see Domestic relations courts.
- Family farms, see Farms.
- Family Health Week, National, see National Family Health Week.
- Family planning, see Birth control.
- Family Planning and Population, National Center, see National Center for Population and Family Planning.
- Family practice of medicine act of 1970—
 - hearings, 12375
 - report, 13679
- Fan, L. T., analysis and optimization of multi-effect multi-stage flash distillation system, 12608
- Fang, Ai-Chun, digital simulation of rotational kinematics, 900
- Fanning, John H.:
 - addresses—
 - Nov. 21, 1969, 987
 - Oct. 19, 1970, 18271
- Fans:
 - and Impellers, Federal item identification guide, 540
 - required fan power for condensers and boilers, 11660
 - 6 wing-mounted lift fans, wind tunnel investigation of V/STOL transport model, 14848
 - errata, 16957
 - see also Ducted fans—Mechanical fans—Turbine fans.
- Fanseen, James F.:
 - remarks—
 - Feb. 10, 1970, 5424
 - Apr. 15, 1970, 7098
 - May 20, 1970, 10057
 - Sept. 29, 1970, 16496
- FAR Documentation Center, see Foreign Affairs Research Documentation Center.
- Far East, see East (Far East).
- Farfante, Isabel P., diagnostic characters of juveniles of shrimps, 5014
- Farm animals, see Livestock.
- Farm buildings:
 - agricultural buildings, etc., USSR study, 10271
 - building plans—
 - automatic crowding gate for dairy cows, 10692
 - cattle feeders, 3414
 - farrowing house, tilt-up concrete construction, 3415
 - 4-bedroom rural dwelling, 3413
 - free-stall shed for dairy cattle, 3412
 - grain storage building, tilt-up concrete construction, 31
 - hog house—
 - farrowing, farrowing and finishing, 9311
 - for gestating sows, 7927
 - horizontal silo, tilt-up construction, 3411
 - laying house for poultry, 3416
 - machine shed, tilt-up concrete construction, 30
 - milkhouse, 7930
 - movable shelter for calves, 6308
 - shed for drying hay, 9310
 - storage bin for fertilizer, 7929
 - 3-bedroom house, 9308
 - 2 grain-feed handling centers, 9309
 - wagon box for drying hay, 7928
 - construction guide for program personnel in connection with Farmers Home Administration loans, 8587
 - foundations, 17433
 - plumbing system for farmstead, planning, etc., 3399
- Farm credit, see Agricultural credit.

Farm Credit Administration :

- annual report, 1968-69—
- departmental edition, 8582
- document edition, 8199
- appropriations, 1970—
- law, 1392
- report, 1482
- appropriations, 1971—
- hearings, 9724, 11104
- reports, 10983, 12342
- audit report, 5081
- circular, 4099
- Farm crops, *see* Crops.
- Farm equipment, *see* Farm implements and machinery.
- Farm houses, *see* Farmhouses.

Farm implements and machinery :

- agricultural equipment technology, suggested 2-year post high school curriculum, 4048
- current industrial reports, 2476
- farm equipment and repair parts, what manufacturers, distributors, and dealers should do with them in national emergency, 7932
- farm equipment mechanics, employment outlook, 14705
- farm machinery and equipment—
- industry, changing structure and performance, 12991
- 1967, census of manufacturers, industry statistics, 15609
- shipments 1958-67, patterns of industrial growth, 8047
- Federal item identification guides for supply cataloging, supplements, 2591
- machine shed, tilt-up concrete construction, 30
- power and equipment on farms in 1964, 48
- States, major items by size and type, 17447

Farm income, *see* Income.

Farm index (periodical), 2563

Farm insurance, *see* Agricultural insurance.

Farm labor :

- cash and perquisites received by regular hired farmworkers, 15446
- collective bargaining for agricultural workers, provisions, hearings, 16071
- developments, 2565
- farmworker legal problems, hearings, 16074
- hired farm working force of 1969, statistical report, 8497
- housing, FHA program, expand, reports, 15878, 16026
- improvement of life and work of agricultural workers, ILO recommendation, 335
- labor used on U.S. farms, 10708
- migrant agricultural workers, housing, regulations and standards, 12978
- migrant and seasonal farmworker powerlessness hearings, 9925, 11139, 12378, 16074
- migratory agricultural workers, Health services grants, amend and extend act—
- law, 6541
- reports, 1522, 1686, 5137
- migratory, problem in U.S. print additional copies, reports, 1672
- monthly report, 2564

Farm Labor Relations Board, establish, hearings, 9886

Farm machinery, *see* Farm implements and machinery.

Farm mortgages, *see* Mortgages.

Farm ponds, how to build for fish protection, 4685

Farm prices, *see* Prices.

Farm products, *see* Agricultural products.

Farm rents, *see* Rent.

Farm supplies, supply cooperative as farmers see it, 8586

Farm workers, *see* Farm labor.

Farmer, Moses G., flutter studies to determine nacelle aerodynamic effect on fan-jet transport model for 2 mount systems and 2 wind tunnels, 16998

Farmer Cooperative Service :

- appropriations, 1970—
- law, 1392
- report, 1482
- appropriations, 1971, hearings, 8266
- bulletins, 14354
- information series, 5401, 10038, 17956
- research reports, 4100, 5400, 8584-86, 10039, 12514, 16468

Farmers :

- agricultural provisions of Fair labor standards act, guide, 9264
- can marketing order help? 7934
- facts for prospective farmers, 7917, 9287
- farm and credit, 1970 outlook, 11279
- mink, FHA emergency loans, authorize, hearing, 16035
- National Farmers Union (address), 12491
- pathways for profits (remarks), 7936
- personal property taxes levied on farmers, 1950-67, 7942
- pesticide expenditures 1966, statistics, etc., 16379
- quantities of pesticides used in 1966 by farmers, 8496
- tax guide, 1970 edition, 782
- Tax reform act of 1969, provisions of significance to farmers, 9973
- Wyoming, recreation as possible income crop from land use, how and where to get help, 15226
- see also* Farmers' cooperative organizations.

Farmers' bulletins, 16-17, 3399-3400, 4809-11, 7916-17, 9285-88, 11948-949, 15415-416, 17433-435

Farmers' cooperative organizations :

- Agricultural marketing and bargaining act of 1969, hearings, 3948
- cooperative alfalfa dehydrating plants, guidelines, 17956
- farmers cooperatives—
- Agricultural Department major statistical series, how constructed and used, 15412
- farm business tools, 10684
- financial structure, 5400
- legal phases of farmer cooperatives, sample documents, 14354
- news for farmer cooperatives, 2962
- statistics, 8585
- supply cooperative as farmers see it, 8586
- tax reform hearings, summary of recommendations, 8395
- Uganda, building farmers' enterprises with AID, assistance, 10250
- what are cooperatives? 10038
- why a cooperative? quick look at what people do through their cooperatives, 5401

Farmers Home Administration :

- Agriculture Dept., savings available to Government by timing advances of loan and grant funds with actual cash requirements, GAO report, 11382
- appropriations, 1970—
- law, 1392
- report, 1482
- appropriations, 1971, hearings, 9724
- consolidation act of 1961, amend, hearings, 1698, 16035
- emergency loans for mink farmers, authorize, hearing, 16035
- farm ownership loans, 9313
- characteristics of new borrowers, 9971
- farmers home insured notes—
- for building rural America, 3423
- investor's opportunities, 1202, 11957

INDEX 1970

- Farmers Home Administration—Continued
housing loans to lessees of nonfarm rural land, authorize, report, 15987
insured loans, tax treatment of interest, report, 9716
loan applications, assessment of fees for processing would help recover program costs, GAO report, 5523
loans, desertland entrymen, assistance, report, 3830
loans for rental & co-op housing for senior citizens, etc., in rural areas, 10698
loans for water development and soil conservation, questions and answers, 6309
loans to Indian tribes and tribal corporations for acquisition of lands—
law, 8188
report, 6590
need to strengthen procedures for managing certain delinquent borrower accounts, GAO report, 1897
obligations under Consolidated Farmers Home Administration act and Housing act, opinion of Attorney General, 8851
real estate loans, increase limitation—
hearing, 11019
report, 12226
rural housing loans, 12999
Farmhouses, 3-bedroom, farm building plan, 9308
Farming, *see* Agriculture.
Farms:
Central Arizona Project, water for farms, 9080
commercial broiler farms, 1969 cost and returns, Georgia, 14268
commercial egg-producing farms, 1969, New Jersey, 9972
commercial slaughter, meat and lard production, etc., 9211
commercial tobacco farms, 1969 costs and returns, Coastal Plain, N.C., 14269
concepts involved in defining and identifying, 12494
costs and returns, 8498, 9972, 14268-270
credit and farm of future (address), 7915
determining what constitutes a farm for purposes of subsidy payments under U.S. sugar program, procedures to be improved, Agricultural Stabilization and Conservation Service, GAO report, 7216
farm and credit, 1970 outlook, 11279
farm ownership loans from Farmers Home Administration, characteristics of new borrowers obtaining, 9971
farm tenure and cash rents in U.S., 14267
father-son operating agreements, 9286
flooded, first aid, 4806
general farm program, hearings, 1568, 3846
labor used on U.S. farms, 10708
lighting, 17435
losses, deductions, tax reform hearings, summary of recommendations, 8395
operating loans for better farming, better living, 7931
our 31,000 largest, 6989, 6990
ownership, FHA loans, 9313
population—
1969 estimates, 14272
1969, United States, 10813
series Census ERS, 10813
power and equipment on farms in 1964, 48 States, major items by size and type, 17447
production and efficiency changes, summary report, 13006
real estate—
market developments, 16384, 16385
taxes, recent trends and developments, 9977
size—
by counties, 1964, map, 15662
percent change by counties, 1940-64, map, 15663
Farms—Continued
use of concrete, 4810
vegetable gardens, planning, planting, etc., 11950
your Agriculture Department, how it serves people on farm, 9317
see also Farm labor.
Farmsteads, *see* Farm buildings.
Farnes, P. E.:
Federal-State-private cooperative snow surveys, 1922-69, summary of snow survey measurements for Montana, 10558
water supply outlook and Federal-State-private cooperative snow surveys for Montana, 1113, 3340, 18336
Farnsworth, George, DIME geocoding system, 15618
Farquhar, Robert W., control and use of libration-point satellites, 18223
Farrowing house tilt-up concrete construction, 3415
FAS, *see* Foreign Agricultural Service.
Fast announcement (periodical), 2566
Fast burst reactors, *see* Reactors (atomic).
Fast reactors, *see* Reactors (atomic).
Fasteners, *see* Bolts and nuts—Fastenings.
Fastenings:
fasteners, test methods, military standard, 552
fastening devices, Federal item identification guide, 4008, 13786
mechanical fasteners and materials, guided missiles preferred items list, military standard, 4034
Fat, *see* Fats.
Fatalities, *see* Death.
Father Damien, memorial statue, Hawaii's presentation to National Statuary Collection, proceedings, 13558
Father-son agreements for operating farms, 9286
Fathom (periodical), 6079
Fatigue of materials, *see* Strains and stresses.
Fats:
and oils, census of manufactures, 1967, industry report, 17513
current industrial reports, 2475
fats and oils situation, 2567
foreign agriculture circulars, 2657
production, consumption and factory and warehouse stocks, current industrial reports, 4936
vegetable oil crushers, current industrial reports, 4937
Faulk County, S. Dak., community profile, 13951
Faulkner, Glen I., geohydrology of Cross-Florida Barge Canal area with special reference to Ocala vicinity, 10167
Fauna:
bottom fauna, fish and aquatic life of Tennessee Valley streams—
Emory River, 10643
Powell River drainage basin, 15353
fauna of basin in central Florida Bay, 13242
North American, 15269
rodent fauna, natural plague foci with reference to history of, USSR study, 10272
see also Corals—Marine fauna.
Favorite, Felix:
fishery oceanography—
estimation of flow in Gulf of Alaska, 17567
ocean salinity and distribution, 5009
ocean temperature and distribution of Pacific salmon, 3711
ocean circulation and distribution of sockeye salmon, 10890
ocean food of sockeye salmon, 9530
Fawcett, John:
internal revenue assessment lists for—
Connecticut, 1862-66, pamphlet, 4542
Delaware 1862-66, pamphlet, 7667

Fay, Richard R., auditory sensitivity of goldfish within near acoustic field, 14766
 Fayette County, Ala., community profile, 13952
 Fayette County, Iowa, community profile, 13953
 Fayette County, Ohio, community profile, 13954
 Fayette County, Pa., community profile, 16245
 FBI, *see* Federal Bureau of Investigation.
 FCA, *see* Farm Credit Administration.
 FCC, *see* Federal Communications Commission.
 FCIC, *see* Federal Crop Insurance Corporation.
 FCR series, 8498, 9972, 12468-270
 FCS, *see* Farmer Cooperative Service.
 FDA, *see* Food and Drug Administration.
 FDA handbook of total drug quality, 4174
 FDL-(series), 1116, 6203-6, 10579-583, 11877, 15260, 17315-316
 FDS series, 2638
 Fear, James S., performance of turbo jet combustor using natural gas fuel heated to 1200°, 5963
 Feathers, feathers and down, Tan-O-Quil-QM treatment, 1222
 Feces:
 biogradizing poultry excreta with house fly larvae, concept and equipment, 4797
 human, magnesium and calcium content determined using atomic absorption instruments, spectrum-1 and SFPA, USSK study, 8833
 Fecundity, fertility of population, Jan. 1969, characteristics, 10816
 Federal agencies, *see* Government offices.
 Federal aid, *see* Grants-in-aid.
 Federal assistance, *see* Grants-in-aid.
 Federal assistance in outdoor recreation, available to States, their subdivisions, organizations, individuals, 17204
 Federal assistance programs:
 catalog, create, hearings, 510
 consolidation, hearings, 9741, 11036
 Federal domestic policies and programs reform (address), 9968
 grant consolidation act of 1969, hearings, 510
 intergovernmental cooperation, improve, hearings, 510
 natural disaster damages to roads, streets, bridges, 9076
 program information act of 1969, hearings, 510
 restructuring or terminating certain outmoded or uneconomic Federal programs to reduce budget outlay, proposed legislation, message from the President, 5091
 Federal Aviation Administration:
 air traffic activity, reports, 7060, 16471
 air traffic control system for 1970's development, problems—
 hearings, 8298
 report, 11016
 airmen other than flight crewmembers, certification, 8595
 airworthiness directives, 2571
 large aircraft, summary, 3242, 11290
 supplements, 627, 4122
 small aircraft, summary, 628, 3243, 11291
 revised pages, 629, 4123
 appropriations, 1970—
 hearings, 398, 1701
 law, 3742
 reports, 1468, 1556
 appropriations, 1971, report, 9719
 certification, airmen other than flight crewmembers, Federal aviation regulations, 4105
 contractions used in air traffic control, etc., handbook, 61, 3446, 6340, 13030
 data reports, 7058

Federal Aviation Administration—Con.
 Deputy Administrator, nomination of Kenneth M. Smith, hearings, 13719
 enforcement procedures, regulations, 2571
 executive selection and inventory system, handbook, 16475
 FAA aircraft program data feedback (periodical), 2556
 FAA aviation news (periodical), 2557
 FAA electronic equipment type designations index, handbook, 5407
 FAA training, study, 7072
 Federal aviation regulations, 620-24, 1842, 2570-75, 3242-43, 4105-7, 5403-6, 7061-63, 8592-99, 10042-44, 14357, 16473-474, 17959
 definitions and abbreviations, 2570
 fees for copying and certifying FAA records, 2571
 use of communication system, 2571
 film catalog 1970, list, etc., 8591
 general aviation public airport financial survey, 1969 report, 6342
 handbook series, 1844, 4108-4111, 5407-7A, 7064-67, 8600-1, 10045, 11285-287, 14358-359, 16475-477, 17960-961
 maintenance certification procedures, handbook, changes, 5407A, 8601
 national aviation system—
 policy summary, 5411
 10 year plan, 5410, 7069
 nondiscrimination in federally assisted programs, regulations, 2571
 procedures for determining excess spare parts, improvements needed, GAO report, 14502
 publications, 1969 list, 619
 recurring reports, catalog, 17958
 report FAA-NA series, 17962-963
 report FAA-NO series, 4120-21
 report FAA-NS series, 17965
 report FAA-RD series, 18369-377
 rule making procedures, regulations, 2571
 standard data elements and codes, general standards, handbook, 4108, 10046
 statistical handbook of aviation, 16472
 technical standard order authorization, regulations, 621, 2571
 Federal Broker-Dealer Insurance Corporation, establish, hearings, 13529, 13715
 Federal buildings, *see* Public buildings.
 Federal Bureau of Investigation:
 additional supergrade positions, establish, recommendations, 8315
 annual report, 5413
 career opportunities, 7076
 FBI laboratory, brief outline of history, services, and operating techniques of world's greatest scientific crime laboratory, 632
 general information, 11292
 special agents, employment outlook, 12698
 story, 8605
 Federal careers projected vacancies, Illinois, Indiana, Kentucky, Michigan, Ohio, and Wisconsin, 9469
 Federal civil defense guide, 241, 4957-59, 6463-64, 10839-840, 12043, 13188, 15680
 Federal civil rights enforcement effort, report of Commission on Civil Rights, 15683
 Federal civil service, *see* Civil service.
 Federal Coal Mine Safety Board of Review:
 appropriations, 1970, law, 314
 appropriations, 1971, report, 9702
 Federal Committee on Pest Control, pesticides monitoring journal (periodical), 3019
 Federal Communications Commission:
 actions in docket cases, reports, 2576
 actions on motions, reports, 2576
 activities, fiscal 1969, summary, 1845
 annual report, summary of activities, 4128, 7078
 appropriations, 1971, hearings, 8271, 11105

INDEX 1970

- Federal Communications Commission—Con.
broadcasting or advertising of cigarettes
regulations prohibiting—
hearings, 496
law, 8181
reports, 6614 1652
capacity to govern, role of FCC in develop-
ment of national policy for computer
communications (remarks), 7077
decisions and reports, bound volumes, 633,
10047-48, 11295-297, 12519, 16480-
482
cumulative index digest, v. 1-15, 2d
series, 11294, 14364
decisions, reports, public notices, and
other documents (periodical), 2577
employee responsibilities and conduct,
FCC rules and regulations, 2578
improvements needed in settling claims
for termination of communications serv-
ices, GAO report, 1890
maritime services, radio stations on land,
shipboard, etc., rules and regulations,
2581
memorandum opinions, etc., 2878
nonbroadcast and general actions, reports,
2576
organization, FCC rules and regulations,
2578
practice and procedure, FCC rules and
regulations, 2578
press releases, 3049
procedures and standards (address), 4126
public notices, 2576, 3049
rules and regulations, 4129, 8606
transmittal sheets, 2578-87
Federal consumer safety legislation, 11767
Federal contested election act:
law, 1403, 1640
report, 371
Federal Council for Science and Technology:
annual report, 17259
Government patent policy, annual report,
4130
Federal Credit Insurance Association, new
look export credit guarantees, insurance,
FCIA programs, 5715
Federal credit unions:
act, amend—
hearings, 15892, 17691
law, 6538
reports, 1618, 13703
bylaws, 18243
handbook, 834
member accounts, share insurance protec-
tion—
hearings, 12358, 15892
report, 13703
money worries? credit union can help,
general information, 7081
program, annual report, 14952
sharing benefits of credit union member-
ship, guidelines, 4131
supervisory committee manual, 4132
Federal Credit Unions Bureau:
BFCU bulletin, 2367
research reports, 4131
transfer of functions, law, 6538
Federal Crop Insurance Corporation:
annual report, 11299
appropriations, 1970—
law, 1392
report, 1482
appropriations, 1971, hearings, 9724
audit reports, 5080, 5525
Federal deposit insurance act, *see* Banks
and banking.
Federal Deposit Insurance Corporation:
annual report, 16484
audit reports, 6576, 7207
member of Board of Directors, nomination
of Frank Wille, hearing, 6791
Federal domestic assistance programs, *see*
Federal assistance programs.
Federal employees, *see* Government officials
and employees.
Federal Employees Board of Arbitration:
establish—
hearings, 522
report, 1666
Federal employees compensation act, *see*
Employer's liability and workmen's com-
pensation.
Federal Employees Salary Commission:
establish—
hearings, 522
report, 1666
Federal employment, *see* Civil service—
Employment.
Federal expenditures, *see* Finance—also
subject for which expenditures are made.
Federal Extension Service:
appropriations, 1970—
law, 1392
report, 1482
appropriations, 1971, hearings, 8266
circulars, 7082, 8609
Extension Service review (periodical),
2555
Federal facilities, *see* Public buildings.
Federal fair employment practice act, *see*
Discrimination in employment.
Federal Field Committee for Development
Planning in Alaska:
appropriations, 1970, law, 314
appropriations, 1971—
hearings, 8268
law, 13335
reports, 9702, 13645
Federal Fire Council, library accessions, list,
2838
Federal Government, *see* Civil service—
Government.
Federal grading services, *see* Grading of
commercial products.
Federal grants to State and local govern-
ments, 12922
Federal Hall National Memorial, general in-
formation, 17154
Federal handling of demonstration, hearings,
16069
Federal Health Programs Service:
annual statistical summaries, 8610, 16486
nurses, careers, 7084
Federal Highway Administration:
accident investigation and reporting ac-
tivities, annual report, 8611
appropriations, 1970—
hearings, 1701
law, 3742
reports, 1468, 1556
appropriations, 1971, report, 9719
bus public transit projects (address), 7718
Federal laws, regulations, material relat-
ing to, 12522
FHWA motion pictures, 7085
highway planner, steps toward career
growth program, committee report,
15133
highways USA, information about current
programs and activities, 17970
problems resulting from deterioration of
pavement on interstate highway sys-
tem, GAO report, 11581
publications, list, 1847
questionable basis for approving certain
auxiliary route segments of interstate
highway system, GAO report, 12585
right-of-way, observations on problems en-
countered in resolving weaknesses in
State acquisition activities, GAO re-
port, 720
Federal Home Loan Bank Board:
appropriations, 1970, supplemental, pro-
posal, 15967
appropriations, 1971, hearings, 8271, 11105
financial statements, 1969, GAO examina-
tion, 14498
journal, 2782
objectives, 1970 (statement), 1852
press releases, 3050
proper role in inner city (speech), 5418

Federal Home Loan Bank Board—Continued
 statutes and regulations, manual, 1848
 supplements, 1849-50, 4138, 7087-88,
 8613, 10049, 11303
 views of new Board member (address), 638
 Federal Home Loan Bank System:
 combined financial statements, 1969,
 members of System, 18490
 interest charges on homes, reduce—
 hearings, 11026
 law, 13326
 reports, 8351, 10960, 12251, 13407
 statutes and regulations, manual, 1848
 supplements, 1849-50, 4138, 7087-88,
 8613, 10049, 11303
 Federal home loan banks:
 act, amend—
 law, 1410
 reports, 1546, 1555, 1616, 3829
 financial statement 1969, GAO audit,
 13374, 14494
 Federal Home Loan Mortgage Corporation:
 create—
 law, 13326
 reports, 8351, 10960, 12251, 13407
 mortgage credit increases for home financ-
 ing, hearings, 11026
 Federal Hospital Insurance Trust Fund, see
 Board of Trustees of Federal Hospital In-
 surance Trust Fund.
 Federal Housing Administration:
 digest of insurable loans and summaries
 of other programs, 1927
 FHA homes, insuring operations under
 sec. 203, 1968 data for States and se-
 lected areas, 8614
 FHA monthly report of operations, 2642
 FHA regulation, 5421-22, 11305, 12525
 financial statements pertaining to insur-
 ance operations, GAO examination, 9630,
 10143
 financing cooperative housing under FHA
 programs, 763
 home mortgage insurance—
 area trends, 4138, 11304
 State trends, 4141, 11308
 housing counseling service, 7091
 low-cost housing trends of 1-family homes
 insured by FHA under sec. 221(d)(2),
 2641
 manual, mortgagee's handbook, home
 mortgage programs, revisions, 1853,
 8618
 mortgage insurance, manufactured hous-
 ing, technically suitable, 7092, 17975-
 976
 mortgage insurance program, extend—
 law, 3737
 report, 3821
 press releases, 3051
 programs, digest of insurance loans and
 summaries of other programs, 8784
 status of equal employment opportunity
 program, 2d annual report, 17971
 survey of FHA-assisted nursing homes,
 5611
 technical standards training guides, 8619
 trends of home mortgage characteristics,
 2643
 Federal Insurance Guaranty Corporation,
 create, hearings, 5262
 Federal intermediate credit banks, banks of
 Farm Credit System supervised by Farm
 Credit Administration, audit report, 5524
 Federal item identification guides:
 abrasives, 5302
 agents, 16114
 alarm and signal system, 16115
 anodes, 11165
 antennas, 11166
 bags and socks, 16116
 ballasts and starters, 11167
 bands, markers, plates, and signs, 13780
 batteries, 16117
 bearing, antifriction, 4006

Federal item identification guides—Con.
 bearing and bushing, plain, change, 5303
 belts, transmission, and belts, conveyor,
 6856
 block and tackle, 16118
 books, maps, and other publications, 5304
 bottles and jars, 16119
 boxes and crates, change, 1763
 brackets, changes, 1764, 11168
 caps and plugs, 13781
 cartridge and propellant actuated devices
 and components, 17735
 cartridges, weapons, 13782
 chains and wire rope, 5305, 12392
 cloth, 8464
 clothing and textile repair shop, mobile,
 11169
 coats and coat-like garments, changes,
 1765, 5306
 compressors, reciprocating, rotary and
 centrifugal, 13783
 computers, 5307
 connector, electrical, change, 1766
 consoles, switchboards, and panels, 16120
 contact/clip, electrical, 6857, 8465
 couplings, 11170
 covers and doors, access, 13784
 crane and crane-shovel attachments, 16121
 cutlery and flatware, 17736
 demolition materials, 13785
 drill bits, counterbores, and countersinks,
 6858
 electrical cable, cord, wire, and assem-
 blies, 16122
 electrical connector parts, 9951
 electrical control equipment, 8466
 electrical/electronic groups, sets, and as-
 semblies, 4007
 electron tubes and associated hardware,
 16123
 engine electrical system components,
 16124
 fans and impellers, 540
 fastening devices, 4003, 13786
 Federal item identification guides for sup-
 ply cataloging, supplements, 2588-98
 filters, electrical, 4009
 flags and pennants, 5308
 flanges, pipe, 4010
 footwear, 11171
 fuzes and primers, 16125
 gasket and packing materials, 1767
 gaskets, packings, and seals, 16127
 geophysical, astronomical, and meteorolog-
 ical instruments, 8467
 glass, fabricated and window, observation,
 6859
 grenades, 16128
 hazard-detecting instruments and appara-
 tus, 16129
 headgear, 6860
 hinges, 9952
 holder, electrical contact brush, 13787
 hose, pipe, and tube fittings—
 change, 12393
 quick disconnect and self-sealing, 13788
 improvement program procedures manual,
 11162
 insulation, sleeving, electrical, change,
 4011
 intercommunication and public address
 systems, 1768, 8468
 keys and pins, 16130
 kitchen hand tools and utensils, 16131
 landing vessels and small craft, 4012,
 8469-70
 launcher and guided missile components,
 17737
 laundry and dry cleaning equipment, 8471
 light filters, 6861
 lining and shoe, friction, 11172
 miscellaneous capacitors, resistors, and
 attenuators, 16132
 miscellaneous communication equipment,
 17738
 miscellaneous controls, 16133

INDEX 1970

- Federal item identification guides—Con.
miscellaneous materials handling equip-
ment, 6862
miscellaneous relay and switch com-
ponents, 13789
ophthalmic laps and lenses, 4013
parachutes, aerial pick up, delivery, and
recovery, 5309
preservative and sealing compounds, 16134
projectiles and propelling charges, 16135
pumps—
and compressor components, 17739
liquid, general purpose, 8472
radar equipment, 5310, 8473
radio and television communication equip-
ment, 8474
recreational and athletic equipment, 16136
reels and spools, 4014
resistor, thermal, change, 541
rings, wiping and sealing, change, 13790
rings-locking, pipe joint welding, and
miscellaneous hardware, 17740
screening and fencing, mesh, 6863
semiconductor devices and associated
hardware, 16137
sensitized materials, photographic and
copying, 6864, 8475, 13791
sets, kits, and outfits, 13792
sewing machines and accessories, 16138
shaft collars and hub clamps, change, 5311
shoe materials, 9953
simulators, 542
soaps, 6865, 12394
socket, plug-in electronic components,
16139
sound recording and reproducing equip-
ment, 16140
starter, engine, electrical, 8476
strainer elements, 11173
stuffing materials and leather, 6866, 11174
subassemblies, 1769, 6867
subsistence, 8477, 12395
surgical catheters, drains, and tubes,
6868
surgical dressings, 11175
surgical needles, 9954
surgical sutures, 11176
switch, sensing, 13793
switches, RF transmission line and wave-
guide, 9955
syncros and resolvers, 5312, 878
tableware, 16141
taps, dies, and chasers, hand and machine,
11177, 16142
tents and tarpaulins, 13794
test sets, 16143
threaded studs, change, 13795
tires, pneumatic and solid, change, 13796
trousers and shirts, 11178
turnbuckles, clevis/connector, rod ends
and tie rods, 13797
valve seats, 4015
valves, general purpose, and drain cocks,
change, 13798
water heaters, 5313
water purification equipment, 13799
waveguide, 543, 5314
wrapping and packaging machinery, 13800
wrenches and components, hand, non-
powered, 13801
Federal jobs overseas, 13200
Federal Judicial Center, automobile accident
litigation, 9231
Federal land banks, farm-mortgage loans,
statistical study of loans outstanding,
12492
Federal lands, *see* Public lands.
Federal Law Enforcement Training Center.
consolidate, proposal report, 13486
Federal Library Committee:
annual report, 14753
newsletter, 2649
Federal manual for supply cataloging, 1757,
6845, 13775-776
Federal Maritime Commission:
annual report, 5423
appropriations, 1970—
law, 3738
report, 472
appropriations, 1971—
amendment, proposal, 13568
hearings, 8270, 13708
reports, 9686, 15900
waive points of order, report, 9688
Chairman, nomination of Helen Delich
Bentley, hearings, 495
Commissioner—
nomination of James V. Day, hearings,
495
reappointment of Helen D. Bentley,
hearings, 13719
decisions—
bound volumes, 17978
separates, 2599
maritime activities, Government regula-
tion (remarks), 10053
orders, notices, rulings and decisions,
2996
press releases, 3052
responsibilities and activities (remarks),
5620
role in helping maritime industries (re-
marks), 17983
SP series, 640-645, 1854, 4142-43, 5424-
29, 7094, 8620-21, 10052-58, 11309-
310, 12526, 14372-374, 16493-496,
17979-983
Federal Meat Inspection Act, Joint Commit-
tee on Administration of, establish, hear-
ings, 13707
Federal Mediation and Conciliation Service:
annual report, 16497
appropriations, 1970—
hearings, 1700
law, 6536
reports, 1563, 1683, 3834, 5254
appropriations, 1971—
hearings, 12259, 17687
reports, 13426, 16031
waiving points of order, report, 13429
Federal Metal and Nonmetallic Mine Safety
Board of Review:
appropriations, 1971—
law, 13335
reports, 12254, 13426, 13645
Federal meteorological handbook, 272
Federal Mortgage Marketing Corporation,
create, hearings, 6793
Federal motor vehicle safety standards and
regulations—
supplement, 6033
with amendments and interpretations,
968, 2601
Federal National Mortgage Association:
financial statements, GAO examinations,
1445, 1888, 18031
liabilities, to United States, clarify pay-
ment, report, 5202
President, nomination of Allen Oakley
Hunter, hearing, 6790
press releases, 3053
purchase authority to include secondary
market for conventional mortgages—
hearings, 11026
law, 13326
reports, 8351, 10960, 12251, 13407
purchase conventional mortgages, author-
ize, hearings, 6793
Federal news clip sheet, 2602
Federal oceanic and atmospheric organiza-
tion, hearings, 11115
Federal offenders in United States district
courts, 6286
Federal Old-Age and Survivors Insurance
and Disability Insurance Trust Funds, *see*
Board of Trustees of Federal Old-Age and
Survivors Insurance and Disability In-
surance Trust Funds.
Federal Pay Advisory Commission, *see* Ad-
visory Commission on Federal Pay.

Federal personnel manual, *see* Civil service.
 Federal plan for meteorological services and supporting research, 5395
 Federal planning, *see* Economic policy.
 Federal Power Commission:
 annual report—
 departmental edition, 7099
 document edition, 6563
 appropriations, 1971, hearings, 8271, 11105
 Chairman, nomination of John Nicholas Nassikas, hearings, 494
 Commissioner, nomination of Albert Bushong Brooke, jr., hearings, 494
 daily news digest, 2960
 FPC news, weekly compilation of press releases, etc., 2676
 Member, reappointment of John N. Nassikas, hearing, 13719
 1970 national power survey, advisory reports, 14379
 oversight, on report covering principal policy questions, hearings, 11114
 P series, 5430, 10059
 practice and procedure rules, 2617
 publications lists, 5434, 14380
 R series, 646, 7100
 regulations under Federal power act, 3139, 7104
 reports, opinions, decisions, and orders—
 bound volume, 16498
 monthly, 2618
 S series, 1855, 5431, 7101-2, 10060, 11312, 14375
 Federal Prevailing Wage Advisory Committee, establish, reports, 13408, 15854
 Federal Prison Industries, Inc.:
 annual report, 11835
 appropriations, 1970—
 law, 3738
 report, 472
 financial statements, GAO examinations, 4219, 5076
 Federal probation (periodical), 2618
 Federal procurement regulations, FPR amendments, 2619
 Federal programs, *see* Federal assistance programs.
 Federal property, *see* Public property.
 Federal property and administrative services act, *see* Public property.
 Federal Radiation Council:
 abolish, transfer functions to Environmental Protection Agency—
 hearings, 15911, 16057
 report, 15874
 appropriations, 1970—
 hearings, 1700
 law, 6536
 reports, 1683, 5254
 appropriations, 1971—
 hearings, 12259, 17687
 reports, 13426, 16031
 waiving points of order, report, 13429
 Federal Railroad Administration:
 appropriations, 1970—
 hearings, 1701
 law, 3742
 reports, 1468, 1556
 appropriations, 1971, report, 9719
 general information, 8630
 Federal register, 2620
 index, 2622
 list of CFR sections affected, 2621
 Federal regulations, *see* Code of Federal regulations—*also* subjects.
 Federal Republic of Germany, *see* Germany.
 Federal reserve agents fund, transactions, 2747
 Federal reserve banks:
 advances and discounts, regulations, amdt., 10082
 Communications and Records Center, dedication (remarks), 659
 condition statement, 2558

Federal reserve banks—Continued
 direct purchase of U.S. obligations, authorization, extend—
 law, 13334
 report, 11089
 Federal reserve act, amend—
 law, 13334
 report, 11089
 gradually roll prime interest back to 6 per centum, expressing sense of Congress, hearing, 8277
 hours, opening and closing, and holidays, 2983
 interdistrict settlement fund transactions, 2747
 State member banks, list, 5465
 tightening availability and cost of money and credit (remarks), 10085
 see also other headings beginning Federal reserve.
 Federal reserve bulletin, 2623
 Federal reserve member banks:
 assets, liabilities—
 and capital accounts, 2330
 monthly report, 2356
 summary report, 2357
 changes in State bank membership, weekly announcement, 2401
 deposits, interest, Federal reserve regulations, 7154-56, 11327, 12535
 deposits—
 money supply, currency, etc., 2895
 reserves, and borrowings, weekly report, 2504
 income, 1969, general information, 17993
 member State banks, equity security transactions and ownership of directors, etc., monthly summary, 3244
 reserves—
 factors affecting, 2558
 of member banks, regulations, 8661, 12534, 17994
 State member banks, list, 5465
 supplement, 3222
 Federal reserve monthly chart book, financial and business statistics, 2624
 Federal reserve par lists, 653, 2625
 Federal reserve system:
 Federal reserve act, amend—
 hearings, 1576, 11026
 law, 1410
 reports, 1546, 1555, 1616, 3829
 Federal reserve and banking system (remarks), 12532
 Federal Reserve monetary policy (remarks), 10078
 Federal Reserve policy and liquidity squeeze (remarks), 17991
 foreign exchange operations, 10087, 16508
 SDR's in Federal reserve operations and statistics, 11829
 Federal Reserve System Board of Governors:
 annual report, 10076
 applications and reports received, or acted on, 2339
 authority, rules regarding delegation, 10086, 11328
 Chairman, views on state of national economy, hearing, 8380
 historical chart book, long range financial and business statistics, 17992
 hours, opening and closing, and holidays, 2983
 member, nomination of Arthur F. Burns, hearing, 3957
 press releases, 3054
 publications, lists, 4155, 14389
 regulation series, 656-658, 1859, 4158-59, 8661, 7154-56, 10082-84, 11327, 12534-535, 14393-397, 17994
 reorganization, hearings, 11026
 research library, recent acquisitions, 3148
 statistical releases, 2362
 Federal Salaries Advisory Committee, *see* Advisory Committee on Federal Salaries.

INDEX 1970

- Federal savings and loan associations: combined financial statements, 16490
rules and regulations, 4137, 5419
- Federal Savings and Loan Insurance Corporation:
audit report, 342
financial statements, 1851, 7089, 16489, 17972
savings and loan associations, insured savings and mortgage lending activity, selected balance sheet items, 2681
statutes and regulations, manual, 1848-50, 4136, 7087-88, 8613, 10049, 11303
Federal service, *see* Civil service.
- Federal specifications, *see* Government supplies.
- Federal standards, 1862, 4161, 5467, 7158, 8663, 16512-513
index, 4163
- Federal-State Communications Joint Board, establish, hearing, 16042
- Federal-State-local relations, *see* Intergovernmental relations.
- Federal Supplementary Medical Insurance Trust Fund, Board of Trustees, *see* Board of Trustees of Federal Supplementary Medical Insurance Trust Fund.
- Federal supply catalog, *see* Government supplies.
- Federal supply classification handbook—
alphabetical index, 16107
groups and classes, 9950
numeric index, 16106
- Federal supply code, *see* Government supplies.
- Federal Supply Service, 8664
- Federal support to universities and colleges, 4588
- Federal test method standards, 1863, 8665, 10092, 16515
- Federal textbook on citizenship, 4291-92
- Federal Trade Commission:
act, amend—
hearings, 8306, 8383, 13717, 16066
report, 13701
appropriations, 1971, hearings, 8271, 11105
chairman, nomination of Caspar W. Weinberger, hearings, 3965
consumer bulletins, 4164, 5468
decisions, bound volumes, 7162, 8667
economic papers, 1966-69, 12537
news summary, 2636
press releases, 3055
responsiveness to public needs, procedures, hearings, 11132
statutes and court decisions, 1968 supplement, 4165
- Federal Water Pollution Control Administration:
appropriations, 1970—
law, 3734
report, 1512
chemical quality sampling and analysis at selected sites in Pacific Northwest, Sept. 1968-June 1969, results, 1914
construction grant program for abating, controlling, and preventing water pollution, effectiveness, GAO examination, 716
Industrial Pollution Control Branch projects, 14410
personnel, staffing, and administration, report, 8439
press releases, 3056
project register, distribution by river basin of projects approved, 4167
- Federal Water Quality Administration:
abolish, transfer functions to Environmental Protection Agency—
hearings, 15911, 16067
report, 15874
appropriations, 1971—
hearings, 11022
public works, hearings, 13709
- Federal Water Quality Administration—Con.
Federal grants awarded for constructing waste treatment facilities which benefit industrial users, GAO report, 10145
municipal waste treatment plants, need for improved operation and maintenance, GAO report, 14505
- Federally affected areas, *see* Impacted areas.
- Federally Impacted areas, *see* Impacted areas.
- Feed, *see* Food for livestock—Food for poultry.
- Feed grains, *see* Grain.
- Feedback control systems:
consensus feedback used to maintain target detection proficiency, 15496
programming and feedback method for maintaining interpreter proficiency in computerized facility, 9358
- Feedback, FAA aircraft program data, 2556
- Feeders:
cattle, farm building plan, 3414
food, feeders, and feeding for songbirds, 15207
- Feely, F. Joseph, III:
air pollution report, Federal facilities—
metropolitan
Denver, air quality control region, 8958
Detroit air quality control region, 12835
Indianapolis intrastate air quality control region, 10421
Los Angeles, air quality control region, 8959
St. Louis interstate air quality control region, 10422
- Fees:
assessment for processing loan applications would help recover program costs of Farmers Home Administration, GAO report, 5523
court reporters, for furnishing transcripts to poor persons in criminal proceedings under Criminal justice act, authorize payment, report, 1464
District of Columbia license and user fees, authorize District of Columbia Council to fix, report, 13684
establishing, for reimbursable testing and related services, improvements suggested in accounting methods used, Food and Drug Administration, GAO report, 1891
FAA records, fees for copying and certifying, Federal aviation regulations, 2571
foreign countries, charged for visa of United States passports, list, 6218
higher education, basic student charges, tuition and fees, for board and room, 11230
license fees under Perishable agricultural commodities act of 1970, increase, law, 3721
witnesses appearing before Senate committees, increase, report, 1615
- Feet, *see* Foot.
- Fegley, Harry C., chronic animal feeding studies on radiation-pasteurized clams, chicken feeding experiments, final reports, 8025, 9403-4
- Fegley, Robert S., clothing almanac for southwest Asia, 1218
- Fehd, Caroline S., indexes of output per man-hour, corrugated and solid fiber boxes industry, 4375
- Fehlberg, Erwin, some experimental results concerning error propagation in Runge-Kutta type integration formulas, 17010
- Fehsenfeld, F. C., compilation of reaction rate constants measured in ESSA flowing afterglow system to Aug. 1969, 4088
- Feldmann, Hermann, F., thermodynamic, electrical, physical, and compositional properties of seeded coal combustion products, 12739
- Feldmeier, Franz C., relief, 3909, 5097, 12091

- Fellman, David:
establishing business in Canada, 8147
foreign trade regulations of Canada, 10877
- Fellowships:
Afro-American historical, cultural, and social studies, 967
dental public health grant programs, 977
Education professions development act, 1961-72, programs, facts, 5350, 11210
environmental careers, authorize, hearings, 12374
family physician program, establish, hearing, 16075
higher education aid for minority business, directory, 9503
higher education, 1970-71 personnel training programs, 8517, 9985
international postdoctoral research, Public Health Service, 1969 awards for study in United States, 981
national defense education act—awards for modern foreign language and area study, 5345
NDEA fellow's handbook, graduate fellowship program—
1969-70 fellowship year, 587
1970-71 fellowship year, 16398
National Defense Foreign Language (NDFL) manual for participating institutions, 7017
national defense, graduate 1970-71 programs, 9991
National Science Foundation, 6068
public health traineeship program, awards to individuals, general information, 1920
research program of National Center for Health Services Research and Development, 7582
tax information, 5687
- Felt, organic, natural weathering of mineral stabilized asphalt coatings on, 953
see also Roofing.
- Felton, Charles, sources of information on containers and packaging, 150
- Females, *see* Women.
- Fence posts, preservative treatments and service life in Puerto Rico, 1969 progress report, 14470
- Fences, and screening, mesh Federal item identification guide, 6863
- Fencing, *see* Fences.
- Fenner, Don F., upper and deep sound channel in northeast Atlantic, 15044
- Ferber, Arthur E., windbreaks for conservation, 3397
- Ferber, Benjamin I., respirator filter penetration using sodium chloride aerosol, 11588
- Ferguson, Roland H., timber resources of New York, 16583
- Ferman, Louis A., job placement, creation, and development, 7408
- Fermentation, research, publications and patents, Northern Utilization Research and Development Division, Peoria, Ill., 12961
- Fern, Alan:
Leonard Baskin, evaluation of his life and work, 14948
"Pembroke" album of chiaroscuro woodcuts, 5835
- Fernandez, Jorge R. J. B. My, relief, 12307
- Ferns, Chinle formation (Upper Triassic) in Fort Wingate area, N. Mex., 5550
- Ferran, Delsa E. E., relief, 3903
- Ferreira, Joseph, jr., quantitative models for automobile accidents and insurance, 17882
- Ferric sulfate, leach, use in recovery of lead and sulfur from galena concentrate, 7484
- Ferrifero Quadrilatero, Brazil:
Minas Gerais, Brazil, gneissic and igneous rocks, 14537
physiographic, stratigraphic and structural development, 5556
regional geology (series), 5556, 14537
- Ferris, Raymond H., experiment on acoustic reflection from sea surface, 17187
- Ferrites:
circulators, USSR study, 5742
ferrite technology, future trends, USSR study, 8844
- Ferroalloys, minerals yearbook chapter, 4405, 18145
- Ferromagnetic metals, electron-paramagnon interaction effects in nearly ferromagnetic metals, 12897
- Ferromagnetism, *see* Magnetism.
- Ferromagnets, *see* Magnets.
- Ferronickel, electrochemical recovery of high-purity nickel and cobalt from crude nickel and ferronickel, 11587
- Ferrosilicon, mineral industry survey, quarterly, 2639
- Ferrous metals:
ferrous ion reduction in phosphoric acid, titrimetric determination of uranium in product, fuel, and scrap materials, 13075
oxygenation of ferrous iron, 18004
- Ferry County, Wash., community profile, 6910
- Fertility, *see* Fecundity.
- Fertilizers:
automation of chemical production associated with fertilizers, USSR study, 5762
commercial, consumption—
by class (dry bagged, dry bulk, liquid), 4758
in U.S., 9209
fertilizer abstracts (periodical), 2640
inorganic materials and related acids, current industrial reports, 2475
lawns and gardens, selecting, 15422
1969 trends, 15350
pot tests indicate fertilizer improves soils from Black mesa in western Colorado, 685
publications, price list, 2206
Scientific Institute of Fertilizers and Insecto-Fungicides, half century, 1919-69, USSR study, 5770
storage bin, farm building plan, 7929
supply, 12970
world mineral fertilizer demand, and phosphate industry in southeastern U.S. relationship, 8898
- Fescue, tall, use to stretch your grazing season, 1112
- Fessler, Theodore E., radiofrequency system analysis of Lewis cyclotron modification, 2094
- Festivals, 1971, USA, 17393
- Fetal death, *see* Still-birth.
- Fetus:
and new born, hemolytic disease due to RH isoimmunization, 5841
fetal, mammal, radiation biology, 4886
infant and fetal mortality trends, possible causal relationship of strontium 90 fallout deposition, evaluation, 8557
- FG series, 242, 3655, 6465, 8112, 9460, 10841-842, 13189
- FHA, *see* Farmers Home Administration—Federal Housing Administration.
- FHLBB, *see* Federal Home Loan Bank Board.
- FHWA, *see* Federal Highway Administration.
- Flandra, Carlo L., research and development study of peristaltic action microinch actuator, 18185
- Fiber, *see* Cotton.
- Fiber board, *see* Pulp board.
- Fiber boxes, *see* Boxes.
- Fiber stresses, *see* Strains and stresses.
- Fiberboard, *see* Pulp board.
- Fiberboard boxes, *see* Boxes.
- Fiberglass, *see* Glass fibers.

INDEX 1970

- Fibers:**
 census of transportation 1967, commodity transportation survey, shipper group, 3603
 ceramic, preparation by mechanical deformation, 11638
 fiber aspect ratio, influence on stress-rupture life of discontinuous fiber composites, 12782
 fiber-reinforced metals, characterization and design mechanics, 10407
 manmade—
 census of manufactures, 1967, industry statistics, 15598
 textiles and cotton, industry wage survey, 818
 natural fibers in nonwoven manufacture, 8499
 stocks of wool and related fibers, current industrial reports, 3637
 textile, trade and tariff information, summaries, 11908
 USDA policies on natural fibers (address), 3392
 vegetable, foreign agriculture circulars, 2657
see also Cotton—also names of certain plants, textiles, etc.
Fibrin, fibrinolysis, thrombolysis, and blood clotting, bibliography, 1969 annual compilation, 9010
Fibrinolysis, *see* Fibrin.
Fichtl, George H.:
 longitudinal and lateral spectra of turbulence in atmospheric boundary layer, 5927
 shear layer and jet instability in stratified media, 5941
Fidelity of simulation and transfer of training, 13088
Fidell, Sanford, study of audibility of impulsive sounds, 10361
Fiedler, Edgar R., remarks, Sept. 30, 1970, 15738
Field army, *see* Army.
Field crops, *see* Crops.
Field manuals, *see* names of departments, etc., issuing manuals.
Field measurement of initiation of large bed particle motion in Blue Creek near Klamath, Calif., 4243
Field packs, *see* Packs.
Fiedler, William L., ionic conductivity of Lanthanum fluoride, 913
Fields, Roger A., study of accuracy of flight-heating simulation and its effect on load measurement, 12784
Fieno, Daniel, tests of evaluated beryllium (n, 2n) cross sections by analysis of 1.4-eV flux in water for americium-beryllium source enclosed in beryllium source, 16993
Fiero, Charles E., remarks, Dec. 3, 1968, 5480
Fighter planes:
 F-4—
 inflight performance differences of pilot and navigator, 2d-seat crewmembers, limited southeast Asia combat evaluation, 7955
 proficiency differences of pilot and navigator, 2d-seat crewmembers, southeast Asia, evaluation, 13011
 F-111 aircraft program, appropriations, 1970, hearings, 3950
 fighter airplane model, effects of pointed nose on spin characteristics including correlation with theoretical calculations, 16967
see also Aircraft.
Figs, growing in South for home use, 17437
FIIG, *see* Federal item identification guides.
Fijan, Nikola N., acute viral disease of channel catfish, 6209
Fiji Islands, economic trends and their implications for United States, 7385
Filamentary crystal growth associated with hypervelocity microparticle impact craters, 11668
Filamentary materials:
 axisymmetric filamentary structures, 8922
 uniaxial filament-reinforced epoxy tubes, compressive instability and strength, 5974
Filaments:
 hollow filament technology, development for reverse osmosis desalination systems, 11447
 tantalum wire, effect of various gases on thermionic emission, 12807
Files and filing (documents):
 black and white photographs, method for filing, 4717
 file, work organizer, Federal standard, 7159
 files maintenance and disposition, DSA manual change, 6854
Fillmore County, Nebr., community profile, 17781
Fills, *see* Sanitary fills.
Film boiling, *see* Boiling.
Film slides, *see* Filmstrips.
Film strips, *see* Filmstrips.
Films (chemical):
 films spread on liquid surface, compressibility, modulus of compressibility, and perpendicular component of molecular dipole moment, CDC3800 computer program to calculate and plot, 15070
 GaAs films, Zn doping using coevaporation of elements, 15089
 protein films for use in water desalination, modification, 1950
Films (coatings):
 composed of ethylene oxide and vinyl chloride adsorbed on iron (011) surface, effects on adhesion, 16996
 flexibilized epoxy adhesive films, tensile stress-strain behavior, 10127
 fluorocarbon-resin, using as coating for seed-roll boxes, effects on gin-stand capacity, seed-roll density and rotational velocity, 3373
 sulfur, oxygen and hydrogen sulfide surface films, effect on adhesion of clean iron, 7535
Films (photography):
 Agriculture Department announcement, who shall reap? 3429
 see also Filmstrips—Motion pictures.
Filmstrips:
 color, Agriculture Dept., list, 12994
 National Archives, list, 14906
 see also Filmstrips.
Filmstrips:
 catalog of copyright entries, 1754, 11156, 17727
 color, Agriculture Dept., list, 12994
 how nonprofit groups can sponsor housing for low-income tenants, 4275
 "I like it here", small town America, 16675
 International Development Agency film list, 1978
 Library of Congress catalog, 2833
 NASA film list, 16951
 United States and the world, introduction to our foreign relations, teacher's manual, 17365
Filters and filtration:
 cigarettes, even the longest filter doesn't help much when smoking (poster), 17228
 crazed resin filtration of combined sewer overflows self-adjusting and self cleaning filter feasibility study, 14416
 electrical, Federal item identification guide, 4009
 iodine filter tests at NRL nuclear reactor, 15078
 respirator filter penetration using sodium chloride aerosol, 11588

Filters and filtration—Continued
strainer/filter treatment of combined
sewer overflows, 1869
see also Kalman filters—Light filters.

Filtration, see Filters and filtration.

Finance:

accounting and finance, manual, DSA,
changes, 539, 6855, 17734
Administration efforts to control our eco-
nomic problems (remarks), 2272
agricultural finance review, 4043, 5339,
11195
Alaska remote housing handbook, 11432
ARNG technician, financial administra-
tion, report on man-year and personnel
costs, NGB pamphlet, 2144
balance sheet, farming sector, 3398
budget and fiscal policy, 5072
changing priorities for 1970's (remarks),
6266
city government, 13179
civil service retirement financing and bene-
fits, amend, law, 309
code of Federal regulations, 7128
cooperative housing, way to finance under
FHA programs, 763
corporate finance model, computer pro-
gram for cash flow analysis, 9237
credit and financing report, financing In-
dian development, 7290
daily statement of Treasury, 2483
export financing—
Action Committee report, 281
sources, 14844
Federal receipts for 1970 and 1971, esti-
mates, 13553
Federal spending and scientist and engi-
neer employment, measurement study,
16853
financial administration, Army National
Guard management structure, pamphlet,
9005
financial developments in 1969—
3d quarter, 4156
4th quarter, 7152
financial developments in 1970, 1st quar-
ter, 14390
financial dimensions of living with pros-
perity (remarks), 7877
financial management in Navy, 2173
financial markets and U.S. monetary policy
(remarks), 1860
financial protection for Federal employees,
4969
financial statements—
Commodity Credit Corporation, 1969,
GAO examinations, 8211, 12574
Disabled American Veterans National
Headquarters, Life Membership Fund,
Service Foundation, GAO examina-
tion, 7210
Engraving and Printing Bureau Fund,
GAO examination, 12573
Federal Home Loan Bank Board, GAO
examination, 14498
Federal home loan banks, GAO audit,
13374, 14494
Federal Housing Administration insur-
ance operations, GAO examination,
9630, 10143
Federal National Mortgage Association,
GAO examinations, 1888, 18031
Federal Prison Industries, Inc., GAO
examinations, 4219, 5876
Federal Savings and Loan Insurance
Corporation, 1851, 7089, 16489, 17972
Government National Mortgage Associa-
tion, GAO examination, 18031
Government Printing Office, GAO exami-
nation, 8722
Panama Canal Co. and Canal Zone Gov-
ernment, GAO examinations, 8203,
8721
St. Lawrence Seaway Development Cor-
poration, GAO audits, 712, 14495

Finance—Continued

financial statements—continued
savings and loan associations of Federal
Home Loan Bank System, GAO
examination, 16490
Student Loan Insurance Fund, GAO
examinations, 1889, 6557
Tennessee Valley Authority, 1173
GAO examinations, 8216, 10142
Treasurer of United States, GAO exami-
nation, 12575
Veterans Canteen Service, Veterans Ad-
ministration, GAO audit, 4216
Virgin Islands Corporation, final liqui-
dation, GAO examination, 6570, 10144
financial statistics, institutions of higher
education—
commentary on endowment, 14285
Federal funds, 9986
financial structure of farmer cooperatives,
5400
financing agency programs other than by
direct appropriation, revolving funds,
GAO report, 7219
financing condominium housing, 10200
financing housing by mortgage-backed
bonds (speech), 17074
financing new technological enterprise, re-
port, 15714
financing rehabilitation services, 7740
fiscal impact of social security program,
2220
fiscal law, Air Force manual, 15456
fiscal policy for period of transition (re-
marks), 17357
fixing up your home, what to do and how
to finance it, HUD, 4274
forest fire control—
cooperative financing, 7183, 12546
cooperative program, financing, Federal
allotments to States for forest fire
cooperation, 8684, 14428
General Accounting Office findings, etc.,
for improving Government operations,
compilation, 5526
government, compendium, 1967 census of
governments, 187
government finances, GF series, 226, 4949,
6453, 10829, 13179-180, 15655
governmental—
historical statistics, 1308
1968-69, 13180
grants-in-aid and other financial assistance
programs administered by Health Ser-
vices and Mental Health Administration,
18058
highway activities, 1967, municipalities of
50,000 or more population, annual re-
port, 10524
House of Representatives members, finan-
cial disclosure, amend House rules—
hearings, 6725
reports, 6647, 9674
how medical students finance their edu-
cation, 1967-68 survey, 18267
inner-city housing financing, hearings,
5149
institutions of higher education—
1967-68, current funds revenues and
expenditures, physical plant assets,
16393
1968-69, selected statistics, 12504
is fiscal policy dead? comment (remarks),
4777
joint financial management improvement
program, annual report, 7206
liquidity demands, fiscal policy and tasks
of monetary management (remarks),
10080
local government—
finances in selected metropolitan areas,
15655
impact of new industry on 5 small towns
in Kentucky, 16378
local public school systems 1967-68
statistics, 14297

INDEX 1970

- Finance—Continued**
 low-rent housing—
 financial management handbook, 1938,
 7283, 11430, 14578
 financing handbook, 5601
 supp., 7276, 11431
 modernization program hadbook, 1939
 Turnkey handbook, 1936, 7275, 11420,
 11422
 manufacturing corporations, quarterly
 report, 3118
 Mint Bureau, financial operations need
 improvement, GAO report, 4220
 mobile home parks, 14579
 National Guard, quarterly review of State
 operating budget, administration,
 change, 4559
 new Federalism in 1970's, financial dimen-
 sion (remarks), 7876
 publications, price list, 15125
 receipts, expenditures, etc., of U.S. Gov-
 ernment—
 combined statement, 4794
 monthly statement, 2908
 receipts, selected services, monthly report,
 2471
 rehabilitation financing, RAA programs,
 handbook, 10210
 supp., 7281
 social security in your financial planning,
 1104
 State and local finances, significant fea-
 tures, 3370
 State and local governments, employee-
 retirement systems, 226, 6543
 State government finances, 10829
 correction notice, 12039
 State operating budget, National Guard
 pamphlet—
 formulations, 9004, 17062
 quarterly reviews, 9003, 17061
 statistics, Federal reserve monthly chart
 book, 2624
 time for reform (address), 11330
 treasury bulletin, 3291
 U.S., financial participation in United
 Nations development program, manage-
 ment improvements needed, State De-
 partment, GAO report, 7211
 United States Government central account-
 ing system, regulations, 11919
 USSR republic gosplans, 1969-70, reports
 on economy, finance, and planning at
 Republic Supreme Soviet sessions, 7360
 venture capital financing, guide, 13218
see also Accounts and accounting—Balance
 of payments—Banks and banking—
 Inflation (finance)—International fi-
 nance—Revenue.
- Finance Committee, Senate:**
 calendar, 2822
 committee prints, 504, 1709-25, 1727, 3972,
 8391, 8393-8402, 9906, 11117-118,
 13727, 13730, 16049, 17697-700
 hearings, 505, 3973, 6797-98, 8403, 9905,
 11119-121, 13728-729, 16050, 17699-
 700
 history, 9777
 print as Senate document, report, 6738
 reports, 478, 1648, 5250, 6770, 6777, 8364-
 65, 11070, 11097-99, 12324, 12326,
 12338
 revenue estimates, House, Senate and con-
 ference versions, Tax reform act of 1969,
 8392
- Finance companies:**
 consumer credit at consumer finance com-
 panies, 2445
 sales finance companies, monthly report,
 3171
- Finance decisions, *see* Interstate Commerce
 Commission.**
- Financial assistance, *see* Foreign aid—
 Grants-in-aid—*also* subjects.**
- Financial institutions, *see* Banks and bank-
 ing.**
- Financial Management and PPB Training
 Center, schedule, announcement, 249**
- Financial statements, *see* Finance.**
- Financial statistics, *see* Finance.**
- Financing rehabilitation services, 7740**
- Finch, John R.:**
 multidisciplinary accident investigation—
 auto/auto, 15001
 auto/auto/auto/auto—rear-end, 14993
 auto/auto—front-end/leftside, 15000
 car/car—front/side, 14995-996, 14998
 car/car—2 fixed objects—front/side,
 14997
 car/parked car—rear end/front end col-
 lision, 14986
 car-train collision, 14973
 car-turnover, 14994
 intersection collision, 14985
 rear end collision, 14977, 14984
 single car-fixed object, 14999
 three vehicle intersection collision,
 14974
 two vehicle intersection collision, 14979
- Finch, Roland, U.S. fish protein concentrate
 program, 13237**
- Fine, Morris M.:**
 oxidation roasting of chalcocite concen-
 trate, 5875
 prerduced iron ore pellets, preparation,
 properties, utilization, 5848
- Fine arts, *See* Art.**
- Fine Arts Commission:**
 appropriations, 1970, law, 314
 appropriations, 1971—
 hearings, 8268
 law, 13335
 reports, 9702, 13645
- Finerty, Joseph M., employment and earnings
 (periodical), 2532**
- Finish, *see* Fish and fisheries.**
- Finger, Harold B.:**
 addresses—
 Jan. 15, 1970, 4269
 Feb. 6, 1970, 5590
- Fingerprints, automated identification, 14926**
- Finishers, cement, job grading standard,
 civil service, 8126**
- Finishes and finishing, natural finish de-
 veloped at Forest Products Laboratory,
 18011
see also Metal finishing.**
- Finite difference methods, accuracy of finite
 element approximations to structural prob-
 lems, 7552**
- Finite element approach to structural in-
 stability of beam columns, frames, and
 arches, 10406**
- Fink, Marvin P., full-scale wind-tunnel in-
 vestigation of static longitudinal and lat-
 eral characteristics of light single-engine
 airplane, 7539**
- Finland:**
 atomic energy cooperation for civil uses,
 agreement, 15328
 double taxation, message from the Presi-
 dent, 9787
 economic trends and their implications for
 United States, 1973, 11480
 housing development and urban planning,
 policies and programs, report, 8195
- Finley, Dorothy L., human performance pre-
 diction in man-machine system, technical
 review, 14823**
- Finney County, Kans., geohydrology, 12591**
- Fins (aircraft):**
 cylindrical, with base surface interaction,
 radiation heat transfer from, study,
 12780
- Florida, Vincent, physiological responses of
 men during sleep deprivation, 17476**
- FIPS (Federal information processing stand-
 ards), *see* Standards and standardization.**

Fir:

- balsam, American woods, 14425
 - Douglas
 - bark tannin decomposition in 2 forest soils, 1883
 - butt logs, estimating volume, 8699
 - economics of converting red alder to, 4207
 - fir region, 1966 timber flows and utilization patterns, 14474
 - forty-year development of stands planted at various spacings, 16581
 - laminated root rot in western Oregon and Washington, 18025
 - new and easier way to estimate quality of sawtimber, 14477
 - sapwood thickness, 5507
 - seed—
 - impregnating and coating with endrin to protect from rodents, 8709
 - storing endrin-coated and endrin-impregnated, 8710
 - thinned Douglas-fir plantations, potential production, 8705
 - tussock moth impact, color aerial photography evaluates mortality, 16582
 - noble fir, preliminary site index curves from stem analysis data, 14460
 - spruce-fir forest in New Mexico with fire stimulated aspen sprouting, 11349
 - white and red, natural regeneration, influence of several factors, 14461
- Fire, see Fires.**
- Fire control, see Fires—Forest fires.**
- Fire control (gunnery):**
- equipment, Federal item identification guides for supply cataloging, supplements, 2598
- Fire control technicians, aviation, 1 & C, rate training manual, 4614**
- Fire extinguishers:**
- aircraft installation and utilization of extinguishing agent concentration recorder, criteria, 7970
 - fire extinguishing equipment, facilities handbook, 18394
- Fire fighting, see Fires.**
- Fire insurance:**
- FAIR plan, fire and extended coverage program, 8781
 - making your property eligible for standard fire and extended insurance coverage, 11433
- Fire prevention, see Fires.**
- Fire Prevention and Control, National Commission on, see National Commission on Fire Prevention and Control.**
- Fire protection, see Fires.**
- Firearms:**
- Gun control act of 1968, amend—
 - hearings, 5271
 - report, 1634
 - identification for law enforcement officers, 4308, 16702
 - importation of arms, internal revenue regulations, 11458
 - legislation, hearings, 5271
 - registration, licensing, certification, etc., hearings, 5271
 - revenue rulings, etc., internal revenue bulletin, cumulative, index-digest supplement system, 2731
 - supp., 7316, 16704
 - use in commission of crimes of violence, penalties, strengthen, hearings, 5271
- Firebrats, how to control, 22, 15430**
- Firefighters, see Firemen (firefighters).**
- Firefighting apparatus:**
- Federal item identification guides for supply cataloging, supplements, 2592
 - portable lighting unit for firefighting, equip tips, 7193
- Firemen (firefighters):**
- District of Columbia, salaries, increase—
 - hearings, 502, 8283
 - law, 13304
 - reports, 1693, 9876, 12199

Firemen (firefighters)—Continued

- employment outlook, 12699
 - examination announcement, amdt., 13195
 - Federal firefighters, include within hazardous duty retirement provisions of U.S. Code—
 - hearings, 17651
 - report, 15981
 - killing or wounding, amend U.S. Code, hearings, 17706
- Fireplaces, and chimneys, general information, 15415**
- Fires:**
- aircraft, in-flight protection with turbofan power plant installation, investigation, 4117
 - automobile engine fires, four cases, multidisciplinary accident investigation, 17133
 - car/truck collision, fire, multidisciplinary accident investigation, 14989
 - far northern regions, bibliography, 14602
 - fire! fire! look out! it burns! 1841
 - fire protection program operation procedures, civil engineering, Air Force manual, 15455
 - Fire research and safety act of 1968, authorize appropriations, report, 13673
 - fixed-object impact and fire, multidisciplinary accident investigation, 17121
 - ground crash fire effects on aircraft fuselage integrity, 13660
 - hydrogen leak and fire protection, survey, 16954
 - nuclear weapon firefighting procedures, Army technical bulletin, 13054
 - propulsion fuel system fire safety, 17455
 - Research and safety act of 1968—
 - authorize appropriations, report, 13422
 - hearings, 8324
 - program, subcommittee report, 15937
 - safety and fire protection bulletin, VA, 3167
 - suppression on public lands, Interior Dept. contracts—
 - law, 17610
 - reports, 13648, 15866
 - underground gas fire, subdued by nuclear explosion, USSR study, 18093
 - see also Arson—Forest fires—Mine fires.
- Firms, see Business.**
- First aid:**
- flooded homes and farms, 4806
 - for soldiers, field manual, 10734
- First Moscow Medical Institute imeni, I. M. Sechenov, general information, 5802**
- First three years, why there is a Transportation Department and how it was organized, 18385**
- Fiscal policy, see Finance.**
- Fischer, Joseph:**
- Federal rules of appellate procedure, with forms, 11052
 - rules of civil procedure for U.S. District Courts, with forms, as amended, 11053
- Fischer, R. P., bibliography on geology and resources of vanadium, 10162**
- Fischer, Richard L., effects of explosive properties on free-surface displacement pulses and crater dimensions, 11592**
- Fish, George E., jr., disabling work-injury experience of oil industry and natural gas industry in U.S., 16890**
- Fish and fisheries:**
- Alabama landings—
 - monthly, 2327
 - annual summary, 284
 - Alaska, annual summary, 287
 - Anadromous fish conservation act of 1965, amend—
 - hearings, 3883
 - law, 10910
 - reports, 3842, 9833

INDEX 1970

Fish and fisheries—Continued

Anadromous fish in Great Lakes, conserve, develop, etc.—
 hearings, 3883
 law, 10910
 reports, 3842, 9833
 Anadromous fish resources, their conservation, development, enhancement, 14421
 supplement, 14422
 antimycin A to control fish, resume on field applications, 11878
 Atlantic coastal fishes, estuarine dependence, studies, correction, 4714
 bathysphere for fishery research, 12073
 Black Sea, nonelectric fish, electrical discharges and sounds in some species, USSR study, 12656
 calico scallop fishery of southeastern U.S., photoreview of latest developments, 9536
 California landings, 2385
 canned fishery products, annual summaries, 6518, 6521
 catfish farming, new farm crop, 3400
 catfish ponds, commercial, construction, 2226
 Central and western Pacific tuna fishery development act, report, 11077
 code of Federal regulations, 8659
 Columbia River smelt fishery, otter trawling introduced, 9581
 Columnaris disease of fishes, 6204
 commercial fisheries—
 abstracts, 2424
 census, 1967, number of operators and fishing vessels, employment and gross receipts, etc., 15549
 increase assistance, hearings, 13534
 commercial fisheries review, 2425
 separates, 3709–11, 5006–10, 9518–36, 10889–892, 12066–73, 13236–240, 15745, 17567
 list, 3712
 commercial fishing in Lake Erie, brief history, 9538
 commercial marine fisheries of Puerto Rico, 9535
 continuous transmission frequency modulated sonar studies, 13245
 cooperative fishery units, Jan. 1968–June 1969 report, 4713
 current fishery statistics, CFS series, 284–289, 1366–68, 2327, 2335, 2645, 2647, 2650, 2679, 2698, 2700, 2857, 2860, 2874–75, 2883, 2891, 2951, 2958, 2970, 3157, 3200, 3209, 3257, 3330, 3609–3702, 6518–21, 8154–61, 10882–887, 12061–65, 13231–232, 16741–748
 development of shrimp trawl to separate shrimp from fish and bottom-dwelling animals, progress report, 5007
 effects of pesticides on sports and commercial fisheries, hearings, 3959
 endangered species, prevent importation and interstate shipment of—
 law, 1400
 report, 475
 eradication of fish, 15204
 estuarine fish—
 acute toxicities of organochlorine and organophosphorous insecticides, 15277
 factors affecting pesticide-induced toxicity, 15277
 exotic fishes and other aquatic animals introduced into North America, 17273
 facilities used in harvesting and processing fish and fishery products, provide inspection, hearings, 8960
 farm pond for fish production, how to build, 4685
 Federal aid in fish restoration act, amend, report, 12235
 fish and oxytetracycline, 10 papers, 2282

Fish and fisheries—Continued

fish and wildlife act of 1956, amend—
 hearings, 3960, 8313, 12280, 13534
 law, 15777
 reports, 9860, 12236
 fish and wildlife restoration, Federal aid, report, 12235
 fish behavior, USSR study, 10282
 fish distributions reports, 10584
 fish farmers, status of warmwater fish farming and progress in fish farming research report, 6208
 fish farming, commercial reality, conference papers, 9136
 fish handling and vessel sanitation, recommended practices, 8163
 fish inventory data—
 Norris Reservoir, 15351
 Wheeler Reservoir, 11912
 fish monitoring investigations—
 Browns Ferry Nuclear Plant, Wheeler Reservoir, Ala., 2646
 Cumberland Steam Plant, Cumberland River, Tenn., 17378
 fish passage report, Bonneville, The Dalles, John Day, McNary, Ice Harbor, Lower Monumental Dams, 14302
 fish products, radiation sterilized, development, 1225
 fish protein concentrate program, 12387
 fish versus culverts, considerations for resource managers, 14431
 fisheries legislation, 1969–70, hearings, 9903
 fisheries loan fund, extension—
 law, 15777
 reports, 9860, 12236
 Fisheries protection act, amend, hearings, 13534
 fisheries, surf clam, Atlantic Coast, 12068
 fishery bulletins, 5011–12
 available, list, 9537
 contents and index, 6523
 title page, etc., 5012
 fishery cooperatives in United States, list, 12074
 fishery industrial research (periodical), 2648
 fishery leaflets, 3712–13, 9537–39, 10585, 12074
 list, 3713
 fishery marketing development series, 12075
 fishery oceanography, 3711, 5009, 9530, 10890, 17567
 fishery products—
 imports and exports, 285, 13231
 industrial—
 1968 annual summary, 8154
 1969 annual summary, 8160
 irradiated-pasteurized maximum shelf life study, radiation chemistry, annual report, 10767
 nonirradiated and irradiated, temperature 38–50° F growth and toxin production of *Clostridium botulinum* types E, etc. 3506
 operations of marine products development, irradiator, annual report, 9402
 Pacific Coast, application of radiation-pasteurization processes, annual report, 3503
 packaged—
 1968 annual summary, 8155
 1969 annual summary, 8161
 processed, 1968, annual summary, 15742
 wholesale dealers, lists—
 Alabama, 9559, 12081
 Arkansas, 9557
 Connecticut, 12077
 Delaware, 3714, 12078
 Florida, 12080
 Georgia, 3715
 Illinois, 9544, 9552
 Indiana, 9545, 9563
 Iowa, 9568

Fish and fisheries—Continued
fishery products—continued
wholesale dealers, lists—continued
Kansas, 9554
Kentucky, 9558
Louisiana, 12082
Maine, 9540
Michigan, 9546
Minnesota, 9549, 10893
Mississippi, 9561
Missouri, 10895
Nebraska, 9560
New Hampshire, 9541
New York State, 9542, 9548
North Carolina, 12079
North Dakota, 9550
Ohio, 9565, 10894
Oklahoma, 9566
Oregon, 3716
Pennsylvania, 9547
Rhode Island, 12076
South Dakota, 9564
Tennessee, 9566
Texas, 9562
Wisconsin, 9543, 9551
fishery resources, seasonal and geographic characteristics, California current region, 2, Pacific saury, 13240
fishery statistics of U.S., 6528
fishes in fresh water of Katmai National Monument, Alaska, distributions and their zoogeographical implications, 3717
fishing effort and catches of skipjack tuna, *Katsuwonus pelamis*, in Hawaiian waters, 15751
fishing tuna in central and western Pacific, development, report, 11077
Florida landings, 1368, 2650
food fishes—
propagation and distribution, 10584
situation and outlook (periodical), 2653
freezing fish in the home, 9291
freshwater fishes—
bacterial gill disease, 10579
parasitic diseases, control and treatment, 17315
frozen fish, monthly report, preliminary, 2678
frozen fishery products—
monthly, 2679
1969 annual summary, 15741
Georgia landings—
annual summaries, 1366, 10882
monthly, 2693
Great Lakes, annual summary, 8159
Gulf fisheries, annual summary, 288
hatcheries, list, 10585
Hawaii fisheries, annual summary, 10885
Hudson River Expressway, impact on fish resources, hearings, 430
illegal fishing in U.S. fishery zone, strengthen penalties, report, 13487
industrial fishery products, situation & outlook, 2742
international agreements role in Alaskan fisheries, 9526
investigating fish mortalities, 12539
investigations in fish control (series), 6207, 7788, 11878
juvenile fish—
diversion and collection with traveling screens, 9539
preliminary designs of traveling screens to collect, 13246
legislation, hearings, 1593-94
Louisiana landings, 2857
Maine landings—
annual summary, 10886
monthly, 2860
management of fish on Federal lands, by States, report, 1643
marine finfish filets inoculated with type E, *clostridium botulinum*, effect of gamma rays, final report, 8017

Fish and fisheries—Continued
market outlook for estuary products, national estuary study—
departmental edition, 15266
document edition, 13355
Maryland landings—
annual summaries, 3699, 13232
monthly, 2874
Massachusetts lands, 2875
Michigan, Ohio, Wisconsin landings—
annual summary, 8157
monthly, 2883
Middle Atlantic fisheries, annual summary, 12065
Middle Atlantic Ocean, western region, agreement with Poland, 15322
Mississippi landings—
annual summary, 286
monthly, 2891
Mississippi River fisheries, annual summary, 3701
monitoring fish byproducts for presence of salmonella, 6289
New England fisheries, annual summary, 15743
New Jersey landings—
annual summary, 12063
monthly, 2951
new tests assess quality changes in fish, 9523
New York landings, 2958
North Carolina landings, 2970
northwest Atlantic fisheries, measures of control, protocol to Convention of Feb. 8, 1949, agreement with other governments, 7337
nutritional (dietary) gill disease, and other gill diseases of fresh-water fishes, 10581
Oregon landings, 12062
Pacific Coast fisheries, annual summary, 3700
Pacific marine fisheries compact, amendment, consent of Congress—
hearings, 1594
law, 12138
reports, 1524, 12336
parasites of freshwater fishes, 6203, 6205-06
possible fish-collecting aids with toxicities for isomers of cresol, 6207
pot fishing for giant Alaskan prawn, experimental trawling, 12067
problems of world ocean fisheries, USSR study, 7362
progressive fish-culturist, 3102
protection, hearings, 1594
protein concentrate experimental production from Mediterranean sardines, 3710
reciprocal fishing privileges, agreement with Canada, 15313
research reports, 1131
Rhode Island landings—
annual summary, 10887
monthly, 3157
schooling pelagic fishes in Middle Atlantic Bight, exploring for, 9533
seasonal and geographic characteristics in California Current region for jack mackerel, 12071
shrimp landings, 6520
smoked chub, guidelines for processing, 6522
South Carolina landings, 1367, 3209
South Vietnam fishery development survey, 15745
special scientific reports, fisheries series, 3717-18, 5013-14, 6524-25, 8166, 13241-246, 10896-897, 15746-752, 17568
sport fish programs, 1115
sport fishery abstracts, 3218
sport fishery research, 1969, progress, 17818

INDEX 1970

Fish and fisheries—Continued

- Tennessee Valley streams, their fish, bottom fauna, and aquatic habitat—
 - Emory River, 10643
 - Powell River drainage basin, 15353
- Texas landings—
 - annual summaries, 8519, 10883
 - monthly, 3257
- toxicity of hyamines 3500 to fish, 6207
- toxicology of thiodan in several fish and aquatic invertebrates, 7788
- tuna purse seine fishery in eastern tropical Atlantic, 5008
- United States fisheries, annual summary, 3702
- vibriosis in fish, 17318
- Virginia landings—
 - annual summary, 12064
 - monthly, 3330
- voidance time for 23 species, 6207
- Washington State landings, annual summaries, 10884, 12061
- water resource projects, cost sharing grants—
 - hearing, 11018
 - law, 13318
- water resource projects, cost sharing grants, reports, 6772, 12224
- west African oceanic front, feasibility of monitoring from satellites, 3709
- white-spot disease of fish eggs and fry, 10580
- wholesome fish and fishery products act of 1969, hearings, 3960
- Yakima River, distribution and abundance of fish, 13241
- see also Diseases of fish—Fish traps—Fishing vessels—Sports—Wildlife—also names or classes of fish, e.g. Trout.
- Fish as food, see Fish and fisheries.
- Fish Bayou, watershed work plan for flood prevention, drainage, fish and wildlife water resource, improvement, 15251
- Fish culture, see Fish and fisheries.
- Fish disease leaflet FDL-(series), 1116, 6203-7, 10579-583, 11877, 15260, 17315-316
- Fish farming, see Fish and fisheries.
- Fish meal:
 - production—
 - annual summary, 8156
 - monthly reports, 2645
- Fish nets:
 - trawl net reels, recent innovations, 9524
 - wade seine construction and method of use, 13236
 - see also Nets.
- Fish oil:
 - present and future market, 9519
 - production—
 - annual summary, 8156
 - monthly reports, 2645
- Fish ponds:
 - bottom water overflow for, 17285
 - pond management for—
 - channel catfish, 17301
 - crappie, 17302
 - largemouth bass and bluegill, 15224
 - see also Farm ponds.
- Fish sticks:
 - and portions—
 - annual summary, 8158
 - current fishery statistics, 2647
- Fish Stream, watershed work plan for flood prevention and recreation, Penobscot County, Maine, 15252
- Fisher, Bruce S., modification of protein films for use in water desalination, 1950
- Fisher, Frank L.:
 - iron oxide pigments, 18148
 - slag-iron and steel, 16926
- Fisher, James R., FORTRAN program for fast Fourier transform, 15074

- Fisher, M. J., turbulence measurements in supersonic shock-free jets by optical crossed-beam method, 5917
- Fisheries, see Fish and fisheries.
- Fishery-Oceanography Center, LaJolla, Calif., experimental sea-water aquarium, 3708
- Fishery products, see Fish and fisheries.
- Fishery Services Division, annual report, 17319
- Fishes, see Fish and fisheries.
- Fishing, see Fish and fisheries.
- Fishing gear, see Trawls and trawling.
- Fishing vessels:
 - and number of operators, employment and gross receipts, etc., census of commercial fisheries, 15549
 - commercial, and crew, safety program, 9525
 - construction assistance, increase authorization—
 - law, 12107
 - report, 9877
 - loans for financing and refinancing cost of purchasing, construction, etc., authorization, hearings, 8313
 - South Korean vessels off Alaskan coast, hearing, 16044
 - Soviet trawlers observed in Gulf of Alaska, fishing vessel and gear developments, 9518
 - U.S. fishing fleet improvement act, extend—
 - law, 12107
 - report, 9877
 - vessel sanitation and fish handling, recommended practices, 8163
- Fishmeal, see Fish meal.
- Fishponds, see Fish ponds.
- Fishways, chinook salmon in fishways, effect of flow on performance and behavior, 8169
- Fission, see Nuclear fission.
- Fittings (auxiliary parts):
 - Federal item identification guides for supply cataloging, supplements, 2592
 - see also Pipe and pipe fittings.
- Fitzgerald, A. E., dismissal by Defense Department, hearings, 8193
- FitzGerrell, R. G., surface wave transmission line for vehicular communications, 16466
- Fitzmaurice, M. W., wavelength dependence of laser beam scintillation, 2090
- Five Civilized Tribes:
 - administration of affairs, amend Federal laws, report, 9832
 - land conveyance to, report, 8370
 - principle officer, popularly elect, report, 8371
 - see also Cherokee Indians—Chickasaw Indians—Choctaw Indians—Seminole Indians.
- Fivemile Creek, Allegany, N.Y., flood plain information, 14308
- Fixing up your home, what to do and how to finance it, 4274
- Fixtures (for office, etc.):
 - census of transportation, 1967, commodity transportation survey, shipper group, 3605
 - public building, miscellaneous furniture, office and store fixtures, census of manufactures, 1967 industry statistics, 15595
- Flager County, Fla., Hastings area, potato industry, 1958-68 changes in market organization and practices, 16468
- Flags:
 - American flag 6-cent postage stamp, poster, 12900
 - flags and pennants, Federal item identification guide, 5308
 - our flag, 15823
 - print as House document, reports, 1503, 1676

Flags—Continued

- United States—
burial or memorial purposes, how to obtain eligibility, etc., 17402
presentation to parents of deceased veterans, require—
law, 15786
reports, 10971, 13693
this is our flag, be proud of it! (poster), 10518
to be flown over remains of U.S.S. Utah at Pearl Harbor, report, 13657
Flagstaff, Ariz., Flagstaff Public Schools, narcotic and drug education, grades K-12, 14945
Flame spraying, military standard, 17743
Flames:
explosives, explosions, and flames, research and technologic work, 18147
flames straightening effect on material properties of weldments, 17264
gas burner flames, reduction of air pollution from, and related reaction kinetics, 10319
laminar gas jet diffusion flames, effects of gravity on intensity, 11690
radiant heating of coal dust clouds by flames in coal mine galleries, 18168
research and technologic work, 4409
tubes, position numbers, military standard, 16149
Flammable fabrics, *see* Textiles.
Flammability, *see* Inflammable materials.
Flanges:
flat grinding wheel mounting, student reference, 7420
pipe, Federal item identification guide, 4010
Flaps (aircraft):
airplane model with 4 propellers and rotating cylinder flaps, large-scale wind-tunnel tests, 10391
external-flow jet-flap system used for additional lift, simulator study of instrument landing approach of heavy subsonic jet transport, 11686
flat plate with deflected trailing edge flap heat transfer measurements at Mach 8 with transition effects included, 14861
jet-flap rotor blade, performance evaluation, 10355
STOL air-sea transport model with blowing over canard and wing flaps, ground effects investigation, 18206
Flash distillation:
direct contact condensation multistage flash distillation process, phase 2, development, 16698
flashing process, influence of high-molecular weight additives, screening study, 5626
multi-effect multi-stage flash distillation system, analysis and optimization, 12608
multistage flash distillation—
plants, survey of materials behavior, 5625
process, phase 1, development of direct contact condensation, 1949
state-of-the-art, 779
multistage flash phenomena in 3-stage test system, investigation, 7310
process, development studies, 12613
smooth tubes for large multistage flash evaporator desalination plants, fabrication, 10230
Flashings, and experimental cavitation of potassium flowing adiabatically through venturi sized as boiler inlet, 11639
Flathead National Forest, Mission Mountains Wilderness, proposal, 16553
Flathead River, flood plain information, 4078
Flatley, Thomas W., magnetic attitude and spin control of small scientific satellite S³-A, 5926

Flatwear:

- cutlery and flatwear, Federal item identification guide, 17736
stainless-steel, Tariff Commission report, 2263
Flavoring extracts, and essential oils, trade and tariff information, summaries, 17375
Flavors, flavor materials, synthetic organic chemicals, production and sales, 4768
Flax, Lawrence, theory of anisotropic Helsenberg ferromagnet, 18216
FLC, *see* Federal Library Committee.
Fleet, *see* Merchant marine.
Fleet Marine Force manual FMFM series, 827-828, 7440, 11558-559, 16876
Fleet Marine Force, Marine aircraft wing, manual, 11558
Fleming, Ralph D., effect of fuel composition on exhaust emissions from spark-ignition engine, 16913
Fleming, Walter E., Japanese beetles in United States, 12975
Flesher, Martha G., Army Reserve magazine, 2350
Fletcher, Bobby P., spillway for Copan Dam, Little Caney River, Okla., hydraulic model investigation, 16450
Flexural behavior of prestressed concrete composite tee-beams, 14915
Flexural properties of glue-laminated southern pine beams with laminations positioned by visual stiffness criteria, 8701
Flexural strength, *see* Mechanical properties.
Files:
caddisflies, neotropical, Leucotrichia and related genera from North and Central America, 17274
crane flies (Diptera, Tipulidae), Bredin-Archbold-Smithsonian biological survey of Dominica, 15161
Drosophila control in wineries, use of vapor generator with dichlorvos, 6288
horn flies, on cattle, how to control them, 1197
horse bots, how to control them, 12985
house fly larvae, as means of biodegrading poultry excreta, concept and equipment, 4797
nearctic sawflies (Blennocampinae, adults and larvae, Hymenoptera, Tenthredinidae), 45
Neodiprion taedaeinealis, pest of loblolly and shortleaf pines, 8688
new world species of Anthrax (Diptera: Bombyliidae) other than Anthrax albofasciatus group revision, 11850
Odonata of Dominica, British West Indies, 6159
pinyon sawfly, Neodiprion eduliculus Ross, description, etc., 4179
Scenopinidae (Diptera) of the world, revision, 2151
Flight:
aerospace safety (periodical), 2301
associated-particle neutron time-of-flight technique, multiple scattering corrections for, 963
aviation and space medicine psychophysiological and engineering-psychological aspects, USSR study, 10259
C-141A aircraft, flight test data, analysis, 11611
characteristics and handling qualities of variable geometry spacecraft, study to determine high L/D concept with single pivot 2-position skewed wing, 10351
comparative in-flight thrust measurements of SERT II ion thruster, 18208
control systems and automatic piloting of aircraft, problem of operational reliability, 14897
F-4 in-flight performance differences of pilot and navigator 2d-seat crewmembers, limited southeast Asia combat evaluation, 7955

INDEX 1970

Flight—Continued

fixed wing principles, technical manual, 15490
 flight instructors, certification, Federal aviation regulations, 17959
 heating simulation and its effect on load measurements, study of accuracy, 12784
 helicopter rotor in forward flight, method for analyzing aeroelastic stability, errata, 16932
 high-altitude test of 40-foot diameter (12.2 meter) ringsail parachute at deployment Mach number 2.95, 11652
 how flying gets better (remarks), 237
 information manual, international, amendments, 2760
 inspection manual, 4124, 7073, 14363
 installation instructions for ILS glide slope, FAA handbook, 4110
 instructor practical test guide, 7174
 instructors—
 certification, Federal aviation regulations, 1842, 5403, 8592-93, 10042
 handbook, 4172
 international information manual, 7968
 landing approach using 'Svod' system, USSR study, 16786
 large launch vehicles utilizing X-15 airplane and flight simulators, study of display systems for manual guidance, 5940
 MAC flyer (periodical), 2858
 meteorological path, plotter subroutine for, 4089
 meteorological straight line flight data, SLENDER, plotter subroutine, 5387
 motions of typical subsonic jet-transport airplane, analytical study of effects of severe turbulence, 2109
 neutron time-of-flight measurements, use of on-line computer, 4555
 parawing-lifting-body landing system, model-wind-tunnel and flight investigation, 18196
 physiology of flight, aerospace medicine, 10720
 plotter subroutine COMBI and 4 parameters for meteorological flight path, 8571
 procedures and airspace, 11287
 roll requirements for transport airplanes in cruising flight, flight investigation, 16973
 rules, Federal aviation regulations, 623, 2573
 SEAL glide-slope receiver, evaluation, 4116
 services, handbook, changes, 64-65, 3447, 7967, 9344
 subsonic jet transport, comparison of several techniques for determining minimum flying speed, 12793
 time-of-night mass spectrometer for studies of ions produced by simulated micrometeoroid impact, 8960
 training—
 get flying start with Air Force ROTC, 53
 use of tranquilizer chlordiazepoxide, 11976
 vehicles, stub and frame antennas for, USSR study, 11499
 VTOL flight-director concept during constant-speed instrument approaches, evaluation, 11684
 yaw-rate damper, evaluation of effect on flying qualities of light twin-engine airplane, 12817
 see also Aerodynamics—Aircraft—Helicopters.
 Flight crews:
 aircrew survival equipmentman 3 & 2, rate training manual, 10491
 Army aircrew protective armor in Vietnam, evaluation, 13044

Flight crews—Continued

combat squadrons of Air Force, World War II, 1209
 complex performance during exposure to high temperatures, 6403
 flight crewmember certificates, Federal aviation regulations, 16474
 legends for use in aircrew stations and on airborne equipment, military standard, 4024
 members other than pilots, certification, Federal aviation regulations, 8594, 17959
 Flight engineering, flight tests of spiral divergence and bank angle control of executive jets, 9346
 Flight engineers, employment outlook, 14723
 Flight instruction, see Flight.
 Flight instruments, see Aeronautical instruments.
 Flight officers:
 naval, to be eligible to command certain naval aviation activities, amend U.S. Code—
 law, 5057
 reports, 376, 3944
 Flight recorders, VGH data collected from 1 type of 4-engine turbojet transport airplane, 4516
 Flight service stations, FSS, flight service stations, pioneers of flight safety, 1920-70 history, 12516
 Flight simulation, see Simulation.
 Flight simulators:
 motion drive signals for piloted flight simulators, 11617
 simulation, fidelity, and transfer of training, review of problem, 13088
 Flight training, see Flight.
 Flint, George M., jr., aeroradioactivity survey and related surface geology of Chicago area, Ill. and Ind., 17472
 Flint, Oliver S., jr., studies of neotropical caddisflies, X, Leucotrichia and related genera from North and Central America (Trichoptera: Hydropsychidae), 17274
 Flint, Mich.:
 census of transportation, 1967, commodity transportation survey, 8069
 school and home program, compensatory program in elementary education, 11218
 Flint Hills National Wildlife Refuge, permitted recreational activities, 1128
 Floating equipment, plant list, Engineers Corps pamphlet, 7041
 Flood control, see Floods.
 Flood relief, see Floods.
 Floods:
 California, southern, urban sprawl and flooding, 5545
 Calleguas Creek, vicinity of Camarillo, Ventura County, Calif., flood hazard, 8532
 Columbia River Basin flood control payments, agreement with Canada, 6251
 control—
 emergency projects, Four Mile Run, Va., Potomac River Basin, etc., hearings, 523
 multiple purpose projects, general information, 3420
 payments by U.S., adjustments, agreement with Canada, 450
 river basin plans, additional authorizations, 1970, hearing, 3991
 Cuyahoga River, Cuyahoga and Summit Counties, Ohio, 7040
 determining flood flow frequencies, new tables of percentage points of Pearson type III distribution, 9167
 effect of watershed cover on overland flow from major storm in southwestern Wisconsin, 5492
 flood hazard information, Santa Cruz River, vicinity of Sonita Creek confluence, Santa Cruz County, Ariz., 10003

Floods—Continued

flood plain information—

Albuquerque arroyos, Albuquerque, N. Mex., 17920
 Allegheny River and Fivemile Creek, Allegany, N.Y., 14308
 Anahola, Kauai, Hawaii, 4075
 Androscoggin River, Auburn & Lewiston, Maine, 1804
 Arkansas River and tributaries, Pulaski County, Ark., 7034
 Beargrass and Upper Mill Creeks, Jefferson County, Ky., 14309
 Big Wills Creek, vicinity of Gadsden, Ala., 16433
 Brazos and Bosque Rivers, Waco, Tex., 16413
 Calleguas Creek, including Conejo Creek and Arroyo Santa Rosa, Somis to Pacific Ocean, Ventura County, Calif., 8538
 Catawba River, Silver Creek and Bailey Fork, 7037
 Cedar River & tributaries, Austin, Minn., 16414
 Cedar River, Black Hawk County, Iowa, 17921
 Cottonwood Creek, Guthrie, Okla., 16415
 Coyote Creek, San Francisco Bay to Anderson Reservoir, Santa Clara County, Calif., 16416
 Crooked Creek and tributaries, Harrison, Ark., 8539
 Crow Creek, Cheyenne, Wyo., 14311
 Cumberland River—
 Ashland City, Tenn., 16417
 Harlan, Ky., 1805
 Cuyahoga River, Cuyahoga and Summit Counties, Ohio, 7035
 Delaware Creek, Irving, Tex., 4076
 Duck Creek, Garland, Tex., 4077
 East Fork San Jacinto River, Reese and Tarkington Bayous, Cleveland, Tex., 16410
 East Fork Stones River, Woodbury, Tenn., 17922
 Flathead, Stillwater, and Whitefish Rivers, Kalispell-Columbia Falls, Mont., 4078
 Floyds Fork, Jefferson County, Ky., 14312
 Glacier Creek, Girdwood, Alaska, 1806
 Ketchum, Idaho and vicinity, Big Wood River, 16419
 Lattas and San Diego Creeks, Alice, Tex., 4079
 Lemon Creek, Juneau, Alaska, 17923
 Little, Bolln, Booker, and Morgan Creeks, Chapel Hill, N.C., 16420
 Little Timber Creek, Camden County, N.J., 8540
 Little Wekiya River, Orange County, Fla., 16421
 Main Stem and South Branch, Big Timber Creek, Camden and Gloucester Counties, N.J., 8541
 Manitowoc County, Wis., 14313
 Mendenhall River, Juneau, Alaska, 16422
 Mingo Creek, Tulsa, Okla., 16423
 Minnesota River, Granite Falls, Minn., 16424
 Mississippi River—
 and Cape LaCrosse Creek, Cape Girardeau, Mo., 14314-315
 and tributaries, vicinity of LaCrosse, Wis., 16425
 Cassville, Wis., 1808
 Natchez, Miss., 1807, 1809
 Mission-Riverside area, Pendleton, Oreg., Umatilla River, 7036
 North Branch, Big Timber Creek, Camden County, N.J., 8542

Floods—Continued

flood plain information—continued

North Raccoon River, Sac County, Iowa, 17924
 Ohio River—
 Clermont County, Ohio, 16426
 Hamilton County, Ohio, 16427
 Ouachita River, Bayou Lafourche and tributaries, Monroe, La., 16428, 17925
 Parker Creek, Marshall, Tex., 16429
 Poesta Creek and Salt Creek, Beeville, Tex., 4080
 Quinnipiac River, Southington, Conn., 8544
 Palm Beach County, Fla., tidal areas, 7038
 Pennsauken Creek and South Branch, Burlington and Camden Counties, N.J., 8543
 Pond Creek, Jefferson County, Ky., 14317
 Portneuf River and tributaries, Pocatello, Idaho, 14316
 Rock River, Winnebago County, Ill., 14318
 Sage Creek, Casper, Wyo., 14310
 St. Charles River, Pueblo, Colo., 16430
 San Jacinto River (San Jacinto to Railroad Canyon), Riverside County, Calif., 17926
 Santa Clara River, vicinity of Santa Paula, Ventura County, Calif., 14319
 Santa Ynez River, Lompoc to Pacific Ocean, Santa Barbara County, Calif., 14320
 South Fork of Crow River, Hutchinson, Minn., 16431
 Tranquitas, Santa Gertrudis, and Escondido Creeks, Kingsville, Tex., 16432
 Tualatin River and tributaries, Washington County, Oreg., 8545
 West Branch Brandywine Creek, Coatesville to junction of East and West Branches, Chester County, Pa., 16434
 Willamette River, Johnson, Kellogg, and Mt. Scott Creeks, Milwaukee, Oak Grove, Lake Oswego, Oreg., 16435
 Yakima and Naches Rivers, Yakima and Union Gap, Wash., 16436
 floods and flood plain management information—
 Coatesville-Modena area, Pa., 17916
 Glenhall, Northbrook, Wawaset area, Pa., 17917
 floods of 1964 in United States (series), 10187
 floods of 1965 in United States (series), 10188, 18051
 floods of 1966 in United States (series), 10189
 floodwater retarding structures near McKinney, Tex. during storm of Sept. 20-21, 1964, performance, 6187
 Florida, central and southern, flood control project, hearing, 9938
 fourwing saltbush survival after inundation, 11355
 Gravois Creek basin, St. Louis County, Mo., 7237
 hazard mapping in metropolitan Chicago, 5546
 homes and farms, first aid, 4806
 how to avoid damage—
 Albuquerque, N. Mex., arroyos, 17927
 Allegany, N.Y., 14321
 Ashland City, Tenn., 16437
 Auburn-Lewiston, Maine, 1810
 Beargrass Creek, Jefferson County, Ky., 14324
 Big Timber Creek, Camden and Gloucester Counties, N.J., Brooklawn-Bellmawr-Westville vicinity, 10004
 Big Wills Creek, Gadsden, Ala., 17938
 Brazos and Bosque Rivers, Waco, Tex., 17935

INDEX 1970

Floods—Continued

how to avoid damage—continued

Cedar River—

Cedar Falls, Waterloo, and Evansdale, Iowa, 17915

Dobbins Creek and Turtle Creek, Austin, Minn., 1799

Chapel Hill, N.C., 16438

Cottonwood Creek, Guthrie, Okla., 17930

Coyote Creek, Santa Clara County, Calif., 17939

Delaware Creek, Irving, Tex., 4083

East Fork San Jacinto River, Reese & Tarkington Bayous, Cleveland, Tex., 17928

Floyds Fork, Jefferson County, Ky., 14326

Glacier Creek, Girdwood, Alaska, 1812

Granite Falls, Minn., 17929

Harlan, Ky., 1811

Harrison, Ark., 8546

Hutchinson, Minn., 17931

KallsPELL and Columbia Falls, Mont., 7039

La Crosse, Wis., 17933

Lattas and San Diego Creeks, Alice, Tex., 4081

Laurel, Embreeville area, Pa., 17918

Lemon Creek, vicinity, Juneau, Alaska, 17940

Little Timber Creek, Camden County, N.J., Gloucester City to Haddon Heights vicinity, 8549

Manitowoc County, Wis., 14322

Milwaukee, Oak Grove, and Lake Oswego, Oreg., 17934

Mississippi River, Cassville, Wis., 1813

North Branch Big Timber Creek, Camden County, N.J., Stratford-Lindenwold-Gloucester Township vicinity, 10005

North Raccoon River, Sac City, Iowa, 17942

Parker Creek, Marshall, Tex., 17941

Poesta Creek, Beville, Tex., 4082

Pond Creek, Jefferson County, Ky., 14329

South Branch, Big Timber Creek, Camden and Gloucester Counties, N.J., Deptford, Washington, Gloucester Townships, vicinity, 8550

Southington, Conn., 8547

Tranquitas, Santa Gertrudis, and Escondido Creeks, Kingsville, Tex., 17932

Upper Mill Creek, Jefferson County, Ky., 14325

Washington County, Oreg., 8548

Woodbury, Tenn., 17936

Yakima and Union Gap, Wash., 17937

hydraulic design of flood control channels engineer manual, 17919

hydrographs for small drainage basins in Wyoming, study, progress report, 734

hydrologic effects of floodwater-retarding structures on Garza-Little Elm Reservoir, Tex., 16645

investigation of floods in Hawaii, progress report, 10169

major floods at selected sites in Gila River Drainage basin above Coolidge Dam, Ariz., 7248

Marengo South quadrangle, northeastern Illinois, 7238

Mississippi River, upper basin, 10188

Mojave River basin ground water recharge, Jan. and Feb. 1969 California floods, 7241

National flood insurance act, amend and extend—

law, 3737

report, 3821

national river and flood forecast and warning service, plan for improving, 6281

Floods—Continued

Oakridge flood protection project, Lane County, Oreg., 6186

Ohio River—

Clermont County, Ohio, 17943

Hamilton County, Ohio, 17944

Ohio storm damage inspection, hearings, 5175

Ontonagon River basin, 1942, description, 8733

Palmyra-Maple Shade area, N.J., floods and flood plain management for Pennsauken Creek and South Branch, 8537

Pocatello, Idaho and vicinity, 14323

prevention, New Hampshire watershed progress report for Public Law 566 projects, 7769

prevention and watershed protection—

Fish Bayou Watershed, Crittenden and St. Francis Counties, Ark., 15251

Lake Verret Watershed, Ascension, Assumption and Iberville Parishes, La., 9173

Lower Clear Boggy Creek Watershed, Atoka, Bryan, Coal, and Johnston Counties, Okla., 15229

municipal and industrial water supply, and recreation, Upper Ouachita River Watershed, Polk County, Ark., 9175

Paint Creek Watershed, Harper County, Okla., 15250

Sanderson Canyon Watershed, Terrell, Pecos, and Brewster Counties, Tex., 15243

Sugar River Watershed, Grafton, Merrimack and Sullivan Counties, N.H., 15253

prevention, watershed protection and drainage, West Carroll Watershed, La., 9174

prevention, watershed protection and recreation, Fish Stream Watershed, Penobscot County, Maine, 15252

Project Flood, data report, Caribbean Sea, 1012

small-stream flood investigations in Minnesota, 4253

special flood hazard information, Canadian River, Norman, Okla., 7042

special flood plain information, Arkansas River, Fort Dodge-Wilroads Gardens section, Dodge City, Kans., 14332

Umatilla River in Mission-Riverside area, 7043

United States summary, 10187, 18051

upper Des Moines River basin, Iowa, 14527

upper Midwestern U.S., 14528

urban development effects on floods in northern Virginia, 18055

Utah, southwestern, Dec. 1968, 10189

watershed projects, community benefits, 3396

Floor covering installers, *see* Floor layers.

Floor covering mills, census of manufactures, 1967, industry statistics, 13148

Floor layers, floor covering installers, employment outlook, 14701

Floors and flooring:

care and maintenance, Post Office Dept. facilities handbook, 1040

floor laying and other floor work, special trade contractors, N.E.C., census of construction industry, 1967, statistics, 13131

mosaic-parquet hardwood slat flooring, voluntary product standard, 14930

Flora, *see* Plants.

Flores, Paul S.:

establishing business in Mexico, 15725

market factors in Mexico, 8150

Florey, Quenton L., paper, May 16-20, 1966, 7722

Florida:

- census of business, 1967:
 - major retail centers, standard metropolitan statistical areas, 9419
 - retail trade, merchandise line sales, 10785
 - selected services, area statistics, 4917
 - wholesale trade, area statistics, 171
- census of construction industries, 1967, statistics, 15553
- census of governments, 1967, State reports, 3559
- census of manufactures, 1967 statistics, 15574
- central and southern—
 - flood control project, hearing, 9938
 - water supply, meeting of subcommittee, 8377
- citrus, evaluation of various types of disposable pallets for handling and transportation, interim report, 9280
- climatological data, 2409
- conservation needs, 1970 inventory, summary, 17292
- continental margin, detailed stratigraphic description of JOIDES cores, 4245
- county business patterns, 3613, 13160
- drilling on continental margin off Florida (series), 4245
- electric rate book, 12527
- fishery products, wholesale dealers, list, 12080
- foreign vessel activities in or near U.S. waters off coast, Coast guard policy and operations, hearings, 13744
- fresh citrus fruit, shipment specifications, 8584
- hurricanes, description, etc., 607
- internal revenue assessment lists, 1865-66, pamphlet to accompany microcopy, 4544
- landings, fish and shellfish, 1268, 2650
- mineral industry, minerals yearbook chapter, 4425
- minority construction contractors located in selected cities, list, 8793
- northeast, 1970, forest statistics, 10139
- pesticides, sources in waters, 16625
- pollution of interstate waters—
 - and intrastate portions of Escambia River basin, conference proceedings, 12538, 14401
- Perdido Bay and its tributaries, conference proceedings, 16516
- potatoes, marketing summary, 3993
- precipitation data, hourly, 2718
- selling Florida's tourist attractions for profit (remarks), 17395
- southeast, scombrid fishes, size, seasonal abundance and length-weight relation, 10896
- southern, hydrology of 3 experimental watersheds, progress report, 3371A
- taxonomic status and reproduction of striped bass, *Morone saxatilis*, 6210
- travel costs less than you think, please come, invitation from people of U.S., 7885
- Dutch edition, 7882
- German edition, 7880
- Japanese edition, 7886
- Portuguese edition, 7883
- Spanish edition, 7881
- water resources—
 - lakes, 16632
 - streams, northern and central, 16631
- wilderness, designate certain lands, hearing, 13743
- Florida Bay, central, flora and fauna in basin, 13242
- Florida State University, elementary teacher education, feasibility of model program, 11224
- Floss, Ludmilla, sprinkler irrigation bibliography selected from foreign literature, 14603

Flotation:

- iron ore flotation, infrared evaluation of starch products used, 867
- leach-precipitation flotation studies on red bed copper ore using controlled atmosphere, 7497
- selective, of minerals from North Carolina mica tailing, 877
- Flounders, irradiated Atlantic, toxicogenesis at low storage temperatures, 1968 report, 3507
- Flour:
 - food grain statistics, supplement, 10706
 - grain mill products, census of manufactures, 1967, industry statistics, 15591
- Flour beetles, *see* Beetles.
- Flour mills, products, current industrial reports, 2475, 8081
- Flow:
 - accelerated velocity, intermittency, and turbulence intensity, measurements in boundary layer, 18220
 - additive-drag coefficient and mass-flow ration for inlets utilizing right circular cones at zero angle of attack, approximate solution, 2092
 - atmospheric systems, research on instabilities associated with clear air turbulence, 10364
 - axial flow turbine using specified meridional velocity gradients, analysis of geometry and design-point performance, 2062
 - cavitation and gas diffusion in a flow, USSR study, 18757
 - chemically reacting air couette flow with hydrogen injection, diffusion model study, 18224
 - compressible, turbulent-boundary-layer flow, summary of available information on Reynolds analogy for zero-pressure-gradient, 5923
 - compressible fluid near Mach 1, computation of potential function, 8941
 - computer program for prediction of ducted fan performance, 5895
 - coupled viscous-radiating flow with massive blowing, stagnation point, 10610
 - directional-mean free-path method for gas flow in translational nonequilibrium, study, 12785
 - discontinuous flows and free streamline solutions for axisymmetric bodies at zero and small angles of attack, 5942
 - draft-tube surging, experimental study and analysis, 7726
 - estimation in Gulf of Alaska, fishery oceanography, 17567
 - external-flow jet-flap system used for additional lift, simulator study of instrument landing approach of heavy subsonic jet transport, 11686
 - field, large-angle cones with short spikes at Mach number of 9.6, investigation, 11643
 - field calculations and nonlinear actuator disk theory, including nonuniform loading, 16950
 - flow characteristics on single turbulent jet impinging on flat plate, experimental, 7536
 - flow excursions in simulated gas-cooled reactor passage observations, 5906
 - flow properties in angle-of-attack plane of conical flow, approximation of distribution, 14883
 - fluid in channels, capillaries and porous media under influence of electric field, 4481
 - forced-flow electrodesalination, 12611
 - heat transfer distributions in deep cavities in hypersonic separated flow, experimental investigation, 16964
 - hot gas recirculation characteristics of jet V/STOL aircraft, empirically determined wind and scale effects, 891

INDEX 1970

Flow—Continued

- hypersonic—
 - airstream, water injection from 9° hemisphere-cone into, 7553
 - helium, electron beam induced fluorescence, spectroscopic analysis, 18207
- low-density, shock wave shapes and surface pressures on hemisphere- and cone cylinders in, including ablation, 11633
- over 15° semilapex cone in helium, angle of attack and bluntness effects on intensity, direction, etc., 14862
- past blunt cones with consideration of equilibrium physicochemical transformations, 8955
- incompressible laminar and turbulent boundary layer development computer program to calculate, 7521
- inviscid radiating shock layers—
 - about spheres traveling at hyperbolic speed in air, errata, 17008
 - stagnation-point solutions, 12791
- jet flow refraction of sound, effects of temperature-profile variation, 10405
- jets exhausting into Mach 2.20 external stream, experimental determination of equivalent solid bodies to represent, 2099
- laminar flow, ventilation to operating rooms, study of application, 1070
- local flow field around pylon-mounted dummy ramjet engine on X-15-2 airplane for Mach numbers from 2.0-6.7, 5946
- low-density hypervelocity flow used for wedge-induced laminar boundary layer separation on flat plate, 10408
- magnetohydrodynamic channel flow, variational principle, 2122
- mass-flux, probe in a Mach 3 stream, performance, 942
- Michigan streamflow data, statistical summaries, duration hydrographs and summaries of flow duration, low flow, high flow, and monthly mean discharge, 16626
- mixing region for 2-dimensional jet injected at angle to moving stream, analysis, 929
- multiple jet liquid injection into hypersonic flow, experimental investigation, 11685
- natural airflow, heated thermopile anemometer compared with sensitive-cup anemometer, 679
- overland, on hillslopes, hydraulics, 5559
- patterns in mercury boiler, X-ray observations, 11631
- plane Poiseuille flow with heat transfer, stability, 17005
- radial-inflow turbine, 6.02 inch, varying blade-shroud clearance, experimental results, 4510
- radiating, nonadiabatic equilibrium inviscid flow over blunt body, inverse method solution, 14863
- radiation errors in air ducts under non-isothermal conditions using thermocouples, etc., 2136
- recirculation patterns in initial region of coaxial jets, 8929
- scaling of VTOL recirculation effects, 14827
- shock-tube flow analysis with dimensionless velocity number, 920
- short length turbojet combustor insensitive to radial distortion of inlet airflow, performance, 5924
- single turbulent air jet impinging on flat plate, survey of literature on flow characteristics, 5949
- streamflow data for Michigan, proposed, 16623

Flow—Continued

- subsonic compressible design charts of static and rotary stability derivatives for cropped double-delta wings, 5955
- supersonic conical flows, analysis, 12815
- supersonic gas flow, thermal buckling of plates and curved shells, USSR study, 2001
- thin radiating shock layer about blunt body, 7517
- turbulent, cylindrical couette, use in secondary nucleation of ice in suspension of crystals, 5616
- turbulent mixing in initial region of heterogeneous axisymmetric coaxial confined jets, 11620
- two-dimensional and axially symmetric, influence of suction on shock wave-turbulent boundary layer interactions, 16933
- two-phase in turbines and reaction nozzles, 11706
- unsteady, processes in Ludwig tube wind tunnel, theoretical and experimental study, 908
- variable-mass flexible rocket with internal flow, general motion, 5904
- viscous compressible fluid—
 - around stationary cylinder, numerical calculations, 5393
 - over flat plate numerical calculations and step geometry, 4490
- wing slipstream flow interaction, analysis, 14829
- XB-70 choked inlet, compressor-noise reduction and propulsion-system performance, 7537
- see also* Vortex flow.
- Flow charts, flow-diagram technique for time-varying coordinate systems, 17196
- Flow meters, *see* Flowmeters.
- Flow of water, *see* Hydraulics.
- Flowcharts, *see* Flow charts.
- Flower shops, *see* Stores.
- Flowering crabapples, *see* Apples.
- Flowers:
 - endangered, rare and uncommon wildflowers, found on southern national forests, 16539
 - growing flowering annuals, 4812
 - growing perennials, 4813
 - production and sales, etc., 7842
 - publications, list, 7714
 - starting and managing retail flower shop, 6154
- Flowmeters:
 - acoustic, used in measuring directional velocity in water waves, 11249
 - flowmeter for space, 2087
- Floyd, Hilton M., wade seine construction and method of use, 13236
- Floyd County, Iowa, community profile, 13955
- Floyds Fork:
 - floods, how to avoid damage in Jefferson County, Ky., 14326
 - Jefferson County, Ky., flood plain information, 14312
- Fluctuating properties of turbulent boundary layers for Mach numbers up to 9, 910
- Flue-cured tobacco, *see* Tobacco.
- Flue dust:
 - fly ash—
 - increases resistance of concrete to sulfate attack, 12910
 - utilization, applications and technology, summary, 14779
 - sintered fly ash, turf soil modification, 8909
- Flue plumes, plume rise, effluents from nuclear plants, dispersion, control, etc., 15530
- Fluhr, F. R., NRL IFF identity readout using confidence evaluation, 4627
- Fluid bed processes, *see* Fluidization.
- Fluid fuels, *see* Liquid fuels.

Fluid mechanics, *see* Hydromechanics.
 Fluid milk and cream report, 2651
 Fluidics, sewer fluidic regulator, combined, designed, 14418
 Fluidization, fluid-bed combustion and potential uses of anthracite culm-bank material, Operation Red Dog, study, 1358
 Fluidized bed reactors, used for sorption of SO₂ and regeneration of alkalized alumina, 14792
 Fluids:
 and mixtures, equilibrium critical phenomena, comprehensive bibliography with key-word descriptors, 12844
 behavior in vicinity of critical point, 16949
 compressible near Mach 1, computation of potential function, 8941
 flow in channels, capillaries, and porous media under influence of electric field, 4481
 fluid power, rate training manual, 17184
 fluo-solid systems, mechanics, phase 2, bench-scale research on CSG process, 6487
 movements in earth materials (series), 10171
 near critical, penetration model explanation for forced-convection heat transfer observed, 921
 nonlinear fluid oscillations in partially filled axisymmetric container of general shape, 11657
 Redlich-Kwong fluid in 2-phase region, thermodynamic properties, 2055
 viscous compressible flow over flat plate numerical calculations, and step geometry, 4490
 Flumes, flume width and water depth effects in sediment-transport experiments, 10177
 Fluorescence:
 electron-beam induced, in hypersonic helium flow, spectroscopic analysis, 18207
 fluorescent materials index soil movements, 677
 radiosotope excited X-ray fluorescence techniques, program to explore and evaluate potential applications in criminalistics and national security, final report, 9398
 Fluorescent lamps, *see* Electric lamps.
 Fluorescent sand as tracer of fluvial sediment, 7243
 Fluoridation:
 better water is in the works, 11406
 census, 7262
 health investment, no better, 8764
 no doubt about it, advantages derived from its use, 8765
 school fluoridation, new protection for child's smile, 8770
 water fluoridation, search and victory, 9013
 Fluorides, phase relations in alkaline earth fluoride-yttria systems, 18168-167
 see also Lanthanum fluorides.
 Fluorinated compounds, fluorinated polyether, rolling-element lubrication at cryogenic temperatures (160° to 410°R), 944
 Fluorination, silver, kinetic study, 10410
 Fluorine, thermochemistry, and hydrogen fluoride, 6008
 Fluorite, deposits of Quinn Canyon Range, Nev., 10167
 Fluorocarbons, resin film, using as coating for seed-roll boxes, effects on gin-stand capacity, seed-roll density, and rotational velocity, 3373
 Fluorspar:
 acid grade, disposal from national and supplemental stockpile—
 law, 12143
 reports, 6599, 6753, 11006
 mineral industry surveys, quarterly, 2652

Flutter (aircraft):
 elastically supported corrugation-stiffened panels, experiment and theory, 16987
 flat built-up panels under streamwise in-plane load, experimental and analytical investigation, 8953
 flutter design of stiffened-skin panels for hypersonic aircraft, 2101
 helicopter rotors in forward flight, method for determining characteristic functions associated with aeroelastic instabilities, 11615
 panel flutter, influence of turbulent boundary layer, experimental results, 10409
 panels, rotationally restrained, experimental investigation of flutter at Mach 3, comparison with theory, 914
 studies to determine nacelle aerodynamic effects on fan-jet transport model for 2 mount systems and 2 wind tunnels, 16998
 supersonic flutter of thermally stressed flat plate with edge stiffeners, 11614
 Fluvial sedimentation concepts, 10185
 Flux:
 mass-flux probe in Mach 3 stream, performance, 942
 penetration flux for multiwall structure on Lunar Orbiter spacecraft, calculation, 905
 Flux (neutron), *see* Neutrons.
 Fluxgate magnetometers, *see* Magnetometers.
 Fly ash, *see* Flye dust.
 Flyers, *see* Aviators.
 Flying, *see* Flight—Instrument flying.
 FM (radio), *see* Radio frequency modulation.
 FMC, *see* Federal Maritime Commission.
 FNMA, *see* Federal National Mortgage Association.
 FNS, *see* Food and Nutrition Service.
 Foam:
 foam fractionation of inorganic solutions, final report, 4304
 lightweight sulfur foam for use in field applications, investigation, 4071
 separation as tool in chemical oceanography, 4629
 spray-applied polyurethane foam to insulate heated rooms excavated in permafrost, 10330
 uncured slab urethane foam for bedding and furniture cushioning, 4551
 Focus for area development analysis, urban orientation of counties, 9970
 Foerster, Ronald E., control of linear systems with large time delays in control, 7519
 Foerstia zone of Ohio and Chattanooga shales, 16606
 Fog:
 dissipation systems in France, economic studies and test results, 15341
 ice fog, low temperature air pollution, 11250
 turboclar fog dispersal method, development and testing of underground blower unit, 18373
 Fog signals:
 Naval Oceanographic Office, lists—
 Baltic Sea with Kattegat, etc., 17181
 British Isles, English Channel, and North Sea, 6087
 Europe and Africa, west coast, etc., 10488
 Greenland, North and South America, east coast, etc., 7674
 Norway, Iceland and Arctic Ocean, 15054
 Pacific Ocean, western, etc., changes, 6086, 15053
 Fogarty International Center, *see* John E. Fogarty International Center for Advanced Study in the Health Sciences.
 Folds, *see* Metal foils.
 Fokker-Planck equations, *see* Equations.
 Foliage, *see* Leaves.

INDEX 1970

Folk, Hugh, pensions and severance pay for displaced defense workers, 4845
 Folklife Foundation, *see* American, Folklife Foundation.
 Folklore, North American Indians, bibliography, 825
 Fontugne, D. J., freezing process studies, 5618
Food:
 aerospace technology, conference, 14837
 artificial and synthetic—
 development of chemical research, USSR study, 4347
 USSR study, 16787
 code of Federal regulations, 5443, 7123, 8643-44
 commercial import detentions, monthly report, 2426
 consumer agricultural food protection act of 1969, hearings, 9886
 consumption prices, expenditures, supplement, 4040
 costs, information relating to agriculture, compilation, 15884
 cured, census of manufactures, 1967, industry statistics, 13145
 daily guide, some choices for thrifty families (poster), 11339
 dietary levels of households—
 North Central region, 4816
 Northeast, 6306
 South, 12984
 dietetic-nutritious foods, hearings, 1584
 donated for disasters, guide for State and local officials, 13000
 donated, you can help fight hunger in America, handbook for volunteers, 5475
 donation programs, Agriculture Dept., 11954
 edible preparations of animal and vegetable products, trade and tariff information, 4766
 emergency aid for Cella victims, 13001
 exports
 bibliography, 18006
 directory, 10111
 family budgeting for good meals and good nutrition, 3402
 family fare, guide to good nutrition, 3289
 fish, situation and outlook (periodical), 2653
 food and drug law history, significant dates, 10108
 food and nutrition
 basic lessons for training aides, 17955
 food and population, challenges, Malthusian spectre, Air Force Academy Library bibliography, 15450
 food certificate program, guide for retailers and wholesalers, 7179
 food consumption of households in United States survey 1965-66, conversion factors, 15405
 Food, drug, and cosmetic act—
 amend, hearings, 11141, 15917
 as amended, compilation, 6551
 food for us all, agriculture yearbook—
 departmental edition, 18
 document edition, 325
 food grain statistics, supplement, 10706
 food in your life, research in USDA, picture story, 11960
 food preview, 1969-70 winter, 1195
 for family with young children, 10685
 freeze-drying, for Armed Services, 13045
 guide for older folks, 12980
 household consumption survey, 1965-66, reports, 4816, 6306, 12984
 how food affects you, 7083
 human needs, national nutrition survey, hearings, 621, 1743, 3984, 5278, 9932, 13756, 16082
 industry in Puerto Rico, data pertinent to review of minimum wage rates, 2282
 industry, machinery, trade and tariff information summaries, 6262

Food—Continued
 inspection role of Federal organizations, need to reassess, Agriculture Dept., Defense Dept., Health, Education, and Welfare Dept., and Interior Dept., GAO report, 11377
 Jimmy has more fun, donated food program, 7177
 lack of food, study, authorization, report, 5239
 low-dose radiation processed, benefit-cost analysis, 6390
 makes the difference—
 ideas for economy-minded families, 39
 ideas for families using donated foods, 40
 ideas for leaders working with economy-minded families, 42
 manufacturing companies, economic report on influence of market structure on profit performance, 8666
 marketing America's food, 17904
 meal, ready-to-eat, individual, effect of freeze-thaw cycling on vitamin content, 6348
 meals of man, magnesium and calcium content determined, using atomic absorption instruments, spectrum-1 and SFPA, USSR study, 8833
 miscellaneous and kindred products, census of manufactures, 1967, industry statistics, 13147
 money-saving main dishes, 1196, 15418
 more food, better diets for low-income families, Department of Agriculture food stamp program, 38
 national food situation, 2928
 new and fortified, nutrition and private industry Federal regulation, and overseas experience, national nutrition survey, hearings, 521
 nutritious meals for needy children, provide temporary emergency assistance—
 law, 6539
 report, 5251
 nutritive value, 11952
 pasteurized, 90-day subacute oral toxicity studies on radiation, 4892
 plentiful food, PF series, 3025
 preparation and serving equipment, Federal item identification guides for supply cataloging supplements, 2597
 preservation of food products, low level irradiation effects, annual report, 126
 prices before and after distribution of welfare checks, 1969, low-income areas, cities, 15488
 statistical summary, 17445
 prices, what makes food prices? 571
 products, rate of enterotoxin production by staphylococci in, USSR study, 11509
 programs at local level hearings, 16082
 quality, Government's concern (address), 12972
 radiation preservation of foods, AEC authorizing legislation, 1971, hearings, 8190
 retail prices by cities, 2548
 retailing, what retailers should know about perishable agricultural commodities act, 6311
 sealing through contaminated pouch surfaces, 13043
 selected items, consumers' knowledge and use of Government grades, 7925
 self-service food donation center, how to plan, 41
 service 11, Nation's schools, preliminary report, 572
 service industry, selected research abstracts of published and unpublished reports, 1187
 service programs for children, appropriation authorizations, law, 10900
 toward the new, better foods from agricultural research, report, 7913

Food—Continued

USDA standards, list, 4808
volunteers, start food program, picture story, 7938
see also Canned foods—Food poisoning—Frozen foods—Nutrition—School lunches—*also* names of foods—*also* subjects beginning Food.
Food and Agriculture Organization of United Nations, U.S. financial participation, GAO report, 724
Food and Drug Administration:
accounting methods used in establishing fees for reimbursable testing and related services, improvements suggested GAO report, 1891
appropriations, 1971, hearings, 11021
clinical experience abstracts, 2568
committees, list, 16527
consumer protection activities, hearings, 15919
drug testing activities, hearings, 524
FDA current drug information, 11337
FDA papers (periodical), 2569
FDA publications, 10108, 11338, 12542-543
FDA's science project series, 12543
how FDA works for you, 12542
pesticides research and standard-setting program transfer functions to Environmental Protection Agency—hearings, 15911, 16057
report, 15874
reorganization, hearings, 15919
Food and Nutrition Service:
appropriations, 1971, hearings, 8286
FNS series, 1872, 5475-76, 7177-79, 10109, 11339, 16530
Food certificate program, guide for retailers and wholesalers, 7179
Food for animals, chronic animal feeding studies on radiation-pasteurized clams, chicken feeding experiment, final reports, 8025, 9403-4
Food for birds, food, feeders, and feeding for songbirds, 15207
Food for fish:
Abernathy salmon diet, tests of substitute ingredients and effects of storage, 7793
food habits of 5 centrachids during filling of Beaver Reservoir, 11891
ocean food of sockeye salmon, 9530
tuna food in Atlantic Ocean, review of studies, 3718
Food for livestock:
feed firm management, location-logistics system, 3400
feed market news weekly summary and statistics, 2637
feed situation, 2638
feed statistics, feed grains, corn, etc., 1969 supplement, 44
livestock-feed relationships, national and State, 6317
Netherlands' mixed feed industry, impact on use of grain for feed, 9974
starvation in antelopes with stomachs full of feed, 680
Food for poultry, chronic feeding studies on radiation-pasteurized clams, chicken feeding experiment, final reports, 8025, 9403-4
Food handling:
meat and poultry, clean for you, 3405
sanitary service, instructor's guide to be used in training food service personnel, 4087
Food, Nutrition and Health, White House Conference on, *see* White House Conference on Food, Nutrition, and Health.
Food poisoning, foodborne outbreaks, annual summary, 12853
Food processing:
firms, diversification and profitability, 4042
low-dose radiation processed food, benefit-cost analysis, 6390

Food processing—Continued

reverse osmosis in food processing, symposium held Jan. 23, 1969, Albany, Calif., 3374
Food service workers, training personnel for hospitality industry, 593
Food stamps:
act of 1964, amend—
hearings, 1568
report, 13464
Agriculture Department program, more food, better diets, for low-income families, 38
food stamps to end hunger, 11956
make the difference, 7935
program—
appropriation, 1970, authorization, increase—
law, 3730
reports, 370, 13464
extend hearings, 1568
guide for retailers and wholesalers, 10695
you and food stamps, 5476
you can help fight hunger in America, food stamp handbook for volunteers, 1872
Foot, feet first, booklet about foot care, for older persons and people who have diabetes, 14569
Foote, R. Q., Gasbuggy, analysis of ground motions, and close-in physical effects, 6385
Foote, Richard J., concepts involved in defining and identifying farms, 12494
Footings, straight auger and belled auger footings, in sandy silt, uplift resistance, Mead-Liberty Transmission Line, Pacific Northwest-Pacific Southwest Intertie, 9088
Footnote, journal of HEW Audit Agency, 10196, 12594
Footwear, *see* Boots and shoes.
For all the people, Harry S. Truman Library (film), 14905
For benefit of all mankind, survey of practical returns from space investment, 15869
For free men in a free world, 1142
For your life a new dimension, 15480
Forage plants:
feed statistics, 1969 supplement, 44
level bench systems for forage production in North Dakota, economic analysis, 6291
7 browse species, seasonal distribution of nutrients in Louisiana, 12566
storage not affecting crude protein content of forage samples, 11350
trends in crops varieties, 4133
wheat pasture, report, 3358
winterfat seedlings, emergence and survival from 4 planting depths, 11352
Foraminifera:
larger—
from deep drill holes on Midway atoll, 732
of late Eocene age from Eua, Tonga, 5555
planktonic, distribution in vicinity of North Atlantic current, 7733
smaller—
from Midway drill holes, 16621
of late Eocene age from Eua, Tonga, 8744
Forbus, W. R., jr., handling peaches in pallet boxes, 9304
Force and energy:
averaged high-frequency field forces, used in amplifying electromagnetic radiation, study of possibility, 4872
brake pedal force capability of adult females, 18238
Charpy-V shelf energy degradation and yield strength increase of neutron-embrittled pressure steels, trends, 6110
dynamic tear force, practical performance criteria for fracture resistance, 15064
energy and future (remarks), 10773

INDEX 1970

- Force and energy—Continued
 heat or force fields, study of application to
 sonic-boom minimization problem, 2116
 integrated energy balances and flows, sup-
 ply and demand for energy in U.S. by
 states and regions, 5849
 large-area proton beams established in en-
 ergy range from 31 to 225 MeV at NASA
 Space Radiation Effects Laboratory,
 5920
 neutron pseudo-resonance parameter
 chains in unresolved energy region
 DAISY, efficient program for production,
 12802
 range in metals and metal oxide systems of
 heavy ions in energy range 60 to 400
 KEV, 12746
 rotational energy levels and rotational line
 intensities in diatomic molecules, calcu-
 lation, 11731
see also Jets.
- Forced-convection boiling near inception in
 zero gravity, 4521
- Forced-flow electrodesalination, 12611
- Ford, James A., comparison of formative
 cultures in the Americas, diffusion or
 psychic unity of man, 991
- Ford, William F., systematic method of cal-
 culating reduced matrix elements of single-
 particle operators, 12811
- Ford's Theatre:
 designate as Ford's Theatre National His-
 torical Site—
 law, 12115
 reports, 9705, 11091
 general information, 996
- Ford's Theatre National Historical Site:
 establish—
 law, 12115
 reports, 9705, 11091
- Forebay Dam, Grand Coulee, 3d power plant
 project, shear and sliding resistance tests
 of rock joints, 15145
- Forecasting warehouse produce movement,
 15398
- Forecasts:
 air pollution potential forecast program,
 1826
 Arctic ice observing and forecasting pro-
 gram, 1963 report, 9048
 demand projections and forecasts, projec-
 tions to 1972 of aggregate ton miles and
 modal shares, 7869
 elements of river forecasting, 1828
 forecasting—
 economic activity in 1970 (remarks),
 14391
 occupational job requirements, 14653
 systems, USSR studies, 5748, 7351
 long-range, 1970-73, geomagnetic activity,
 10026
 methods of forecasting radioactive con-
 tamination of environment by under-
 ground nuclear explosions, USSR study,
 8005
 national river and flood forecast and warn-
 ing service, plan for improving, 6281
 scientific and technical information, USSR
 study, 7391
 selected energy, for United States, review
 and comparison, 4658
 snow survey and water supply forecasts,
 conducted cooperatively by Federal-
 State-private organizations, 15238
 social forecasting, USSR study, 5784
 world demand for tuna to year 1990, 9527
 world outlook for nuclear energy (re-
 marks), 8411
see also Weather forecasts.
- Foreclosure of mortgage, *see* Mortgages.
- Foreign affairs, *see* International relations.
- Foreign Affairs Committee, House:
 activities, 91st Congress, 1st session, 9739
 calendar, 2802
- Foreign Affairs Committee, House—Con.
 committee prints, 3862-64, 8289-90, 8293-
 95, 9735-39, 9910, 13509-509, 13511,
 13513-515, 15898, 17645
 hearings, 1580-81, 3860-61, 5158-59,
 6706-10, 8291-92, 9733, 9740, 11033,
 12270-271, 12273, 13507, 13510, 13512,
 13516-518, 15899-901, 17644
 investigations and studies, foreign policy
 of U.S., expenses report, 6659
 reports, 390, 1469, 1516, 1525, 3820, 3843,
 5122, 6595, 6670, 6677, 8242, 9722,
 12272
- Foreign Affairs Research Documentation
 Center:
 papers available, listing, 2654
 special papers available, 11897, 15293
- Foreign Agricultural Service:
 biographic register, 15292
 appropriations, 1970—
 law, 1392
 report, 1482
 appropriations, 1971, hearings, 9724
 miscellaneous, FAS-M series, 666, 5477,
 8679-81, 10110-111, 11340-342, 14424,
 16531-532, 18005-6
 special reports, list, 667, 12544
- Foreign agricultural trade, *see* Agricultural
 products.
- Foreign agriculture, *see* Agriculture.
- Foreign agriculture (periodical), 2656
- Foreign agriculture circulars, 2657
- Foreign aid:
 appropriations, 1971, reports, 10962, 13400
 development assistance, agreement with
 Burundi, 9206
 development digest (periodical), 2505
 economic and social development Sino-
 American Fund, agreement with China,
 17343
 excess property program of Agency for In-
 ternational Development, 1969 hearing
 1582
 financing economic development (re-
 marks), 6270
 foreign assistance act of 1961, amend—
 law, 1425
 reports, 480, 1472, 1553
 foreign assistance act of 1969—
 law, 1425
 reports, 480, 1472, 1553
 section-by-section analysis, 8295
 foreign assistance act of 1970, background
 material, 8289
 foreign assistance and related programs
 appropriations act, 1970, law, 5053
 foreign assistance appropriations, 1970—
 hearings, 1702
 law, 5053
 reports, 1521, 1561, 3818, 3840, 3926
 foreign assistance appropriations, 1971,
 hearings, 9728
 foreign assistance for the seventies, mes-
 sage from the President, 16731
 foreign assistance program—
 annual report 1969—
 departmental edition, 7345
 document edition, 6566
 background material, 13509
 foreign military sales act, amend hear-
 ings, 5158, 9908
 reports, 6595, 6627, 9863
 Indonesia, United States AID operations,
 report, 1543
 Kenya and Pakistan, excess property pro-
 gram, AID's administration, GAO re-
 port, 1898
 military assistance and foreign military
 sales facts, 8481
 population program assistance, aid to de-
 veloping nations by United States, other
 nations, and international and private
 agencies, 7346
 private development assistance series,
 10250
 technical cooperation, agreements with Af-
 ghanistan, 8246, 17844

Foreign aid—Continued

- U.S. financial participation in Food and Agriculture Organization of United Nations, GAO report, 724
- U.S. foreign assistance in 1970s, new approach, 7712
- voluntary programs, reports, 7347
- see also* Central America.
- Foreign arbitral awards, 5246 10991
- Foreign Area Research Coordination Group, FAR horizons (periodical), 2561
- Foreign assistance, *see* Foreign aid—Military aid.
- Foreign bank secrecy, 12359
- Foreign bank secrecy and bank records, 6702
- Foreign business practices, 5699
- Foreign claims, *see* Claims.
- Foreign Claims Settlement Commission :
 - appropriations, 1970—
 - law, 3733
 - reports, 472, 5104
 - appropriations, 1971—
 - hearings, 8270, 13708
 - reports, 9686, 15990
 - waive points of order, report, 9688
- Foreign commerce, *see* Commerce.
- Foreign countries :
 - agricultural attache role (remarks), 9323
 - Air Force foreign military sales, logistics, manual, 4837
 - background notes, 1134-39, 2235, 4718-22, 6212-17, 7794-7811, 9186-89, 10591-600, 15278-291, 17323-328, 18343-344
 - bank accounts and use of foreign financial facilities by U.S. citizens, require report—
 - hearings, 6702, 12359
 - reports, 6672, 9652, 15992
 - consular offices in United States, 10601
 - corporation tax returns with foreign corporation stock and controlling stock holdings, 1962
 - countries, dependencies, and areas of special sovereignty, Federal general data standard representations and codes, 14919
 - country market digest (series), 2762
 - country market survey (series), 5714, 16729
 - demographic reports for foreign countries (series), 225, 10826
 - developing countries—
 - community water supplies, guidelines and criteria for establishing, 5377
 - family in hospital, 6045
 - economic data for less developed countries, 12618
 - Federal jobs overseas, 13200
 - fees charged for visa of U.S. passports, list, 6218
 - foreign business practices, 5699
 - foreign economic trends and their implications for United States, ET series, 789-798, 1967-77, 4314, 5700-13, 7319-42, 8818-24, 11462-481, 14617-643, 16718-727, 18078-88
 - foreign game leaflet series, 17314
 - foreign production and commercial reports, index, 2737
 - foreign tax credit claimed on corporation income tax returns, 1962
 - international marketing information service IMIS (series), 2762, 4315, 5714, 16729
 - labor developments, 2791
 - living costs abroad, State Department indexes, 7438
 - living quarters allowances, State Department, 16868
 - 1970 world holidays listed, guide for business travel, 5717
 - non-Communist countries, gross national product, estimates, summary, 10248
 - passenger travel to and from U.S., reports, 2725, 11436

Foreign Countries—Continued

- plant quarantine import requirements, summaries, list, 6290
- significant NASA inventions available for licensing, in foreign countries, 17011
- social security programs throughout the world, 15171
- statistical briefs, 3225
- statistical publications, accession list, 2663
- strategic areas, briefs, 1211
- United States Armed Forces, use, background information, 13508
- U.S. economic policy for 1970's toward developing countries, hearings, 12156
- wheat and rice, imports and plantings of high-yield varieties in less developed nations, 4175
- world's nations, status, geographic nomenclature, etc., State Dept., geographic bulletin, 1144
- see also* Foreign aid.
- Foreign currencies, *see* Money.
- Foreign Direct Investment Office, Commerce Department, press releases, 3057
- Foreign direct investment program and its relationship to U.S. balance of payments (remarks), 5480
- Foreign direct investment regulations, 16533
- Foreign Economic Development Service, appropriations, 1971, hearings, 8266
- Foreign exchange :
 - gold reserves, current trends, 1787, 9980
 - rates—
 - monthly, 2658
 - Treasury reporting rates of exchange, 15393
 - weekly, 2659
 - Treasury and Federal Reserve operations, 10087, 16508
- Foreign languages, *see* Language and languages.
- Foreign Manuscript Copying, Center for Coordination of, *see* Center for Coordination of Foreign Manuscript Copying.
- Foreign military sales, *see* Foreign aid.
- Foreign Ministers Council, *see* Council of Foreign Ministers.
- Foreign policy, *see* International relations.
- Foreign products, *see* Commerce.
- Foreign relations, *see* International relations.
- Foreign Relations Committee, Senate :
 - calendar, 2823
 - committee prints, 8404-5, 9907, 9910, 13731, 13734, 16051-54
 - hearings, 506, 1729, 3974, 6799-6802, 8406-7, 9908-9, 9911-12, 11122-125, 12364, 13732-733, 13735, 16055-56, 17701
 - investigations and studies, U.S. foreign policies, authorization, report, 5238
 - reports, 480, 1621-22, 1679, 5245-46, 5248-49, 6762, 6768, 6776, 6779, 8353, 9836, 9862-63, 11076, 11096, 12341, 15974
- Foreign Scholarships Board, annual report, 7180
- Foreign Service :
 - annuities, increases and adjustments—
 - law, 5060
 - reports, 1525, 5245
 - career ministers, lower mandatory retirement age, report, 11096
 - Czechoslovak Embassy, New York branch, commercial section, establish, agreement with Czechoslovakia, 4741
 - department and foreign service series, 10601, 15292, 17329
 - embassy sites, agreement with Union of Soviet Socialist Republics, 1162, 6235, 12942
 - foreign embassies in U.S., executive protective service, authorize—
 - hearings, 3989
 - law, 8176
 - reports, 1517, 3828, 3941

INDEX 1970

Foreign Service—Continued

- Hungarian Embassy, New York office, commercial section, establish, agreement with Hungary, 4742
- list, 2662
- officers, key, of foreign posts, guide for businessmen, 2789
- salary rates, Federal general schedule, 3889
- Foreign Service Corps, establish, hearing, 9931
- Foreign Service Institute:
 - basic language courses—
 - Cambodian, 12935
 - Cantonese, 12938
 - Lao, 12938
 - Luganda language, 11900
 - Thai, 11902
 - Turkish, 11904
 - programmatic course, Spanish, 15299
 - instructor's manual, 15300
- Foreign trade, *see* Commerce—*also* names or classes of commodities—*also* names of countries.
- Foreign trade routes, *see* Trade routes.
- Foreign trade zones:
 - free trade zones and related facilities abroad, 16728
 - Machiasport, Maine, subzone, establish, hearings, 11110
 - Portland, Maine, establish, hearings, 11110
- Foreign Trade Zones Board, annual report, 12545
- Foreign versions, variations, and diminutives of English names, foreign equivalents of U.S. military and civilian titles, 4293
- Foreign visitor arrivals, 15371
- Foreigners, *see* Aliens—Visitors.
- Foremen, employment outlook, 18120.
- Forest conservation, *see* Forests and forestry.
- Forest County, Pa., community profile, 16246.
- Forest fires:
 - Alaska coast, analysis and summary, 3683
 - appraising forest fire fuels, two keys, 14476
 - building firelines with liquid explosive, some preliminary results, 10125
 - cooperative control program financing—
 - Federal allotments to States for forest fire cooperation, 8684, 14428
 - Federal, State and private funds, 12546
 - cooperative forest fire control expenditures by source of funds, preliminary data, 7183
 - fire behavior studies using wildland fuels to simulate urban conditions, preparation of test plots, 10123
 - fire control, State laws, analysis, 16535
 - fire control notes (periodical), 2644
 - index, 14436
 - fire stimulated aspen sprouting in sprucefir forest in New Mexico, 11349
 - fire weather—
 - and fire behavior at 1968 Canyon Fire, Calif., 10135
 - meteorological information to forest fire control operations, 12976
 - foliar moisture content of chaparral in Arizona, accounting for variation, 11348
 - gas analyses in large fire experiments, 10123
 - Hanalei Watershed, vegetation recovering with little erosion, 1880
 - historically great fires, climate conditions preceding in North Central region, 12560
 - INFORMAP, computerized information system for fire planning and fire control, 3712
 - large scale, effects on water quality in interior Alaska, 10100

Forest fires—Continued

- national fire-danger rating system fine-fuel moisture content tables, Alaskan adaptation, 4184
- national forests, annual report, 14452
- 1956-65 occurrence in South, 11357
- 1969 wildfire statistics, 12569
- Northeastern Interstate Forest Fire Protection Compact, New Brunswick and Quebec Provinces participation, agreement with Canada, 7828
- Project Flambeau, investigation of mass fire 1964-67, final report, 10122
- appendixes, 10123
- protection of State and privately owned land within national forest areas, 11370
- reducing fire hazard in ponderosa pine thinning slash by mechanical crushing, 8713
- slash fire atmospheric pollution, description, etc., 14475
- Forest Haven, Laurel, Md., substantially retarded patients, voluntary admission to provide care, education, and treatment, report, 16014
- Forest lands, *see* Forests and forestry.
- Forest management:
 - cooperative, Pennsylvania, investment guide, 16576
 - managing forested watersheds, cooperative programs for water resources conservation, 35
 - oak forest of Lake States, 5508
 - 20 years of intensive uneven-aged management, effect on growth, yield, species composition in 2 W. Va. hardwood stands, 12564
- Forest nurseries:
 - diseases of southern pines, 5487
 - tree planters' notes, 3293
- Forest pest leaflets, 673, 4179, 5487, 8688, 12547-548, 14439-446, 16541-543
- Forest planting:
 - artificial reforestation practices for Southwest, 10682
 - direct seeding of brush box, lemon-gum eucalyptus, and cluster pine in Hawaii, 4192
 - Engelmann spruce planted seedlings survival affected by shading and other factors, in central Rocky Mountains, 11353
 - experimental planting of 14 tree species on Pennsylvania's anthracite strip-mine spoils, 14472
 - forest and windbarrier planting and seeding in U.S., 1969 report, 11346
 - furrow-seeder for Northeast, 10134
 - tree planters' notes, 3293
- Forest products, demand and price situation, 1969-70, 7926
- Forest Products Laboratory:
 - development of natural finish, 18011
 - publications, lists—
 - dividends from wood research, 7190, 16538
 - furniture manufacturers and woodworkers, 16544
 - industrial arts and vocational education, 16545
- Forest research, *see* Forests and forestry.
- Forest resources, *see* Forests and forestry.
- Forest Service:
 - annual report, 18010
 - appropriations, 1970, law, 314
 - appropriations, 1971—
 - hearings, 8268
 - law, 13335
 - report, 9702
 - comments on resolutions relating to National Forest System, 1877, 5488
 - contracts for procurement of aerial facilities and services for protection and management of national forests, renewal, reports, 13418, 16021
 - employment, nonprofessional, guide, 4822

Forest Service—Continued

- equipment development ED&T report, 672, 8687, 14434-435, 16540
- films, available for educational purposes, list, 7195
- framework for the future, objectives and policy guides, 16546
- organization and management systems, summary from manual, 14455
- organizational directory, 1878
- publications by subject, list, 11344
- regulations for livestock grazing on National Forest system lands and other lands under Forest Service control, 16557
- research notes, 675-691, 1880-81, 4181-97, 5490-5505, 8692-99, 10135, 11347-361, 12550-559, 14458-463, 16558-571, 18011-21
- research papers, 692-705, 1882-84, 4198-4211, 5506-16, 8700-14, 10126-135, 11362-366, 12560-566, 14464-481, 16572-582, 18022-28
- resource bulletins, 706-707, 4214-14, 5517-19, 8715, 10137-139, 12567-568, 14482-485, 16583
- Southern Region press relations and news writing, helpful information for preparation of news articles, 16555

Forest thinning:

- black willow, benefits, 688
- chopped areas in Piedmont of South Carolina, effects on wildlife food plants, 4193
- initial thinning in red pine plantations, 12561
- reducing fire hazard in ponderosa pine thinning slash by mechanical crushing, 8713
- relation of snowpack accumulation to red pine stocking, 5495
- single commercial thinnings in variously spaced slash and loblolly pine plantations, 705
- thinning, spacing, and pruning practices for young cottonwood plantations, 16562
- young northern hardwoods, 5-year results, 697

Foresters:

- aerial photo interpretation, guide, 4807
- conservation occupations, employment outlook, 12682
- examination, announcement, discontinuance notice, 8121
- got a forestry problem, extension foresters can help, 10700
- research, examination announcement, discontinuance notice, 8121
- so you want to be a forester? 16584

Forestry, *see* Forests and forestry.

Forests and forestry:

- Arkansas forest industries, 11368
- Central States Forest Tree Improvement Conference, proceedings, 14457
- conservation, materials to help teach, list, 10118
- exotic trees unsatisfactory for forestry in southern Arkansas and northern Louisiana, 4194
- Fair labor standards act, applicability to forestry or logging operations, 6279
- forest atlas of South, 14437
- forest canopy, nocturnal radiation loss estimates, 5503
- forest environment, preliminary evaluation of hazards of 2,4,5-T in, 8698
- forest inventory statistics—
 - Calloway - Graves - Marshal - McCracken County unit, western Kentucky, 4771
 - McMinn-Melgs-Rhea County unit, east Tenn., 17379
 - Marion County unit, northwest Alabama, 9223
 - Winston County unit, northwest Alabama, 9222
- forest land use and streamflow in central Oregon, 8708

Forests and forestry—Continued

forest statistics for—

- Delta and Ouachita regions of Arkansas, 14485
- southwest Arkansas counties, 706
- forest waters, George Washington National Forest, 14447
- forester's guide to aerial photo interpretation, 4807
- forestry aids, conservation occupations, employment outlook, 12682
- forestry bulletins, Tennessee Valley Authority, 4771, 9222-23, 17379
- forestry conservation, activities guide for youth group leaders, 3418
- forestry research progress, McIntire-Stennis cooperative forestry research program, annual report, 13769
- forestry schools in U.S., list, 8689
- forests forever, 8690
- got a forestry problem, extension foresters can help, 10700
- hickory task force report, Southeastern Station, 8718
- hydrologic effects from urbanization of forested watershed in Northeast, 10131
- impact of Douglas-fir tussock moth, color aerial photography evaluates mortality, 16582
- industries, Northwest, production, prices, employment, and trade, 3100
- insect conditions in United States, 14438
- Mississippi—
 - forest resources, 4213
 - growth components, 11360
 - nocturnal air temperature on forested mountain slope, 5514
- oak forests of Lake States and their management, 5508
- Ohio's forest resource, preview, 676
- pests, conditions in Pacific Northwest, 5486
- pitfalls of using internal rate of return to rank investments in forestry, 8694
- prescribed burning in Lake States, current status, 5491
- principle of conditional error, some applications, 14479
- public concern and industry interest in forests (address), 7939
- research news for the midsouth, 2675
- research notes, 675-691, 1880-81, 4181-97, 5490-5505, 8692-99, 101125, 11347-361, 12550-559, 16558-571, 18011-21
- research papers, 692-705, 1882-84, 4198-4211, 5506-16, 8700-14, 10126-35, 11362-366, 12560-566, 14464-481, 16572-582, 18022-28
- research progress 1969, Pacific Southwest Forest and Range Experiment Station, 10136
- resource bulletins, 706-707, 4212-14, 5517-19, 8715, 10137-139, 11367-368, 12567-568, 16583
- silvical characteristics, California black oak, 8711
- silvicultural guide for northern hardwoods in Northeast, 5512
- silviculture of oaks and associated species, summary, 8703
- site evaluation methods, review and comparison, 700
- slash burning in small experimental watershed, increases in maximum stream temperatures, 4185
- slash fire atmospheric pollution, description, etc., 14475
- soil survey interpretations for woodlands, progress report W-(series), 7779-82, 9158-59
- southern forest economy, 1963, input-output analysis, 701
- southern hardwood forests, identifying juvenile seedlings, 14480
- statistics, 1970, northeast Florida, 10139
- Tennessee Valley Authority publications, list, 15352

INDEX 1970

- Forests and forestry—Continued
trees and forests in crowded world of tomorrow, Southern States and Forest Service cooperative planning, 14488
trees native to forests of Colorado and Wyoming, 7203
unmanaged growth in north Mississippi uplands, 689
watershed cover effect on overland flow from major storm in southwestern Wisconsin, 5492
weeding woodland, Georgia, 7786
what's new in research, Pacific Southwest Forest and Range Experiment Station, 7204
woodland in Soil Conservation Service, 15249
woodlands and coastal flatwoods in Southern coastal plain, Alabama and Mississippi, 9158
woodlands in—
Cumberland Plateau and Mountains and Southern Appalachian Ridges and Valley of Alabama, Georgia, and Tennessee, 7781
Nashville Basin and Highland Rim areas of Alabama and Tennessee, 7779
Sand Mountain area of Alabama and Georgia, 7780
Southern Coastal Plain and associated areas—
Georgia, North Carolina and South Carolina, 9159
Louisiana and Texas, 7782
southern Piedmont area of Alabama, Georgia, North Carolina, and South Carolina, 4696, 9159
see also Chaparral—Forest fires—Forest planning—Forest products—Forest thinning—National forests—Timber—Trees—*also* names of Forests.
Forgeries, counterfeiting and forgery, 6151
Forgings, census of manufacturers, 1967, industry statistics, 15606
see also Steel.
Form letters, *see* Correspondence.
Forms, blanks, etc.:
forms management office, functions, AFM manual, 4830
index of AMC blank forms, 4846, 7977, 10731, 15467
manifold business forms, census of manufacturers, 1967, industry statistics, 17520
operating forms, Federal manual for supply cataloging, change, 13776
see also names of departments, etc., issuing or using forms—*also* subjects.
Formulation on statistical trajectory estimation programs, 4493
Forney, Albert J., process to make high-Btu gas from coal, 10337
Forrest County, Miss., community profile, 16247
Forster, Robert E. CO₂ chemical, biochemical, and physiological aspects, symposium, 7525
Forsyth, Gordon J., reclamation era, water review quarterly, 3133
Forsyth County, N.C., community profile, 13956
Fort Barrancas, Fla., historic value, recognize hearings, 13526
Fort Belknap project:
Brown unit, transfer to landowners within project—
law, 10912
reports, 8257, 9821
minerals, grant full ownership to Fort Belknap Indians, report, 9858
Fort Berthold Reservation:
lands, hold in trust, law, 316
tribal lands, mortgaging, authorize, report, 9851
Fort Dix, N.J., Students for a Democratic Society, activities, hearings, 9749
Fort Donelson National Battlefield, appropriations, authorize, reports, 367, 1656
Fort Laramie, cavalry barracks, furnishing study, 7633
Fort Massachusetts, Miss.:
historic value, recognize—
hearings, 13526
report, 13460
Fort Mojave Indian Reservation, deposits of Colorado River, 16613
Fort Moultrie:
general information, 7636
no. 3, Fort Sumter National Monument, Sullivan's Island, S.C., historic structures report, 7635
Fort Necessity National Battlefield, ground cover study, 12869
Fort Niagara State Park:
south shore of Lake Ontario, engineers report—
departmental edition, 10013
document edition, 9624
Fort Niobrara National Wildlife Refuge, general information, 4704
Fort Peck Reservation:
Sioux Tribe, judgment funds, disposition—
law, 12111
reports, 1550, 11087
Fort Pickens, Fla.:
historic value, recognize—
hearings, 13526
report, 13460
Fort Point National Historic Site, establish, report, 13462
Fort Raleigh National Historic Site: general information, 2158
Fort Redoubt, Fla.:
historic value, recognize—
hearings, 13526
report, 13460
Fort Rucker, Ala., opportunity for Army to save on cost of temporary student lodging for student officers, GAO report, 7214
Fort San Carlos, Fla.:
historic value, recognize—
hearings, 13526
report, 13460
Fort Smith, Ark., Arkansas River basin, comprehensive development plan, hearings, 433
Fort Smith National Historic Site, general information, 4580
Fort Snelling, Minn., 6-cent commemorative postage stamp (poster), 17210
Fort Stanwix, N.Y., construction and military history, 12864
Fort Sumter National Monument:
Fort Moultrie, no. 3, Sullivan's Island, S.C., historic structures report, 7635
general information, 7637
Fort Vancouver National Historic Site, master plan, 2163
Fort Wingate area, N. Mex., ferns from Chinle formation (Upper Triassic), 5550
Fort Worth, Tex.:
area wage survey, 5824
census of transportation, 1967, commodity transportation survey, production, area series, 6430
drug clinical research center, close, hearings, 515
prairie, general information, 6179
principal electric facilities, map, 8627
Forth Corporation, accident report, 17168
Fortna, John D. E., measurement of nitrogen 2 and carbon 2 resonance multiplet line shapes from plasma, 10495
FORTRAN, *see* Computer programs/programming.
Fortymile River and Valley Alaska, geochemical and geologic reconnaissance of area, 8731
Forwarders, *see* Freight forwarders.
FOS series, 2567

Fossils:

- early Cambrian, *Salterella conulata* Clark found in eastern North America, description, etc., 18047
- Foerstia zone of Ohio and Chattanooga series, 16606
- Fossil basin, southwestern Wyoming, uppermost Cretaceous and Tertiary stratigraphy, 11397
- generic names of fossil plants, 1820-1963 index, 10159
- late Eocene from Eua, Tonga (series), 5555, 8744
- Paleontology of Canal Zone and adjoining parts of Panama, 14534
- Salterella* from Lower Cambrian of central Nevada, 10179
- see also* Paleozoic era—Plants.
- Foster, Albert R., teaching soil and water conservation, classroom and field guide, 12998
- Foster, Helen L.:
 - geochemical and geologic reconnaissance of part of Fortymile area, Alaska, 8731
 - geology along Taylor Highway, Alaska, 1908
- Foster County, N. Dak., community profile, 13957
- Foudriat, Edwin C., analysis of limited memory estimators and their application to spacecraft attitude determination, 14835
- Fouling organisms, marine biofouling studies off Oahu, Hawaii, oceanographic cruise summary, 9044
- Foundations (charitable and educational):
 - private foundations, tax reform, hearings, summary of recommendations, 8399
 - private funds for mental health, annotated list of foundations, etc., 1066
 - see also* names of foundations.
- Foundations (construction):
 - excavating and foundation work, special trade contractors, 1967 statistics, 13138
 - farm buildings, 17433
 - foundations and subsurface structures in snow, 4073
 - instrumentation at Pleasant Valley pumping plant, Calif., 18319
- Foundries:
 - copper-base products, current industrial reports, 2476, 15631
 - gray iron foundries industry, 1954-66 indexes of output per man-hour, 4374
 - iron and steel, census of manufactures, 1967, industry statistics, 12006
- Fountain, James B., feasibility of shipping golden delicious apples in tray-packed boxes, 9303
- Four Corners Regional Commission:
 - economic development programs, evaluation, hearings, 3890
 - Federal cochairman, nomination of Stanley Womer, hearings, 17716
 - press releases, 3058
- 4-H clubs:
 - clothing speaks, 4-H member's guide, 7082
 - health for better living, guide for county health chairmen, 6310
- Four Mile Run, *see* Fourmile Run.
- Four-States Irrigation Council, meeting, proceedings, 9087
- Fourier transforms, *see* Transformations (mathematics).
- Fourier's coefficients, *see* Coefficients.
- Fourmile Run:
 - City of Alexandria and Arlington, County, Va., flood protection, engineers report—
 - departmental edition, 14327
 - document edition, 13367
 - flood control, emergency projects, hearings, hearings, 523

Fournier, Paul G.:

- low speed wind-tunnel investigation of all flexible twin keel tension structure parawing, 16977
- wind-tunnel studies of effects of construction methods, design details and canopy slots on aerodynamic characteristics of small-scale all-flexible parawings, 16981
- Fourwing saltbush, *see* Saltbush.
- Fowl ticks, control, 4817
- Fowler, D. Lee, pesticide review, 6296
- Fowler, Laurie G., tests of substitute ingredients and effects of storage in Abernathy salmon diet, 7793
- Fowler, W. B., fluorescent materials index soil movements, 677
- Fox, Donald G., study of application of laminar flow ventilation to operating rooms, 1070
- Fox Indians, *see* Sac and Fox Indians.
- Foxes, red fox, habitat needs, etc., Wyoming, 15227
- Foxworthy, Bruce L., hydrologic conditions and artificial recharge through well in Salem Heights area of Salem, Oreg., 12590
- FPC, *see* Federal Power Commission.
- Fraas, Foster, factors related to mineral separation in vacuum, 11589
- Fractionation, foam fractionation of inorganic solutions, final report, 4304
- Fractographs, electron, fatigue-crack growth under simple variable-amplitude loading, investigation, 12775
- Fracture of metals:
 - corrosion fatigue crack growth behavior, 15080
 - dynamic tear energy, practical performance criteria for fracture resistance, 15064
 - failure of structural alloys by slow crack growth, 2181
 - % inch dynamic tear test, standard method, 18296
 - fracture in polycrystalline aluminum oxide, phenomenological and statistical analysis, 14851
 - fracture-safe design of steel structures, evolution of engineering principles, 4628
 - fracture toughness—
 - characteristics of new weldable steels of 180- to 210-Ksi yield strengths, 1033
 - commercial nuclear vessel welds, influence of composition, 15087
 - relationship to estimated plastic zone size in steel, titanium, and aluminum alloys, 6107
 - steel, thick-section, dynamic tear test investigations, 15077
 - structural metals, 12893
 - structural steels, 12891
 - graphical methods for plasticity corrections in fracture mechanics, 9057
 - ions formed within stress-corrosion cracks, spectrophotometric procedures for determination, 4625, 15061
 - mechanism of stress-corrosion cracking of titanium alloys in Na_2O_4 and aqueous and hot-salt environments, effect of composition, 7514
 - neutron-embrittlement and flux-density considerations of Army SM-1 reactor pressure vessel, analysis, 17191
 - neutron irradiated 12Ni-5Cr-3Mo maraging steel plate and companion weld metals, behavior of mechanical properties, 6103
 - radiation embrittlement of steels damage-function analysis of neutron energy and spectrum effects, 8099
 - residual tensile strength in presence of through cracks or surface cracks, 7531
 - steels, high strength, stress-corrosion cracking characterization and interpretation to failure-safe design, 9060

INDEX 1970

- Fracture of metals—Continued
 stress-corrosion cracking of—
 Ti-6Al-4V alloy in methanol, some factors affecting, 2103
 titanium alloys at ambient temperature in aqueous solutions, 894
 stress intensity and crack-opening displacement for coplanar cracks in thermoelasticity, 15067
 12-5-3 maraging steel plate, characterization of TiG welds with application of new scaling method for K_{IC} plasticity, 12895
see also Sheet metal.
- Fractures, coal, computer program for stereographic analysis, 7463
- Fracturing hard rock with nuclear explosives and extraction of ore by modified block-caving method, 10329
- Frames, beam columns, and arches, finite element approach to structural instability, 10406
- Framework for the future, 16546
- Framingham, Mass., cardiovascular disease, studies, 974-976, 7620
- France, Aneda E., vacancy rates and characteristics of housing in U.S., annual statistics, 15622
- France:
 alien amateur radio operators authorization to operate, agreement, 6222
 aminoacetic acid (glycine), determination of injury in investigation AA1921-61 under Antidumping act, 1921, as amended, 7851
 background notes, 1135
 capsule facts for Armed Forces, 72
 economic trends and their implications for United States, 798, 14618
 extradition treaty—
 message from the President, 9788
 report, 15974
 fog dissipation systems, economic studies and test results, 15341
 foreign trade regulations, 13230
 German external debts, agreement, 1161
 mineral industry, minerals yearbook chapter, 7465
 north coast, sailing directions, 6081
 potassium chloride (muriate of potash), determination of injury from imports, 1169
 weather station on Guadeloupe Island, cooperative meteorological program, agreement, 4751
- Franchise (business):
 District of Columbia income and franchise act of 1947, amend—
 law, 15780
 reports, 5131, 13685
 domestic and international potential (address), 3686
 franchise business, advice for persons who are considering investment, 5468
 impact of franchising on small business, hearings, 5282, 11149
- Franciscus, Leo C., analysis of rocket-powered ejectors for pumping liquid oxygen and liquid hydrogen, 18212
- France, J. J., lock and dam no. 13, Arkansas River navigation project, 18449
- Francolins, *see* Partridges.
- Frandsen, A. D., Cabriole, engineering properties investigations of Cabriole crater, 9400
- Frank, F. J., ground-water resources of Clatsop Plains sand-dune area, 18053
- Frank, R. G., fast breeder reactor advanced fuel element cladding fabrication, 15513
- Frankenstein, Guenther E., dynamic Young's modulus and flexural strength of sea ice, 14304
- Franking privilege, telegraph and telephone, FCC rules and regulations, 2585
- Franklin, A. D., ARPA-NBS program of research on high temperature materials and laser materials, 7576, 11737
- Franklin County, Ala., community profile, 13958
- Franklin County, Iowa, community profile, 16248
- Franklin County, Miss., community profile, 16249
- Franklin County, Mo., community profile, 16250
- Franklin County, Nebr., community profile, 17782
- Franklin County, N.Y., community profile, 13960
- Franklin County, N.C., community profile, 13959
- Franklin County, Ohio, community profile, 13961
- Franklin County, Pa., community profile, 16251
- Franklin County, Wash., community profile, 6911
- Franklin Delano Roosevelt Memorial Commission:
 operation, additional funds, authorize—
 law, 17603
 report, 13423
- Franklin Park, Washington, D.C., historic survey, 15026
- Franks, Keum Ja, relief, 12172, 13620, 17596
- Fraser, A. F., axisymmetric filamentary structures, 8922
- Fraser, J. H., vacuum freezing vapor compression process, 60,000 GPD pilot plant evaluation, 16699
- Fraud:
 enforcement report of Postal Inspection Service, monthly, 2539
 management of military club systems, investigation hearings, 1730, 3975
- Fraunhofer lines, holography, effect of object motion with application to velocity measurements, 918
- Frederick, William F., labor laws and practice in Panama, 8861
- Frederick Douglass Home:
 general information, 6061
 restoration and development of grounds and buildings, appropriations, increase—
 hearing, 1731
 law, 3723
 reports, 365, 471
- Fredericksburg, Tex., soil handbook for soil survey, 15233
- Frederickson, Donald S., hyperlipoproteinemias, diagnosis and treatment, 6030
- Free enterprise, *see* Laissez faire.
- Free ports, *see* Foreign trade zones.
- Free radicals:
 hydroxyl radicals, activation energies for reactions with hydrogen and carbon monoxide, 7543
 processes in biological systems, AEC translation, 110
- Free trade zones and related facilities abroad, 16728
- Freed, C. N., relationship between fracture toughness and estimated plastic zone size in steel, titanium, and aluminum alloys, 6107
- Freedmen's Bureau, *see* Refugees, Freedmen, and Abandoned Lands Bureau.
- Freedom, *see* Liberty.
- Freedom of press, *see* Liberty of press.
- Freedom of the seas:
 merchant marine and seapower (remarks), 10308
 seapower, guardian of freedom, 2172
 territorial sea boundaries, hearings, 12264
- Freeman, David H., Separation and Purification Section, summary of activities, 6007
- Freeman, Robert E., rural housing, trends and prospects, 16380

- Freeman, T. G., Federal-State-private cooperative snow surveys for Alaska, 2626
- Freeman School:
addition to Homestead National Monument of America—
law, 15796
reports, 8361, 13459
- Freeport, Tex.:
Freeport Test Facility—
and Vertical-Tube-Evaporator Test-Bed Plant, annual reports, 773, 16697
annual report, 5613
- Freer Gallery of Art:
Chinese bronzes, technical studies, 7205
oriental studies, 7205
- Freeways, *see* Roads and highways.
- Freeze-dried foods, *see* Dried foods.
- Freeze-drying, *see* Lyophilization.
- Freezers:
bargain freezer meats, there may be a catch to it, 4164
meat for your freezer, how to buy, 3404
- Freezing:
desalination by freezing—
final report on investigation, 7306
investigation of ice production from brine in continuous crystallizer, 771
evaporative freezing process for water desalination, 5624
freeze-thaw cycling effect on vitamin content of meal, ready-to-eat, individual, 6348
freezing process and mechanics of frozen ground, 599
home freezing of poultry, 3401
injury of root crops, beets, carrots, parsnips, radishes, turnips, 15435
process studies, 5618
transient, conformal mapping method for 2-dimensional solidification of flowing liquid onto cold surface, 2113
vacuum-freezing vapor compression process—
desalting state-of-the-art, 780
evaluation on brackish water, 14593
60,000 GPD pilot plant evaluation, 16699
see also names of commodities, etc., frozen.
- Freight:
commodity statistics—
annual report, 799
motor carriers, 7348
cost of transporting by class 1 and 2 motor common carriers—
by regions or territories, 4319
Central region, 11482
Eastern-central territory, 11483
New England region, 10251-252
services, joint agency study for procuring, paying, auditing, etc., for civil agencies, recommendations, 16538
see also Shipments.
- Freight cars, shortages, alleviate by increasing daily hire rates, hearing, 13723
- Freight forwarders:
air freight forwarders certification, hearing, 12278
ocean freight forwarders and FMC regulation (remarks), 10058
revenues, expenses, and statistics, quarterly, 3155
surface freight rates, railroads to publish, authorize, 6720
transport statistics, 4321
- Freight rates:
increases, establish advisory commission to make study, hearings, 13718
surface freight rates, railroads to publish for use by common carriers, hearings, 6720
through rates and joint rates between motor common carriers and common carriers by rail, express and water, establish, hearings, 18721
- Freight trains, *see* Railroads.
- Freitag, Ruth S., presidential inaugurations, selected list of references, 2040
- Fremont County, Colo., Gem Park complex, mafic-ultramafic igneous rocks and associated carbonatites, 16617
- Fremont County, Iowa, community profile, 13962
- French, Robert R., socioeconomic aspects of mining in selected cities, urbanization and surface mining, Atlanta, Ga., 12741
- French Guiana:
background notes, 4718
economic trends and their implications for United States, 11473
mineral industry, minerals yearbook chapter, 4423
- French journalists visit Soviet scholars, 4338
- French Meadows Recreation Area, general information, 14448
- French Polynesia, plant quarantine import requirements, 8
- Freon, freon 113 as test material for chemical cartridge respirators, 8908
- Frequencies:
auroras at 75 and 50 MHz, simultaneous radar studies, USSR study, 8631
electromyographic analysis of biceps muscle following standard air dives using frequency analysis, feasibility study, 18141
high—
precision calibration facility for coaxial capacitance standards, 8986
wattage-to-voltage converter, design and performance, 5965
high field, free plasma column in, at high pressure, USSR study, 7375
high-frequency field with plasma column hovering freely for thermonuclear reactor, 7396
high-frequency over-the-horizon earth backscatter, computer simulation of structural details, 4630
hydrogen spin exchange frequency shifts, 10436
interrogation repetition frequency sets nonsynchronous for n interrogations, methods for calculating and analyzing, 15081
low-frequency electromagnetic properties of turbulent plasma, theory, 112
oscillator frequency fluctuation on SDTS [moving target selection] system with internal coherence, investigation of effects, USSR study, 5771
solar activity effect on frequency of functional leukopenias and relative lymphocytoses, 5980
time and frequency transfer via microwave link, 15096
two-frequency Randle Cliff radar, dual PRF, dual-pulse-length synchronizer, 15095
see also Radio frequencies.
- Frequency band:
ATS-1 VHF communications experimentation, 18370
propagation data over irregular terrain, 239-to 9200 MHz range, North Table Mountain-Golden, tabulations, 17951
theoretical LF, VLF field calculations with spherical wave functions of integer order, 14348
- Frequency measurement:
effect of superhigh frequency fields on biological subjects, new techniques in studying, USSR study, 1983
space-time structure of high frequency components of wind waves, USSR study, 5797
- Frequency modulation, *see* Radio frequency modulation.
- Frequency response, and other characteristics of 6 fast-decay phosphors applicable to flying-spot scanners, 18215

INDEX 1970

- Fresh fruit, *see* Fruit.
 Fresh-water fish, *see* Fish and fisheries.
 Fresno, Calif.:
 area, Soil Conservation Service activities, etc., 6180
 Internal Revenue Service automatic data processing center, amended lease prospectuses to consider authorized annual rental, hearings, 9940
 preschool program in compensatory education, 11238
 Fresno County, Calif., draining agricultural land along westside of San Joaquin Valley, guide, 7765
 Freund, William H., food service in Nation's schools, preliminary report, 572
 Frey, H. Thomas, major statistical series of Department of Agriculture, how they are constructed and used, agricultural production and efficiency, 6300
 Friction:
 and contact resistance for gallium lubricated low-speed copper sliprings in vacuum, 16989
 and wear steels in air and vacuum, 16966
 see also Skin friction (aircraft).
 Friedel, Samuel N., portrait representation, proceedings, print as House document, report, 3822
 Friedland, Bernard, quasi-optimum design of control system for moving base simulators, 18181
 Friedman, Daniel, infrared characteristics of ocean water $1\frac{1}{2}$ to 15 microns, 4620
 Friedman, Howard A., ESSA Research Flight Facility, data processing procedures, 5393
 Friendship, and cooperation, agreement with Spain, 17356
 Fringe benefits, *see* Employee benefit plans.
 Frisch, Harold P., coupled thermally-induced transverse plus torsional vibrations of thin walled cylinder of open section, 12826
 Frisk, George V., scattering by spherically symmetric inhomogeneities, 2180
 Fritsch, K., behavior of fluids in vicinity of critical point, 16949
 Fritschen, Leo, slash fire atmospheric pollution, 14475
 Frogs, Colombia, types, description, etc., 11785
 Frohlich, Philip, denied applicants, comparison with beneficiaries and nonapplicants, 17277
 Frohlicher, Jean S., elementary and secondary education amendments of 1969, 163991
 From Mendelev to Mendelevium and beyond, 1274
 Front Range unit, *see* Missouri River Basin project.
 Frontier County, Nebr., community profile, 17783
 Froomkin, Joseph, aspirations, enrollments, and resources, challenge to higher education in the seventies, 5344
 Frost, Clyde M., hydrodesulfurization of residual fuel from Wilmington, Calif., crude oil, 12747
 Frost, L. W., synthesis of pyrrone polymers, 12761
 Frost, W. T., summary of snow survey measurements for Oregon, 2227
 Frost:
 direct reading frost gage is reliable, inexpensive, 12553, 16569
 susceptibility of soils, effect on mineralogical composition of fines, 598
 Frozen foods:
 and other food products, except meat and dairy products, census of transportation, 1967, commodity transportation survey, shipper group, 3601
 census of manufactures, 1967, industry statistics, 13145
 Frozen foods—Continued
 locker cooperatives with or without slaughtering facilities, production and performance, 12514
 see also Cold storage—also names or classes of foods.
 Frozen ground:
 freezing process and mechanics, 599
 isothermal compressibility of frozen soil and ice to 30 kilobars at -10°C , 14305
 shock effects on frozen materials, exploding wire experiments, 11252
 Fruit:
 canned deciduous fruit industry of Spain, 10110
 canned, foreign agriculture circulars, 2657
 cannery waste, aerobic treatment of fruit processing wastes, study of aerated lagoon, activated sludge, and activated sludge re-aeration, 10103
 culture, etc., publications, price list, 7713
 deciduous, foreign agriculture circulars, 2657
 dwarf fruit trees, selection and care, 9299
 export fruit acts, questions and answers, 3421
 farm crop production technology, suggested 2-year post high school curriculum, 7012
 fresh—
 how to buy, 15427
 market news—
 weekly summary, 2677
 wholesale market prices, 1968 summary, 5287
 prices, 1969, Chicago and New York City, 10707
 shipments by States, etc., 11151-152
 transporting overseas, interim report, 9278
 fresh, unloads—
 eastern cities, by commodities, States, etc., 6820
 for 41 cities, 6824
 midwestern cities, by commodities, States, etc., 6822
 southern cities by commodities, States, etc., 6823
 western cities, by commodities, States, etc., 6821
 fruit situation, 2680
 home garden—
 Pacific Coast States and Arizona, 7919
 Southeastern and Central Southern States, 17441
 in family meals, guide for consumers, 15425
 irradiation, annual report, 121
 noncitrus, production, use, value, etc., 1968-69, by States, 10631
 perishable agricultural commodities act fair trading in fruit industry, 4824
 processed—
 plants under USDA continuous inspection, list, 16094
 standards for grades, 9946
 publications, list, 7714
 storing in basement, cellars, outbuildings, and pits, 9294
 tree surveys, selected Southern States, regional summary, 17368
 see also Citrus fruit.
 Fruita Schoolhouse, Capitol Reef National Monument, furnishing study, 2159
 Fruits, *see* Fruit.
 Fryburg, George C., electron paramagnetic resonance study of order in several nematic liquid crystals, 5954
 FSS, flight service stations, pioneers of flight safety, 1920-70 history, 12516
 FTC, *see* Federal Trade Commission.
 Fu, W. S., stress intensity and crack-opening displacement for coplanar cracks in thermoelasticity, 15067

Fuel:

appraising forest fire fuels, two keys, 14476
ashless, low-sulfur fuel, economic evaluation of process of producing from coal, 9480
ASTM-A1, influence on performance of 48-module swirl-can turbojet combustor segment at high temperature, 2124
brushland fuels desiccated for burning, moisture contents, 18015
composition, effects on exhaust emissions from spark ignition engine, 16913
Federal item identification guides for supply cataloging, supplements, 2495
fine-fuel moisture content tables for national fire-danger rating system, Alaskan adaptation, 4184
fuels and fuel container coatings (test procedure), degradation tests, military standard, change, 550
generalized parameter fuel control for jet engines, computer and engine performance study, 11689
hazard in chaparral, experimental prescribed burn to reduce, 18021
hickory for charcoal and fuel, 8718
irradiation of UO_2 - PuO_2 ceramic fuels with high burn-up ratios, 1250
jet
effect of static dissipator additive on charging tendency, 6104
Navy special fuel oil effects on charging tendency, 4626
leaded and prototype lead-free automobile fuels, comparative emissions, 8913
minimum fuel attitude control of nonlinear satellite system with bounded control by method based on linear programming, 892
mixed conifer fuel-break, perennial grasses reduce woody plant seedlings, 18016
natural gas, used in performance test of turbojet combustor, 8933
petroleum and unconventional fuels, permanently installed storage and dispensing systems, maintenance, Air Force manual, 15454
residual, hydrosulfurization, from Wilmington, Calif., crude oil, 12747
retail prices and indexes, 3151
rocket, thermometric determination of oxidant-fuel distribution within combustor, 4525
slosh damping predictions, effects of vortex shedding, 7541
solid, and oil shale, simultaneous DTA-TG-EGA for, Mines Bureau apparatus for thermal analysis, 16917
titrimetric determination of uranium in product, fuel, and scrap materials after ferrous ion reduction in phosphoric acid, 13075
tree weights and fuel size distribution of piñon pine and Utah juniper, 10123
volatile fuel components, influence on vehicle emissions, 5871
what's ahead in energy power supply (address), 17749
wildland fuels to simulate urban conditions, preparation of test plots for fire behavior studies, 10123
yearbook, 1968—
departmental edition, 7475
document edition, 6553
see also Liquid fuels—Reactor fuels—
Turbine fuel—*also* types of fuel.
Fuel cells, *see* Electric batteries.
Fuel elements, *see* Reactor fuel elements.
Fuel gas, *see* Gas.
Fuel oil:
bunker oil—
and coal laden in United States on vessels engaged in foreign trade, 6459
foreign trade reports, 2668
cetane improvers, effect on nitrogen oxides concentration in diesel exhaust gas, 870

Fuel oil—Continued

consol synthetic fuel process, 1970 final report, 10850
diesel fuel oils, 14790
diesel, petroleum products survey, 865
high cost of no. 2 home heating oil, hearings, 8379
Navy special fuel oil, effect on charging tendency of jet fuel, 4626
Fuel pins, *see* Reactor fuel pins.
Fuel systems, propulsion fuel system fire safety, 17455
Fuel tanks, *see* Tanks (containers).
Fuels, *see* Fuel—*also* Reactor fuels.
Fuleihan, Farid M., relief, 3907
Fuliar, Josefina P. A., relief, 12096, 12301
Fulk, Edwin E., reliefs, 3793, 13275, 17657
Fulkerson, Frank B., transportation of mineral commodities on island waterways of South-Central States, 849
Full opportunity act, *see* Social work and problems.
Fullerton, Howard N., analysis of work stoppages, 1968, 7423
Fulton, Kenneth, postal life, magazine for postal employees, 3028
Fulton County, N.Y., community profile, 13963
Fulton County, Ohio, community profile, 12443
Fulton County, Pa.:
community profile, 16252
soil survey report, 4693
Fultonberg, D. N., 1000 MWe LMFBR, liquid metal fast breeder reactor follow-on study, 3508
Fumigation, in-transit, military standard, 16153
Functional analysis:
calculus of variations, and optimal control theory, singular extremals in, 10356
equivalent Lagrange problems, as approach to optimal control problems, 7518
linear time optimal control problem from a calculus of variations point of view, 11619
narrowband ambiguity functions, review, 10496
Functional disorders in humans during hypokinesia, USSR study, 10280
Functions (mathematics), *see* Logarithms.—
Mathematics.
Fund raising, voluntary health and welfare agencies within Federal service, manual, 2868, 3666
Fundamentals of electronics, 10494
Funds:
exchange stabilizations fund, annual audit by General Accounting Office, provide, report, 9677
Federal assistance programs, joint funding simplification act of 1969, report, 393
Land and water conservation fund act of 1965, amend—
hearings, 11039, 12367
reports, 12213, 13428
pension funds, investment policies, hearings, 12157
see also Defense support funds—Money—
Public funds—Welfare funds—*also* names of departments, etc., for which funds are used—*also* subjects for which funds are used.
Funestl, Robert J., BNDD bulletin, 2372
Fungi, use of fungi imperfect in waste control, 16525
see also Leaf cast—*also* names of fungi or fungous diseases.
Fungicides:
act—
administration deficiencies, report, 1463
amend, hearing, 11017
Scientific Institute of Fertilizers and Insecto-Fungicides, 1919-69, USSR study, 5770

INDEX 1970

- Funk, David T., proceedings of 6th Central States Forest Tree Improvement Conference, Oct. 16-18 1968, Carbondale, Ill. and St. Louis, Mo., 14457
- Fur, furs, Federal item identification guides for supply cataloging, supplements, 2597
- Fur bearing animals, fur catch in United States 1968 list price per pelt etc., 2234 *see also* Seals (animals).
- Fur seals, *see* Seals (animals).
- Furazolidone, Tariff Commission investigation, 1168
- Furnaces, equipment, Federal item identification guides for supply cataloging, supplements, 2593
- Furnas County, Nebr., community profile, 17784
- Furnishings (household), *see* Household goods.
- Furniture:
bedding and furniture cushioning, use of uncured slab urethane foam, 4551
census of transportation, 1967, commodity transportation survey, shipper group, 3605
Federal item identification guides for supply cataloging supplements, 2597
household—
action by Defense Department to achieve closer adherence to established policy for providing in United States, GAO report, 10140
census of manufactures, 1967, industry statistics, 15594
interior furnishings, bibliographies on fabric flammability, 12845
manufacturers, publications for list, 16544
miscellaneous, census of manufactures, 1967, industry statistics, 15595
wood household furniture except upholstered, industry wage survey, 11531
- Furrowers, furrow-seeder for Northeast, 10134
- Furs, *see* Fur.
- Fusarium, solani, growth affected by 2 types of fluctuating temperatures, 8693
- Fused salts, *see* Salts.
- Fuselage, aircraft, effect of ground crash fire on integrity, 14360
- Fuses (ignition devices):
fuzes and primers Federal item identification guide, 16125
general and mechanical, ammunition series, engineering design handbook, 3459
- Fusiform rust:
pruning to reduce fusiform-rust damage not justified on young slash pines, 686
rust resistance in western loblolly pine, introgression with shortleaf pine may explain, 687
- Fusion (nuclear), *see* Nuclear fusion.
- Fusion controlled literature search, 10766
- Fusion torch, closing cycle from use to reuse, 136
- Fusulinidae lower Permian of West Pakistan morphologic studies, 10178
- Future progress of space transportation, 5890
- Futures, *see* Commodity exchanges—Speculation.
- Futrel, Samuel M., jr., experimental results of varying blade-shroud clearance in 6.02 inch radial inflow turbine, 4510
- Fuzes, *see* Fuses (ignition devices).
- Fye, R. E., distribution of insect pests in cottonfields, 29

G

- G.S.A., *see* General Services Administration.
- GAA ship utilization, hearings, 5171
- Gabelman, John W., uranium in Appalachian mobile belt, 8024
- Gabler, L. Richard, State aid to local government, 3

- Gabon:
background notes, 15282
economic trends and their implications for United States, 8820
mineral industry, minerals yearbook chapter, 4426
- Gadomski, S. T., desorption of CO₂ from three-component solution, 15065
- Gadsden, Ala.:
Big Wills Creek, flood plain information, 16433
floods, how to avoid damage, Big Wills Creek, 17938
- Gage County, Nebr., community profile, 17785
- Gages:
direct reading frost gage is reliable, inexpensive, 12553, 16559
industrial gauges and radiography devices, isotope device safety testing study, 128
see also Density gages—Magnetron gages—Orbitron gages—Strain gages—Vacuum gages.
- Gagra, Georgian, S. S. R., 6th meeting on mechanism of memory, USSR study, 7397
- Gahan, J. W., primary loop electromagnetic pump design, 11612
- Gaines, Adelaide, land conveyance, 13576, 17580
- Gaines, Jessie L., land conveyance, 3786
- Gait, George B., microfilming maps of abandoned anthracite mines, mines in Lackawanna Basin, northern anthracite field, 7462
- Galaud, Ruth C., grants administration report, 2698
- Galambos, Jeannette W.:
discipline and self-control, program manual and study guide, 4952
organizing free play, program manual and study guide, 4953
- Galaxies, galactic cosmic-rays, calculation of dose and dose-equivalent rates, to man in atmosphere, 13073
- Galena, S. Dak., Precambrian rocks, structure and mineralization, 7225
- Galena, concentrate, recovery of lead and sulfur from, using ferric sulfate leach, 7484
- Galford, Jimmy R., artificial rearing of 10 species of wood-boring insects, 5497
- Gall rust, eastern, description control, etc., 12548
- Gallagher, Cornelius E., report of 12th meeting of Canada-United States Interparliamentary Group, 511
- Gallagher, J. P., corrosion fatigue crack growth behavior, 15080
- Gallagher, Robert J., investigation of digital simulation of XB-70 inlet and its application to flight-experienced free-stream disturbances at Mach numbers of 2.4-2.6, 12798
- Gallaudet College:
appropriations, 1970, reports, 1563, 3834
appropriations, 1971, hearings, 17687
demonstration elementary school for the deaf, maintain and operate—
hearings, 13751, 17640
report, 13678
- Galla County, Ohio, community profile, 12444
- Gallinule, hunting, possession, transportation, importation, 1970-71, Federal regulations governing, 15276
- Gallium:
gallium-lubricated low-speed copper slip-rings, friction and contact resistance in vacuum, 16389
low-speed gallium-lubricated sliding electrical contacts of beryllium in vacuum, friction and contact resistance, 7542
- Gallium arsenides, GaAs films, Zn doping using coevaporation of elements, 15082
- Gallium phosphide, rectifiers, design and fabrication, 18188

Galvanomagnetism, *see* Electromagnetism.
 Galveston, Tex.:
 census of transportation, 1967, commodity
 transportation survey, production, area
 series, 6431
 port, Engineers Corps port series, 5372
 Galveston Bay:
 hurricane surge study, effects of—
 plan 2 Alpha and plan 2 Gamma barriers
 on tides, currents, salinities, and dye
 dispersion for normal tide conditions,
 hydraulic model investigation, report,
 16448
 proposed barriers on tides, currents,
 salinities, and dye dispersion for
 normal tide conditions, report, 16447
 Galvin, Cyril J., Jr., breaker travel and
 choice of design wave height, 125099
 Gamatero, Delilah A., relief, 9583, 9798
 Gambel's quail, *see* Quail.
 Gambling, wagering tax amendments of
 1969, report, 9842
 Gambling Commission, *see* National Policy
 Toward Gambling, Commission to Review.
 Game and game birds:
 big game inventory, 2233
 foreign game leaflet series, 17314
 foreign, liberations 1960-68 and propaga-
 tion 1966-68, summary, 9183
 migratory birds, Federal regulations govern-
 ing hunting, possession, transporta-
 tion, importation, 15276
 migratory waterfowl regulations, 1969-70,
 hearing, 5170
 wild turkeys on southeastern farms and
 woodlands, general information, 7921
 see also Wildlife.
 Game theory:
 and systems control, USSR study, 16755
 USSR study, 10278
 Games, aerial combat games, new approaches,
 18182
 see also Olympic games.
 Gamma rays:
 alpha-gamma angular correlations in reac-
 tion—
 carbon-12, 2107
 nickel-58, 5928
 tin-120, 2108
 distribution functions applied to size dis-
 tribution of mineral products, 869
 gamma monochromator, evaluation of high
 specific activity 60 Co sources used,
 3493
 gamma-prime strengthened cobalt-nickel
 base alloy develop by statistical design
 and analysis of optimum seeking experi-
 ments, 2118
 gamma ray spectrometer using single
 crystal high sensitivity cadmium tellu-
 ride, research and development, 15526
 marine finfish filets inoculated with type
 E, clostridium botulinum, final effect,
 report, 8017
 phosgene, factors affecting production us-
 ing radiation, 4479
 spatial capture distributions in resonance
 absorbers, estimation, 12783
 Gamma spectrometers, *see* Spectrometers.
 Gammaridea, *see* Amphipods.
 Gammon, Glenn L., specific gravity and wood
 moisture variation of white pine, 5496
 Gandelman, Julius H., evaluation of angle
 of attack instrumentation in training of
 student pilots to private pilot certification,
 3454
 Ganglia, *see* Nerves.
 Gansner, David A.:
 opportunities for pulpwood growing in-
 vestment in southeastern Ohio, 11362
 pitfalls of using internal rate of return
 to rank investments in forestry, 8694
 GAO, *see* General Accounting Office.
 Gap between Federal aid authorizations and
 appropriations fiscal years 1966-70, staff
 analysis, 12957

Garbage, *see* Refuse.
 Garbage cans, *see* Cans.
 Garden County, Nebr., community profile,
 16253
 Garden Grove, Calif., area wage survey
 12708
 Garden of the Gods Recreation Area, Shaw-
 nee National Forest, general information,
 14449
 Gardening, on the contour, general informa-
 tion, 9298
 see also Gardens.
 Gardens:
 fertilizers, selecting, 15422
 home and garden bulletin, 19-20, 1196,
 3401-6, 4812-15, 6304-5, 9289-98,
 10685-686, 11950-952, 12980-983,
 15417-429, 17436-439
 home fruit, Pacific Coast States and
 Arizona, 7919
 home gardens—
 chrysanthemum growing, 15419
 fruit, Southeastern and Central Southern
 States, 17441
 indoor for decorative plants, care and
 other uses, 4814
 iris growing, 15420
 minigardens for vegetables, 9296
 suburban, and farm vegetable gardens,
 planning, planting, etc., 11950
 Gardner, Daniel E.:
 foreign trade regulations of—
 East African Community (Kenya, Tan-
 zania and Uganda), 4998
 West African Customs Union (Dahomey,
 Ivory Coast, Mali, Mauritania, Niger,
 Senegal, Upper Volta) and Togo,
 13219
 Gardner, James E., influence of salt and
 elevated temperature exposure on maxi-
 mum compressive strength of titanium-
 alloy skin-stringer, 5961
 Gardner, William K., methods for calculat-
 ing and analyzing interrogation repetition
 frequency sets nonsynchronous for n inter-
 rogations, 15081
 Garfield County, Colo., geohydrology, project
 Rullison, with section on aquifer response,
 8734
 Garfield County, Nebr., community profile,
 17786
 Garfield County Utah, community profile,
 6912
 Garfield County, Wash., community profile,
 6913
 Garland, Michael G., general description,
 census use study, 8075
 Garland, Tex., flood plain information, 4077
 Garments, *see* Clothing.
 Garner, W. E., fiber quality and ginning
 performance of machine picked and
 stripped cotton, 1964-66, southeastern
 area, 3408
 Garnishment, *see* Attachment.
 Garrett, Lawrence D., economic implications
 of manufacturing sawed ties and timbers,
 10133
 Garrett, Peter W., height growth and foliage
 color in Scotch pine provenance study
 in northern Michigan, 675
 Garrison, Charles B., impact of new industry
 on local government finances in 5 small
 towns in Kentucky, 16378
 Garrison Diversion unit, *see* Missouri River
 Basin project.
 Garver, H. L., plumbing for home and farm-
 stead, 3399
 Gary, Ind.:
 census of transportation, 1967, commodity
 transportation survey, 9433
 low-pressure natural gas distribution sys-
 tem, pipeline accident report, 15040
 principal electric facilities, map, 8623
 Garza-Little Elm Reservoir, Tex., hydrologic
 effects of floodwater-retarding structures,
 16645

INDEX 1970

Gas:

analyses in large fire experiments, 10123
 bench-scale continuous gasification unit, operation, phase 2, bench-scale research on CSG process, 255
 combustion retorting of oil shale under Anvil Points lease agreement, 866
 concentrations, temperatures and stagnation heads, measurement during induction plasma heating in binary plasma system, 5903
 crude petroleum, petroleum products, and natural-gas-liquids, monthly statement, 3022
 diffusion in a flow and cavitation development, USSR study, 16757
 directional-mean-free-path method for gas flow in translational nonequilibrium, study, 12785
 extrusion of metals, USSR study, 18104
 gasfield and mine survey, Gasbuggy project, 130
 halogenated hydrocarbons, determination of trace quantities in gas samples, 4631
 high-Btu, process to make from coal, 10337
 industry, injury experience, 16890
 interstate compact to conserve oil and gas, extension and renewal, consent of Congress—
 hearing, 425
 law, 1414
 jet impingement on liquid surfaces in weightlessness, cavity stability, 16982
 laminar gas jet diffusion flames, effect of gravity on intensity, 11690
 leases—
 Federal lands, opportunity for benefits through increased use of competitive bidding, GAO report, 7215
 reinstatement in
 Alaska report, 8358
 Wyoming, report, 8360
 termination and reinstatement—
 law, 9609
 report, 6691
 MHD system with dual pressure melt gasification and CO₂ recycle, 10852
 natural—
 analyses, 4410, 12740
 fuel, used in performance test of turbojet combustor, 8933
 industry, injury experience, 844
 liquids—
 minerals yearbook chapter, 864
 1968 annual summary, 4404
 review of their role in petroleum industry, 4408
 low pressure distribution system, Gary, Ind., pipeline accident report, 15040
 2936
 mineral industry surveys, quarterly, 2936
 minerals yearbook chapter, 4472
 Pipeline safety act of 1968, administration, annual report of Secretary of Transportation, 9230
 producers sales to interstate pipeline companies, 7102
 production and processing industry, employment outlook, 14716
 role of Outer Continental Shelf in national supply, 16871
 supply study, hearings, 6805
 turbojet combustor using as fuel heated to 1200° F performance, 5963
 uniform system of accounts prescribed for companies, 3309, 16503
 production and sales, crude products from natural gas for chemical conversion, 4767
 retail prices and indexes, 3151
 sampling system, development, 14821
 simultaneous DTA-TG-EGA for oil shale and solid fuels, Mines Bureau apparatus for thermal analysis, 16917

Gas—Continued

slagging fixed-based gasification of North Dakota lignite at pressures to 400 psig, 11593
 storage well, wellbore enlargement test, 8910
 systems, piecewise ergodic problems, 12892
 underground gas fire, subdued by nuclear explosion, USSR study, 18093
 vented-gas temperature measurements, Cabriole Project, 8021
 vertical neutral-gas motions in producing ion convergence at E-region heights, study of role, 16460
 see also Gases—Pipe lines
 Gas appliances, gas burning equipment safe practices for users, construction industry safe work guide, 4369
 Gas arms, see Tear-gas arms.
 Gas bearings, see Bearings (machinery).
 Gas burners, flames, air pollutants, reduction, 10319
 Gas-cooled reactors, see Reactors (atomic).
 Gas dynamics:
 class of semilinear hyperbolic systems analogous to differential-integral equations of gas dynamics, some general properties, 15076
 gas systems, piecewise ergodic problem, 12892
 Gas equipment and appliances, see Gas appliances.
 Gas pipelines, see Pipe lines.
 Gas station attendants, see Service station attendants.
 Gas turbines, see Turbines.
 Gas wells, see Gas.
 Gasbuggy experiment (pilotshare program):
 costs, hardware, special report, 3498
 gasfield and mine survey, 130
 ground motions and close-in physical effects, analysis, 6385
 hydrology of Project Gasbuggy site, Rio Arriba County, N. Mex., 8023
 seismic measurements, Gasbuggy Project, 3497
 structural response, final report, 8022
 Gasconade County, Mo., community profile, 16254
 Gases:
 asphyxiating, poisonous, or other gases, prohibit use in war, protocol, 13574
 contaminant, study of application of photoionization mass spectrometer to analysis, 8927
 current industrial reports, 8083
 explosives in coal dust-gas-air mixture, effect of sodium nitrate on incendiarity, 876
 first-order effects of plane surfaces on kinetic behavior, 14864
 gas-bearing Brayton cycle turboalternator, turbine performance, 4519
 gas diffusion rate in crude oil, method for testing by periodic measurements of concentration profiles, 7483
 gas flood efficiency improvement by polymer injection, 14798
 gas-hydraulic analogy application to shallow-water tow-channel results, 7516
 gas mixtures for planetary entry applications, transport properties at high temperatures of CO₂-N₂-O₂-Ar, 2085
 gas phase unimolecular reactions, kinetic data, 8985
 gas-solid suspension, heat transfer to, from externally heated tube, calculation procedure, 14775
 gaseous atmospheres, method of weighing an object to obtain its true mass and volume, 12745
 gaseous-helium requirements for discharge of liquid hydrogen from 1.52 meter-(5-ft-) diameter spherical tank, 5939
 high-temperature, kinetics and thermodynamics, conference proceedings, 12768

Gases—Continued

- hot, generalized ingestion investigation of large-scale jet-VTOL fighter-type models, 4511
- hot, recirculation characteristics of jet V/STOL aircraft, empirically determined wind and scale effects, 891
- industrial, current industrial reports, 2475, 8082
- jet impingement on liquid surfaces during weightlessness, 7548
- liquefied, far infrared absorption, 8988
- nonsimilar laminar boundary-layer equations including foreign gas injection, method for solving, 919
- particle-seeded, theoretical calculations of radiant heat transfer properties, 5897
- poisonous, disposal, hearings, 1594
- pulmonary gas exchange, etc., during saturation-excision diving to pressures equivalent to 800 and 1000 feet of seawater, 12735
- radioactive gaseous mixture in off-gas system delay section, hold-up time, 1243
- rarefied diffusion by model sampling, 12786
- two gas atmosphere sensor system (mass spectrometer), phases 2a and 2b, 8924
- various, effect on thermionic emission of tantalum wire filaments, 12807
- see also Liquefied petroleum gas—Mine gases—also names of gases.
- Gashification, see Gas.
- Gaskets, Federal item identification guide, change, 1767, 16127
- Gasoline:
 - airdrop of remote area refueling system, Army technical manual, 4867
 - aviation fuels, 1969, petroleum products survey, 7477
 - control synthetic fuel process, 1970 final report, 10850
 - lead additives tax (remarks), 15365
 - motor—
 - summer, 1969 petroleum products survey, 5870
 - winter 1969-70, petroleum products survey, 14791
 - Project Gasoline, summary report, 6488
 - tax on lead additives—
 - hearings, 15954
 - recommendations of the President, 15955
- Gasoline engines, see Engines.
- Gaspers, Peter A., jr., further experimental results on influence of turbulent boundary layer on panel flutter, 10409
- Gaston County, N.C., community profile, 13964
- Gastric ulcers, see Ulcers.
- Gastroenterology abstracts and citations (periodical), 2687
- Gastropods:
 - Miocene, and biostratigraphy of Kern River area, Calif., 16615
 - Tertiary mollusks of Canal Zone and adjoining areas, 14534
- Gates, George L., waters for waterflooding San Joaquin Valley, Calif., petroleum reservoirs, 10336
- Gates, O. R., spectrophotometric procedures for determination of ions formed within stress-corrosion cracks, 4625
- Gates:
 - automatic crowding gate for dairy cows, 10692
 - sector gates under reverse heads, operating forces on, hydraulic model investigation, 10019
 - teflon-clad rubber-gate seals, research investigation, 9093
- Gates (circuit):
 - periodically gated receiver, and periodically pulsing signal, interactions probabilistic analysis, 2178
- Gates County, N.C., community profile, 12445
- Gathman, Stuart G., atmospheric potential-gradient measurements at sea, 11820

- Gatlin, J. A., dual-rate finite-settling-time discrete systems, 10393
- GATT, see General Agreement on tariffs and trade.
- Gattozzi, Antonette A., lithium in treatment of mood disorders, 9018
- Gauges, see Gages.
- Gaussian quadrature formulae, see Quadrature approximations.
- Gazetteers, see Geographic Names Board—Geographical names.
- Gazin, C. Lewis, new occurrence of Paleocene mammals in Evanston Formation, southwestern Wyoming, 2216
- GE series, 2690
- Gealy, Edgar J.:
 - mineral industry of—
 - Garbon, 4426
 - Iraq, 8904
 - minerals in world economy, minerals year-book chapter, 7474
- Gear cutting and finishing machines, industrial plant equipment handbook, 11159
- Geauga County, Ohio, Community profile, 13965
- Geer, Max R., disposal of solid wastes from coal mining in Washington, Oregon, and Montana, 2048
- Geese, see Canada geese.
- Geiger, Francis M., development digest, 2505
- Geiger, Robert L. jr., organization and development of Soil Conservation Service, reference for employees, 15196
- Gelderman, Frederick W., soil survey, Safford area, Ariz., 11871
- Gelfan, Lewis D., FAA aviation news, 2557
- Geller, Sidney B., calibration of NBS secondary standard magnetic tape (computer amplitude reference) using reference tape amplitude measurement process A, 957
- Gem Park, complex, Custer and Fremont counties, Colo., mafic-ultramafic igneous rocks and associated carbonatites, 16617
- Gemini, see Spacecraft.
- Geneology, records outside National Archives, 12840
- General Accounting Office:
 - additional supergrade positions, establish, recommendations, 8315
 - annual audit of exchange stabilization fund, provide, report, 9677
 - annual report—
 - departmental edition, 4215
 - document edition, 3777
 - appropriations, 1971, legislative—
 - hearings, 6695, 9890
 - law, 15773
 - reports, 6685, 12351, 13440
 - audit of defense expenditures and capability to analyze, hearings, 508
 - Comptroller General decisions—
 - B-(series), 2432
 - digests, 2509
 - July 1, 1968-June 30, 1969, bound volume, 12570
 - monthly, 2491
 - feasibility study of uniform cost-accounting standards applied to negotiated defense contracts, report, 11027
 - findings and recommendations for improving Government operations, 1969 compilation, 5526, 6751
 - GAO review (periodical), 2686
 - its leadership role (address), 10863
 - policy and procedures manual for guidance of Federal agencies, 2683, 8720
 - publications, list, 12571
 - secretarial careers, 16587
- General agreement on tariffs and trade:
 - chemicals, supplementary protocol, 15947
 - extending declaration on provisional accession of Tunisia, 6227, 9200
 - first certification of changes in certain schedule, 11903

INDEX 1970

- General agreement on tariffs and trade—Con. Kennedy Round—
business machines, special report, 8824A
electrical measuring and controlling instruments, special report, 4316
mechanical power transmission equipment and bearings, 8825
process-verbal of rectification to protocol for accession, Ireland, 10629
protocol for accession to agreement with United Arab Republic, 15334
protocol to negotiations for establishment of new schedule 3, agreement with Brazil, 4735
rectification and modifications of certain schedules—
certification, 2244, 7818
protocol, 2242-43, 4733, 6221
3d certification, 6231
trade agreements program and GATT, 1968 report, 15822
- General Assembly of United Nations, *see* United Nations.
- General aviation inspection aids, summary, 16526
- General Counsel, Agriculture Dept.:
appropriations, 1970—
law, 1392
report, 1482
appropriations, 1971, hearings, 8266
- General Counsel of Transportation Department, report, 6842
- General Instrument Corporation, F. W. Sickles Division, production and maintenance workers, electrical components and apparatus and allied products, Tariff Commission report, 15344
- General Management Training Center, CSC, purpose, etc., 3667
- General Services Administration:
Administrator, in conjunction with National Archives, disposal of Government records, annual report to Congress, proposal—
law, 12114
reports, 1534, 11085
airspace over Federal buildings, authorize Administrator to transfer for housing purposes, hearing, 1596
annual motor vehicle report for Federal government, 9229
annual report, 4226
appropriations, 1971, hearings, 8271, 11105
contracts for janitorial services, trash removal, and similar services in federally owned and leased properties, not to exceed 3-years, authorize, report, 13444
counseling guide, 11384
examination into transfer of 52 Federal supply classes from Defense Department to General Services Administration, GAO report, 7209
facts, 8726
General Services Administration and minority businessman, partners in progress, 11385
opportunities for savings through elimination of nonessential stock items, GAO report, 10148
press releases, 3059
role in motor vehicle safety standards, special study, 15043
- Generation gap, *see* Conflict of generations.
- Generators, multiplicative generator of pseudo-random numbers, evaluation, 15493
see also Electric generators—also names or types of generators.
- Genesee County, N.Y., community profile, 13966
- Geneste, Elmon A., jr., national security management, integrated logistic support, from concept to reality, 4323
- Genetics:
chickens, estimates of heritabilities and of genetic and phenotypic correlations, errata, 6299
distribution of diameter growth rates & clear stem lengths as basis for selecting superior phenotypes, 16578
genetic variation, key to superior trees, 674
infectious multiple drug resistance, genetics of R factors, symposium, 16529
molecular, study of radiation effects, 8029
Geneva conventions, prisoners of war treatment, with reservations, if any, by governments participating in hostilities in Vietnam, Cambodia, and Laos, 13511
Geneva County, Ala., community profile, 13967
- Genocide:
convention on prevention and punishment adopted by United Nations, ratification, consent of Senate—
hearings, 11123
renewal of request, 5193
- Gentile, Columbus R., mineral industry of Ireland, 5862
- Gentry County, Mo., community profile, 16255
- Geochemical environment, *see* Environment.
- Geochemical prospecting, *see* Geochemistry.
- Geochemistry:
contributions to geochemistry (series), 4232, 10161
environmental, geochemical survey of Missouri, plans and progress for first six-month period, 7235
geochemical and geologic reconnaissance of part of Fortymile area, Alaska, 8731
geochemical anomalies—
Serpentine Hot Springs area, Seward Peninsula, Alaska, 14522
structural control in Greaterville mining district, southeast of Tucson, Ariz., 7223
geochemical investigations—
gold, antimony, and silver at Stibnite, Idaho, 11596
some black shales and associated rocks, 4232
geochemical study of alluvium-covered copper deposits in Pima County, Ariz., 7224
statistical studies in field geochemistry (series), 4244
trona deposits and associated authigenic minerals of Green River formation of Wyoming, 727
- Geodesists, Soviet, international relations, 12642
- Geodesy:
geodetic terms, glossary, 1770
space geodesy altimetry, pulse compression radar study, 14822
spheroidal geodesics, reference systems and local geometry, 7679
- Geodetic satellites, *see* Satellites.
- Geodetics, *see* Geodesy.
- Geographers, employment outlook, 12689
- Geographic bulletins, 1144, 2239
- Geographic Names Board:
decision list, 2492
gazetteers, 1906, 10156, 14517, 16599-604, 18038
- Geographic note, GE series, 2690
- Geographic reports, 2240
- Geographical names:
decision list, 2492
gazetteers, 1906, 10156, 14517, 16599-604, 18308
Israel, standard place names, 16604
Malawi, standard place names, 10156
Morocco, standard place names, 16603
U.S.S.R., standard place names, 14517, 16599-602, 18038
undersea features, standard names, 1906

Geography:

census geography series CG, 6451, 8093
data access descriptions, 10825
census 1970, geographic aspects, 6451
DIME geocoding system, census use study, 15618
economic, of USSR heavy industry, 2000
geographic bulletins, 1144, 2239
geographic note, GE series, 2690
geographic report, 2240
location codes, 8727
Soviet geographical societies, meetings, 5743

Geography and History, Pan American Institute of, *see* Pan American Institute of Geography and History.

Geohydrology, *see* Hydrogeology.

Geological Survey:

appropriations, 1970, law, 314
appropriations, 1971, hearings, 8268
bulletins, 725-726, 1908-11, 4228-32, 5539-44, 7222-25, 8728-31, 10157-164, 11386-388, 12587-588, 14518-425, 16006-610, 18039
circulars, 1912, 4233-37, 5545-47, 10165-166, 11389-393, 14526, 16611, 18040
Denver area, activities and services, 4240
map users, opportunity for savings and better service through improved coordination of federally financed mapping activities, GAO report, 1901
new reports about water in Pacific Northwest, 8737, 14533
organization and functions, 8752
press releases, 3060
professional papers, 727-732, 1913, 4242-52, 5548-61, 7242-49, 8739-49, 10170-183, 11394-399, 12589, 14534-538, 16614-622, 18041-47

publications—

list, 8750

monthly list, 2955

reports and maps, released only in open files, 11390

research, 1913, 4251, 8749, 14538

stratigraphic nomenclature, changes, 7222
water quality statistics, national reference list, 14532

Water Resources Division, reports for California, list, 5562

water supply papers, 735-736, 1916, 4263-65, 5564-67, 7254-55, 8757-62, 10186-194, 11401-2, 12590-593, 14549-556, 16641-646, 18051-55

Geologists, employment outlook, 14673

Geology:

aeroradioactivity survey and related surface geology of Chicago area, Ill. and Ind., 17472

application of space photography, USSR study, 18095

areal, and aeroradioactivity survey of Minneapolis-Saint Paul area, Minn.-Wis., 8011

Bradley, San Miguel, Adelaida, and Paso Robles quadrangle, Calif., 10181

Buchla zones in Colyear Springs-Paskenta area, Calif., 4249

Canal Zone and adjoining parts of Panama, 14534

contributions to economic geology (series), 1911, 5543-44, 7223-25, 8730-31, 10157, 10160, 11386, 11388, 14522

contributions to general geology (series), 726, 5539, 5542, 14521

Dera Ismail Khan District, West Pakistan, and water resources, etc., 10186

fluvial sedimentation concepts, 10185

geologic and geochemical reconnaissance of part of Fortymile area, Alaska, 8731

Geology—Continued

geologic environmental map of greater Los Angeles area, Calif., pertinent to nuclear facility siting and design, preliminary, 10768

geologic implications of aeromagnetic data in Pend Oreille area, Idaho and Mont., 18046

geologic interpretation of reconnaissance aeromagnetic survey of northeastern Alaska, 5539

geologic investigations in Slick Rock district, San Miguel and Dolores Counties, Colo. (series), 11395

geologic structure—
and ground stresses, geometric relationships near Atlanta, Ga., 7489

Rudkarokh River in Afghanistan, 16756
Sheva River basin of Afganskiy Badakhshan (northeast Afghanistan), USSR study, 16766

geologic time, age of earth, 4239

Geological Survey research, 14538

1969, chap. A, 4251

1970, chap. B, 8749

summaries, 1913

geology and—

coal resources of Cumberland, Hobart, and Maple Valley quadrangle, King County, Wash., 5551

lode-gold deposits of Nuka Bay area, Kenai Peninsula, Alaska, 8743

mineral deposits of Poncha Springs NE quadrangle Chaffee County, Colo., 5552

mineral resources of Libya, reconnaissance, 8747

geology and ore deposits—

central York Mountains, western Seward Peninsula, Alaska, 4230

Eureka and adjoining districts, San Juan Mountains, Colo., 10176

Picher Field, Okla. and Kans., 5549

geology hazards and public problems, conference proceedings, 5362

geology of Midway area, Hawaiian Islands (series), 732, 5561, 16621

geomorphology and sediments of nearshore Continental Shelf, Miami to Palm Beach, Fla., 4066

Great Falls and Potomac River Gorge, geologic story of river and rocks, 7250

Hill City quadrangle, Pennington County, S. Dak., preliminary report, 726

Kanuti River region, Alaska, preliminary geologic investigations, 1911

land-surface tilting near Wheeler Ridge, southern San Joaquin Valley, Calif., 8741

North American—

abstracts, 2283

bibliography, 14518-519

Permian rocks in western phosphate field (series), 10170

Precambrian, of Needle Mountains, southwestern Colorado, 4248

publications, price list, 17223

quaternary, of Bear and Long Valleys, west-central Idaho, 14521

regional, of Quadrilatero Ferrifero, Minas Gerais, Brazil (series), 5556, 14537

Renton, Auburn, and Black Diamond Quadrangles, King County, Wash., 16620

Santa Barbara Channel region, Calif., 731

Serpentine Hot Springs area, Seward Peninsula, Alaska, 14522

shorter contributions to economic geology (series), 729, 8743

shorter contributions to general geology (series), 4248, 10180, 11398, 16616

structural control of geochemical anomalies in Greaterville mining district, southeast of Tucson, Ariz., 7228

INDEX 1970

Geology—Continued

- structural, Wind River basin, Wyo., 10173
- surficial, Mount Rainier National Park, 5540
- Sycamore Flat and Paraiso Springs quadrangles, Monterey County, Calif., 14520
- Taylor Highway, Alaska, 1908
- vanadium, bibliography on geology and resources, 10162
- Wind River Basin, Central Wyoming (series), 8740, 10173
- see also* Cenozoic era—Engineering geology — Hydrogeology — Paleozoic era — Pre-Cambrian period—Stratigraphy.
- Geomagnetism, *see* Terrestrial magnetism.
- Geometric properties of modified whirling-membrane solar-energy concentrator, 11683
- Geometry :
 - and design-point performance of axial-flow turbines using specified meridional velocity gradients, analysis, 2062
 - geometric factors of bipole-dipole arrays, 14523
 - geometric relationships between geologic structure and ground stresses, near Atlanta, Ga., 7489
 - geometrical theory of diffraction and creeping wave theory, radiation from slots on cylindrical bodies using, 5979
 - relation of channel geometry to mean annual runoff of selected streams in California, 16646
 - relative, of earth, sun, and Mars, 1973-2000, 7528
 - spheroidal geodesics, reference systems, & local geometry, 7679
 - stellarator magnetic system for long-wave perturbations, 111
 - step, numerical calculations of viscous compressible fluid flow over flat plate, 4490
 - variable—
 - spacecraft, study to determine flight characteristics and handling qualities, high L/D concept with single pivot 2-position skewed wing, 10351
 - use in design of minimal-correction V/STOL wind tunnels, theoretical study, 948
- Geomorphology, *see* Geology.
- Geophysical instruments, Federal item identification guide, 8467
- Geophysical Sciences Library, Soviet literature accessions, guides, 7054, 8579
- Geophysicists, employment outlook, 14673
- Geophysics :
 - alluvial valleys in western Mora County, N. Mex., study, 10168
 - American Meteorological Society abstracts, 2969
 - geophysical abstracts, 2691
 - geophysical field investigations (series), 8746, 10181, 18046
 - geophysics and space data bulletin, 2692
 - parameters, determining thermal radio emissions obtained by Kosmos-243 artificial earth satellite, USSR study, 4328
 - solar-geophysical data (periodical), 3203
 - Soviet bloc research (periodical), 3210
- George, David H., evaluation of laser for use as transmissometer calibrator, 15340
- George, L. C., recovery of metals from electroplating wastes by waste-plus-waste method, 14799
- George, Tommy A. :
 - water supply outlook and Federal-State-private cooperative snow surveys for Oregon, 3342
 - water supply summary and outlook for Oregon and Federal-State-private cooperative snow surveys, 18338
- George County, Miss., community profile, 16256

- George Washington National Forest, forest waters, George Washington National Forest, 14447
- George Washington University, charter, amend, 13379, 17599, 17680
- Georgetown, D.C., *see* District of Columbia.
- Georgia :
 - Assistant Commissioner, Bureau of Refugees, Freedmen, and Abandoned Lands, 1865-89 records, pamphlet to accompany microcopy, 4546
 - census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 9420
 - retail trade, merchandise line sales, 11990
 - selected services, area statistics, 1291
 - wholesale trade, area statistics, 172
 - census of construction industries, 1967, statistics, 15554
 - census of governments, 1967, State reports, 3560
 - census of manufactures, 1967 statistics, 15575
 - Chickamauga and Chattahoochee National Park lands, acquisition and disposal—
 - law, 1409
 - reports, 368, 1658
 - climatological data, 2409
 - county business patterns, 1320, 12022
 - Cumberland Plateau and Mountains and southern Appalachian Ridges and Valley, soil survey interpretations for woodlands, 7781
 - elementary teacher education, feasibility of model program—
 - basic report, 11223
 - job descriptions, 11223
 - technical report, 14282
 - fishery products, wholesale dealers, list, 3715
 - geochemical environments and cardiovascular mortality rates, 4244
 - internal revenue assessment lists, 1865-66, pamphlet to accompany microcopy, 4545
 - kyanite ore, beneficiation, 7498
 - land restored, annual report on soil and water conservation, 10561
 - landings, fish and shellfish, 1366, 2693, 10882
 - mineral industry of Georgia, minerals year-book chapter, 4427
 - minority construction contractors located in selected cities, list, 8793
 - mountain area, climatic summaries of report areas, 8568
 - pollution of interstate waters of lower Savannah River and its estuaries, tributaries, and connecting waters, 10094
 - postal map, 10503
 - precipitation data, hourly, 2718
 - Rocky Face Ridge Site, land conveyance, report, 13413
 - Sand Mountain area, soil survey interpretations for woodlands, 7780
 - small watershed projects, program, hearing, 12382
 - south, coastal plain, conservation irrigation guide for design of sprinkler irrigation systems, 16197, 17288
 - Southern Coastal Plain and associated areas, soil survey interpretations for woodlands, 9159
 - southern Piedmont area, soil survey interpretations for woodlands, 4696
 - Tobesofkee Creek watershed serving central Georgia, 2229
 - travel costs less than you think, please come, invitation from people of U.S.—
 - Dutch edition, 7882
 - English edition, 7885
 - German edition, 7880
 - Japanese edition, 7886
 - Portuguese edition, 7883
 - Spanish edition, 7881

Georgia—Continued
weeding woodland, 7786
wilderness, designate certain lands, hearing, 13743

Georgian Soviet Socialist Republic, physicals honored, 1969 list, USSR study, 5760

GEOS (geodetic satellites), *see* Satellites.

Geothermal energy :

Geothermal steam act of 1969—

hearings, 17702

report, 17683

steam and associated resources, disposition—

hearings, 17702

report, 17683

Gerathewohl, Siegfried J. :

anticollision lights for supersonic transport (SST), 17477

fidelity of simulation and transfer of training, review of problem, 13088

German measles, *see* Measles.

German States, despatches from U.S. Ministers, 1799-1801, 1835-1906, pamphlet to accompany microcopy, 14909

Germanium :

nomographs for use in fabrication and testing of Ge(Li) detectors, 14925

oxygen concentration determined by infrared absorption, 10438

Germany :

Army personnel ordered to, helpful hints, DA pamphlet, 97

despatches from U.S. Ministers, 1799-1801, 1835-1906, pamphlet to accompany microcopy, 14909

economic trends and their implications for United States, 7325, 16724

external debts, agreement, 1161

Federal Republic—

accommodation to International Military

Headquarters North Atlantic Treaty,

making available by United Kingdom

and United States armed forces,

agreement, 6232

air service, lease of equipment, agreement, 15321

background notes, 6213

capsule facts for Armed Forces, 76

economic statistics, handbook, 2703

education, financing programs, agreement, 15324

establishing business in, 15727

housing development and urban planning, policies and programs, report, 8195

International Military Headquarters of

NATO in Germany, status of personnel, agreement, 4753

loan of vessels, extension, agreement, 6243

mineral industry, minerals yearbook

chapter, 4424

pilot training, omission of significant

costs from charge, by Defense Department, GAO report, 721

potassium chloride (muriate of potash),

determination of injury from imports

1169

respirable dust control in mines, 16897

West, *see above*, Federal Republic.

Germination :

alkali sacaton seedlings, and survival in

agar and soil medium, 5504

ionizing radiation effect on resistance,

germination, and toxin synthesis of

Clostridium botulinum spores, 1264

nuttall oak acorns, field germination, 11361

seed viability, germination and radicle

growth of dwarf mistletoe in California,

18028

several tree species in plastic greenhouses,

5493

shade effect on salmonberry's germination,

16579

Germination—Continued

yellow and paper birch seeds after 8 yrs. storage, 12551

Gerontology, comprehensive review of geronto-psychiatric literature in postwar period, 1050

Gertler, Diane B. :

directory—

nonpublic elementary and secondary day

schools, 8512

public elementary and secondary day

schools, 8512

Great Lakes and Plains region, 9983

North Atlantic region, 11204

Southeast region, 8513

West and Southwest region, 11205

Getchell Mine, Humboldt County, Nev., statistical interpretation of sample assay data, 8911

Gettens, Rutherford J., Freer Chinese bronzes, v. 2, Technical studies, 7205

Getting through, hurricane safety message for administrators of hospitals and other institutions, 8577

Gettysburg, Pa., Eisenhower National Historic Site, development, law, 1398

Geyer, George B., effect of ground crash fire on aircraft fuselage integrity, 14360

Geymayer, Telmut G., short- and long-term deflections of reinforced concrete flat slabs, 8556

GF series, 226, 4949, 6453, 10829, 13179-180, 15655

Ghaffari, Abolghassem, integration of relativistic equations of motion of artificial earth satellite, 14894

Ghana :

agricultural commodities, agreement, 15323

background notes, 10595

country market survey, 5714

economic trends and their implications for

United States, 5708, 18085

establishing business in, 5002

ground-water reconnaissance with description

of geohydrologic provinces, 8758

mineral industry, minerals yearbook chapter, 16903

Ghetti, Joseph L., cost of storing and handling cotton at public storage facilities, 1968-69, with projections for 1969-70 and 1970-71, 6995

Ghettos, *see* Race problems.

Ghia, Kirti N., turbulent mixing in initial region of heterogeneous axisymmetric coaxial confined jets, 11620

Ghitescu, Viorica A., and sons, relief, 3800

GI bill of rights, *see* Veterans.

GI loans, *see* Loans.

Giachino, Fred E., air reservist, 2317

Glanutso, Peter E., relief, 13281, 13604

Gibbs, Carter B., effect of xylem age on volume yield & sugar content of sugar maple sap, 4203

Gibbs, Robert H., jr., taxonomy, sexual dimorphism, vertical distribution, and evolution zoogeography of bathypelagic fish genus *Stomias* (Stomiidae), 1095

Gibson, A. E. :

remarks—

Nov. 7, 1969, 831

Jan. 21, 1970, 4396

Jan. 22, 1970, 4395

Feb. 17, 1970, 5838

Mar. 11, 1970, 7444

Mar. 20, 1970, 7445

Apr. 17, 1970, 8881

Apr. 23, 1970, 8883

May 4, 1970, 8884

May 21, 1970, 10307

May 22, 1970, 10308

June 15, 1970, 10310

June 24, 1970, 11560

June 25, 1970, 11561

July 11, 1970, 14757

INDEX 1970

- Gibson, A. E.—Continued remarks—continued
 July 15, 1970, 11563
 July 22, 1970, 12728
 Sept. 25, 1970, 16877
- Gibson County, Tenn., appraisal of potentials for outdoor recreational development, 15183
- Gierhart, G. D., interference predictions for VHF/UHF air navigation aids, 4093
- Giffin, James H., relief, 354
- Gifford Pinchot National Forest, general information, 16547
- Gift tax, *see* Inheritance and transfer tax.
- Gifts:
 donated property, valuation, tax information, 5694
 duty-free entry from servicemen in combat zones—
 law, 3750
 report, 1519
 expenses, rules for deducting from income tax, 788
 a gift, are you sure? customs regulations, 5297
 holiday gift list for reader, 18304
- Gila County, Ariz.:
 community profile, 6914
 uranium reconnaissance, preliminary, 15522
- Gila project:
 Yuma Mesa division, construction of supplemental irrigation facilities—
 law, 15793
 reports, 6760, 13471
- Gila River and Valley:
 drainage basin above Coolidge Dam, Ariz., precipitation, streamflow, and major floods at selected sites, 7248
 Gila River phreatophyte project—
 Graham County, Ariz., objectives, methods, and environment, 7247
 series, 7247-49
 water supply outlook and snow surveys, 3337
- Gilberstadt, Harold, comprehensive MMPI code book for males, 9257
- Gilbert, C. R., hydrologic effects of flood-water-retarding structures on Garza-Little Elm Reservoir, Tex., 16645
- Gilbert, Carl J.:
 addresses—
 June 22, 1970, 11876
 Sept. 30, 1970, 17312
- Gill, Amjad H., Hong Kong's expanding agricultural imports, projections, 9975
- Gill, Clark C., education in changing Mexico, 580
- Gill, H. E., ground-water reconnaissance of Republic of Ghana with description of geohydrologic provinces, 8758
- Gill, J. R., stratigraphy and nomenclature of some upper Cretaceous and lower Tertiary rocks in south-central Wyoming, 8748
- Gill diseases, nutritional (dietary) gill disease, and other less known gill diseases of fresh-water fishes, 10581
- Gillet, Billy E., critical study of approximating functions (and methods) as applied to ocean station data, regression analysis, 17174
- Gillette, Roger B., proton-induced effects on reflective surfaces of space mirrors, 5905
- Gillies, Roderick M., address, May 21, 1970, 9512
- Gilliland, Whitney:
 addresses, etc.—
 Nov. 13, 1969, 239
 Dec. 4, 1969, 237
 May 5, 1970, 9459
 June 27, 1970, 11562
 Oct. 12, 1970, 15676
- Gliner, Jose, aluminum chlorine battery, 10349
- Gingas, John S., and wife, relief, 3911, 6535
- Ginnaty, Thomas F., Jr., veneer-log production and receipts, North Central region, 12568
- Ginning, *see* Cotton gins and ginning.
- Ginnings, Defoe C., precision measurement and calibration, selected papers on heat, 12843
- Gins, *see* Cotton gins and ginning.
- Girdles, brassieres, and allied garments, current industrial reports, 3630, 15625
- Girdner, Charles L., Jr., soil survey of Dickens County, Tex., 7775
- Girdwood, Alaska:
 floods, how to avoid damage, 1812
 Glacier Creek, flood plain information, 1806
- Girl Scouts of United States of America:
 annual report, 17614
 young girl scout, older American, service to each other, 9275
- Girls, job training suggestions, 17415
- Giroux, P. R., summary of ground water hydrologic data in Michigan, 14540
- Gizzard shad, ingested, identification by gizzard dimensions, 11891
- Glacier Creek:
 flood plain information, 1806
 floods, how to avoid damage, 1812
- Glaciers:
 Antarctic ice, deep core studies of crystal structure and fabrics, 10001
 water resource, 8735
- Glade Park, Colo., public lands outdoor recreation map of area, 14747
- Gladiolus, production and sales, etc., 7842
- Glaser, Edward M., impact on community, 7407
- Glass, Ronald W., negotiation impasse, grievance and arbitration in Federal agreements, 12715
- Glass:
 census of transportation, 1967, commodity transportation survey, shipper group, 4923
 coated accelerator grid on 15-centimeter-diameter Kaufman thruster, 1000-hour endurance test, 14859
 durability of insulating glass, seminar proceedings, 5997, 8978
 fabricated and window, observation, Federal item identification guide, 6859
 flat and tempered, Tariff Commission report, 6261
 flat, current industrial reports, 2476
 lead in glass used for shielding television receiver components, field method for determination, 4086
 porous glass membranes for reverse osmosis, research, 5621
 products, census of manufactures, 1967, industry report, 12005
 selected products, shipments and production, 1958-68, patterns of industrial growth, 8046
 sheet, blown or drawn flat, Tariff Commission report, 1170
see also names of articles made of glass.
- Glass fibers:
 glass-fiber-filled polytetrafluoroethylene retainers in cold hydrogen gas, cooling requirements of ball bearings lubricated, 8934
 glass filament-wound, pressure vessels, static and dynamic fatigue behavior at ambient and cryogenic temperatures, 12794
 reinforced polyester lining, 18320
- Glassman, David Z., relief, 17619
- Glassware, consumer, scientific, technical, and industrial, current industrial reports, 217, 15629
- Glassworkers, *see* Glaziers.

- Glaziers:
employment outlook, 12700
glass and glazing work, special trade contractors, census of construction industry, 1967, statistics, 13137
- Glen Canyon Dam, general information, 17241
- Glen Canyon National Recreation Area:
Baker Ranch, history, 15024
establish—
hearing, 11128
report, 11092
general information, 17241
- Glenhall, Pa., floods and flood plain management information, 17917
- Glennon, John P., American foreign policy, 1967, current documents, 6211
- Glens Falls, N.Y., aircraft accident, report, 15038
- Glide (aircraft), *see* Flight.
- Glinz, Arvel, and wife, relief, 17678
- Global navigation and traffic control using satellites, 14895
- Glomar Challenger (drilling vessel):
deep sea drilling project, leg 1 of cruises, Aug.-Sept. 1968, Orange, Tex., to Hoboken, N.J., 1004
leg 2 of cruises, Oct.-Nov. 1968, Hoboken, N.J. to Dakar, Senegal, 6069
leg 3 of cruises, Dec. 1968-Jan. 1969, Dakar, Senegal to Rio de Janeiro, Brazil, 9033
- Glorieta sandstone, *see* Sandstone.
- Gloss, Blair B., determination of inflated shape and inertial properties of all-flexible parawing, 12821
- Glossaries:
ASCS and related program terms, 13
cloth coating imperfections, military standard, 12398
electronic and weapons control terms for interface functions in naval ship combat systems, military standard, 6879
Karst terminology, 10192
mapping, charting, and geodetic terms, 1770
planning, programing, and budgeting systems analysis, 709
world bathymetric terms and their English language equivalents, 17190
- Gloucester County, N.J.:
Big Timber Creek, Main Stem and South Branch, flood plain information, 8541
South Branch, Big Timber Creek, floods, how to avoid damage, 8550
Westville vicinity, Big Timber Creek, floods, how to avoid damage, 10004
- Glover, Thomas O.:
mineral industry of Illinois, 4431
unit train transportation of coal, technology and description of 9 representative operations, 5851
- Gloves:
current industrial reports, 15633
leather, census of manufactures, 1967 industry report, 12004
wool knit, trade agreement with Japan, 15947
- Glycine, aminoacetic acids from France determination of injury in investigation AA1921-61 under Antidumping act of 1921, as amended, 7851
- Glycogen, liver glycogen content of rats at ground level and at altitude, effects of decaborane, 57
- Glynn, Peter W., on ecology of Caribbean chitons, *Acanthopleura granulata* Gmelin and *Chiton tuberculatus* Linne, density, mortality, feeding reproduction, and growth, 17275
- Gneiss, gneissic and igneous rocks of Quadrilatero Ferrifero, Minas Gerais, Brazil, 14537
- Gnosology, principles of scientific prognosis, and V. I. Lenin, USSR study, 5734
- Go! developmental reading (C), 11158
- Go Government, 3669
- Goal is mobility, environmental and transportation barriers encountered by disabled, 7741
- Goals and means in conquest of space, 11700
- Goals and Priorities Analysis Office, establish, report, 12348
- Goats, trade agreement with Honduras, 6239
- Goddard, Robert H., space pioneer, 1882-1945, tributes, 9783
see also Goddard Rocket and Space Museum.
- Goddard Range and Ranger Rate station, GRARR MADGAR site location, determination and comparison, 899
- Goddard Rocket and Space Museum:
congressional recognition, 9783
print as Senate document, report, 13629
reports, 9817, 13478
- Goddard Space Flight Center:
management of magnetic tapes, further improvement needed, GAO report, 8723
test philosophy and resultant record, 11659
- Godfrey, Richard G., stream dispersion at selected sites, 12589
- Godman, Richard M., sprouting potential of dormant buds on bole of pole-size sugar maple, 12552
- Godshall, Fredric A., atlas of average cloud cover over tropical Pacific Ocean, 10383
- Goethite, low-temperature heat capacities and entropies at 298.15° K, 7492
- GOFAR Project, *see* Project GOFAR (Global ocean floor analysis and research).
- Goggles, *see* Spectacles.
- Going abroad? important message from Pestina, 11958
- Gol'ber, Leonid M., Soviet endocrinologist, profile, 5744
- Gold:
geochemical investigations at Stibnite, Idaho, 11596
gold and silver content manufactured articles, misrepresentation of quality, provide civil remedy—
hearings, 3872
law, 15765
reports, 6641, 12205
gold content of water, plants, and animals, 5547
gold placer mining, placer evaluation and dredge selection, 8899
ion exchange resin properties with high selectivity for gold, 7482
leaching gold-bearing mill tailings from Mercur, Utah, 10333
lode-gold deposits and geology of Nuka Bay area, Kenai Peninsula, Alaska, 8743
lode mines and prospects in Fairbanks district, Alaska, 729
low-grade, deposit in Orogrande district, Idaho, investigation, 16915
mineral industry surveys—
annual, preliminary, 7456
monthly report, 2694
minerals yearbook chapter, 845
placer areas near Nome, Alaska, portable refraction seismograph survey, 10160
placer gold distribution in Sixes River, southwestern Oregon, preliminary report, 8730
production and consumption, 1968, report, 10339
recovering, from stripping waste and ore by percolation cyanide leaching, 4485
secondary, in United States, 5852, 11574
statistical interpretation of sample assay data from Getchell Mine, Humboldt County, Nev., 8911
2-tier gold market, implications of proposed IMF quota increase, hearings, 8196
U.S. movements, monthly, 2674

INDEX 1970

- Gold—Continued
vapor pressure, interlaboratory measurements, analysis, 6003
veins near Great Falls, Md., 4229
- Gold (money):
foreign gold & exchange reserves, current trends, 1787, 9980
Gold reserve act of 1934, amend, hearings, 8280
Mint Bureau, report, 10339
pedigreed gold system, a good system, why spoil it? 1430
2-tier gold market arrangements (statement), 2273
- Gold isotopes, absorption by plants, 10161
Gold star lapel buttons, *see* Lapel buttons.
- Goldberg, Theodore J., hypersonic aerodynamic characteristics of 2 delta-wing X-15 airplane configurations, 911
- Goldblith, S. A., effect of gamma rays on marine finfish inoculated with clostridium botulinum type E, final report, 8017
- Golden, Colo., North Table Mountain, tabulations of propagation data over irregular terrain in 230- to 9200-MHz range, 17951
- Golden Eagle Program, *see* Operation Golden Eagle.
- Golden nematode, *see* Nematoid worms.
- Golden Spike National Historic Site, historical base map, and documented narrative, 15031
- Golden Valley County, N. Dak., community profile, 13968
- Goldfish, auditory sensitivity within near acoustic field, 14766
- Goldsmith, Herbert, test cell for measuring concentration polarization boundary layer in a reverse osmosis system, 8806
- Goldstein, Harold T., position of U.S. in world commodity exports, 1968 report, 8102
- Goldstein, Marvin E.:
introduction to abstract analysis, 4502
method for obtaining analytical solutions to equation for wind-driven circulation in shallow sea or lake, 16988
theory of separation of variables for linear partial differential equations of 2d order in 2 independent variables, 11650
transient conformal mapping method for 2-dimensional solidification of flowing liquid onto cold surface, 2113
- Golueke, C. G.:
comprehensive studies of solid waste management, 15255
solid waste management, abstracts and excerpts from literature, 15258
- Gomes, John M., electrolytic preparation of tungsten metal and tungsten carbide from wolframite, 5878
- Gomez, Manuel:
evaluating sulfur and ash distribution in coal seams by statistical response surface regression analysis, 8906
prediction of—
coal grindability from exploration data, 14795
coke strength and carbonization product, yields from exploration data, 11586
sodium concentration in lignite, 14794
- Gomme, F. R., good grain statistics, wheat, rye, rice flour, byproducts, supplement, 10706
- Gompy, Elvin Z., soils of Au Giang Province, Vietnam, 5367
- Gon Ming Loo, *see* Chin, Yau Ming.
- Gonorrhea, about syphilis and gonorrhea, general information, 15130
- Gooding, Richard M., proceedings of symposium on respirable coal mine dust, 5855
- Goodman, Ann S., estimates and projections of specialized manpower in USSR, 1950-75, 8099
- Goodman, Elsie K., national union benefit plans, 8856
- Goodman, Phillip, kryptonate-based instrumentation development for automobile exhaust pollutants, 15517
- Goodrich, Jerry, driver, traffic safety magazine of Air Force, 2515
- Goodrich, B. F., Footwear Co., Watertown, Mass. plant, certain workers, protective footwear of rubber or plastics and rubber- or plastic-soled footwear with fabric uppers, Tariff Commission report, 15346
- Goodsell, Wylie D.:
commercial broiler farms, Georgia, 14268
commercial egg-producing farms, costs and returns, 1969, New Jersey, 9972
migratory sheep ranches, 1969, costs and returns, 14270
- Goodwin, Thomas C., Air Force scientific research, 1965, bibliography, 47
- Goolsby, O. H., P.L. 480 concessional sales, 16356
- Gophers, *see* Pocket gophers.
- Gordon, Dale W., electrical measurement and distribution equipment, 15610
- Gordon, Donald T., natural regeneration of white and red fir, influence of several factors, 14461
- Gordon, Jesse E., testing, counseling and supportive services, 7413
- Gordon, William A., quantitative direct-current arc analysis of random compositions of microgram residues in silver chloride common matrix, 930
- Gore Range-Eagles Nest, primitive area and vicinity, Summit and Eagle Counties, Colo., mineral areas resources, 14524
- Goree, William S., superconducting devices, literature survey, 3248
- Gorgas Memorial Laboratory, annual report, 6561
- Gorham, Kathryn A., selected reading suggestions for parents of mentally retarded children, 13185
- Gosper County, Nebr., community profile, 17787
- Gosselin, Charles M., development of UHV measurements, 10363
- Goudarzi, Gus H., geology and mineral resources of Libya, reconnaissance, 8747
- Goudy, William H., woodcock research and management programs 1967 and 1968, 1132
- Gourash, Francis, design analysis and performance of 2.5 kVA pulse width-modulated static inverter, 5929
- Goutmann, Michel M., relief, 5099, 9591
- Government:
alternative rice programs, economic evaluation, 11193
American system (address), 2194
business relations (address), 4980
census, 1967—
final reports, 187
government finances, 12039
graphic summary, 3550
local, metropolitan areas, 4921
reports, 4921
State reports, 3551-3600, 4922-23
topical studies, 1308, 3550
census publications, price list, 11836
city finances, 13179
criminal justice, expenditure and employment for selected large governmental units, 1967-68, 6458
emergency, suggestions for including civil defense principles in social studies curriculum, grades 1-12, 12046
English and Government, Federal textbook on citizenship, 1946
English and State Government, Federal textbook on citizenship, 765
Federal—
annual motor vehicle report, 9229
automatic data processing—
equipment, inventory, 7161, 14399
training curriculum and methodology, conference report, 4062

Government—Continued

Federal—Continued

domestic programs to assist American people to furthering their social and economic progress, description, 13824
economic analysis and efficiency—
hearings, 5064, 10936, 15813
report of subcommittee, 5065
impact on market for State and local securities (remarks), 18388
position classification and pay, bibliography, 15696
research and development programs financed by, investigation and study, authorization, report, 5213
response to disaster created by hurricane Camille, hearings, 8437
role in consumer affairs, governmental structure for consumer protection, establish, hearings, 6803
role in education reform (address), 12500
role in encouraging preretirement counseling and new work lifetime patterns, hearing, 6782
role in health, Apr. 1968–Apr. 1970, report of activities, report, 8372
scientists and engineers, bibliography, 8476
statistical activities, 1969, report, 8263
system, and urban America, 4
system, improve effectiveness, role of Advisory Commission on Intergovernmental Relations, 1
systematic biology, survey of Federal programs and needs, 2215
women, expanding opportunities, 9473
finances and employment, historical statistics, 1308
finances, compendium, 1967 census of governments, 187
finances, 1968–69, 13180
government and technology, challenge of '70's (address), 15715
government finances, GF series, 226, 4949, 6453, 10829, 13179–180, 15655
Government-supported research, international affairs, 7814
intervention in market mechanism of petroleum industry—
Cabinet Task Force on Oil Import Control recommendations, hearings, 16070
complainants' views, hearings, 8417
industry views, hearings, 1734
local—
access to capital markets (remarks), 5464
agencies, guide to establishing cost allocation plans and indirect cost proposals for grants and contracts with Federal Government, 14565
capital improvements programming, 751
civil defense directors, coordinators, career development program for professional advancement, 15681
employment and payrolls, monthly, 3221
government finances in selected metropolitan areas, 15655
impact of new industry on finances in 5 small towns in Kentucky, 16378
local aid, 3
tax revenue, quarterly summary, 3648
national economic priorities and military budget, report, 3765
operations, improving, General Accounting Office findings and recommendations, 1969 compilation, 5326, 6571
our Constitution and Government, Federal textbook on citizenship, 4291–92, 16687
our Government, Federal textbook on citizenship, 16684
publications on, price list, 9078
science activities, centralization, hearings, 488

Government—Continued

scientific and technical progress, COSATI annual report, 16483

State and local—

construction expenditures, 1336–37
decentralize and strengthen (address), 744
equal opportunity program in employment, 14564
Federal grants, 12922
finances, significant features, 3370
for all people, by all people, report on equal opportunity, summary, 3856
Intergovernmental revenue act of 1969, hearings, 8408
labor-management policies, 4796
national priority (remarks), 11923
State and local government special studies, 6457–58
State government—
agencies, research and development, science resources studies highlights, 11798
education directory, 12498
Federal textbook, 16686
finances, 10829, 12039
United States foreign credits, status, 9246
see also Intergovernmental relations.

Government agencies, public agencies, public service career, jobs and advancement, 5814

Government buildings, *see* Public hearings.

Government contracts:

administration, Government property in possession of contractors, guidance, 8454
advertised contracting in military construction, survey of use, Defense Dept., GAO report, 14516
AEC research contracts in physical sciences, 15536
Army Department contracts with certain corporations, associations, and individuals, relief, 17663
bomb bodies, questionable pricing of contracts negotiated for urgently needed, Navy Department, GAO report, 1904
cargo space, improvement of use on aircraft operated by contract with Defense Dept., GAO report, 14492
code of Federal regulations, 5457–58, 7173–40, 8653
contract file maintenance, closeout, and disposition, regulation supplement, 8453
contracting for construction and architect-engineering services, for Atomic Energy Commission, 11975
contractor procurement system reviews, Defense Dept., NASA, improving effectiveness, GAO report, 14507
contractors' manual, 7691
contractors' noncompetitive price proposals, questionable waivers of preaward audits, GAO report, 14513
contracts and grants
Federal government, establishing cost allocation plans and indirect cost proposals, guide to local government agencies, 14565
research and development relating to saline water conversion, Saline Water Office, Interior Dept., guides for submission of research and development proposals, 10220
Defense Contract Administration Services, procurement quality assurance support manual, 16113
engineer contract instructions, 4085
equal employment opportunity procedures, hearings, 1733
Federal buying directory, 11384
firefighting services, protection of public lands from fires—
law, 17610
reports, 13648, 15866

INDEX 1970

Government contracts—Continued

- HEW, grants and contracts, establishing cost allocation plans and indirect cost rates with State government agencies, 1917
- housing—
 - authorized by public contracts, construction reports, 2437-38
 - 1969 annual, 17536
 - low-rent, change in interest rate provision in annual contributions, HUD handbook, 7274
 - low-rent, revised annual contributions contract, HUD forms, 1933
- identical bidding in public procurement, report of Attorney General, 2014
- Interior Department, opportunity for benefits through increased use of competitive bidding to award oil and gas leases on Federal lands, GAO report, 7215
- jurisdiction of U.S. courts over claims against nonappropriated fund activities, hearings, 428
- labor compliance manual, direct Federal and Federal-aid construction, 17232
- Miller act of Apr. 29, 1941, amend, report, 5119
- MILSCAP, military standard contract administration procedures—
 - changes, 9965, 13811
 - supplements, 560, 16154
- minority contractor access to Federal procurement (remarks), 5004
- NASA procurement directive, 2920
- NASA procurement regulations, 2923, 7524
- NASA's university program, active grants and research contracts, quarterly report, 2922, 7556
- National Science Foundation, 6068
- Navy prime contractors, selling to, 2185
- negotiated contracts allowances for independent research and development costs, issues and alternatives, Defense Department, National Aeronautics and Space Administration, Atomic Energy Commission, GAO report, 5522
- negotiated defense contracts—
 - establish uniform accounting standards—
 - hearings, 9896, 12267
 - law, 13346
 - reports, 13430, 13441, 13455
 - feasibility of applying uniform cost accounting standards, GAO report, 11027
- noncompetitive contracts over \$100,000, improvements needed in negotiating prices, on basis of contractors catalog or market prices, Defense Dept., GAO report, 710
- nonprofit institutions with Health, Education, and Welfare Dept., guide for establishing indirect cost rates, 16651
- overhaul contracts, weakness in award and pricing by Navy Dept., GAO report, 7218
- preproduction evaluation (PPE) contracts, procurement, Army Materiel Command pamphlet, 10732
- procurement contracts and worker surpluses, Defense manpower policy no. 4, questions and answers, 11913
- procurement invitations, subcontracting leads, etc., Commerce business daily, 2422
- Renegotiation act of 1951, as amended, regulations, 3140
- research, development, and demonstration projects—
 - 1969, fiscal year—
 - list, 8673
 - Process Research and Development Division, list, 7167
 - 1970 fiscal year, list, 17998

Government contracts—Continued

- Saturn V—
 - launch vehicle, 1st stage, overstatement of contract target cost, National Aeronautics and Space Administration, GAO report, 18035
- stage contracts, incentive provisions, National Aeronautics and Space Administration, GAO report, 5532
- ship construction contracts, requirement for performance and payment bonds, waive, report, 5119
- "should cost" concepts, feasibility of using in government procurement and auditing, GAO report, 11372
- TEFX contract investigation, hearings, 8411, 9913, 13739
- value engineering seminar, joint Government-industry, proceedings, 5322
- Walsh-Healey public contracts act, occupational health and safety standards, hearings, 5157
- water pollution control research, development, etc., 1969 awards, list, 18000
- weapons systems, acquisition—
 - hearings, 9611, 17611
 - status, Defense Department, GAO report, 5537
- Government employees, *see* Government officials and employees.
- Government employment, *see* Employment.
- Government facilities, manufacturing activity in Government establishments, 1967 census of manufactures, 13153
- Government for District of Columbia Commission, *see* District of Columbia Commission on Government.
- Government housing, *see* Housing.
- Government life insurance, *see* Life insurance.
- Government missions, employees of diplomatic missions, list, 10606
- Government National Mortgage Association:
 - annual report, 7272
 - financial statements, GAO examination, 18031
- Government occupations, employment outlook, 14727
- Government offices:
 - accounting systems, improvement, progress and problems, GAO annual report, 8299
 - administrative practices and procedure, expenses, report, 5218
 - agency decision-making, citizen involvement, responses to questionnaire, 8421
 - appropriations, 1970, amendments, proposals, 444
 - businessman's encounter with bureaucracy (address), 6887
 - catalog of Federal domestic assistance programs, create, hearing, 15908
 - claims settlement by Federal agencies, amend law, report, 362
 - congressional oversight of administrative agencies, report, 13745
 - decentralization of Federal agencies (address), 9968
 - executive branch—
 - appropriations, 1970—
 - amendments, proposals, 444
 - supplemental, 347
 - position classification systems, improve—
 - hearings, 3885, 11054
 - law, 6548
 - reports, 5112, 6737
 - reorganization—
 - hearing, 11127
 - message from the President, 6574
 - study, authorization, report, 5213
 - study, expenses, report, 466
- Federal agencies—
 - and Black colleges, 14371

Government offices—Continued

Federal agencies—Continued
role in crime and delinquency field, compilation of Federal support programs, 11778
summer jobs, 253, 15698
Federal, statistical activities, 1969, report, 8263
Federal tourism programs, inventory, Federal agencies, commissions, programs, reviewer, etc., 10658
files maintenance and disposition, DSA manual, change, 6854
financing agency programs other than by direct appropriation, revolving funds, GAO report, 7219
General Accounting Office policy and procedures manual for guidance of Federal agencies, 2688
general Government matters, appropriations 1970—continue—
law, 1384, 3733, 5052, 13300
reports, 3922, 13394
Government organization and employees, title 5, United States Code, 9934
Government organization manual, 14385
Government property, make uniform laws concerning responsibility, report, 1497
Government-rejected consumer items sold into commercial channels, report, 1557
governmental resources, foreign affairs research, directory, 4727
handicapped workers, how Federal agencies have served, 10508
independent offices, appropriations, 1970—
hearings, 8271
law, 1391
reports, 474, 1475
independent offices, appropriations, 1971—
hearings, 11105
reports, 9680, 9682, 12328, 13434
veto, 15330
interagency training programs, bulletin, 9470
joint financial management improvement program, annual report, 7206
lawyers in public practice, 6483, 15693
Legislative reorganization act of 1970—
improve legislative branch—
hearings, 5179
reports, 11013, 12206
summary of draft, 8320
mailing lists and names or addresses of post office box patrons to public, furnishing, prohibit, hearings, 15928
manpower, improved management, reports, 1565, 10992
marketing of obligations, participation certificates, study, report, 3833
negotiation impasse, grievance, and arbitration in Federal agreements, 12715
nonappropriated fund activities, jurisdiction of U.S. courts over contract claims, hearings, 428
Philadelphia Plan, congressional oversight, Labor Department, hearings, 5273
policies and procedures, General Accounting Office guidance manual, 8720
records and papers, disposal, amend U.S. Code—
law, 12114
reports, 1534, 11085
regulatory boards and commissions, access by Congress to information, 15902
rental space for accommodation of District of Columbia agencies and activities—
hearings, 8388
report, 13647
reorganization, *see*, in main alphabet, Government reorganization plans.
separation of powers and independent agencies—
cases and selected readings, 9775
study, print additional copies as Senate document, reports, 3823, 3921

Government offices—Continued

small business programs, survey, handbook, 3899
sovereign immunity, procedure for judicial review of certain administrative agency action, hearing, 13750
take a giant step, go Government, typists, stenographers, office jobs, 1352, 12048
technology transfer programs administered, review, hearings, 6818
training and education programs, studies and reports, 1969 fiscal year, 6484
union recognition in Federal Government, statistical report and listings by agency, etc., 10849
use of input-output analysis by Federal inter-agency growth project (paper), 822
vocational education statistics available in Federal agencies, inventory, 11234
see also Government supplies.
Government offices reorganization, *see* Government reorganization plans.
Government officials and employees:
agency training centers for Federal employees, 3672, 12050
air evacuation patients, subsistence without charge, authorize—
hearing, 404
report, 1510
alcoholism and Federal employee, 8771
alcoholism program for Federal employees, substantial cost savings from establishment, GAO report, 16597
audiovisual personnel, directory, 8975
career education awards and other programs, long term educational opportunities, 250
certain civilian employees of State Dept. in Republic of Vietnam, questionable justification and loose administration of special cost-of-living allowance, GAO report, 10152
city income taxes on Federal employees, withholding by Federal Government, authorize, report, 9715
civilian hiring limitations and recruiting by Dept. of Defense, management is costly, GAO review, 1892
claims settlement by Federal agencies, amend law, report, 362
classified and postal salary systems compensation related legislation, hearings, 522
current workforce data, 9468
educational program in systems analysis and other programs, long-term educational opportunities, 251
employee benefits and services, bibliography, 13205
employee-management relations in Federal Service, improve, hearing, 1744
employee training in Federal service, 6485
Federal blue-color workers, occupations, 13202
Federal civilian employment in U.S., by geographic area, annual report, 9474
Federal civilian manpower statistics, monthly release, 2907
Federal employee facts, 1348, 4968-69, 8122
Federal employee health series, 1057
Federal employees—
and annuitants health insurance premium charges, gradually increase Government's contribution, then assume total payment, 8314
group life insurance program administered by Civil Service Commission, GAO report, 5520
health benefits insurance, biweekly Government contribution, increase—
law, 15802
reports, 15839, 16004
Federal executive, characteristics, 246
Federal news clip sheet, 2602

INDEX 1970

Government officials and employees—Con.

Federal pay increase, legislation—
 hearing, 6816
 law, 8189
 reports, 8245-46, 8251, 8352
 Federal personnel, bimonthly statistics, 2294
 Federal training programs for investigative personnel, hearings, 15906
 Federal work injury facts, occupational distribution, duration, and direct cost factors, etc., as reported under Federal employee compensation act, 1798
 financial protection, 4969
 full-time State and local, coverage by group life insurance and health or hospital insurance, 17280
 Government driver's guide, 6268
 Government organization and employees, title 5, United States Code, 9934
 Government-wide service benefit plan, Blue Cross and Blue Shield for Federal employees, needs improved administration, GAO report, 18032
 group life insurance, FPM manual supplement, 2611
 health benefits, FPM manual supplement, 2612
 how discrimination complaints system works, 8122
 interagency training programs—
 bulletin, 9470
 General Management Training Center, purposes, etc., 3687
 Intergovernmental personnel act of 1969—
 hearings, 17639
 report, 1608
 Management Sciences Training Center, schedule Jan.-June 1971, 17552
 maternity benefits for Federal employees, 1348
 negotiation impasse, grievance, and arbitration in Federal agreements, 12715
 occupations of Federal white-collar workers, list, 15695
 off-campus study centers, 3671, 12049
 overseas, civilian employees stationed abroad, tax information, 5673
 per diem allowance, increase, law, 3728
 performance standards for more efficient use of civilian production personnel, need to improve, Defense Dept., GAO review, 1895
 position-classification standards, 3026
 postal employees, instructions and information, 3027
 preretirement counseling and new work lifetime patterns, Federal role in encouraging, hearing, 6782
 prevailing rate employees, equitable system for fixing and adjusting pay, reports, 13408, 15854
 protecting privacy and rights of Federal employees, report, 9869
 public employee retirement system, benefits and beneficiaries, 11859
 public service careers, jobs and advancement in public agencies, 5814
 reemployment rights of Federal employees who perform duty in Armed Forces, 9471
 responsibilities of local officials, for traffic safety, community action program for traffic safety, 17075
 salaries of certain officers and employees of organizations funded under Economic opportunity act, 1970 report, message from the President, 17616
 Salary act of 1970—
 law, 8189
 reports, 8245-46, 8251, 8352
 salary and retirement annuity, increases, 13539
 Salary comparability act of 1969, implementation—
 hearings, 522
 report, 1866

Government officials and employees—Con.

Salary comparability act of 1970, hearings, 13537
 selected long-term educational opportunities, 252
 selected public-employee retirement systems, holdings, quarterly report, 2716
 severance pay, what it is, 12051
 State and local—
 equal opportunity program in employment, 14564
 retirement systems, finances, 226, 6453
 State designated agencies, officials and working contacts, list, 2842
 summer jobs in Federal agencies, 253, 15698
 trades and crafts, equipment operation and repair, blue collar workers, amendment, 9463
 unemployment compensation, by industry and State, 2533
 union recognition in Federal Government, statistical report and listings, by agency of formal and exclusive recognitions and agreements under Executive order 10088, as of Nov. 1969, 10849
 United States and U.S.S.R.—
 officials, exchanges, to promote greater understanding, hearing, 6800
 political exchange program, report, 8353
 upward mobility for lower level workers, suggested goals and actions, 15700
 wage board employees—
 compensation, adjust—
 hearings, 13757
 report, 16008
 pay rates, uniform system of determining and adjusting, hearings, 431
see also Civil service—Civil service pensions—*also* names of departments, etc., where employed.
 Government Operations Committee, House: activities, 91st Congress, 1st session, interim report, 9742
 calendar, 2503
 committee prints, 8299, 9742-43, 9745-46, 15902, 15910, 17640
 hearings, 415-421, 1582-83, 3865-67, 5160, 6711-15, 8296-98, 8300-1, 8408, 9741, 9744, 11034-36, 12274, 13520-521, 15903-909, 15911-912, 16057-58.
 Investigations and studies—
 expenses, report, 8236
 marketing of Federal obligations, participation certificates, report, 3833
 reports, 392-393, 1463, 1474, 1513, 1515, 1538, 1543, 1557-58, 3833, 6631, 6639, 6643, 6690, 8229-30, 8260, 8372, 9694, 9746, 10949, 11016, 12229, 13443-445, 13486, 13488, 13519, 13522, 15840-841, 15851, 15857, 15868, 15874-875, 15881, 17629
 results from recommendations made during 89th Congress, 9746
 Government Operations Committee, Senate: calendar, 2824
 committee prints, 5265-66, 6804, 11126, 13738
 hearings, 508-510, 1730, 3975-77, 6803, 8409, 8411, 9913, 11127, 12365, 13736-737 13739
 inquiry of National Security and International Operations Subcommittee, 8410
 investigations and studies—
 executive reorganizations—
 and Government research, authorization, report, 5213
 expenses, report, 466
 intergovernmental relations, expenses, reports, 467, 5214
 national security and international operations, expenses, report, 5215
 Permanent Subcommittee operations, authorization, report, 5235
 reports, 1607-8, 3929, 9853, 11078

Government organization manual, 14385
 Government periodicals, *see* Periodicals.
 Government Printing Office:
 apprentices, increase number authorized—
 law, 1421
 report, 1533
 appropriations, 1971, legislative—
 hearings, 6695, 9890
 law, 15773
 reports, 6685, 12351, 13440
 career opportunities for college graduates,
 general administration, printing admin-
 istration, personnel administration, pro-
 curement-supply, electronic data pro-
 cessing, accounting, library science,
 14557
 financial statements, 1968, GAO examina-
 tion, 8722
 GPO standard ink book, 5568
 how to do business with GPO, guide for
 contractors, 5569, 16647
 layouts for flat-bed, rotary, and web press
 imposition, 11403
 looking for a job? GPO has place for you!
 7257
 policemen, special, designate—
 law, 13333
 reports, 10953, 13663
 Public Printer, nomination of Adolphus
 Nichols Spence II, hearing, 5281
 Public Printer to grant time off as com-
 pensation for overtime worked by
 certain employees, authorize—
 law, 15768
 reports, 10954, 13664
 Government Procurement Commission:
 appropriations, 1971, hearings, 11105
 establish—
 law, 1394
 report, 1453
 Government property, *see* Public property.
 Government publications:
 classified list, 15124
 depository libraries, law governing, and
 list of libraries, 6727
 monthly catalog, 2900
 non-GPO imprints, received in Library of
 Congress, July 1967-Dec. 1969, list,
 14755
 price lists, Public Documents Division, PL
 series, 1046, 2205-8, 4643-46, 6131-32,
 7713, 9072-73, 10515-517, 11836, 12907,
 15125-127, 17223-225, 18305-307
 selected, list (periodical), 3190
 State publications, monthly checklist,
 2901
 see also names of departments, etc. issu-
 ing publications—*also* subjects.
 Government reorganization plans:
 enacted 90th Cong., 2d sess., 651
 Environmental Protection Agency,
 create—
 hearings, 15911, 16057
 message from the President, 12162-163
 report, 15874
 Executive Office of the President—
 disapproval, report, 8260
 hearings, 8301, 11127
 message from the President, 6574
 executive, study—
 authorize, report, 5213
 expenses, reports, 466, 5213
 executive, title 5, United States Code,
 5079
 Food and Drug Administration, hearings,
 15919
 Interstate Commerce Commission, hearing,
 420
 Legislative reorganization act of 1970—
 improve legislative branch—
 hearing, 5179
 reports, 11013, 12206
 summary of draft, 8320

Government reorganization plans—Con.
 National Oceanic and Atmospheric Ad-
 ministration, create—
 hearings, 15912, 16057
 message from the President, 12163,
 13371
 report, 15875
 Post Office Department—
 hearings, 3986, 9763, 9933
 law, 13342
 telecommunications—
 disapproval, report, 6043
 hearings, 8300
 Government securities, yields and prices,
 3303
 Government supplies:
 career opportunities, Government Printing
 Office, college graduates, procurement
 supply, 14557
 economy in Government, management and
 procurement of data processing equip-
 ment in Federal Government, hearing,
 15815
 examination into transfer of 52 Federal
 supply classes from Defense Department
 to General Services Administration,
 GAO report, 7209
 Federal buying directory, 11384
 Federal item identification guides—
 for supply cataloging, supplements,
 2494-95, 2588-93, 2596-98
 improvement program procedures man-
 ual, 11162
 Federal manual for supply cataloging—
 FSC classes assigned for integrated
 material management, special proce-
 dures, change, 6844
 operating procedures, change, 13775
 supply classification, 537
 Federal procurement regulations, FPR
 amendments, 2619
 Federal specifications and standards,
 index, 4163
 supplements, 2734
 Federal standards, 1862, 4161, 5467, 7158,
 8663, 16512-513
 Federal supply catalog—
 consolidated master cross reference lists,
 4016, 12396, 13802, 16144
 GSA stock catalog, identification lists,
 2628-29, 4162, 7160, 16514
 national supplier change index, 2627
 Federal supply classification, groups and
 classes, 9950
 Federal supply classification handbook—
 alphabetic index, 16107
 supplements, 2631
 numeric index, 2630, 16106
 Federal supply code for manufacturers—
 excluding United States and Canada,
 16108
 supplements, 2633
 United States and Canada—
 code to name, 4003, 8459
 supplements, 2634
 name to code, 536, 8458, 17730
 addendum, 1756
 supplements, 2635
 Federal supply service, 8664
 Federal test method standards, 1863, 8665,
 10092, 16515
 input and output codes, supply cataloging
 manual, 1757, 6845
 International Development Agency, pro-
 curement regulations, 4317, 10246
 amendments, 4318, 14645
 materials provided to overseas contractors,
 opportunities for improvement in man-
 agement, GAO report, 12580
 mechanized supply and accounting pro-
 cedures for office of United States prop-
 erty and fiscal officers (USPFO),
 change, 2145
 NASA procurement regulation, 2923, 7524

INDEX 1970

- Government supplies—Continued
 NASA procurement regulation directive, 2920
 Navy procurement directives, 2947
 opportunities for savings through elimination of nonessential stock items, General Services Administration, GAO report, 10148
 procurement invitations, subcontracting leads, etc., Commerce business daily, 2422
 procurements financed by International Development Agency, position and problems of small business, report, 1559
 selling to Post Office Department, 6121
see also Military supplies.
- Governors (machinery):
 governors for hydroelectric units, 7721
 Gow, Anthony J., deep core studies of crystal structure and fabrics of Antarctic glacier ice, 10001
- GPO, *see* Government Printing Office.
- Graber, Raymond B.:
 furrow-seeder for Northeast, 10134
 seed losses to small mammals after fall sowing of pine seed, 695
- Grace Mine, iron ore waste disposal system and estimated costs, 2049
- Grade crossings, *see* Railroad crossings.
- Graders, agricultural commodity grader (meat, examination announcement, 1344
- Gradients (mathematics):
 advanced gravity gradient booms, mechanical properties, 16994
 arbitrary pressure gradients, compressible laminar and turbulent boundary layers in FORTRAN program for calculating, 12772
 atmospheric potential-gradient measurements at sea, 11820
 gravity-gradient control-moment-gyro stabilized spacecraft, attitude reacquisition, 10404
 high speed turbulent boundary layer with arbitrary pressure gradient—compressibility transformation general considerations, 18189
 investigation, computer program manual, 18190
 ionic concentration gradients in permafrost in Barrow, Alaska, 4069
 Newton-Raphson-conjugate-gradient technique for calculation of axisymmetric buckling, of shallow spherical shells with variable edge constraint, 5957
 oblique echoes from large-scale horizontal gradients observed by Alouette-2 topside sounder, 4512
 specified meridional velocity gradients, use in analysis of geometry and design-point performance of axial flow turbines, 2062
 temperature gradients in plasma as result of weak electric fields, 7550
 zero-pressure-gradient, summary of available information on Reynolds analogy for compressible, turbulent-boundary-layer flow, 5923
- Grading of commercial products, dairy plants surveyed and approved for USDA grading service, 17721
see also Agricultural products—*also* names of products.
- Gradualism on trial (remarks), 1179
- Graduate schools, *see* Colleges and universities.
- Graduate students, *see* Students.
- Graduate work, *see* Colleges and universities.
- Graduates:
 graduate teaching assistants in American universities, 11229
 opportunities for college graduates in general administration, printing management, personnel administration, etc., Government Printing Office, 14557
- Graduates—Continued
 pathways to military service for college men and women, 564
 Spanish surnamed American college graduates, list, 8051
 Graft polymerization, synthesis of modified Loeb Membranes by grafting, 10232
 Grafton County, N.H., Sugar River watershed work plans, 15253
 Graham, Donald, isotope effect in B zirconium, 12822
 Graham, George V., persons injured and disability days due to injury, 7584
 Graham, J. R., evaluation of concrete and related materials for desalination plants, 4th annual progress report, 18318
 Graham, Robert W., penetration model explanation for turbulent forced-convection heat transfer observed in near-critical fluids, 921
 Graham County, Ariz.:
 community profile, 6915
 Gila River phreatophyte project, objectives, methods, and environment, 7247
 uranium, 1950-57, preliminary reconnaissance, 15523
 Graham County, N.C., community profile, 13969
- Graikoski, John T.:
 effect of ionizing radiation on resistance, germination and toxin synthesis of *Clostridium botulinum* spores, 1264
 study of effect of ionizing radiation on resistance, germination, and toxin synthesis of *Clostridium botulinum* spores, types A, B, and E, 120, 134
 toxicogenesis in irradiated Atlantic cod and flounder at low storage temperatures, annual report, 3507
- Grain:
 chipped grain on sycamore, effect of cutting angle and depth of cut on occurrence, 12556
 crop quality, 1969, inspected carlot, trucklot, and sample inspections, by kinds of grain, 6825
 culture, etc., publications, price list, 7713
 European Community, rising protection and falling imports, 11341
 farm-stored, controlling insects, 25
 feed grain program, 3387, 3425
 improve, reports, 15844, 16007, 17626
 legislative proposals, hearings, 3846
 feed grains—
 feed statistics, 1969 supplement, 44
 growth in world demand related to meat and livestock products and human consumption of grain, 12496
 foreign agriculture circulars, 2657
 grain-feed handling centers, farm building plan, 9309
 grain mill products, census of manufactures, 1967, industry statistics, 15591
 grain storage building, tilt-up concrete construction, 31
 lesser grain borer attack in small bins, evaluation of malathion, diazinon, silica aerogel, and diatomaceous earth as protectants against, 7924
 market news, weekly summary and statistics, 2696
 Netherlands' mixed feed industry, impact on use of grain for feed, 9974
 official standards of United States, 9944
 price formation and price reporting in Italy, 12495
 small grain insects, watch for, 6312
 Standards act, amended, and regulations thereunder, 1751
- stocks—
 in all positions, quarterly report, 3232
 in deliverable position at Chicago, weekly report, 3233

Grain—Continued
trade agreement with European Economic Community, 1160
see also names of grains.

Grammar, *see* Chinese language—English language.

Grand Calumet River, pollution of interstate waters, Ind.-Ill., conference proceedings, 7163

Grand Canyon National Park:
North Rim, general information, 10472
South Rim, general information, 9032, 10474

Grand Coulee Dam, Forebay Dam, 3d power-plant project, shear and sliding resistance test of rock joints, 15145

Grand County, Utah, community profile, 6916

Grand Forks County, N. Dak., community profile, 13970

Grand Portage National Monument, great carrying-place, history of sites, people and fur trade, 2160

Grand Teton National Park, general information, 11790

Grandberry, Ralph E., effects of decaborane on liver glycogen content of rats at ground level and at altitude, 57

Granger, Louis R., Panama Canal review, 3008

Granite, crater scaling, for small charges, 11594

Granite Falls, Minn.:
floods, how to avoid damage, 17929
Minnesota River, flood plain information, 18424

Granite Mountains, central Wyoming cenozoic geology of area, 8740

Granma (weekly review):
selections, Cuban study, 2008

Grant, W. B., demonstrations conducted by portable cesium irradiator, etc., 1262

Grant, W. L., thermal-vacuum testing of high temperature electrical components, 14817

Grant, Warren R., alternative Government programs, economic evaluation, 11193

Grant County, Ariz., uranium, 1950-57, preliminary reconnaissance, 15523

Grant County, Kans., soil survey, 4694

Grant County, Nebr., community profile, 17788

Grant County, N. Mex., mineral resources of Black Range Primitive Area, 16607

Grant County, N. Dak., community profile, 13971

Grant County, S. Dak., community profile, 13972

Grant County, Wash., community profile, 6917

Grantham, William D.:
analytical study of effects of severe turbulence on flight motions of typical subsonic jet-transport airplane, 2109
simulator study of coupled roll-spiral mode effects on lateral-directional handling qualities, 12769
simulator study of instrument landing approach of heavy subsonic jet transport, with external-flow jet-flap system used for additional lift, 11686

Grants-in-aid:
catalog of Federal domestic assistance programs, create, hearing, 15908
Grant consolidation act of 1969, hearings, 510, 9741, 11036
grants administration manual, 2697
grants administration report, 2698
see also subjects for which grants have been made—*also* names of departments, etc.

Granular materials, theory of dispersion in granular medium, 10171

Granville County, N.C., community profile, 13973

Grapefruit:
canned, U.S. standards for grades, 9945
fresh, sold in selected markets, prices and spreads, 10691
Marsh, thermal properties and heat transfer characteristics, 10709

Grapefruit juice, U.S. standards for grades, frozen, concentrated, 16100

Grapes:
California table, feasibility of shipping in fiberboard and polystyrene foam boxes and in polyethylene mesh bags, 15437
diseases and insect control in eastern U.S., 9255
fresh, sold in selected markets, prices and spreads, 10691

Graphic methods:
for plasticity corrections in fracture mechanics, 9057
graphic simulation study of 2 sites for 2d major airport in Atlanta, Ga., area, 18377

Graphic notices and supplemental data, airman's information manual, 4102

Graphite:
minerals yearbook chapter, 16391
natural Ceylon amorphous lump, disposal from national and supplemental stockpiles—
law, 12150
reports, 6634, 6745, 11001

Graphitic oxides, reverse osmosis membranes containing, final report, 10231

Graphs, *see* Charts.

Graptolites, early Silurian, from southeastern Alaska and their correlation with graptolitic sequences in North America and Arctic, 10183

Grasses:
Albuquerque public schools outdoor education center, 9142
alkali saccation seedlings, germination and survival in agar and soil medium, 5504
check list of scientific names of introduced agricultural grasses, 9277
culture, etc., publications, price list, 7713
establishment and survival of several grasses in sagebrush type, west-central New Mexico, 681
native grass of Nebraska, 9131
perennial, reduce woody plant seedlings on mixed conifer fuel-break, 18016
root competition between ponderosa pine seedlings and grass, 5516
stabilization of newly constructed road backslopes by mulch and grass-legume treatments, 18013
see also Fescue—Sod.

Grasshoppers, control, 16

Grasslands:
national, managing public rangelands, effective livestock grazing practices and systems, 15
seeded ranges response to different grazing intensities in ponderosa pine zone of Colorado, 4825

Grassroots hearings on economic problems, 8278

Gratuities:
do you get cash tips? tips mean bigger social security checks, here's how you get them, 7756
employer and employee tips, reporting for income tax and social security, 6175
social security and cash tips, 15172
tips, reporting for Federal tax purposes, 5661

Gravel:
Alabama gravel, recovery of heavy minerals, 12749
Atlantic Continental Shelf and slope of United States gravels of northeastern part, 18042
frozen, underground blasting, effects of type of cut, delay, and explosive, 7481
minerals yearbook chapter, 8914

INDEX 1970

- Graves, Randolph A., jr., diffusion model study in chemically reacting air couette flow with hydrogen injection, 18224
- Graves, *see* Bural
- Graves County, Ky., forest inventory statistics, 4771
- Graveson, R. T., computational method for photopeak location and integration, 9394
- Gravitation:
- collective motions of one-dimensional self-gravitating system, 935
 - earth's field dynamic calibrator for calibration of accelerometer, 8010
 - eccentric gravitation field, effects on motion of artificial satellite, 11697
- Gravity:
- advanced gravity gradient booms, mechanical properties, 16994
 - Bouguer gravity and general geology of Bradley, San Miguel, Adelaida, and Paso Robles quadrangle, Calif., 10181
 - centers of gravity and weights for quaking aspen trees and boles, 12555
 - effect on laminar gas jet diffusion flames, 11690
 - gravity and magnetic anomalies in Soda Springs region, southeastern Idaho, 8746
 - gravity and size interacting effects upon peak and minimum pool boiling heat fluxes, 10352
 - gravity-gradient control-moment-gyro stabilized spacecraft, attitude reacquisition, 10404
 - hemispherically bottomed tanks in normal gravity and in weightlessness, effect on vapor ingestion phenomenon, 12776
 - influence of thermal distortion on performance of gravity-stabilized satellites, 902
 - International Indian Ocean Expedition, USC&GS ship Pioneer, data errata, 17953
 - low gravitational conditions, effect on unstable bubble motion, 12795
 - low gravity, liquid vapor interface configurations in spheroidal containers, 8938
 - reduced-gravity simulators used for studying lunar self-locomotive tasks, comments, 8951
- Gravity, specific, *see* Specific gravity.
- Gravols Creek, basin, floods, St. Louis County, Mo., 7237
- Gray, Edythe A., inpatient utilization of short-stay hospitals by diagnosis, 14936
- Gray, Jerry J., mineral industry of Oregon, 4453
- Gray, Robert A. jr.:
- behavior of mechanical properties in neutron irradiated $12\text{Ni}-5\text{Cr}=3\text{Mo}$ maraging steel plate and companion weld metals, 6103
 - charpy-V notch ductility characteristics of neutron-irradiated A537-B and A350-LF2 steel weldments, 11819
- Gray iron, *see* Cast iron.
- Gray partridges, *see* Partridges.
- Grays Harbor County, Wash., community profile, 6918
- Grazing:
- annual statistical report, 4178
 - livestock, regulations on National Forest system lands and other lands under Forest Service control, 16557
 - seeded ranges response to different grazing intensities in ponderosa pine zone of Colorado, 4825
 - stretch your grazing season, use tall fescue, 1112
 - see also* Pasture lands.
- Great Basin:
- southern, upper Precambrian and lower Cambrian strata in, 14535
 - surface water supply, 16643
- Great Britain:
- amateur alien radio operators, authorize to operate, agreement, 6238
 - armed forces of United Kingdom make accommodation in Federal Republic of Germany available to International Military Headquarters of NATO, agreement, 6232
 - atomic energy, cooperation for mutual defense purposes, agreement, 15303
 - background notes, 7811
 - British drug safety system, report, 8230
 - economic trends and their implications for United States, 7323, 16725
 - European and British Commonwealth series, 4726
 - extradition, continued application to Swaziland, treaty with U.S., 18348
 - German external debts, agreement, 1161
 - housing development and urban planning, policies and programs, report, 8195
 - lights and fog signals, list, 6087
 - social science research, special papers available, 15293
 - south coast of England, sailing directions, 18284
- Great Egg Harbor:
- New Jersey coastal inlets and beaches, Great Egg Harbor Inlet to Stone Harbor, engineers report—departmental edition, 332
 - document edition, 600
- Great Falls, Md., gold veins near, description, etc., 4229
- Great Falls, Mont., Great Falls School District no. 1, Tobacco, Drug, and Alcohol unit, grade 6, 14947
- Great Falls, Va., Potomack Company canal and locks, historic structures report, 17159
- Great Falls Park, Va., general information, 9031
- Great Lake Basin Commission, annual report, 13359
- Great Lakes:
- anadromous fish, conserve, develop, etc.—hearings, 3883
 - law, 10910
 - reports, 3842, 9833
 - basin, survey of institutions concerned with water resources, 5570
 - clean water for mid-America, 14400
 - coastal zones, utilization and implementation, conference proceedings, hearings, 3880
 - dumping of waste materials, control, message from the President, 8215
 - fisheries, annual summary, 8159
 - light list, and other marine aids, 6497
 - maritime industry to receive assistance (remarks), 11563
 - monthly precipitation probabilities by climatic divisions, 23 Eastern States from Great Lakes to Gulf Coast, 32
 - notice to mariners, 2973
 - pilot, survey, 5834, 12722, 14743-745, 16870
 - pilotage services, agreement with Canada, 17342
 - region, public elementary and secondary schools, 1968-69, directory, 9983
 - resources, protection, hearings, 16043
 - Superior and Michigan marine weather services chart, 18403
 - waterborne commerce, 1968 calendar year, 8553
 - waterway system, transportation of iron ore, limestone, and bituminous coal, 11575
- Great Lakes Fishery Laboratory, Ann Arbor, Mich., general information, 8162
- Great Lakes States:
- Lake States—
 - hardwoods, picloram in spaced stem injections to control, 16561

Great Lakes States—Continued

Lake States—Continued
pulpwood production rises 11 percent, 16567

timber species, biological growth functions describe published site index curves, 14471

oak forests and their management, 5508
prescribed burning, current status, 5491
principal electric facilities, map, 8623

pulpwood production—
north central region by county, 12567
plummets by 413,000 cords, 12550

Great Northern Ry., accident, report, 14383
Great Plains:

conservation program—
expanded for 1970's, 15443
extend, law, 3731
progress report, 33
Wyoming, 9176

northern, bench-scale carbonization of lignite, statistical approach, 10326
public elementary and secondary schools, 1968-69, directory, 9983

Great Smoky Mountains National Park:
roadway entrance, specify route, etc., law, 3722

Walker Sisters Home, historic structures, report, and furnishing study, 4587

Great White Heron National Wildlife Refuge, birds, list, 15273

Greaterville mining district, Ariz., structural control of geochemical anomalies, southeast of Tucson, Ariz., 7223

Grebowsky, Gerald J., Fourier transform representation of ideal lens in coherent optical systems, 5976

Greece:

atomic energy, cooperation for civil uses, agreement, 10622
background notes, 15284

economic trends and their implications for United States, 793, 11470
establishing business in, 15728

loan of vessels, extension, agreement, 10615

mineral industry, minerals yearbook chapter, 4428

naval vessel loans, extend—
hearing, 16037

reports, 5123, 6617
selling in Greece, 10872

U.S. security agreements and commitments abroad, hearings, 16056

Greeley, Colo., motor carrier accident, 7502

Greeley County, Nebr., community profile, 17789

Green, Dorothy E., use of tobacco, practices, attitudes, etc., 1078

Green, H. Gary, portable refraction seismograph survey of gold placer areas near Nome, Alaska, 10160

Green, Joseph, program analysis, problem in man-computer communication, 14892

Green, Lisle R., experimental prescribed burn to reduce fuel hazard in chaparral, 18021

Green, T. E., properties of ion exchange resin with high selectivity for gold, 7482

Green Bay, Wis.:

area wage survey, 2032, 18127
principal electric facilities, map, 8623

Green coffee inventories, imports, and roasting, current business reports, 2469

Green power, consumer action for the poor, 13825

Green River formation:

lithology and oil shale correlations in Piceance Creek basin, Colo., 11583

oil shale sections, dawsonite and nahcolite analyses, Piceance Creek basin, Colo., 18172

Wyoming, geochemistry and paleolimnology of trona deposits and associated authigenic minerals, 727

Green sunfish, *see* Sunfish.

Greenberg, Irving N., thermal conductivity of superconductors, 7978

Greenberg, Michael D., nonlinear actuator disk theory and flow field calculations, including nonuniform loading, 16950

Greenbrier River, flood control emergency projects, hearings, 523

Greene, Frank T., experimental study of structure, thermodynamics and kinetic behavior of water, 1955

Greene, Mark R., insurance and risk management in small business, 18324

Greene, R. E. L., changes in market organization and practices of potato industry, Hastings area, Fla., 16468

Greene County, Ala., community profile, 13974

Greene County, Ark., soil survey report, 6193

Greene County, Iowa, community profile, 13975

Greene County, Miss., community profile, 16257

Greene County, Mo., community profile, 16258

Greene County, N.Y., community profile, 13977

Greene County, N.C., community profile, 13976

Greene County, Ohio, community profile, 13978

Greene County, Pa., community profile, 16259

Greenfield, Sidney H.:

bibliographies on fabric flammability, wearing apparel, fabrics used on beds, carpets and rugs, 7574

interior furnishings, bibliographies on fabric flammability, 12845

natural weathering of mineral stabilized asphalt coatings on organic felt, 953

testing and test methods, bibliographies on fabric flammability, 17088

Greenhouses, plastic germination of several tree species in, 5493

Greenland:

Camp Century revisited, pictorial view, 16411

lights and fog signals, list, 7674

nautical charts and publications, catalog, 7669

snow, physical properties and internal structure, 7032

Greenlee County, Ariz.:

community profile, 6919

uranium, 1950-57, preliminary reconnaissance, 15523

Greenspan, Martin, engineering and instrumentation, journal of research, 2787

Greenville, S.C., area wage survey, 14735

Greenville County, S.C., appraisal of potentials for outdoor recreational development, 1105

Greenwald, Peter, relation of radioactive fallout to leukemia and fetal mortality, reconsideration, 6375

Greenwell, J. E., alternator and voltage regulator-exciter for Brayton cycle space power system, 10343

Greenwood, M. R., 1968 State-Federal Lake Michigan alewife die-off control investigation, 15753

Greeting cards, census of manufactures, 1967, industry statistics, 13149

Gregg, Michael B., morbidity and mortality weekly report, 2914

Gregory County, S. Dak., community profile, 13979

Grenada County, Miss., community profile, 16260

Grenades, Federal item identification guide, 16128

Gresham, Robert C., nomination, hearings, 3965

Greyson, J., study of specific influence of dissolved ions on structure of water, 5630

INDEX 1970

- Grid systems, *see* Maps and charts.
- Grids, glass-coated accelerator grid on 15-centimeter-diameter Kaufman thruster, 14859
- Grierson, W., forced-air precooling of citrus fruit on moving conveyor, 9279
- Grievance procedures, grievance, negotiation, impasse, and arbitration in Federal agreements, 12715
- Griffin, A. Clyde:
effects of chemical additive X-78 on ginning and processing performance and cotton quality, 15436
effects of lint-cleaner operating parameters on cotton quality, 9302
- Griffin, Nelda, financial structure of farmer cooperatives, 5400
- Griffith, Richard E., jr., method for filing black and white photographs, 4717
- Griggs County, N. Dak., community profile, 13980
- Grigor'yev, B.A., two articles on radiant heating, 8835
- Grigsby, Hoy C., exotic trees unsatisfactory for forestry in southern Arkansas and northern Louisiana, 4194
- Grimes, Maria H., environmental science centers at institutions of higher education, survey, 9766
- Grimes, P. J., advancements in structural dynamic technology, resulting from Saturn V program, 11608-9
- Grinders, *see* Lens grinders.
- Grinding and polishing, grinding of chrome plated steel and steel parts heat treated to 180,000 psi or over, military standard, 1777
- Grinding wheels, *see* Abrasives.
- Grise, Verner N., cash wages and perquisites received by regular hired farmworkers, 15446
- Grizzell, Roy A., catfish farming, new farm crop, 3400
- Groemping, Franz A., labor law and practice in Iceland, 14661
- Grogan, William E., testimony, hearings, 3980
- Gronhovd, Gordon H., slagging fixed-bed gasification of North Dakota lignite at pressures to 400 psig, 11593
- Gross, Bernard, plane elastostatic analysis of V-notched plates, 18217
- Gross, Fred, on periodic left factors of meromorphic functions, 2182
- Gross, Peter R., relief, 17584, 17620
- Gross national product:
current market prices, non-Communist countries, calendar year 1968, summary, 10248
growth rates and trend data by region and country, 10249
- Grosser, Charles, using the nonprofessional, 7414
- Grote, Heinz H.:
measurement of divergence in mesometeorological systems, 10022
plotter subroutine COMBI for meteorological flight path and 4 parameters, 8671
plotter subroutine for meteorological flight path (PATH), 4089
presentation of errors of four-dimensional straight line flight data (SLENDER), 5387
presentation of errors of four-dimensional parameter in single plane, 5386
- Groth, H. G., spectrum formation in stars with steady-state extended atmospheres, 18235
- Grouge, blue, habitat management, 15208
- Ground, *see* Earth—Soils.
- Ground cover study, Fort Necessity National Battlefield, Pa., 12869
- Ground effect:
proximity on longitudinal aerodynamic characteristics of unswept aspect-ratio-10 wing, 5956
STOL air-sea transport model, with blowing over canard and wing flaps, investigation, 18206
vehicle bodies at crosswind conditions in ground proximity, aerodynamic characteristics, 16970
- Ground effect machines, *see* Air cushion vehicles.
- Ground instructors, Federal aviation regulations, 17959
- Ground water, *see* Water.
- Ground waves, *see* Radio waves.
- Grounding (ships):
SS Ocean Eagle (Lib.) grounding and breaking up with no loss of life, San Juan, P.R., Mar. 3, 1968, marine casualty reports, 7657
- Grounds, *see* Public property.
- Group insurance, *see* Life insurance.
- Group medical practice, *see* Medicine.
- Group practice facilities, *see* Health centers.
- Grouse:
ruffed grouse, habitat management, 15216
sage, habitat management in Utah, 17297
- Groutage, Thomas M., surf clam fishery, 10889
- Grouting, methods and equipment, Army technical manual, 6360
- Growing flowering dogwood, 15421
- Growing ground covers, 3406
- Growing pansies, 15428
- Growing raspberries, 15416
- Growth:
and toxic production of Clostridium types E, etc., in nonirradiated and irradiated fisheries products, temperatures 38°-50°F, 3506
biological growth functions describe published site index curves for Lake States timber species, 14471
child health and human development, progress 1963-70, report, 18264
children, coordinated studies, 1951-68, Centre International, de l'Enfance, publications, 8886
diameter growth rates & clear stem lengths, distribution as basis for selecting superior phenotypes, 16578
due to buoyancy of weak homogeneous turbulence with shear, 17004
growing flowering—
annuals, 4812
perennials, 4813
growth components of Mississippi forests, 11360
koa growth rings, lignin staining, limited success in identifying, 18017
salmonberry shade effects on growth, 16579
seedling root growth of 7 northwestern tree species, effects of high soil density, 4187
yellow-poplar, factors for distributing value gain, 5499
- Grube, Arthur F.:
mineral industry of—
Indonesia, 16904
Malaysia, 859
Thailand, 16908
- Grundy County, Iowa, community profile, 13981
- Grundy County, Mo., community profile, 16261
- Grunwald, Kalman J.:
aerodynamic characteristics of—
air-cushion models at very low ground clearances and at free-stream dynamic pressures exceeding cushion pressures, 18209
vehicle bodies at crosswind conditions in ground proximity, 16970
- Grunzke, Marvin E., comparative performance of low-ability airmen, 9332

GSA, *see* General Services Administration.
 G'Schwend, Sybella C., marketing information guide, annotated bibliography, 2873
 Guadeloupe:
 background notes, 4719
 economic trends and their implications for United States, 11473
 economy, basic data, 275
 weather station, agreement with France, 4751
 Guam:
 agricultural services, extend, report, 9846, 4751
 annual report, 7299
 county business patterns, 4933, 13174
 income tax withheld from U.S. employees, rescission, 17384
 nautical chart catalog, 9485
 nonvoting delegate in House of Representatives, hearings, 13524
 territorial highway study, 8344
 print as Senate document, report, 9828
 Guam University, land grant status, amend Organic act, report, 6741
 Guarantees, *see* Warranties and guarantees.
 Guarantees and sureties:
 investment, agreement with—
 Costa Rica, 4746
 Dominica, 17339
 Vietnam, 12940
 loan guarantees, payment by ICC, appropriation request, 12291
 Guardhouses, conditions in brig at Marine Corps base, Camp Pendleton, Calif., inquiry, report of special subcommittee, 5145
 Guarding our agricultural resources in jet age, 15442
 Guards (persons):
 air carriers, training and salary, financing, hearing, 17699
 Guatemala:
 alien amateur radio operators, agreement, 4738
 area handbook, 13053
 economic trends and their implications for United States, 789
 meat imported into U.S., agreement, 17346
 mineral industry, minerals yearbook chapter, 16901
 records of Dept. of State, pamphlet accompanying microscopy, political relations, 1910-29, with U.S. and with other States, 17026
 trade, meat imports, agreement, 18359
 Gubser, D. U., proceedings of 1970 ultralow temperature symposium, 18295
 Guentert, Donald C., study of Brayton-cycle power generation system using SNAP-8 nuclear reactor as energy source, 11641
 Guernsey, plant quarantine requirements, 4804
 Guernsey cattle, *see* Cattle.
 Guernsey County, Ohio, community profile, 13982
 Guerrilla warfare, counter guerrilla operations, Army field manual, 9349
 Guest (U.S.S.):
 loan to Brazil, extension, agreement, 4747
 Gugeler, Russell A., combat actions in Korea, 4399
 Guidance, character guidance discussion topics, our moral heritage, 1230, 9352
 Guidance systems:
 approach guidance method using single on-board optical measurement, 18202
 guidance and control payload support requirements for planetary cartographic probe, 11680
 manual guidance of large launch vehicles utilizing X-15 airplane and flight simulators, study of display systems, 5940
 two guidance schemes for manned lunar landing, evaluation, 11663
 see also Homing guidance.

Guide books:
 election law guidebook, print as Senate document, report, 9829
 occupational information, local, listings, 1175
 see also Pocket guides.
 Guide to record retention requirements, 12529
 Guide to understanding United States Department of Agriculture, 15106
 Guidebooks, *see* Guide books.
 Guided missiles, *see* Missiles.
 Guidelines for growth of electric power industry, advisory reports, 14379
 Guides, *see* names of departments, etc., issuing guides.
 Guides for supervisors, 1038
 Guido, Pedro I., relief, 12103, 12314
 Guilford County, N.C., community profile, 13983
 Guinea:
 agricultural commodities, agreement, 4750
 capsule facts for Armed Forces, 73
 Guinea-Senegal boundary, study, 7815
 Guinea pigs, raising, 4818
 Guinn, Nancy, demographic differences in aptitude test performance, 13012
 Guitarro (U.S.S.):
 loan to Turkey, extension, agreement, 1147
 Gulf, *see* name of gulf or place where located.
 Gulf and Western Industries, Inc., conglomerate corporation investigation, hearings, 13532
 Gulf Coast:
 light list, Little River, S.C. to Rio Grande, Tex., and Antilles, 4977
 Mississippi, water-level and water-quality trends in aquifers, 16627
 monthly precipitation probabilities by climatic divisions, 23 Eastern States from Great Lakes to Gulf Coast, 32
 nautical chart catalog, 4976
 shrimp data, 2700
 annual summary, 289
 Gulf Islands National Seashore:
 establish—
 hearings, 13526
 reports, 13460, 13485
 Gulf of Alaska, *see* Alaska, Gulf of.
 Gulf of Mexico, *see* Mexico, Gulf of.
 Gulf States, fisheries, annual summary, 288
 Gulf Stream:
 monthly summary, the Gulf Stream (periodical), 2910
 western north Atlantic, correlation of movements, 11272
 Gulfport, Miss., District Court, southern district, terms to be held, report, 13641
 Gulfs, *see* names of gulfs or places where located.
 Gulfstag SS, fire with loss of life, Gulf of Mexico, Oct. 24, 1966, marine casualty report, etc., 7661
 Gum chemicals, *see* Chemicals.
 Gunner's mates, G 3 & 2, rate training manual, 15058
 Gunnery, Marine Corps artillery, annotated bibliography, 12726
 Guns:
 penalty for use in crime, increase, report, 1634
 series, automatic weapons, engineering design handbook, AMC pamphlet, 4849
 see also Cartridges—Explosives guns—Firearms
 Gurlin, Gerald, inner city Negro youth in job training project, 4864
 Gustafson, Paul E., investigation of some new amines as regenerative carbon dioxide absorbents, 6100
 Gustavus Adolphus College, commencement address, 9496
 Gusts, *see* Winds.

INDEX 1970

- Gutbrod, Edward, annual sales, year-end inventories, etc., of retail stores, by kind of business, 216, 10812
- Guthrie, Okla.:
Cottonwood Creek, flood plain information, 16415
floods, how to avoid damage, Cottonwood Creek, 17930
- Guthrie County, Iowa, community profile, 13984
- Gutierrez, Orlando A., experimental cavitation and flashing of potassium flowing adiabatically through venturi sized as boiler inlet, 11639
- Guttormsen, Kristian, current practice in potato processing waste treatment, 7169
- Guy, Harold P.:
field methods for measurement of fluvial sediment, 11400
fluvial sedimentation concepts, 10185
sediment problems in urban areas, 14526
- Guyana:
area handbook, 4862
background notes, 10592
economic trends and their implications for United States, 14637
mineral industry, minerals yearbook chapter, 4423
- Gypsum:
mineral industry survey, quarterly, 2701
minerals yearbook chapter, 16892
- Gypsy moths:
check for gypsy moths before you move out, 15403
poster, 15404
- Gyrocompass, repeatability, accuracy, portability, and errors of portable alignment system, 14846
- Gyroscopes:
production and research, USSR study, 5778
quantum gyroscopy, physical principles, USSR study, 12653
synchro, servo, and gyro fundamentals, rate training manual, 17185
twin gyro attitude control system including passive compensation and nonlinear control law, performance, 14855
- ## H
- H. & H. Manufacturing Co., Inc., relief, 17681
- Haakon County, S. Dak., community profile, 13985
- Haas, John T., livestock cooperatives in Southeast, 10039
- Haase, Gloria J., relief, 5102, 13297, 13617
- Habeas corpus, *see* Criminal procedure.
- Haber, Lawrence D., epidemiology of disability, measurement of disability capacity limitations, 15169
- Habitability, atomic submarines, USSR study, 12637
- Habitat:
management for—
band-tailed pigeons, 6181
black bear, 6182
black-tailed deer, 6183
blue grouse, 15208
California quail, 15209
Canada goose, 15210
chukars, 15211
Gambel's quail, 17293
gray partridges, 15212
hares, 15213
mourning doves, 1109, 17294
mule deer, 17295
pronghorn antelope, 17296
rabbits, 15214
ring-necked pheasants, 15215
ruffed grouse, 15216
sage grouse, 17297
turkey, 15217
white-tailed deer, 6184
wood duck, 17298
range and wildlife habitat evaluation, research symposium, 10693
- Habitat—Continued
salmon, effects of clearcutting on, in 2 southeast Alaska streams, 4206
- Hackett, Gerald A., executive calendar, Senate, 2821
- Haeussermann, Walter, Saturn launch vehicle's navigation, guidance, and control system, 12809
- Hafnium:
alloy, T-111 (tantalum-8 tungsten-2 hafnium), survey of properties, 12810
columbium alloy development, 10328
molybdenum-carbon alloys, thermomechanical processing, 8936
- Hagerman National Wildlife Refuge, birds, list, 9180
- Hagermann, Madeline G., education directory, 1969-70, State governments, 12498
- Haggard, John B., jr., unstable bubble motion under low gravitational conditions, 12795
- Haggerty, William J., higher and professional education in India, 7014
- Haglund, George T., study of severe local storm, 1825
- Haida Indians:
judgment funds, disposition—
hearings, 8413
law, 13310
reports, 6607, 8374, 12218
- Halder, Walter:
basic data on
British Leeward Islands, 15724
economy of Guadeloupe, 275
economy of Haiti, 15721
foreign trade regulations of Haiti, 15722
- Halgh, Kenneth R., acoustic sea bed reflectivity from a submersible, 15046
- Hail, hailstorm research, progress, 611
- Hail insurance:
crop-hail insurance, 1967, volume, cost, indemnities, 1786
economic considerations in crop insurance, 12493
- Haines, Aubrey L., Norris Soldier Station, Yellowstone National Park, historic structures report, 4582
- Haines, Donald A., climate conditions preceding historically great fires in North Central region, 12560
- Haines, Rosalie H.:
clothing speaks—
4-H leader's guide, 8609
4-H member's guide, 7082
- Haines, Alaska, reconnaissance of water resources, 11391
- Hair, Dwight, demand and price situation for forest products, 1969-70, 7926
- Haiti:
agriculture and trade, 6998
economy, basic data, 15721
foreign trade regulations, 15722
internal affairs, records of Dept. of State, pamphlet to accompany microcopy, 11724
invasion, "Project Nassau", CBS network news documentary practices, report, 12252
- Hake:
Pacific hake, description, etc., 9515
Pacific Ocean perch and hake studied off West Coast, 9534
- Hale, Peter B., basic data on economy of Turkey, 3690
- Hale, William N.:
mineral industry of Washington, 4468
vermiculite, 886
- Hale County, Ala., community profile, 13986
- Half truths can make us slaves (address), 10869
- Halifax County, N.C., community profile, 13987
- Hall, Albert W.:
statistical study of normal load factor just prior to ground contact for five light airplanes, 12787

- Hall, Albert W.—Continued
three-track runway and taxiway profiles measured at international airports C and D, 7540
- Hall, David A., simulated deep submarine escape from 495 feet of sea water, 12736
- Hall, Gordon R., scaling of VTOL recirculation effects, 14827
- Hall, J. Alfred, pulp and paper industry and Northwest, 5489
- Hall, L. A.:
bibliography of thermophysical properties of air from 0 to 300 K, 962
survey of electrical resistivity measurements on 8 additional pure metals in temperature range 0 to 273 K, 18236
- Hall, Maria E. P., relief, 12181, 13294, 13613
- Hall, Richard L., soil survey report of Wilcomico County, Md., 6198
- Hall County, Nebr., community profile, 16262
- Hallan, Jerome B., economic cost of kidney disease and related diseases of urinary system, 6146
- Hallmark (periodical), 2702
- Hallucinations and illusions; visual illusion problems, 17962
- Hallucinogens:
adverse reactions to hallucinogenic drugs, conference background papers and proceedings, 1048
hallucinogenic drug laws, amend, report, 1684
- Halogens:
halogen acids in water, electrolytic conductance, 10420
halogenated hydrocarbons, determination of trace quantities in gas samples, 4631
- Halper, Laura A., CDC 3800 computer program to calculate and plot compressibility, modulus of compressibility and perpendicular component of molecular dipole moment of films spread on liquid surfaces, 15070
- Halpert, G., secondary aerospace batteries and battery materials, bibliography, 7529
- Halstead, Bruce W., poisonous and venomous marine animals of world, 13815
- Hamer, Harold A., approach guidance method using single onboard optical measurement, 18202
- Hamer, Walter J., electrolytic conductance and conductances of halogen acids in water, 10429
- Hamil, H. F., development of modified polyolefin membranes for reverse osmosis, 10222
- Hamilton, Anne, America the beautiful, collection of nation's trashiest humor, 17307
- Hamilton, R. M., summary of seismic activity in Pahute Mesa area Nevada Test Site, 6383
- Hamilton, Thomas E., stumpage price responses to changes in volume of timber sold, 8707
- Hamilton, Vernon L., soil survey, Grant County, Kans., 4694
- Hamilton, Ohio, census of transportation, 1967, commodity transportation survey, production area series, 6425
- Hamilton County, Iowa, community profile, 13988
- Hamilton County, Nebr., community profile, 17790
- Hamilton County, N.Y., community profile, 13989
- Hamilton County, Ohio:
community profile, 13990
Ohio River, flood plain information, 16427
floods, 17944
- Hamlin County, S. Dak., community profile, 13991
- Hammerhead (U.S.S.):
loan to Turkey, extension, agreement, 1147
- Hammill, Anne, natural resource special districts in Appalachia, review of enabling laws, 14271
- Hammitt, George M., II:
evaluation of soil strength of unsurfaced forward-area airfields by use of ground vehicles, 14335
rapid assessment of soil strength at aircraft landing sites, 10015
- Hammond, D. L., effect of sea roughness on bandwidth of radar backscatter, 12889
- Hammond, Ind., census of transportation, 1967, commodity transportation survey, 9433
- Hammons, D. R., reference reports for salmonella program inspectors, rendering animal and poultry byproducts, monitoring animal, fish, and poultry products for salmonella, 6289
- Hampton, Va., area wage survey, 11541
- Hamrick, Joseph G.:
addresses, etc.—
June 24, 1970, 11187, 11189
June 26, 1970, 11186
Sept. 3, 1970, 16158
Sept. 19, 1970, 16167
Sept. 23, 1970, 16159
- Hamrock, Bernard J., optimization of self-acting thrust bearings for load capacity and stiffness, 14886
- Hanafy, Lawrence M., linear time optimal control problem from a calculus of variations point of view, 16119
- Hancock County, Iowa, community profile, 13992
- Hancock County, Miss., community profile, 16263
- Hancock County, Ohio, community profile, 13993
- Hancock County, Tenn., appraisal of potentials for outdoor recreational development, 9124
- Hand, J. E., Humboldt Bay environmental radiation survey, 9374
- Hand County, S. Dak., community profile, 13994
- Hand tools, Federal item identification guides for supply cataloging, supplements, 2591
- Handbooks, see names of departments, etc., issuing handbooks—also subjects.
- Handicapped:
children—
better education—
1968 annual report, 575
1969 annual report, 14275
program, 16389
breakthrough in early education, 4049
education, personnel preparation, guide lines for obtaining grants by State agencies manual, universities, etc., 16402-404
education, scholarship program, summer 1970, 1970-71 academic year, 7025
dependents of members of uniformed services, benefits, 14558
disadvantaged and handicapped, career opportunities in service to, HEW sponsored, 4050
education—
extend programs, elementary and secondary education act, amendments of 1969—
law, 6549
reports, 3932, 6646
new and expanded programs, supplement, 4059
employment, individual must seek to find (remarks), 10512
how Federal agencies have served, 10508
independence through assimilation in society (remarks), 11831
National Center on Educational Media and Materials for the Handicapped, policies and procedures, 16397
national effort for physically handicapped, report of President's Task Force on Physically Handicapped, 17219
outstanding handicapped award nominees, coordinator's scorecard, 15687

INDEX 1970

- Handicapped—Continued
 performance (periodical), 3015
 physically, accessibility of public build-
 ings and facilities, insure—
 hearings, 3892
 law, 6537
 reports, 1544, 3940
 physically, selective placement in Federal
 civil service employment, 15689
 programs for the handicapped (periodical),
 3101
 publications, price list, 6132
 rural, developing programs, 15444
 transportation for, selected references, list,
 4775
 travel barriers, 11918
 untold wealth of nations, untapped man-
 power (remarks), 10513
 Wagner-O'Day Act, amend, hearings,
 13752
 workers legislation, 1970, hearings, 13752
see also Disabled.
- Handicapped Children, National Advisory
 Committee on, *see* National Advisory Com-
 mittee on Handicapped Children.
- Handling equipment:
 aeronautical and space systems, require-
 ments, 5982
 agricultural handling and processing in-
 dustries, evaluation of overtime exemp-
 tions available under Fair labor stand-
 ards act, data, 9263
 aircraft, ground, Federal item identifica-
 tion guides for supply cataloging, sup-
 plements, 2598
 Federal item identification guides for
 supply cataloging, supplements, 2590
 grain-feed handling centers, farm building
 plan, 9309
 Handling qualities, *see* Controllability.
- Hangebrauck, R. P., sources of polynuclear
 hydrocarbons in atmosphere, 17015
- Hanna, M. G., Jr., inhalation carcinogenesis,
 9375
- Hanover, N. H., aircraft accident report,
 10477
- Hansen, Donald V., correlation of movements
 in western north Atlantic, 11272
- Hansen, Edward A., relation of snowpack
 accumulation to red pine stocking, 5495
- Hansen, Richard N., Army digest, 2347
- Hansen, Susan P., basic data on economy of
 Uganda, 12060
- Hanson, Morgan P., static and dynamic
 fatigue behavior of glass filament-wound
 pressure vessels at ambient and cryogenic
 temperatures, 12794
- Hanson County, S. Dak., community profile,
 13995
- Happ, W. W.:
 design evaluation of distributed saturation
 characteristics in integrated devices,
 14858
 model for distributed saturation character-
 istics in integrated devices, 14857
- Harbors:
 facilities, Naval Facilities Engineering
 Command, design manual, changes, 7664
 Ohio River small boat harbors, ramps,
 landings, etc., 16439
 waterborne commerce, 1968 calendar year,
 8552-54
see also names of harbors or places where
 located.
- Hard of hearing, *see* Deaf.
- Hardening, substructural hardening and gas
 extrusion of metals, USSR study, 18104
- Hardin, Clifford M.:
 addresses, etc.
 Nov. 10, 1969, 43
 Dec. 8, 1969, 3390
 Jan. 25, 1970, 7940
 Feb. 12, 1970, 7911
 June 22, 1970, 12973
- Hardin, Jay C., effects of temperature-profile
 variation on refraction of sound by jet
 flow, 10405
- Hardin County, Iowa, community profile,
 13996
- Hardin County, Ohio, community profile,
 13997
- Hardin County, Tenn., appraisal of potentials
 for outdoor recreational development,
 15184
- Harding County, S. Dak., community profile,
 13998
- Hardt, William F., Mojave River basin
 ground-water recharge, etc., 7241
- Hardware:
 Federal item identification guides for sup-
 ply cataloging, supplements, 2596
 miscellaneous, Federal item identification
 guide, 17740
 semiconductor devices and associated hard-
 ware, Federal item identification guide,
 16137
- Hardwick, William R., fracturing hard rock
 with nuclear explosives and extraction of
 ore by modified block-caving method, 10329
- Hardwoods:
 diameter growth of individual hardwood
 trees, 5513
 distribution maps for the south, 4214
 Lake States, picloram in spaced stem in-
 jections to control, 16561
 mosaic-parquet hardwood slat flooring,
 voluntary product standard, 14930
 northern—
 even-aged, estimates of energy utiliza-
 tion, 12557
 forests, unbalanced even-aged, cutting
 strategies and timber yields, 12563
 hardwoods in Northeast, silvicultural
 guide, 5512
 stands, is cull overestimated? 16564
 plywood, current industrial reports, 4938
 southern—
 hardwood forests, identifying juvenile
 seedlings, 14480
 hardwood stands, tree-character rela-
 tions, 11358
 stands in W. Va., 20 years of intensive
 uneven-aged management and effects,
 12564
 upland—
 northern Mississippi, hydrologic effects
 of prescribed burning and deadening,
 11366
 stands of southern Illinois, relation of
 crown width to tree diameter, 16566
 young northern, thinning, 5-year results,
 697
- Hardy, Albert V.:
 Cape Hatteras National Seashore, N.C.,
 climatic summaries of resort areas, 1816
 climate of North Carolina, 11264
- Hardy, Edward P., Jr., Health and Safety
 Laboratory fallout program, quarterly
 summary report, 1252, 6377, 9392, 13071
- Hare, R. C., introgression with shortleaf pine
 may explain rust resistance in western
 loblolly pine, 687
- Harellp, U.S. facilities providing cleft lip
 services, National Institute of Dental Re-
 search directory, supplement, 6039
- Hares, *see* Rabbits.
- Harkin, James C., tumors of peripheral ner-
 vous system, 8455
- Harkin, John M., uses for sawdust, shavings,
 and waste chips, 5490
- Harlan, Ky.:
 flood plain information, 1805
 floods, how to avoid damage, 1811
- Harlan County, Nebr., community profile,
 17791
- Harmon, Lowell T., artificial heart program
 in applied health R/D, 7598
- Harmon, Hubert R., memorial lectures in
 military history (series), 13009
- Harmon Foundation, Negro art, select pic-
 ture list, 18231

- Harness, Vernon L., cotton in Central America, 14424
- Harnett County, N.C., community profile, 13999
- Harper, B. E., LMFBR liquid metal fast breeder reactor, follow-on study, conceptual design report, plant safety analyses, 4879
- Harper, William B.:
carbon black, 8895
natural gas, 4472
natural gas liquids, 864
- Harper County, Okla., Paint Creek watershed work plan, 15250
- Harpers Ferry National Historical Park, Virginian Island, social and economic history, 6062
- Harpisquilla, *see* Crustaceans.
- Harpole, George B.:
opportunities for marketing Hawaii timber products, 8714
wood products in Hawaii, consumption, production, and trade, 4191
- Harpisichords:
and clavichords, 4574
Italian, building in 16th and 17th centuries, 10465
- Harre, Edwin A., fertilizer trends, 15350
- Harrel, Clell G., economic analysis of proposed reconstruction of jetties 1 through 6 at Port of Chittagong, East Pakistan, final report, 6264
- Harrell, William A., Brazilian education system, summary, 17907
- Harris, A. S., ripening and dispersal of bumper western hemlock, sitka spruce seed crop in southeast Alaska, 5500
- Harris, Alfred R., direct reading frost gage is reliable, inexpensive, 12553
- Harris, C. M., market quality and precooling rates of strawberries packed in various containers, 27
- Harris, F. L., engineering and economic evaluation study of reverse osmosis, 7304
- Harris, J. Donald:
efficient monaural procedure for psychoacoustic calibration of earphones, 5845
hearing loss in decompression, 14765
sensory behavior of naval personnel monaural/binaural minimum audible angle of auditory response, 12731
some comparison between visual and auditory neurophysiology, 8889
tentative audiometric hearing threshold level standards from 8 through 18 kilohertz, 10315
- Harris, K. F., catalog of information on water data, index to water quality stations, 7227-28
- Harris, M. Y., probabilistic analysis of interactions of periodically pulsing signal and periodically gated receiver, 2178
- Harris, Margaret E., reduction of air pollution from gas burner flames, and related reaction kinetics, 10319
- Harris, Martin S., binaural interaction and laterality comparison of cortical evoked potentials produced by clicks and tone pip stimuli, 8892
- Harris, Miles F., monthly weather review, 2913
- Harris, Ray H., direct reading frost gage is reliable, inexpensive, 16559
- Harris, Wilber, relief, 13270, 13588
- Harrisburg, Pa., census of transportation, 1967, commodity transportation survey, production, area series, 6422
- Harrison, R. W., compatibility of columbium base alloys with lithium fluoride, 7515
- Harrison, Ark.:
Crooked Creek and tributaries, flood plain information, 8539
floods, how to avoid damage, 8546
- Harrison County, Iowa, community profile, 14000
- Harrison County, Miss., community profile, 16264
- Harrison County, Mo., community profile, 16265
- Harrison County, Ohio, community profile, 14001
- Harry S. Truman Dam and Reservoir:
name,
law, 10927
report, 9850
- Harry S. Truman Library, for all the people (film), 14905
- Hart, Annie L., child care services provided by hospitals, 11940
- Hart, Elizabeth F., I & N reporter, 2724
- Hart, Marice C.:
automatic adjustment of earnings base under OASDHI, 6166
social security benefit formula, 6165
- Hart Mountain National Antelope Refuge, designate certain lands as wilderness, report, 1668
- Harter, H. Leon:
order statistics and their use in testing and estimation—
estimates based on order statistics of samples from various populations, 9341
tests based on range and studentized range of samples from normal population, 9340
- Hartford, Conn.:
air quality control region, Federal facilities, air pollution report, 11712
Bradley International (Windsor Locks) Airport, climatological summaries, 2256
census of transportation, 1967, commodity transportation survey, production, area series, 6418
elementary program in compensatory education—
intensive reading instructional teams, 11215
Project Concern, 11217
- Hartford County, Conn., community profile, 6920
- Hartman Shoe Manufacturing Co., Haverhill, Mass., women's and misses' dress shoes with leather, vinyl, or fabric uppers, Tariff Commission report, 10642
- Hartmen, Edwin P., adventures in research, 1940-65, history, 16953
- Hartwell Dam, Ga., instruments installed for measuring pore pressure in concrete investigation, 10018
- Harvest Festival, designate, law, 307
- Harvey, J. L., tire use survey, physical condition, use, and performance of passenger car tires in United States, 10437
- Harvey, William D., fluctuating properties of turbulent boundary layers for Mach numbers, 910
- Hasbrook, A. Howard, pilot heart rate during in-flight simulated instrument approaches in general aviation aircraft, 13089
- Hasche, Max R., relief, 9805
- Hashemite Kingdom of Jordan, *see* Jordan.
- Haskins, Gale L., MAC Flyer, 2858
- Hassler, Thomas J., biology of northern pike on Oahe Reservoir, 1959-65, 7792
- Hatakeyama, Lawrence F., equations for study of roll-out clamshell ejection concept for spinning rocket vehicles, 11658
- Hatch, Charles E., Jr.:
Reef Bay ("Par Force") Estate House and Sugar Factory, 17160
Thomas Pate House and lot 42 in Yorktown, Colonial National Historical Park, Yorktown, Va., 12875
- Hatch, L. P., scale control in high temperature distillation utilizing fluidized bed heat exchangers, 18068

INDEX 1970

- Hatch, Norman L., jr., Russell Mountain formation, new stratigraphic unit in western Massachusetts, 16610
- Hatch experiment station act, *see* Agricultural experiment stations
- Hatch political activities act, *see* Politics
- Hatcheries, *see* Chickens—Fish and fisheries—Poultry—Trout—Turkeys
- Hatfield, Dale N., basis and application of simulation model for oceanographic data transmission system using HF radio, 14350
- Hats, *see* Headgear
- Hause, L. C., UHF radio propagation data for low antenna heights, 4091, 5390
- Hauser, Rita E., statement, Nov. 11, 1969, 2241
- Hausman, Leonard J., potential for work among welfare parents, 2017
- Hauth, Leland D., floods in Gravois Creek basin, St. Louis County, Mo., 7237
- Havasu National Wildlife Refuge, Ariz.-Calif., birds, list, 9179
- Haver, F. P., recovery of lead and sulfur from galena concentrate using ferric sulfate leach, 7484
- Haverhill, Mass.:
area wage survey, 16848
census of transportation, 1967, commodity transportation survey, production, area series, 6417
- Haverland, M. L., shear and sliding resistance tests of rock joints for Forebay Dam, Grand Coulee 3d powerplant project, 15145
- Haviland, Virginia:
children & poetry, selective, annotated bibliography, 824
children's books, 1969, list of books for preschool through junior high school age, 7439
- Hawaii:
albacore of Hawaiian waters, *Thunnus alalunga*, 12070
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 3531
retail trade, merchandise line sales, 10786
census of construction industries, 1967, statistics, 17486
census of governments, 1967, State report, 3561
census of manufactures, 1967 statistics, 17499
climatological data, 2409
coast pilot, supplement, 6490
conservation ranching, good grass and water, the key, 10557
counties, estimates of population, July 1, 1967 and 1968, 4946
county business patterns, 3614, 12023
direct seeding of brushbox, lemon-gum eucalyptus, and cluster pine, 4192
fisheries, annual summary, 10885
geology of Midway area, Hawaiian Islands (series), 5561, 16621
glimpses of soil and water conservation, 9137
investigation of floods in Hawaii, progress report, 10169
military personnel of U.S. Army ordered to helpful hints, DA pamphlet, 98
mineral industry, minerals yearbook chapter, 4429, 18153
nautical chart catalog, 9485
precipitation data, hourly, 2718
principal electric facilities, map, 8629
skipjack tuna, *Katsuwonus pelamis*, distribution of fishing effort and catches in Hawaiian waters, 15751
soils, what they can do for you, 9184
sublittoral gammaridea (amphipoda), 7736
tide tables, high and low water predictions, 9483
- Hawaii—Continued
timber products, opportunities for marketing, 8714
tropical numerical weather predictions, status report, 1831
volcano observatory, summary, 2706
waterborne commerce, 1968 calendar year, 8554
wood products, consumption, production, and trade, 4191
- Hawaii County, Hawaii, community profile, 6921
- Hawaii Development Irradiator program, annual report, 3490
- Hawaiian Islands, *see* Hawaii
- Hawaiian Volcano Observatory, summary, 2706
- Hawikuh, historical background study, 7638
- Hawkes, Terence, analysis of social security numbers in SMI actuarial sample, 4668
- Hawks, conservation, Arizona, 15198
- Hawthorne, J. Russell, trends in Charpy-V shelf energy degradation and yield strength increase of neutron-embrittled pressure vessel steels, 6110
- Hawthorne Nevada Airlines, accident report, 7654
- Hay, C. J., carpenterworm, 16542
- Hay, Carolyn R., mobility of population of U.S., 1326
- Hay:
feed statistics, 1969 supplement, 44
shed for drying hay, farm building plan, 9310
wagon box for drying, farm building plan, 7928
- Hayden, Carl, tribute, 6786
- Hayes, Jack, food for us all, yearbook of agriculture, 18
- Hayes, Philip T.:
Cretaceous paleogeography of southeastern Arizona and adjacent areas, 16618
mesozoic stratigraphy of Mule and Huachuca Mountains, Ariz., 4252
- Hayes, Una, developmental approach to case-finding, with special reference to cerebral palsy, mental retardation, and mental disorders, 8885
- Hayes County, Nebr., community profile, 17792
- Haynes, George V., controllability of nonlinear systems with linearly occurring controls, 2064
- Haynsworth, Clement F., jr., nomination, report, 451
- Hays, George C., paper, June 17, 1969, 6341
- Hays, W. W., contribution to analysis of seismic data from cratering and contained events, 13078
- Hayward, Evans, photonuclear reactions, 17032
- Haywood, Maria R., aircraft noise and sonic boom, 4776
- Haywood County, N.C., community profile, 12446
- Hazardous substances:
chemical data guide for bulk shipment by water, 6485, 10854
child protection under Federal hazardous substances act, law, 3727
child resistant packaging, provide—
hearing, 13527
report, 9847
controlled dangerous substances—
act of 1969 report, 1684
comparison of bills to regulate, 15948
legislation to regulate, hearings, 13550
regulate, proposed legislation, materials, 15949
statements, 15950
summary of bill, 15953
Federal consumer safety legislation covering scope and adequacy, 11787

Hazardous substances—Continued

- Federal hazardous substances act, amend—
 - hearings, 3962, 13527
 - law, 3727
 - report, 9847
- Federal hazardous substances act, poison prevention law, general information, 11338
- fuel hazard in chaparral, experimental prescribed burn to reduce, 18021
- hazardous industrial chemicals and materials, symbols for packages and containers, military standard, 16152
- mailing articles which present hazard to postal employees or mail processing machines, restrict, report, 15850
- transportation by railroad of hazardous materials, prescribe rules, regulations, etc.—
 - hearings, 9756
 - reports, 10996, 13420
- transportation of dangerous articles, etc., Federal aviation regulations, 2573
- transportation of hazardous materials, provide proper precautions, hearing, 421
- transportation, regulations, revoke motor carrier operating authority for failure to comply, report, 1678
- Hazards:**
 - geologic, and public problems, conference proceedings, 5362
 - hazard-detecting instruments and apparatus, Federal item identification guide, 16129
 - hazardous electromagnetic fields, quantifying, practical considerations, 8987
 - meteoroid, discussion of modes of failure of humper-hull structures, 17007
 - microwave fields, quantifying, analysis, 8989
 - radiation health hazards and protection, FAA handbook, 7064
 - to people and animals from Bureau-constructed canals, open and closed conduit systems program, 9091
- Hazel, Joseph E., Atlantic Continental Shelf and slope of United States, ostracode zoogeography in southern Nova Scotia and northern Virginia faunal provinces, 10174
- Head on collision, 14965
- Head Start Project, *see* Children.
- Head to base transfer function characteristics of cylindrical tank partly filled with liquid, 12804
- Headaches, hope through research, health information, 6133
- Headgear:**
 - census of manufactures, 1967, industry statistics, 17516
 - Federal item identification guide, 6860
- Headley, Larry C., fluid flow in channels, capillaries and porous media under influence of electric field, 4481
- Headsets:**
 - monaural comparison of 2 circumaural earphones with standard audiometric earphone, 2045
 - psychoacoustic calibration of earphones—
 - differential sensitivity for alternate interaural loudness balancing, 5846
 - efficient monaural procedure, 5845
- Headstart, supplementary training work-study career development opportunity, 8104
- Headstart child development act, *see* Children.
- Headstart program, *see* Children.
- Headstones, *see* Tombstones.
- Healing art:**
 - healing arts practice act, District of Columbia 1928, amend—
 - hearings, 411
 - report, 385

Health:

- activities, calendar of national meetings, 2529
- administration of negotiated pension, health, and insurance plans, major collective bargaining agreements, 11529
- allied health manpower supply and requirements, 1950-80, 10197
- Allied health professions personnel training act amendments of 1970, reports, 13410, 13416
- allied health professions training amendments of 1970, hearings, 11044
- allied health professions, training of personnel, extend and improve program—
 - hearings, 9924
 - report, 13651
- applied, artificial heart program, R/D, 7598
- Armed Forces, health benefit program, review, hearings, 13495
- aspects of aging, hearings, 3947
- automated multiphasic health testing, bibliography, 14366
- benefits, Federal employees and retirees, enrollment charges, hearings, 8314
- California student health project, 5587
- care delivery system computer simulation model for evaluation purposes, 17046
- careers in health, 1059
- CDC veterinary public health notes, 2394
- Chicago student health project, summer 1968, 8772
- CHScene, notes from Community Health Service, 13248
- coal miners, improve working conditions—
 - hearings, 412
 - law, 1424
- Colorado student health project, 8773
- community health—
 - organized primary care and comprehensive services conceptual model, 9567
 - services, selected, funded under sec. 314(e) of Public Health Service act, directory, 12085
 - teaching, 2d conference on teaching, proceedings, 8767
- comprehensive health planning programs, extend and improve, hearings, 12279
- Comprehensive Health Services Program in Chicago, Ill., effectiveness and administration, GAO report, 1886
- comprehensive planning and services fact sheet, 8171
- continuing education in comprehensive health planning partnership for health, 1969 list of projects, 5017.
- current estimates from health interview survey, 1968, United States, 11755
- data—
 - Ivory Coast, 1241
 - Lebanon, 1240
- directory, 11416
- documents and committee reports, 10447, 18240
- emergency health series, 7268, 8774-76
- emergency services, selected bibliography, 7268
- environmental—
 - health engineering handbook, air pollution, 7958
 - health planning, identification of leaders, and their involvement in planning process, 7044
- environment health series—
 - air pollution, 8567
 - radiological health, 1054
- facilities—
 - construction and modernization, grants program, extend—
 - law, 13303
 - reports, 3939, 10989
 - veto, 12160
 - Hill-Burton program, 1947-69, progress report, 14568

INDEX 1970

Health—Continued

- family health survey, census use study, reports now available, announcement, 3609
- family planning for better health and happiness, 14588
- Federal coal mine health and safety act of 1969—
 - law, 1424
 - legislative history, 12269
 - respirable dust sampling requirements, 12742
- Federal employee health series, 1057
- Federal health benefit programs, administration, hearings, 15904
- Federal Health Programs Service, annual statistical summary, 8610
- Federal role in health, Apr. 1968–Apr. 1970, report of activities, report, 8372
- fluoridation, no better health investment, 8764
- general research support grant program, its objectives and how they are being met, 16656
- grant and award programs of National Institutes of Health, guide, 12859
- health and insurance plans for salaried employees, digest of 50 plans, 2023
- health and smoking, facts, 18242
- health aspects of pesticides, abstract bulletin, 2709
- health care, improving quality, national drug code directory, 8677
- health data publication series, 1240–41
- health facilities series, 11406–407, 14567
- health for better living, guide for extension workers and county 4-H health chairmen, 6310
- health information series, 1059, 2208, 4648, 6123–36, 7716–17, 10519–521, 15128–130, 17227–229, 18308–309
- health information system, 188
- health information system, census use study, reports now available, announcement, 3609
- health interview survey, estimation and sampling variance, 14934
- health manpower source book, 5576, 10197
- health manpower trends, facts, 4390
- health resources statistics, 12850
- Health services improvement act of 1970, report, 15980
- Health training improvement act of 1970—
 - hearings, 9924
 - report, 13651
- healthright programs, neighborhood health center, open door to health, 6987
- home health agencies participating in medicare program, 9110
- home health benefits under medicare, 11867
- human needs, national nutrition survey, hearings, 5278
- immune mechanisms in health and disease, research grants supported by National Heart and Lung Institute, 1940–69, review, 7600
- Indians—
 - community health representative, changing philosophy of Indian involvement, 8799
 - health program, Public Health Service, 1060
 - program 1955–70, 12599
 - Public Health Service program, report to the first Americans, 16658
 - services and facilities, appropriations, 1971, hearings, 8268
- information for international travel, 14950
- livestock and poultry, requirements governing interstate and international movements, 1191
- man's health and the environment, some research needs, 15010

Health—Continued

- migrant health services, amend and extend act—
 - hearings, 519
 - law, 6541
 - reports, 1522, 1686, 5137
- necessities of food, medical assistance, etc., study, authorization, report, 5239
- 1969 graduate education in comprehensive health planning, 5019
- OAA recipients in 1965, health conditions and health services, 11757
- occupational health and safety program, hearings, 5157
- occupational health survey of Chicago metropolitan area, 8559
- Occupational safety and health act—
 - hearings, 5157, 11140
 - report, 11014
- partnership for health news (periodical), 3009
- Philadelphia student health project, 5588
- professions—
 - assistance amendments of 1970, hearing, 16075
 - educational assistance program—
 - for Cuban refugees, student loans, repayment, deferment, and cancellation, guide, 7264
 - report, 18056
 - student loan program, career information, 5577
 - student loans, repayment, deferment, and cancellation, guide, 7263
- promote in building trades and construction industry in Federal and federally financed construction projects, legislative history, 1740
- public—
 - anatomy of East-West cooperation, exchange program with USSR, 969
 - code of Federal regulations, 7141
 - conference on records and statistics, proceedings, 12th annual meeting, 7583
 - facets, USSR study, 1997
 - nurses, number, educational preparation, etc., 5580
 - peaceful uses of nuclear explosives, symposium, proceedings, 1067, 7045
 - protect by amending narcotic, depressant, stimulant and hallucinogenic drug laws, report, 1684
 - protect by amending narcotics and drug laws, hearings, 13550
 - protection with respect to cigarette smoking, etc.—
 - hearing, 496
 - law, 8181
 - reports, 1652, 6614
 - public health bibliography series, 15131, 17230
 - public health monograph series, 1070
 - public health reports, 3107
 - State salary ranges of positions, 743, 11405
- traineeship program—
 - awards to individuals, general information, 1920
 - grants for short-term training, 5584
- Public health cigarette smoking act of 1969—
 - hearing, 496
 - law, 8181
 - reports, 1652, 6614
- public health schools, grants program, extend—
 - hearings, 426, 516
 - law, 6540
 - reports, 395, 1667, 5139
- Public Health Service—
 - act, amend—
 - hearings, 9924
 - reports, 13651, 15980
 - grants, etc., funds 1968—
 - formula, project grants and regional medical planning grants, etc., 7624

Health—Continued

Public Health Service—Continued
grants, etc., funds 1968—continued
training, traineeships, fellowships,
and research, 7623
grants, etc., funds, 1969—
research, 4570
training, construction, medical libraries,
summary tables, including research,
10459
radiation health hazards and protection,
FAA handbook, 7064
radiological health—
data and reports (periodical), 3126
handbook, 5383
programs, directory of personnel responsible,
5381, 15139
recent translations, selected list, 3132
regional health authorities, 1970, directory,
16657
regional medical programs, extend, and
improve, hearings, 5277
research facilities construction program,
Surgeon General's report, 5069
rurality, poverty, and health, medical
problems in rural areas, 14265
services—
comprehensive program, bibliography,
5329
District of Columbia, administration,
improvements—
hearing, 8388
report, 13671
handicapped dependents of members of
uniformed services, 14558
improvement act of 1970, hearings
12279
mothers and children, social security
benefits, 5840
new careers, National Center for Health
Services, Research and Development,
11753
research development program of National
Center for Health Services Research
and Development, policies and
guidelines for applicants, 1072, 10445
training grants, guidelines for applicants,
1077
ship repairing, regulations, 8860
shipbreaking regulations, 10289-90
smoking and health—
bibliographical bulletin (periodical),
3204
bibliography, 15131
smoking, health, and you, facts for teenagers,
13183
smoking tobacco, and health, chart book,
7590
sociological problems, grades 4-6, New
York State Education Department,
Albany, N.Y., 14946
Soviet public health—
and economics, 8834
5-year plan, 16734
reports, 7381
USSR periodical, translations, 3211
State agencies, drug abuse information,
education, and rehabilitation, programs,
supported by, 7609
State and areawide comprehensive health
planning agencies, directory, 15756
State center for health statistics, aid in
planning comprehensive health statistics,
1076
States and areawide comprehensive health
planning agencies, directory, 5018
statistics—
annotated bibliography, 17230
data evaluation and methods research,
10446, 14934
data from national health survey, 6013-
18, 7584-85, 10448, 11755, 14935-936,
17050
data from National Vital Statistics
System, 6017-18, 10449

Health—Continued

student health project of Greater New
York, 5589
traineeships for professional health personnel
under public health traineeship
program, 9024
USSR, public health, comments, 5803
draft of new law, 5796
draft of new legislation, 5753
voluntary health and welfare agencies,
fund-raising within Federal service,
manual, 2868
change, 3666
see also Medical care—Mental health.
Health Advisers Council, see Council of
Health Advisers.
Health aides, home health aide, community
resource, 5020
Health and Safety Laboratory:
AEC fallout program, quarterly summary
report, 1252, 6377, 9392, 13071
appendix, 1253, 6378, 9393, 13072
Health centers:
automated multiphasic health testing,
bibliography, 13466
building research, selected studies applicable
to design and construction of
health facilities, 11407
group medical practice facilities, 12602
group practice facilities, 1928
health insurance for aged, participating
health facilities, 11857
narcotic addiction treatment agencies, in
U.S., directory, 11776
neighborhood health center, healthright
program, open door to health, 6987
vision screening, 1057
Health, Education, and Welfare Department:
annual report, 10195
appropriations, 1970—
hearings, 1700, 5178
law, 314, 6536
proposal, hearings, 5142
reports, 1563, 1683, 3834, 5254, 6589
revisions, proposal, 3773
veto, 5073
veto message, 5077
appropriations, 1971—
hearings, 6692, 8271, 11021, 13708,
16036
law, 13335
reports, 9702, 12254, 13426, 13645,
15990
waiving points of order, report, 13429
Assistance providing financial support and
service to States, communities, organizations,
individuals, catalog, 737
instructions for updating, 16650
Audit Agency, journal, Footnote, 10196,
12594
comprehensive preschool education programs,
authorization, hearings, 11031
consumer newsletter, 2711
cost of clean air, report, print as Senate
document, report, 9824
emergency payments for schools in impacted
areas, 1970, law, 9602
environmental educational programs, establish,
reports, 15852, 16015
establishing cost allocation plans and
rates, guide for State government
agencies, 1917
food inspection role, need to reassess, GAO
report, 11377
HEW and title 6 of Civil rights act of
1964, organization, policies, and compliance
procedures development under
act, report, 4961
higher education institutions, obligations,
1969, fiscal year, 14561
mental retardation—
activities, 5572
grants awarded 1969, list, 7259
publications, list, 11404
press releases, 3061

INDEX 1970

- Health, Education, and Welfare Department—Continued
 program analysis series, 16652
 print as Senate document, report, 9825
 progress in prevention and control of air pollution, report, 9779
 research grants and contracts with non-profit institutions, guide for establishing indirect cost rates, 16651
 Secretary, nomination of Elliot L. Richardson, hearings, 11119
 State administered formula grant programs, catalog, 14559
 subsidized transportation for employees transferred to Parklawn Building in Rockville, Md., reports, 6625, 6649
 telephone directory, 5571, 14560
 Health Facilities Planning and Construction Service, publications, 16653
 Health Family Week, National, *see* National Family Health Week
 Health insurance:
 aged persons—
 amounts reimbursed—
 State and county, 4670
 State, lists, 9111-12
 directory of providers of service, hospitals, extended care facilities, etc., 4669
 participating health facilities, 11857
 participating home health agencies, 9110
 participating hospitals, list, 7748
 persons enrolled, 9109
 persons insured, July 1, 1968, list, etc., 9113
 assignment rates for claims submitted under supplementary medical insurance program, 11858
 Blue Cross and Blue Shield plans, 1968, enrollment and finances, 4673
 Blue Cross-Blue Shield, administration of Federal health benefit programs hearings, 15904
 Federal employees—
 and annuitants—
 biweekly Government contribution, increase—
 law, 15802
 reports, 15839, 16004
 premium charges, gradually increase Government's contribution, then assume total payment, hearings, 8314
 Federal personnel manual, supp., 2612
 health benefits, retired Federal employees health benefits, annual report, 1346
 for aged, number of hospital and extended care facility admissions by State, 18330
 Government-wide service benefit plan, Blue Cross and Blue Shield for Federal employees, needs improved administration, GAO report, 18032
 health insurance for the aged, 7748, 9109-9110
 health insurance statistics, current medicare survey report, CMS series, 6168, 7749
 how to claim benefits under medical insurance, 11865
 medicare—
 for people 65 and over, brief explanation, 6176, 12924
 home health benefits, 11867
 important facts about medical insurance benefits, 11862
 medical benefit disbursements by type, distribution of, 10551
 medical insurance—
 railroad retirement for beneficiaries, handbook, 10529
 sample, 7749
 under social security, handbook, 2224, 9120, 12925, 17283
 your health insurance, 6174, 7753
 Health insurance—Continued
 national health insurance, comparison of 5 proposals, 15170
 outpatient hospital, benefits, 4675, 11866
 private, benefit structure, 7751
 salaried employees, digest of 50 plans, 2023
 SMI actuarial sample, analysis of social security numbers, 4668
 social security rulings, 3206, 10554
 State and local government employees, full-time coverage, 17280
 statistics, HI series, 9111-13, 11857-858
 supplementary medical insurance program according to payment-record data, analysis, 7745
see also Medical care—Old-age, survivors, disability, and health insurance.
 Health Professions Education and Manpower Training Bureau, Division of Physician Manpower, continuing education program, 11410
 Health Program Systems Center, Tucson, Ariz.:
 annual report, 7293
 prototype Indian health information system, design summary, 8802
 Health service workers, physician support personnel, selected training programs, 11414
 Health Services and Mental Health Administration:
 appropriations, 1970—
 hearings, 1700
 reports, 1563, 1683, 3834
 appropriations, 1971, hearings, 11021
 grants-in-aid and other financial assistance programs administered, 18058
 need for improved practices for obtaining equitable contributions toward cost of constructing health facilities for Indians, GAO report, 12577
 public advisory committees, roster of members, 1921, 8777
 Health Services Laboratory annual report, 15515
 Health Services Research Development Program, National Center for Health Services Research and Development, policies and guidelines for applicants, 1072
 Heard, Louie P., cottontail rabbits, 6178
 Heard, Walter L., Jr., natural vibration and flutter of elastically supported corrugation-stiffened panels, 16987
 Heard, William R., distributions of fishes in fresh water of Katmai National Monument, Alaska, and their zoogeographical implications, 3717
 Hearing:
 audibility of impulsive sounds, study, 10361
 auditory sensitivity of goldfish within near acoustic field, 14766
 binaural interaction and laterality, comparison of cortical evoked potentials produced by clicks and tone pip stimuli, 8802
 exposure to intense low frequency tones, effects, 12733
 hearing loss, hope through research, 18309
 learning to talk, speech, hearing, and language problems in pre-school child, 6051
 levels of children by age and sex, United States, 6016
 loss in decompression, 14765
 relation to mental retardation, bibliography, 7449
 tentative audiometric hearing threshold level standards from 8 through 18 kilohertz, 10315
 underwater, in man, comparison of temporary threshold shifts induced by 3500 Hertz tones in air and underwater, 12732

Hearing—Continued

visual and auditory neurophysiology, comparisons between, 8889
zero hearing level for speech, determination for Navy, 2042
see also Deaf—Echolocation (physiology).

Hearing defects, *see* Deaf.

Hearing examiners, examination announcement, 12052

Hearle, Edward F. R., data uses in urban planning, 4930

Hearn, Chase P., predetection polarization diversity combiner, 14891

Hearn, George H.:
remarks—

Mar. 4-5, 1970, 7095

Mar. 13, 1970, 10053

May 20, 1970, 10058

Sept. 23, 1970, 16495

Oct. 16, 1970, 17979

Oct. 28, 1970, 17982

Nov. 4, 1970, 17983

Hearn, Jackson B., basic data on economy of Afghanistan, 17564

Heart:

blood supply of cardiac valves and locomotion in pinnipedia, USSR study, 7374

cardiac pacemaker, radioisotope powered, program, 10761

electrocardiography and cardiac monitoring abroad nuclear powered submarine on patrol, 16884

pilot rate during in-flight simulated instrument approaches in general aviation aircraft, 13089

see also Artificial heart.

Heart diseases:

cardiac replacement, medical, ethical, psychological and economic implications, 6025

Conduction Development Conference, proceedings, 17072

epidemiological investigation, Framingham study, tables, 974-976

regional medical programs, progress report, 1068

research, program, extend and improve—hearings, 5277, 8428, 12279
report, 12248

Heartwood, sugar maple, variation in density, 12554

Heat:

compact Co-60 heat source in space, design definition and safety evaluation study, final report, 6374

differential thermal and thermogravimetric analysis, report, 8803

high temperature combustion of coal seeded with potassium carbonate in MHD generation of electric power, 7485

low-temperature heat capacities and entropies at 298.15° K of goethite and pyrophyllite, 7492

opacity probability distribution functions for carbon monoxide at elevated temperatures, 5977

or force fields, study of application to sonic-boom minimization problem, 2116

Orbiting Astronomical Observatory thermal test program, 16961

precision measurement and calibration, 12843

process to make high-Btu gas from coal, 10337

resistant alloys, plastic fatigue properties, 17473

source technical report, spherical capsule technology program, 8014-15

sterilization and vacuum exposure effects on some low-density heat-shield materials, 7538

thermal analysis of high polymers, literature survey, 13814

Heat—Continued

thermal analysis of spacecraft, including all multiple reflections and shading among diffuse gray surfaces, method to attain greater accuracy, 12824

thermal-mechanical treatments on tensile strength of 19-9DL and 12R72HV austenitic stainless steels, effects, 10757

thermal-vacuum testing of high-temperature electrical components, 14817

see also Heat transfer—Insulation—Melting point—Temperature—Thermodynamics.

Heat detectors, spar aerospace hotspotter, equip tips, 10117

Heat exchangers, fluidized bed, utilized for scale control during high temperature distillation, 18068

Heat flux, *see* Heat transfer.

Heat of activation, activation energies for reactions of hydroxyl radicals with hydrogen and carbon monoxide, 7543

Heat of formation, oxides of rhenium, 881

Heat resistant steels, USSR, 18107

Heat shields:

ablation performance of charring ablators during atmospheric entry, simulation in ground-test facilities, 12788

aluminide-coated Ta-10W for heat-shield applications, 923

Apollo ablator thermal properties at super-orbital entry velocities, 16979

carbon-phenolic ablation material, experimental study, 16968

low-density heat-shield materials, effects of heat sterilization and vacuum exposure, 7538

non-charring heat shields and nose tips, coupled computer code for transient thermal response and ablation, 18183

Heat transfer:

and pressure over plate at Mach 8.0, two-dimensional sinusoidal waves effects, 14876

blunt lifting body at Mach 3.71, experimental distribution, 5935

convective rates, on large-angle conical bodies at hypersonic speeds, 925

distributions in deep cavities in hypersonic separated flow, experimental investigation, 16964

electron-electron scattering effects in low-temperature Lorenz numbers of dilute Pd-Ni alloys, 1032

exploratory measurements at Mach 10 on 7.5° total-angle cone downstream of region of air and helium transpiration cooling, 2100

forced convection boiling near inception in zero gravity, 4521

Fourier's law of heat conduction, modifications through use of simple collision model, 12814

gas-cooled reactor passage, observation of flow excursions, 5906

heat transfer to gas-solid suspension from externally heated tube, calculation procedure, 14775

high speed turbulent boundary layer with heat transfer and arbitrary pressure gradient—

compressibility transformation, general considerations, 18189

investigation, computer program manual, 18190

in 60° half-angle of convergence nozzle with various degrees of roughness, 12816

insulated liquid methane wing tanks for supersonic cruise aircraft, analytical investigation, 4531

large angle cones with short spikes flow field at Mach number of 9.6 investigation, 11643

Heat transfer—Continued
 measurements at Mach 8 on flat plate with deflected trailing-edge flap with effects of transition included, 14861
 peak and minimum pool boiling heat fluxes, interacting effects of gravity and size upon, 10352
 plane Poiseuille flow with stability, 17005
 radiant heat transfer properties of particle-seeded gases, theoretical calculations, 5897
 radiation heat transfer from cylindrical fin with base surface interaction, study, 12780
 rate and pressure measurements obtained during Apollo orbital entries, 18211
 sea level meteorological properties and heat exchange processes, trade wind zone oceanography pilot study, 15750
 stagnation point, during hypervelocity atmospheric entry, 5892
 stagnation-point solutions for inviscid radiating shock layers, 12791
 steady state, in two-dimensional porous media, analytical method, 11693
 thermal conductance at interface of solid and helium 2 (Kapitza conductance), 2138
 thermal conductance of rough, nominally flat surfaces in high vacuum, calculating, 4526
 thermal conductivity, 9th conference, 8012
 thermal conductivity of superconductors, 7978
 turbulent forced-convection, observed in near-critical fluids, penetration model explanation, 921
 VTE distillation process, experimental program to improve, 777
see also Thermodynamics.

Heat treatment:
 and bias light, effects on spectral response of cadmium sulfide thin film photovoltaic cells, 2088
 chrome plated steel and steel parts heat treated to 180,000 psi or over, grinding, military standard, 1777
see also Temper (metallurgy).

Heaters:
 immersion, M-67, liquid-fuel-fired, for corrugated cans, development, 1216
 vehicular compartment, coolant, engine, space, military standard, 555
see also Unit heaters—Water heaters.

Heath, Larman J., wellbore enlargement test of gas-storage well, 8910

Heating:
 except electric, special trade contractors, census of construction industry, 1967, statistics, 13124
 flight-heating simulation and its effect on load measurement, study of accuracy, 12784
 induction plasma heating, measurement of gas concentrations, etc., in binary plasma system, 5903
 laser heating of ionized helium, 12792
 no. 2 home heating oil, high cost hearings, 8379
 sensory behavior of naval personnel monaural/binaural minimum audible angle of auditory response, 12731
 thermal inclusion with dielectric heating created for rock fragmentation, 16914
 thermocapillary induced breakdown of falling liquid film, 4523
 turbulent, of plasma ions during development of electron-acoustic instability, 4870
see also Aerodynamic heating.

Heating apparatus and supplies:
 current industrial reports, 2475
 equipment, Federal item identification guides for supply cataloging, supplements, 2593

Heating apparatus and supplies—Continued
 heating apparatus, except electric, 1967 census of manufacturers, industry statistics, 15607
 Heating mechanics, *see* Mechanics (persons).
 Heaton, H.T. II, use of on-line computer in neutron time of flight measurements, 4555
 Heavy elements, *see* Chemical elements.
 Heavy ions, *see* Ions.
 Heavy minerals, *see* Minerals.
 Heavy water reactors, *see* Reactors (atomic).
 Hebert, Paul J., hemispheric circulation and anomaly patterns observed when tropical storms reach hurricane intensity, 608
 Hechel lena oyate kin nipi kte, 4295
 Heckman, Albert A., nomination, hearing, 13719.
 Hector Land Use Area, public land in public role, 16556
 Hedlund, Arnold:
 forest statistics for Delta and Ouachita regions of Arkansas, 14485
 forest statistics for southwest Arkansas counties, 706
 hardwood distribution maps for the South, 4214
 Hedman, E. R., mean annual runoff as related to channel geometry of selected streams in California, 16646
 Hee, Olman, review of mineral industries, 4483
 Heemstra, Raymond J., photographic calibration for emission spectrography using small computer, 18174
 Heesacker, Frank L., hitching up small school districts, 9988
 Hegyeli, Ruth J., Artificial Heart Program Conference, proceedings, 6024
 Heidelberg, Laurence J., effect of Reynolds number on overall performance of 8-inch radial bladed centrifugal compressor, 11645
 Heldman, William, jr., relief, 9637
 Heidmann, L. J., preemergent herbicides for preparing ponderosa pine planting sites in Southwest, 11354
 Heidmann, Marcus F., effect of steady velocities on dynamic response of liquid jet atomization, 2106
 Height growth and foliage color in Scotch pine provenance study in northern Michigan, 675
 Hein, R. A.:
 proceedings of 1970 ultralow temperature symposium, 18295
 proceedings of 3d symposium, 1969 spring superconducting symposia, 15066
 Heine, Walter, researches in optimal rendezvous, 7512
 Heinisch, R. P.:
 emittance measurement study, 10357
 experimental and analytical study of visual detection in spacecraft environment, 14812
 Heinrich, Kurt F. J., classical theory of quantitative electron probe microanalysis, 12847
 Helsterkamp, Charles, III, activities of U.S. Army Surgical Research Team, WRAIR, Vietnam, 4868
 Helena, Mont., objective minimum temperature forecasting, 1838
 Helicopters:
 certification and operations of scheduled air carriers with helicopters, Federal aviation regulations, 16474
 changes, 5405, 7062, 8597
 hingeless-rotor compound, investigation of level-flight and maneuvering characteristics, 4517
 moving-graph instrument display for landing approaches, evaluation, 18210
 organizational mechanic/repairman course, 4857

Helicopters—Continued

rotary blades, flapwise bending moments, simplified procedures for estimating, 890
rotors—

in forward flight, method for determining characteristic functions associated with aeroelastic instabilities, 11615
method for analyzing aeroelastic stability in forward flight, errata, 16932

Heliocentric coordinates of Ceres, Pallas, Juno, Vesta, 1928-2000, 9042

Heliports:

design guide, 4843

lighting for VFR, flight test and evaluation, 4112

Helium:

Ames M-50 helium tunnel, 8948

bibliography, 11577, 16896

compressibility data, for temperature range -5°C to 80°C and at pressures to 800 atmospheres, 5883

elastic pressure distortion of volumes of 1,000 atmosphere Burnett compressibility apparatus over temperature range 0° – 75°C , 7490

exploratory heat-transfer measurements at Mach 10 on 7.5° total angle-cone downstream of region of air and helium transpiration cooling, 2100

gaseous-helium requirements for discharge of liquid hydrogen from 1.52-meter-(5-ft-) diameter spherical tank, 5939

helium and carbon dioxide mixtures at -10° and -20°C and pressures to 1,000 PSIA, 12744

helium-nitrogen viscosity system from 133° to 740°K for pressures between 1 and 24° atmospheres, 11590

helium-oxygen saturation of excursion dive to simulated depth of 1100 ft. performance effects of increased ambient pressure, 8890

helium-3—

dilute solutions in superfluid helium-4 between 0.1 and 1.2k, viscosity measurements, 945

interaction of 42-MeV alpha particles with, 928

hypersonic flow over 15° semilapex cone in helium, angle of attack and bluntness effects on direction, intensity, etc., 14862

hypersonic helium flow, electron beam induced fluorescence in spectroscopic analysis, 18207

improved method and apparatus for analysis of impurities, 18171

ionized, laser heating, 12792

kinetic electron temperature measurement techniques, 12806

Redlich-Kwong fluid in 2-phase region, thermodynamic properties, 2055

space qualified He-Ne laser, research directed toward perfecting design, 16946

space qualified laser, design, 18186

speech unscrambled at depths of 800 and 1000 ft. evaluation of 3 methods, 8894

Helium isotopes, interface of solid and helium 2 thermal conductance (Kapitza conductance), 2138

Hell Hole Recreation Area, general information, 14448

Helle, John H., biological characteristics of intertidal and freshwater spawning pink salmon at Olsen Creek, Prince William Sound, Alaska, 10897

Helley, E. J., field measurement of initiation of large bed particle motion in Blue Creek near Klamath, Calif., 4243

Hellwig, Helmut, hydrogen spin exchange frequency shifts, 10436

Helmand River and Valley, Afghanistan hydrographic and sedimentation survey of Kajakai Reservoir, 16641

Helmet, prototype, Linco titanium system, comfort and stability ratings, 1219

Helminths, waterfowl (Anatidae), catalogue, 1133

Helpful hints for homemakers, publications, list, 17222

Hem, John D., study and interpretation of chemical characteristics of natural water, 14549

Hematite, refinement of crystal structure, 10324

Hemisphere, Northern:

climatology, cold regions, 4072

daily synoptic weather maps, 2482

selected level heights, temperatures and dew points, 10484

Hemisphere, Western:

action for progress (address), 1145

agricultural production excluding United States and Cuba revised 1960-68, preliminary, 1969, indices, 6996

agriculture situation, 1969 review and 1970 outlook, 8504

businesses, executive officers and managerial personnel, exempt from immigration numerical limitation—

law, 8184

report, 5135

dealing with Western Hemisphere affairs, reorganize and strengthen U.S. Government structure, hearing, 9911

international cooperation (address), 8140

mining and petroleum laws, summary, 16893

trade corporation income tax returns, data, 1962

Hemlock, western, bumper seed crop in southeast Alaska, ripening and dispersal, 5500

Hemminger (U.S.):

loan to Thailand, extension, agreement, 1148

Hemolytic disease of fetus and newborn due to RH isoimmunization, 5841

Hemorrhage, hemorrhagic insults, mathematical prognosis of outcomes for possible surgical intervention, USSR study, 16797

Henderson, Douglas, theory of liquids, 10228

Henderson, John W., area handbook for Indonesia, 13052

Henderson County, N.C., community profile, 12447

Henderson County, Tenn., appraisal of potentials for outdoor recreational development, 4679

Henle, John, rehabilitation of auto accident victims, 15360

Henn, John J., proposed processes for making rutile substitutes, 7460

Henre Operation, *see* Operation Henre (high energy neutron reactions experiment).

Henry, J. R., slamming of ships, critical review of current state of knowledge, 17265

Henry, Jack L., system $\text{Al}_2\text{Cs}-\text{Aln}-\text{Al}_2\text{O}_3$ powder forming and sintering behavior, phase identification, and refractory composition properties, 878

Henry County, Ala., community profile, 14002

Henry County, Iowa, community profile, 14003

Henry County, Mo., community profile, 16266

Henry County, Ohio, community profile, 14004

Henson, Mary F., annual mean income, lifetime income, and educational attainment of men in U.S., for selected years, 1956-68, 17538

Hepting, George H., southern cone rust, 14440

Herald of communications (USSR periodical), 2710

Herbert Hoover National Historic Site: general information, 4581

historical base map and ground study, 7639

P. T. Smith House historic structures report, historical data, 7643

- Herbicides :
 aquatic, data, supplement, 11
 design of herbicide sprayer for laboratory,
 7902
 premergent, for preparing ponderosa pine
 planting sites in Southwest, 11354
 soil applied, for vegetation control, eval-
 uation, 9094
 weeding woodland, Georgia, 7786
see also Pesticides—Phenoxy herbicides.
- Herbstreit, Jack W., relief, 17581, 17675
 Heredity, *see* Genetics.
 Heritage, *see* Tradition.
 Herkimer County, N.Y., community profile,
 14005
 Herman, Arthur, outlook for computer pro-
 cess control, manpower implications in
 process industries, 14730
 Herman, R. L., ten papers on oxytetracycline
 and fish, 2232
 Hermann, Frederick J., manual of carices of
 Rocky Mountains and Colorado basin,
 12977
 Heroin, President Nixon's anti-heroin action
 program (remarks), 9249
 Herons, in Washington, general information,
 15218
 Herr, William McD., characteristics of new
 borrowers obtaining farm ownership loans
 from Farmers Home Administration, 9971
 Herrick, Robert A., air pollution aspects of
 brass and bronze smelting and refining
 industry, 2134
 Herring, H. G., soil moisture trends under 3
 different cover conditions, 8696
 Herring, H. J., computer program to calculate
 incompressible laminar and turbulent
 boundary layer development, 7521
 Herring :
 brit herring along Maine's coast, 12072
 night lighting, old technique may have
 new possibilities, 10892
 Herrmann, C. R., application of requirement
 vs. capability analysis to estimating design
 reliability of solid rocket motors, 7511
 Hersch, Martin, optical study of sonic and
 supersonic jet penetration from flat plate
 into Mach 2 airstream, 12778
 Hertford County, N.C., community profile,
 14006
 Hervey, John G., our Constitution and Gov-
 ernment, Federal textbook on citizenship,
 4292
 Herz, Norman :
 gneissic and igneous rocks of quadrilatero
 ferrifero, Minas Gerais, Brazil, 14537
 rutile and ilmenite placer deposits, Rose-
 land district, Nelson and Amherst
 Counties, Va., 5544
 Herzberg, Mendel, proceedings of 1st United-
 States-Japan conference on toxic micro-
 organisms, mycotoxins, botulism, 18065
 Heslin, Thomas M. :
 effect of various gases on thermionic emis-
 sion of tantalum wire filaments, 12807
 phenomenological and statistical analysis
 of fracture in polycrystalline aluminum
 oxide, 14851
 Hess, Robert W., experimental and analytical
 investigation of flutter of flat built-up
 panels under streamwise inplane load, 8953
 Hester, Frank J., studies on continuous
 transmission frequency modulated sonar,
 13245
 Hester, Rupert, Hills' alternative to Naval
 decompression concepts, a critical review,
 16883
 Het Zuidoosten Van De U.S.A., 7882
 Hettinger County, N. Dak., community pro-
 file, 14007
 Heuristics, self-organization of cybernetic
 systems, USSR study, 16794
 Heuser, Robert L., natality statistics analy-
 sis, United States, 10449
 HEW, *see* Health, Education, and Welfare
 Department.
- Hewlett, Richard F., comparison of trian-
 gular, polygonal, and statistical method
 for computing grade and tonnage of ore of
 Silver Bell Oxide porphyry copper de-
 posit, 5873
 Hexadecane, cetane improvers in fuel, effect
 on nitrogen oxides concentration in diesel
 exhaust gas, 870
 Heyson, Harry H. :
 theoretical study of conditions limiting
 V/STOL testing in wind tunnels with
 solid floor, 11664
 theoretical study of use of variable
 geometry in design of minimal-correc-
 tion V/STOL wind tunnels, 948
 Hickel, Walter J. :
 addresses, etc.—
 Oct. 16, 1969, 7303
 Jan. 21, 1970, 4296
 Sept. 10, 1970, 16694
 Hickey, K. B., effect of stress level on creep
 and creep recovery of lean mass concrete,
 9089
 Hickey, Michael E., glass fiber reinforced
 polyester lining, 18320
 Hickman, Kenneth, effects of surface prop-
 erties of water on evaporation and con-
 densation, 18072
 Hickman, Kenneth E., analytical and ex-
 perimental investigation of high entrain-
 ment jet pumps, 14820
 Hickory :
 for charcoal and fuel, 8718
 hickory task force report, 8718
 Hickory County, Mo., community profile,
 16267
 Hicks, Joan L., relief, 17687
 Hida, Thomas S., surface tuna schools
 located & fished in equatorial eastern
 Pacific, 10891
 Hidalgo, Orlando C., testimony, hearings,
 6809
 Hides and skins, *see* Leather, hides, and
 skins.
 Hiemstra, Stephen, J., food consumption
 prices, expenditures, supplement, 4040
 Higer, Aaron L., sources of pesticides in
 Florida waters, 16625
 Higgins, E. Arnold, blood alcohol concen-
 trations as affected by combinations of
 alcoholic beverage dosages and altitudes,
 11981
 Higgins Lake, recreational area, Mich.,
 climatic summaries of resort areas, 7047
 High, William L. :
 progress report on development of shrimp
 trawl to separate shrimp from fish and
 bottom-dwelling animals, 5007
 recent innovations for trawl net reels,
 9524
 High contrast cathode ray tube engineering
 report, 14819
 High energy physics, *see* Atomic energy.
 High Energy Physics Advisory Panel, high
 energy physics, report, 135
 High School News Service, report (periodi-
 cal), 2712
 High school students, *see* Students.
 High schools :
 books related to English language and
 literature in bibliography, 8511
 child care and guidance, suggested post
 high school curriculum, 11202
 community development program, build our
 American communities, 11280
 distributive education in high school, sug-
 gested guide for administrators and
 teachers, of distribution and marketing,
 8514
 elementary and secondary schools, science
 and mathematics books, 11241
 graduates, Presidential scholars, 10511
 liaison teacher program, Milwaukee, Wis.,
 14287
 public schools, secondary education, fall
 1969, statistics, advance report, 7011

High schools—Continued

- public secondary schools, in selected district, enrollment and staff by racial/ethnic group, directory, 14562
- radiation sources in secondary schools, report of limited survey, 5380
- SDS plans, report, 1587
- secondary schools, program for students to study cultural heritage of major ethnic groups in nation, establish, hearings, 11032
- social studies, books, bibliography, 576
- Students for Democratic Society—
 - Akron, Ohio, Detroit, Mich., and Pittsburgh, Pa., hearing, 6716
 - Columbus, Ohio, hearings, 6716
- teachers of science and mathematics, NSF programs, summer institutes, in-service institutes, etc., 18273
- teaching conservation, outline, 3417
- they don't have to drop out, 7027
- see also* Education—Junior high schools—Schools—Secondary education.
- High speed ground transportation, *see* Railroads—Transportation.
- High Speed Ground Transportation Office, published reports, list, 7864
- High temperature materials, *see* Materials—Refractory materials.
- Higher education, *see* Colleges and universities.
- Highland, Henry A., bibliography of insect-resistant packaging, 12960
- Highland County, Ohio, community profile, 14008
- Highland Hills Scenic Drive, general information, 16548
- Highland Rim, areas of Alabama and Tennessee, soil survey interpretations for woodlands, 7779
- Highlands County, Fla., phosphate interests, sell to record owners of surface, report, 5106
- Higley, T. L., natural decay resistance of 30 Peruvian woods, 18024
- Highlights of U.S. export and import trade, 2673
- Highway construction, *see* Roads and highways.
- Highway engineering, *see* Roads and highways.
- Highway machinery, *see* Road machinery.
- Highway railroad crossings, *see* Railroad crossings.
- Highway safety, *see* Safety of life.
- Highways, *see* Roads and highways.
- Hijacking, *see* Air piracy.
- Hikes, daylong hikes in Trinity Alps, guide, 16554
- Hildner, E. G., note on noise factor measurement, 1840
- Hilleman, Douglas H., mineral industry of Utah, 4465
- Hill, George R., Project Western Coal, conversion of coal into liquids, 13207
- Hill, Gerald F.:
 - external proton beam characteristics of NASA Space Radiation Effects Laboratory synchrocyclotron, 5921
 - large-area proton beams established at NASA Space Radiation Effect Laboratory in energy range from 31 to 225 MeV, 5920
- Hill, Richard M., profit by your wholesalers' services, 11848
- Hill-Burton program:
 - health facilities series, 11406-407, 14567
 - hospitals and related health facilities, representative construction costs, 7260
 - progress report, 1947-69, 14568
 - publications, 16653
 - State plan data, health facilities, national summary, Jan. 1, 1968, 11406
- Hill City quadrangle, S. Dak., geology, preliminary report, 726
- Hill method, *see* Perturbation theory.

- Hillard, Mervin E., jr., spectroscopic analysis of electron-beam-induced fluorescence in hypersonic helium flow, 18207
- Hills, Tae P., relief, 12175, 13292, 13615
- Hills, alternative to Naval decompression concepts, a critical review, 16883
- Hillsborough County, Fla., soil survey report, 9161
- Hilpert, Lowell S., uranium resources of northwestern New Mexico, 728
- Hiltten, John S., accelerometer calibration with earth's field dynamic calibrator, 6010
- Hindi language, active introduction, 11898
- Hinds, Jim S., elemental sulfur in Eddy County, N. Mex., 11392
- Hinds, Russell H., jr., transporting fresh fruits and vegetables overseas, interim report, 9278
- Hinds County, Miss., community profile, 16268
- Hinges, Federal item identification guide, 9952
- Hinkle, John E., private funds for mental health, annotated list of foundations, and other private granting agencies which support research, training or services in mental health and related disciplines, 1066
- Hinsch, Robert T., feasibility of shipping California table grapes in fiberboard and polystyrene foam boxes and in polyethylene mesh bags, 15437
- Hinson, William F., experimental investigation of multiple-jet liquid injection into hypersonic flow, 11685
- Hip, Wu, *see* Wu Hip.
- Hired farm working force of 1969, statistical report, 8497
- Hiring practices, *see* Employment.
- Hirsch, Hans G., grain price formation and grain price reporting in Italy, 12495
- Historians, employment outlook, 12689
- Historic American Buildings Survey:
 - catalog, buildings, District of Columbia, 12867
 - records, buildings—
 - Charleston and South Carolina low country, 12872
 - Maryland, 12873
 - selections, 14420, 15028-29
 - subjects, checklist, 12863
- Historic Preservation, Advisory Council on, *see* Advisory Council on Historic Preservation.
- Historic sites:
 - American Revolution Bicentennial Commission, report from Secretary of Interior, 16695
 - Charleston and South Carolina low country, records, 12872
 - checklist of subjects, 12863
 - District of Columbia, catalog, 12867
 - furnished historic houses in U.S., list, 17156
 - Georgetown architecture, 15029
 - northwest area, 14420
 - Georgetown commercial architecture, 15028
 - historic preservation program, 14574
 - landmarks, areas administered by National Park Service, 17153
 - landmarks, downtown urban renewal area, Washington, D.C., 18239
 - Maryland, records, 12873
 - National historic preservation act amendments—
 - hearing, 5162
 - law, 9607
 - reports, 6612, 8363
 - national register of historic places, 2164
 - advisory list, 9026
 - preservation program—
 - amend act, hearing, 5162
 - extend—
 - law, 9607
 - reports, 6612, 8363
 - see also* names of historic sites.

- Historic structures report (series), 2153, 2157, 4582, 4587, 12870, 15030
- Historical chart book, 1970, Board of Governors of Federal Reserve System, 17992
- History :
- Afro-American studies, fellowships, 967
 - American, publications, price list, 1046
 - archeological, historical, and cultural properties, recovery of stolen objects, agreement with Mexico, 15972
 - FBI laboratory, brief outline of history, etc., 632
 - historical handbook series, 997
 - living history in National Park System, 15033
 - Smithsonian journal of history (periodical), 3202
 - Smithsonian studies in history and technology, 4666-67, 7737
 - understanding America, survey of National Endowment for the Humanities support for studies, 4557
- see also* Military history—Natural history—Naval history—Records—*also* names of departments, etc.—*also* subjects.
- History and Geography, Pan American Institute of, *see* Pan American Institute of Geography and History.
- History and Technology Museum :
catalog of meteorological instruments, 4667
contributions, 10465
title page and contents, 11784
- Hitchcock County, Nebr. :
community profile, 17793
soil survey report, 9155
- Hitching up small school districts, 9988
- Hjornevik, Wesley L., nomination, hearing, 8433
- Hobart quadrangle, Wash., geology and coal resources, 5551
- Hobbs, Harold W., hydrologic data for experimental agricultural watersheds in U.S., 12996
- Hobbs, Horton H., jr., new entocytherid ostracods with key to genera of subfamily entocytherinae, 10547
- Hobbs, Robert G., mineral industry of Georgia, 4427
- Hoberg, Vernon L., relief, 13380, 17576
- Hochreiter, Frederick C. :
analysis of design characteristics of meteorological tower facility, 4762
analysis of visibility observation methods, 1836
- Hocking County, Ohio, community profile, 14009
- Hod carriers, employment outlook, 14698
- Hodges, Charles S., jr., nursery diseases of southern pines, 5487
- Hodgson, James D. :
addresses, etc.—
June 12, 1970, 12657
Sept. 29, 1970, 16823
nomination, hearing, 16078
- Hoehne, Walter E., final report, test and evaluation of mortarboard psychrometer, 1835
- Hoelker, R. F., survey of 2d class of orbits in earth-moon field, Xr-1.00, 2089
- Hoernschemeyer, D. L., research and development of new and improved cellulose ester membranes, 14595
- Hoffman, Charles A., effects of thermal loading on composites with constituents of differing thermal expansion, 14869
- Hoffman, E. E., Cb-12r Rankine system corrosion test loop, 11602
- Hoffman, Glenn L. :
control and treatment of parasitic diseases of freshwater fishes, 17315
parasites of freshwater fish, fungi, Saprolegnia and relatives of fish and fish eggs, 6206
- Hog cholera :
eradication, State-Federal cooperative program, 1969 progress report, 4803
stamping it out, 37
- Hogerton, John F., nuclear reactors, 9410
- Hogs, *see* Swine.
- Hohl, Frank, collective motions of one-dimensional self-gravitating system, 935
- Hokanson, Hilding L., soil survey of Lincoln County, Minn., 6194
- Hoke County, N.C., community profile, 14010
- Holcomb, Wade G., evaluation of prototype unit for telemetry of rectal temperatures, 8888
- Hold, William T., motor vehicle assigned risk plans, report, 15359
- Holders :
crystal, and crystal units, quartz, military standard, 8483
electrical contact brush, Federal item identification guide, 13787
- Holding companies, act of 1935, releases, SEC, 2715
see also Banks and banking—Public utilities.
- Holding patterns, 3448
- Hole distribution (mechanics) :
stress distribution around holes, 18226
- Holidays :
Federal, consideration, expenses, report, 5223
gift list for reader, 18304
1970 world holidays listed, guide for business travel, 5717
- Holko, Kenneth H., magnetic force upset welding of dissimilar thickness stainless-steel T-joints, 14866
- Holla Bend National Wildlife refuge, birds, list, 11886
- Holland, Alfred C., scattering of polarized light by polydisperse systems of irregular particles, 2083
- Holland, C. G., archeological survey of southwest Virginia, 10466
- Holland, F. Ross, jr., Hawikuh and Seven Cities of Cibola, historical background study, 7638
- Holland, John A., discussion of disseminated intravascular coagulation in decompression sickness, 5844
- Holland, *see* Netherlands.
- Holleman, Euclid C., flight investigation of roll requirements for transport airplanes in cruising flight, 16973
- Hollenbeck, Ronald P., mineral industry of Alabama, 855
- Holleran, Jane C., world survey of civil aviation, Canada, 10783
- Holliday, Charles, on maximum sustained winds occurring in Atlantic hurricanes, 1832
- Holliday, Reuben H., engineering survey and analysis of en route ATC radar/display system errors, 18374
- Holloman Air Force Base, N. Mex., strong surface wind gusts, climatological study, during March-May, 15475
- Holmes, E. H., address, Oct. 28, 1969, 7086
- Holmes County, Miss., community profile, 16269
- Holmes County, Ohio, community profile, 14011
- Holography, Fraunhofer, effect of object motion with application to velocity measurements, 918
- Holroyd, Samuel V., pharmacotherapeutics in dental practice, 2177
- Holstein cattle, *see* Cattle.
- Holt County, Mo., community profile, 16270
- Holt County, Nebr., community profile, 17794
- Holt (U.S.S.) :
loan to Korea, Republic, extension, agreement, 9205
- Holyoke, Mass., census of transportation, 1967, commodity transportation survey, production, area series, 6418

Homarus, *see* Lobsters.

Home Administration Committee, House, report, 3823

Home care, *see* Medical care.

Home economics:

family economics review, 2560

home and garden bulletins, 19-20, 1196, 3401-6, 4812-15, 6304-5, 9289-98, 10685-686, 11950-952, 12980-983, 15417-429, 17436-439

homemaker/home health aide, community resource, 5020

pesticide safety in your home, 9319

publications, price list, 17222

Home economists, employment outlook, 12683

Home loans, *see* Loans.

Home Owners Mortgage Loan Corporation, create, hearings, 11026

Home rule, District of Columbia, hearings, 12268

Homemakers, *see* Home economics.

Homemaking, *see* Home economics.

Homeowners, *see* Homes.

Homeownership, *see* Homes.

Homes:

all electric, annual bills, 646

cooling equipment, 9292

FHA insured mortgages—

area trends, 4138, 11304

State trends, 4141, 11308

FHA, insuring operations under sec. 203, 1968 data for States and selected areas, 8614

FHA regulations, amendments, mortgage insurance, 4139, 5421, 11305-306, 16491

FHA trends, characteristics of insured mortgages, 2642

fixing up your home, what to do and how to finance it, HUD, 274

grants & loans to rehabilitate homes in certified areas, 8782

home buying serviceman, 749, 16660

home health agencies participating in medicare program, 9110

home health benefits under medicare, 11867

home mortgage insurance, fiscal instructions, mortgagees' guide, 10204

home mortgage programs, FHA monthly report of operations, 2642

homeownership—

aspects of aging, hearings, 6781

for lower-income families, 5596, 8790

household ownership and purchases, of cars, homes and selected household durables, special report, 224

household ownership, 1970, 1969, and 1960, special report, 15853

improvement loans, one of HUD's roles, FHA program, 4282

low-cost wood homes, designs, house plans, 1876, 5481-85, 7184-89

mortgage debt, estimated quarterly, 2547

mortgage insurance—

FHA regulations, 8615

FHA system, general information, 10201

mortgagees' guide, assistance and interest reduction payments, 18060-61

naturalization candidates, Federal textbook on citizenship, home study course for helper, 16655

new one-family homes, contractor-built, 228

errata, 6456

no. 2 home heating oil, high cost, hearings, 8379

one-family, insured by FHA under sec. 221(d)(2), trends, 2641

plumbing system, planning, etc., 3399

school and home program, Flint, Mich., compensatory program in elementary education, 11218

shelters in new homes, 9461

tax deductions for homeowners, 5678

Homes—Continued

tax information on selling your home, 5688

when you return to storm damaged home, general instructions for reducing loss, etc., 16681

see also Houses—Housing.

Homes (institutions), *see* Nursing homes.

Homestead National Monument, Nebr., general information, 7641

Homestead National Monument of America: addition of Freeman School—

law, 15796

reports, 8361, 13459

Homework helper program, New York City, 5351

Homing guidance, Saturn launch vehicle's guidance system, description and performance, 12809

Homogeneous turbulence, *see* Turbulence.

Homoptera, *see* Scale insects.

Honduras:

economic trends and their implications for United States, 1970

meat imported into U.S., agreement, 15314

mineral industry, minerals yearbook chapter, 16901

ships registered under Honduran flag deemed by Navy Dept., under U.S. control, 3198

trade in beef, goat, mutton, agreement, 6239

Honey:

market news, monthly report, 2717

production, annual summary, 9210

Honey bees, *see* Bees.

Honeycomb structure, *see* Laminated materials.

Hong Kong:

economic trends and their implications for United States, 1974, 14622

expanding agricultural imports, projections, 9975

foreign trade relations, 6513

Honolulu County, Hawaii, community profile, 6922

Honors (military), *see* Military ceremonies, honors, and salutes.

Hood, James W., water resources and related geology of Dera Ismail Khan District, West Pakistan, with reference to availability of ground water for development, 10186

Hood River County, Oreg.:

relief—

law, 13341

reports, 5118, 12337

Hooke, William H., on role of vertical neutral-gas motions in producing ion convergence at E-region heights, 16460

Hooker, Michael, analysis of duration of prior-hospital stays for extended care facility cases, 11856

Hooker County, Nebr., community profile, 17795

Hoose, Clinton M., relief, 15832

Hoosier National Forest, general information, 14450

Hoover, Cynthia A., harpsichords and clavichords, 4574

Hoover, Herbert, human resources in Ozarks region, with emphasis on the poor, 9969

Hopedale, Labrador, Pinetree Radar Site, use of facilities, agreement, 10613

Hopi Indians:

economic advancement and general welfare, promote—

law, 10924

report, 8366

Hopi Industrial Park:

development and operation, authorize Hopi Tribal Council powers to manage—

law, 10924

report, 8366

Hopi Tribe, *see* Hopi Indians.

- Hopkins, Edward J.:
 charts for estimating boundary layer transition on flats plates, 11678
 direct measurements of turbulent skin friction on nonadiabatic flat plate at Mach number 6.5 and comparisons with 8 theories, 5966
- Hopkins, Herbert T., occurrence of fresh water in the Lee formation in parts of Elliott, Johnson, Lawrence, Magoffin, and Morgan Counties, eastern coal field region, Kentucky, 8759
- Hopkins Airport, Cleveland, Ohio, access study, survey results, 15362
- Hoppes, Ronald R., soil survey, Hitchcock County, Nebr., 9155
- Hops:
 foreign agriculture circulars, 2657
 stocks, 7846, 17369
- Hordeae, *see* Triticaceae.
- Horeff, Thomas G., propulsion fuel system fire safety, 17455
- Horizon, Johnny, *see* Johnny Horizon.
- Hormuth, Rudolf P., clinical programs for mentally retarded children, 10312
- Horn flies, *see* Flies.
- Hornor, Gustavus R. B., papers in Library of Congress, register, 10305
- Hornor, J. M., uplift resistance of straight auger and belled auger footings in sandy silt, Mead-Liberty transmission line, Pacific Northwest-Pacific Southwest Inter-tie, 9088
- Horns (radio), *see* Antenna horns.
- Horowitz, Carl, Synthesis of modified Loeb membranes by grafting, 10232
- Horowitz, Loucele, medical care prices fact sheet, 6171
- Horowitz, Morris A., learning tool and die maker trade, 10287
- Horse bots, *see* Flies.
- Horse shows:
 management guidelines, 11302
 sored horses shipped in commerce not to be shown—
 hearings, 498, 17649
 report, 1682
- Horseradish, commercial growing, 12987
- Horses:
 car/horse fatality, multidisciplinary accident investigation, 15004
 Horse protection act of 1969—
 hearing, 498
 report, 1682
 Horse protection act of 1970, hearing, 17649
 horse safety guidelines, 12520
 horse sense on backcountry pack trips, 7197
 reported arthropod-borne encephalidites, 3379
- Horseshoe Bend battle, Indian breastwork, size, location, and construction, 17155
- Horseshoe Bend National Military Park, Indian breastwork in battle, its size, location, and construction, 17155
- Horsewood, J. L., optimum solar electric interplanetary trajectory and performance data, 8923
- Horticulture, horticultural grade perlite, voluntary product standard, 11749
- Horton, C. W., sr., signal processing of underwater acoustic waves, 2184
- Horz, Friederich, small ballstic range for impact metamorphism studies, 8947
- Hose:
 Federal item identification guides, change, 12393
 for supply cataloging, supplements, 2593
 pipe and tube fittings, quick disconnect and self-sealing, Federal item identification guide, 13788
- Hospital administrators:
 employment outlook, 14671
 getting through, hurricane safety message to administrators of hospitals and other institutions, 8577
- Hospital attendance:
 employment outlook, 12671
 nursing assistant, examination announcement, amendment, 8115
- Hospital Insurance Trust Fund, *see* Board of Trustees of Federal Hospital Insurance Trust Fund.
- Hospitalization, *see* Hospitals—Veterans hospitals.
- Hospitalization insurance:
 actuarial cost estimates for hospital insurance program, 15167
 medicare—
 health insurance under social security, handbook, 2224, 9120, 17283
 hospital insurance benefits in extended care facility, 4676
 program, administration of Federal health benefit programs, hearings, 15904
 railroad retirement beneficiaries, handbook, 10529
 State and local government employees, full-time coverage, 17280
- Hospitals:
 audits in medical institutions reorganized, USSR study, 5757
 automated multiphasic health testing, bibliography, 14366
 bibliography, 16653
 child care services provided, 11940
 directory of medicare providers of services under health insurance for aged, 4669
 discharge, planning for, bibliography with abstracts and research reviews, 17047
 extended care facility cases, analysis of duration of hospital prior stays, 11856
 family in hospital, lessons from developing countries, 6045
 general, inpatient psychiatric services, 4564
 health facilities, Hill-Burton program, State plan data, national summary, Jan. 1, 1968, 11406
 health insurance for aged, number of hospital and extended care facility admissions by State, 18330
- Hill-Burton—
 hospitals and related health facilities, representative construction costs, 7260
 program, 1947-69 progress report, 14568
 hospital and health facilities construction and modernization, grants program, extend—
 law, 13303
 reports, 3939, 10989
 veto, 12160
 hospital and medical facilities, Hill-Burton program, projects approved for Federal aid, register, 1919
 hospital designs, quantitative methods for evaluating, 14933
 isolation techniques, 12854
 loan cancellation benefit for registered nurses, list of hospitals, handbook, 11412
 medical facilities construction and modernization amendments of 1970, veto, 12160
 medicare program, participating hospitals, list, 7748
 nonprofit mortgage insurance program, 16678
 nursing personnel in hospitals, 14570
 operating rooms, laminar flow ventilation, study of application, 1070
 outpatient hospital benefits, 4675, 11866
 outpatient psychiatric services, 1063
 packaged disaster hospitals, series 10000 mod B, component list and storage data, 8776
 participating under health insurance for aged, 11857

Hospitals—Continued

pharmaceutical communications in clinical environment, 17049
 population, staphylococcal carriage, throat vs. nasal carriage and persistence of carriage, 15503
 Public Health Service—
 closing in Detroit, Mich., and Savannah, Ga., hearings, 514
 pharmacy residencies, 16487
 short stay, inpatient utilization by diagnosis, 1965 statistics, 14936
 special departments and programs in field of family practice, grants to establish—
 hearings, 12375
 report, 13679
 they're ready to work in your hospital, nurses, nurse assistants, ward clerks, etc., 5815
 under Fair Labor standards act, 15385
 utilization and average daily costs for persons 65 and over by data under hospital insurance program and American Hospital Association, 15165
 when you enter, how does medicare help? 1102
see also Air Force hospitals—Veterans hospitals—also names of hospitals or places where located.
 Hotel housekeepers and assistants, employment outlook, 14726
 Hotel managers, *see* Managers.
 Hospitals:
 District of Columbia—
 liability to guests, revise laws, hearing, 9904
 offenses against, hearing, 9904
 occupations, employment outlook, 14726
 Houde, Edward D., rearing larval tunas in laboratory, 9528
 Hougen, Jon T., calculation of rotational energy levels and rotational line intensities in diatomic molecules, 11731
 Houghton, Frank E., Cloudercroft, N. Mex., climatic summaries of resort areas, 7048
 Houghton Lake, recreational area, Mich., climatic summaries of resort areas, 7047
 Hours of labor:
 Fair labor standards act—
 agricultural handling and processing industries evaluation of overtime exemptions available under act, data, 9263
 applicability to forestry or logging operations, 6279
 handy reference guide, 7896
 Government officials and employees, FPM supplement, 2614, 4971
 Government Printing Office, Public Printer to grant time off as compensation for certain employees, authorize—
 law, 15768
 reports, 10954, 13664
 hours of service act amendments of 1969, report, 1677
 output per man-hour—
 indexes, selected industries, 7425
 industry indexes, 18123
 overtime, questionable need for overtime at installations of Army, Navy and Air Force, GAO report, 1903
 railroad employees, reduce 16-hour maximum limitation for certain employees—
 hearings, 1706
 law, 1422
 report, 1677
 relationship between changes in wage rates and in hourly earnings, 16363
 union—
 building trades, 12716
 local-transit operating employees, 1969 and 1929-69 trend, 14738
 local truckdrivers and helpers, 12717
 errata, 14739
 printing industry, 816, 14740

House Administration Committee, House:
 calendar, 2804

1st progress report of Special Subcommittee on Electrical and Mechanical Office Equipment, 8302
 funds, provide, report, 1506
 hearing, 11147
 regulations, electrical and mechanical office equipment, 8303
 reports, 371, 380, 1502, 1504-6, 1526-27, 1529, 1533-34, 1539, 3822, 5108, 6621, 6651-67, 6687, 6689, 8233-41, 8248-50, 9696-9701, 10953-954, 12184, 12190-194, 13405, 13423, 13446-449, 15838
 House documents, 324-347, 1431-45, 3767-80, 5068-95, 6552-77, 8197-8226, 9613-34, 10940-947, 12158-163, 13352-375, 15819-830, 17614-617
 House files, *see* Files.
 House of Representatives:
 addresses and documents on Captive Nations Week movement, 1439
 appropriations, 1971, legislative—
 hearings, 6695
 law, 15773
 reports, 6685, 12351, 13440
 calendars and history of legislation, 2799
 candidates—
 campaign expenditures, special committee to investigate—
 appoint, report, 12197
 interim report, 15880
 use of television broadcast stations at reduced rates, provide, hearings, 1705
 delegation to—
 Mexico-United States Interparliamentary Group, conference reports, 9735, 17645
 12th meeting of Canada-Interparliamentary Group, report, 5111
 documents, 324-347, 1431-45, 3767-80, 5068-95, 6552-77, 8197-8226, 9613-34, 10940-947, 12158-163, 13352-375, 15819-830, 17614-617
 electrical and mechanical office equipment, regulations, 8303
 equipment for use in offices of members, officers, and committees, provide—
 law, 1404
 reports, 380, 1639
 Federal contested election act, revise—
 law, 1403
 reports, 371, 1640
 journals, 91st Cong., 1st sess., 15818
 Members—
 apportionment, report, 13427
 financial disclosure, amend House rules—
 hearing, 6725
 reports, 6647, 9674
 mileage, transfer payment from contingent fund, report, 6660
 public service broadcasting time, require licensees, hearings, 17694
 standards of official conduct, proposals, hearings, 6725
 nonvoting delegate—
 from District of Columbia—
 law, 17605
 reports, 13453-454, 13699
 Guam and Virgin Islands, hearings, 13524
 payment of compensation for committee employees, report, 5108
 Press Gallery, salary adjustment for certain employees, report, 1505
 Publications Distribution Service employees, additional compensation, report, 6661
 reports—
 private bills, 348-359, 1446, 3781-3803, 5096-5102, 6578-81, 9635-47, 12164-183, 13376-392, 15837-881, 17618-625

INDEX 1970

House of Representatives—Continued reports—continued

public bills, 360-395, 1447-1567, 3804-45, 5103-41, 6582-6691, 8227-64, 9468-722, 10948-11016, 12184-256, 13393-489, 15837-881, 17626-630
rules, amend, report, 12196
working group on automatic data processing, progress, report, 8302

House plants, *see* Plants.

House reports:

private bills, 348-359, 1446, 3781-3803, 5096-5102, 6578-81, 9635-47, 12164-183, 13376-392, 15837-881, 17618-625
public bills, 360-395, 1447-1567, 3804-45, 5103-41, 6582-6691, 8227-64, 9468-722, 10948-11016, 12184-256, 13393-489, 15837-881, 17626-630

House Restaurant, Select Committee on, House, hearing, 1584

House trailers, *see* Trailers.

House Where Lincoln Died:

designate as Ford's Theatre National Historical Site—
law, 12115
reports, 9705, 11091
general information, 996

Household appliances:

census of manufactures, 1967, industry statistics, 17529
Federal item identification guides for supply cataloging, supplements, 2597

Household employees, *see* Servants.

Household goods:

and commercial furnishings and appliances, Federal item identification guides for supply cataloging, supplements, 2597
furnishing plan for Badlands ranch house, Theodore Roosevelt National Memorial Park, 15027
furnishing study—
cavalry barracks, Fort Laramie, 7633
Fruita Schoolhouse, Capitol Reef National Monument, 2159
interior furnishings, bibliographies on fabric flammability, 12845
military-owned household furnishing overseas, management, opportunities for improvement, GAO report, 717
See also Furniture.

Household pets, *see* Pets.

Household workers, *see* Servants.

Households:

and family characteristics, current population reports, 8090
by State, population estimates, 6444
consumption patterns for meat and poultry, 1965, spring, 5337
dietary levels—
North Central region, 4816
Northeast, 6306
South, 12984
family and household composition, Mar. 1970, selected characteristics, 10817
food consumption in United States, survey 1965-66, conversion factors, 15405
food consumption survey, 1965-66, reports, 4816, 6306, 12984
household consumers' acceptance of experimental dry whole milk, 9306
income and selected social and economic characteristics, 13176
wood household furniture, except upholstered, industry wage survey, 11631

Housekeepers, *see* Hotel housekeepers.

Houser, Alfred, age, growth, sex composition and maturity of white bass in Bull Shoals Reservoir, 11891

Houser, F. N.:

near-surface sink structure, Nevada Test Site, 6382
summary of information and ideas regarding sinks and collapse, Nevada Test Site, 6381

Houses:

farrowing, tilt-up concrete construction, farm building plan, 3415
flooded homes, first aid, 4806
4-bedroom rural dwelling, 3413
furnished historic houses in U.S., list, 17156
homeownership for lower income families, 8790
house construction, how to reduce costs, 12982
laying house for poultry, farm building plan, 3416
noise problem in residences, economic potential of mineral-based insulating materials in combating, 10322
recent purchases—
and expectations to buy during months ahead, survey data, 6450, 10823, 13177
cars, houses, and other durables, and expectations to buy during months ahead, survey data, 1334
termites and decay guide, 8619
veterans, home buying guide, 2279
wood-frame house construction, 12974
see also Farm buildings—Farmhouses—Homes—Housing.

Housing:

act of 1949, urban renewal programs authorized by act, operations report, 3145
administration views, increase availability of guaranteed home loan financing for veterans, etc., (statement), 2274
advertising discrimination in sale and rental, new trend (remarks), 5609
airspace over Federal buildings, authorize GSA to transfer, hearing, 1596
Alaska remote housing handbook, 11432
America's greatest physical need (address), 745
authorized by building permits and public contracts, construction reports, 2437-38, 9446
annual, 17536
basic laws and authorities, 11025
bibliography for overseas missions of International Development Agency, 11417
building trades and low income housing (address), 7271
census, 1970—
advance reports, publications order form, 15658
data access descriptions of items included, 6452
first count summary tapes, results, 8094
fourth count summary tapes, results, 8095
preliminary reports, publications order form, 10830
printed reports, data access description, 13178
summary tapes, 10825
census publications, price list, 11836
characteristics of new one-family homes, 1969, construction reports, 12015
code administration and enforcement, 11259
code of Federal regulations, 8645
college housing grants, authorization, increase, report, 9861
completions, construction reports, 10789
comprehensive planning assistance in small community, 1926
condominium housing, financing, 10200
construction needs, labor costs and supply, etc. (remarks), 4284
cooperative housing—
low income ownership (address), 746
way to finance under FHA programs, 763
counseling service, 7091
current and future needs (remarks), 4287
current and future needs, plans to meet them (remarks), 7289

Housing—Continued
current reports—

housing characteristics, 2474
housing vacancies, 2474, 3628, 15622
dealers and individuals subject to certain provisions of title 1, National housing act, 11st, 7090
development and urban planning, policies and programs of 4 countries, report, 8195
District of Columbia—
Housing revolving fund act, report, 9854
revolving fund for development of housing for low- and moderate-income persons, establish, hearings, 6796
Emergency community facilities act of 1970—
hearings, 11027
reports, 12232, 13457, 16017
Emergency home financing act of 1970—
hearings, 11026
law, 13326
reports, 8351, 10960, 12251, 13407
family properties, disposition handbook, 16666
Farmers Home Administration obligations under Consolidated Farmers Home Administration act and Housing act, opinion of Attorney general, 8851
Federal housing and urban development programs, description and progress report, 6792
Federal programs—
extend and fund report, 16026
study, authorization, report, 5242
expenses, report, 3934
federally financed housing projects, construction costs increased due to inappropriate minimum wage rate determinations, Labor Dept., GAO report, 14496
FHA—
and VA mortgages and loans, exempt from interest and usury laws of District of Columbia—
hearings, 6796
reports, 6769, 9720
insurable loans digest, and other programs summaries, 1927
loans to lessees of nonfarm rural land, authorize, report, 15987
financing—
and development, hearings, 6796
facilitate by regulation of interest rates, etc.—
hearings, 1576
law, 1410
reports, 1546, 1555, 1616, 3829
housing by mortgage backed bonds (speech), 17974
housing and building research and technology, federally financed, catalog, 14572
housing and hygiene, identification of leaders, and their involvement in planning process, 7044
housing and planning, new minority enterprises, 1371
housing and planning references (periodical), 2719
Housing and urban development act of—
1965—
amend, reports, 13457, 16017
title 7, amend—
hearings, 11026
report, 12232
1969—
law, 3737
report, 3821
1970, reports, 15878, 16026
housing and urban development legislation of 1970, hearings, 12266, 13500, 13716
housing and urban development trends (periodical), 2720
housing for migrant agricultural workers, regulations and standards, 12978

Housing—Continued

housing industry, challenge for Nation, report, 4984
housing planning information series, 16374-376
HUD equal opportunity, what it is, what it does, 16662
HUD international information series, 16674
HUD programs—
for developers, 755
related to technology and research, 758
HUD's college housing program, guide, 14575
Indian children attending public schools to be constructed in school districts adjoining or in proximity of Indian reservations, provide proper housing, report, 9870
industrialized housing, hearings, 1429
industry, producing at reasonable cost, Operation Breakthrough (remarks), 759
inner-city, financing, hearings, 6149
insurable loans, digest, and summaries of other FHA programs, 8784
large cooperative communities, questions regarding mortgage loan insurance ceilings and land appraisals, Housing and Urban Development Dept., GAO report, 5536
leased-housing program, administration by Department of Housing and Urban Development, GAO report, 5521
legislation for 1970, proposals, hearings, 12266, 13500, 13716
living units, minimum property standards, interim revision, 10050
low cost—
functional and esthetic buildings (remarks), 4290
trends of 1-family homes insured by FHA under sec. 221 (d) (2), 2641
low income—
and minority, legal questions associated with its development, maintenance, etc., 15374
how nonprofit groups can sponsor for tenants, film, 4275
low-rent—
accounting handbook, 1941, 10211, 16673
administration of program handbook, 1930, 7274, 7282, 8787, 12606
applications and preliminary loans handbook, 1931
construction handbook, 1935, 11430
financial management handbook, 1938, 7283, 11430, 14578
financing handbook, 5601, 7276, 11431
income limits, rents, and occupancy handbook, HUD, 1937, 7283, 8788, 11428-429, 16671
modernization program handbook, 1939
opportunity for accelerating construction and reducing cost, GAO report, 14509
preconstruction handbook, 1932, 4279, 5600, 11421
public housing projects, need to strengthen concrete inspections and testing requirements during construction, GAO report, 14508
relocation handbook, HUD, 1934
statistical reporting handbook, HUD, 1940, 16672
Turnkey handbook, HUD, 1936, 7275, 11420, 11422
manufactured, technically suitable for—
FHA mortgage insurance, 7092
HUD housing programs, 17975-976
mass produced and industrialized housing, Operation breakthrough, bibliography, 10214
Middle income mortgage credit act, hearings, 6793

INDEX 1970

Housing—Continued

- military—
 - construction authorization, 1970—
 - hearings, 487
 - law, 1408
 - report, 478
- family housing program, appropriations—
 - 1970—
 - hearings, 400, 1703
 - law, 3743
 - reports, 1460-61, 1650, 3813, 3832
 - 1971—
 - hearings, 9729, 11023
 - reports, 9704, 10951, 10985
 - waiving points of order, report, 13404
- model State housing societies law, 5376
- mortgage-backed securities, new easy way to invest in housing, 10213
- mortgage protection, life insurance for paraplegic and quadriplegic veterans, provide, report, 17628
- mortgagees' guide, assistance and interest reduction payments, 18060-61
- multifamily, minimum property standards, 8617
- national goals, annual report, 8207
- National housing act, amend—
 - hearings, 11026
 - law, 1410
 - reports, 1546, 1555, 1616, 3829
- need to make available throughout metropolitan areas (address), 4269
- new federalism, the breakthrough for housing development (address), 747
- non-profit housing corporations, social objectives, development, management, etc. (address), 18059
- one housing unit owner occupied properties, 190
- "Operation Breakthrough"—
 - and other approaches to housing production, rehabilitation, etc. (remarks), 4283
 - questions and answers, 11435
- opportunity to improve allocation of program funds to better meet national goal, Housing and Urban Development Dept., GAO report, 16595
- Page, Ariz., development plan, prepared for people of community, 15141
- paraplegic veterans program, direct loans, authorize, report, 15988
- Philadelphia housing information service, report, 4288
- planned-unit development with homes association, 8616
- planning notes, 15375-376
- problems of cities and suburban areas (address), 5595
- public—
 - income limits for below-market interest rate housing and exception limits, HUD handbook, 8786
 - low-rent, local authorities participating in programs, 2847
 - tenant rights and management rights (address), 5592
- rehabilitation or renovation, eliminate causes of lead-based paint poisoning, provide Federal assistance to State and local governments, hearings, 13502
- rent supplement assistance, FHA regulations, 14370
- rental and co-op, in rural areas, loans, 10696
- rental, for lower income families, 1944
- research and building technology activities of Federal Government, report, 15156

Housing—Continued

- rural—
 - Farmers Home Administration loans, 12999
 - HUD housing programs for smaller communities (remarks), 760
 - trends and prospects, 16380
 - sales of new one-family homes, construction, reports, 2441, 12015
 - savings and home financing, 1969, source book, 17973
 - secondary mortgage market and credit, hearings, 6793
 - self-help, for low-income rural families, 7933
 - shortage (remarks), 4285
 - shortage problems (address), 5590
 - specially adapted for veterans, questions and answers, 1184
 - starts, construction reports, 2439
 - State Department living quarters allowances, 16868
 - suburban housing opportunities for members of minority groups (speech), 4289
 - temporary lodging for student officers, at Fort Rucker, Ala., opportunity to save cost, GAO report, 7214
 - toward better housing for low income families, report of President's Task Force on Low Income Housing, 11833
 - urban renewal directory, 9095
 - vacancy rates and characteristics in U.S., annual statistics, 15622
 - vacant units in U.S., 3628
 - Veterans housing act of 1970, report, 15871
 - views of new Federal Home Loan Bank Board member (address), 638
 - voluntary action is better way for solving most community problems, 5591
 - see also Discrimination in housing.
- Housing and Urban Development Department:
 - administration of leased-housing program, GAO report, 5521
 - annual report—
 - departmental edition, 8778
 - document edition, 8226
 - appropriations, 1970—
 - law, 1391
 - reports, 474, 1475
 - appropriations, 1971—
 - hearings, 8271, 11105
 - reports, 9680, 9682, 12328, 13434
 - veto, 15830
 - Assistant Secretary for Model Cities, organization and functions of office, HUD handbook, 16663
 - college housing program, guide, 14575
 - consolidate HUD programs, reports, 15878, 16026
 - consumer relations newsletter, 2448
 - Government National Mortgage Association, annual report, 7272
 - how about HUD? 16661
 - HUD challenge (periodical), 750, 2722
 - HUD Clearinghouse Service HCS series, 751, 11418
 - HUD disaster aids, 10202
 - HUD equal opportunity, what it is, what it does, 16662
 - HUD guide series, 5597, 8784, 10203-4, 11419, 18060-61
 - HUD handbooks, 752-754, 1928-41, 3314, 4276-79, 5598-5603, 7273-83, 8785-88, 10205-211, 11420-432, 12603-606, 14576-578, 16663-873
 - HUD international information series, 16674
 - HUD programs—
 - assist recreation facilities and activities, 7284
 - developers, 755
 - interest to senior citizens, 757
 - nonprofit groups, 756
 - technology and research, 758

- Housing and Urban Development Department—Continued
interagency committees in which HUD participates, inventory, 12607
interim assistance grant program, 8789
IP series, 7236, 8790
litigation, handbook, 16664
look at HUD one year later (remarks), 10212
low-rent housing opportunity to accelerate construction and reduce cost, GAO report, 14509
Metropolitan Planning and Development, General Assistant Secretary and Assistant Secretary, organization, handbook, 8785
mortgage loan insurance ceilings and land appraisals for large cooperative housing communities, questions, GAO report, 5536
MP series, 4280
need to strengthen concrete inspections and testing requirements in construction of low-rent public housing projects, GAO report, 14508
newsletter, 2723
1963 HUD statistical yearbook, 7285
opportunity to improve allocation of program funds to better meet national housing goal, GAO report, 16595
press releases, 3062
programs, minority business opportunities manual for small and minority group businessmen and professionals, 16676
relocation, how HUD helps, 8783
role in small urban parks, 16680
selected publications of HUD, list, 16679
travel pay allowances, procedures and policy, handbook, 16665
window on HUD, general information, 8797
Housing Assistance Administration, local authorities participating in low-rent programs, 2847
Housing insurance, *see* Mortgage insurance.
Housing Partnership, National Corporation for, *see* National Corporation for Housing Partnerships.
Houston, Tex.:
area wage survey, 12710
census of transportation, 1967, commodity transportation survey production, area series, 6431
principal electric facilities, map, 8627
status of equal employment opportunity in, hearings, report, 16467
William P. Hobby Airport, climatological summaries, 2257
Houston, we've got a problem, Apollo 13, 10370
Houston County, Ala., community profile, 14012
Houston County, Tenn., appraisal of potentials for outdoor recreational development, 9125
How FDA works for you, 12542
How Federal agencies have served the handicapped, 10508
How food affects you, 7083
How to buy dry beans, peas, and lentils, 12983
How to buy fresh fruits, 15427
How to investigate accidents, 14858
How tree grows, 11343
Howard, Elizabeth, labor offices in United States and Canada, 5816
Howard County, Iowa community profile, 14013
Howard County, Mo. community profile, 16271
Howard County, Nebr., community profile, 17796
Howard University, appropriations, 1971, hearings, 17687
Howell, H. B., angular scattering functions for spherical water droplets, 15062
Howell, James M., dictionary of economic and statistical terms, 1363
Howell County, Mo., community profile, 16272
Hrastar, John, attitude control of spacecraft with strapdown inertial reference system and onboard computer, 16974
Hrycak, Peter, experimental flow characteristics on single turbulent jet impinging on flat plate, 7536
HSGT (high speed ground transportation), *see* Transportation.
HSMHA, *see* Health Services and Mental Health Administration.
Hu, C. T., education of national minorities in Communist China, 14279
Hualapai Indians:
disposition of judgment funds—
law, 15788
reports, 13437, 16000
Huang, Peter R. H., relief, 9790
Hubbard, J. H., lunar soil simulant study, phase B, outgassing characteristics, 4084
Hubs, hub clamps, Federal item identification guide, change, 5311
Huck, Friedrich O., performance analysis of optical-mechanical scanner as imaging system for planetary landers, 2098
Huckins, Earle K. III, techniques for selection and analysis of parachute deployment systems, 2127
HUD, *see* Housing and Urban Development Department.
Hudson, C. Michael, investigation of fatigue-crack growth under simple variable-amplitude loading, 12775
Hudson, Horace R., on relationship between horizontal moisture convergence and convective cloud formation, 11267
Hudson, J. Harold, flora and fauna in basin of central Florida Bay, 13242
Hudson, John A., navigator, 2943
Hudson Bay, quality of surface waters, 14553
Hudson River and Valley:
Hudson River and tributaries, pollution of interstate waters, conference proceedings, 8669
Hudson River moratorium, hearing, 9914
interstate compact relating to resources, amend act—
hearing, 9914
law, 10906
reports, 5107, 9818
license for activity which may affect resources of riverway—
continue moratorium, 9914
extend time for review of applications—
law, 10906
reports, 5107, 9818
pollution of interstate waters, conference proceedings, 1864
Hudson River Expressway:
construction, proposal, hearings, 430
impact on fish and wildlife resources, hearings, 430
Hudspeth County, Tex.:
place in mountain standard time zone—
hearing, 1588
law, 8187
reports, 1523, 6767
Huerta, J. E., reserve marine, 3150
Hueser, J. E., development of gas sampling system, 14821
Huff, Edward M., probability learning, first-order Markov structures of quarternary events, 5971
Huff, Lyman C., geochemical study of alluvium-covered copper deposits in Pima County, Ariz., 7224

- Hufford, Gary L.:
distribution of nutrients in Weddell Sea,
Feb.-Mar. 1968 and Feb.-Mar. 1969, re-
port, 10857
oceanography of Weddell Sea, 6499
- Hughes, Bernard C., Project Tank Trap, field
evaluation of nuclear terrain barriers,
8018
- Hughes, Steven E., annotated references on
Pacific saury, *Cololabis saira*, 13244
- Hughes County, S. Dak., community profile,
14014
- Hulls (ships):
steel, hydrogen in welding, USSR study,
10256
- Hulse, Fred E., shipment specifications for
Florida fresh citrus fruit, 8584
- Human anatomy, *see* Anatomy.
- Human cost of Soviet Communism, 17708
- Human ecology, *see* Ecology.
- Human engineering:
design criteria for military systems, equip-
ment and facilities, military standard,
13810
ergonomics, and informational technology,
USSR study, 16753
- human—
factors in highway safety, bibliography,
17078
factors research and development, 15th
annual conference, proceedings, 7999
operator state, signals, 11705
performance prediction in man-machine
systems, technical review, 14823
- Human Environment, United Nations Con-
ference on, *see* United Nations Conference
on Human Environment.
- Human equation, working in personnel for
Federal Government, 3668, 9472
- Human factors, *see* Man-machine system.
- Human factors engineering, *see* Human en-
gineering.
- Human race, *see* Man.
- Human relations:
effective human relations commissions,
guidelines, organization, membership,
budget, staff, goals, programs, 10898
Job Corps, human renewal, 5810
- Human resources, *see* Ability.
- Human rights, *see* Civil rights.
- Human Rights Year, International, *see* In-
ternational Human Rights Year.
- Human side of energy, 1275
- Humanities:
expanding role of atom (lecture), 139
National Endowment for the Humanities,
report, 7594
- Humanities, National Endowment for the,
see National Endowment for the Human-
ities.
- Humbert, Richard, Spain, country market
survey, 16729
- Humboldt Bay, Calif., environmental radia-
tion survey, 9374
- Humboldt County, Iowa, community profile,
14015
- Humboldt County, Nev., Gatchell Mine, sta-
tistical interpretation of sample, assay
data, 8911
- Humboldt National Forest, Ruby Division,
general information, 16549
- Humboldt River and Valley, evapotranspira-
tion by woody phreatophytes near Winne-
muca, Nev., 10172
- Humenik, Francis M., performance of short
length turbojet combustor insensitive to
radial distortion of inlet airflow, 9924
- Humes, Arthur G., cyclopoid copepods of
genus *Pseudanthessius* associated with
crinoids in Madagascar, 1852
- Humes, Donald H., calculation of penetra-
tion flux for multi-wall structure on Lunar
Orbiter spacecraft, 905
- Humidity, direct reading humidity-tempera-
ture indicator, equip tips, 10114
see also Moisture.
- Humor, America the beautiful, collection of
nation's trashiest humor, 17307
- Humphreys, Lloyd G., nomination, hearing,
9928
- Humphreys County, Miss., community pro-
file, 16273
- Hungarian People's Republic, *see* Hungary.
- Hungary:
background notes, 9188
cotton textiles, trade agreement, 18356
education in Hungarian People's Republic
history, description, etc., 8515
embassy, establish New York office, com-
mercial section, agreement, 4742
mineral industry, minerals yearbook chap-
ter, 14784
yearbook of office mechanization and com-
puter technology, 11490
- Hunger:
breaking hunger's barrier, picture story,
7937
child nutrition program, handbook for vol-
unteers, 10109
food stamp handbook for volunteers, you
can help fight hunger in America, 1872
food stamps to end hunger, 11956
human needs, national nutrition survey,
hearings, 521, 1743, 3984, 5278, 9932,
13756, 16082
hunger and the income gap, hearings, 9932
Jimmy has more fun, donated food pro-
gram, 7177
lack of food, study, authorization, report,
5239
Malthusian spectre, challenges of food and
population, 15450
war on hunger, report, 3334
you can help fight hunger in America,
donated foods, handbook for volunteers,
5475
- Hunsucker, Robert D., atlas of oblique-in-
cidence high-frequency backscatter iono-
grams for midlatitude ionosphere, 10025
- Hunter, Allan O., nomination, hearing, 6790
- Hunter, Paul A., analysis of VGH data col-
lected from 1 type of 4-engine turbojet
transport airplane, 4516
- Hunters, safety programs, establish, hear-
ings, 1593
- Hunting, migratory birds, 1970-71, Federal
regulations governing, 15276
- Hunting Hill Quarry, Md., serpentinite and
rodingite, description, 8728
- Huntingdon County, Pa., community profile,
16274
- Huntington Beach, Calif., population, special
census, 8092
- Hunyadi, Matyas, relief, 13385
- Hurd, Gordon E.:
preprimary enrollment, 14293
trends of children under six, 8522
- Huron County, Ohio, community profile,
14016
- Huron, Lake, basin, Mich., water oriented
outdoor recreation, 7695
- Hurricane Research Laboratory, *see* National
Hurricane Research Laboratory.
- Hurricanes:
Atlantic, maximum sustained winds, 1832
- Camille—
Aug. 17-21, 1969, effect on communica-
tions, summary report, 5414
disaster relief, Federal response, hear-
ings, 8437, 12381
timber damaged in Mississippi, 4197
wood structures survive her winds, 4202
- Dora, structure, 1821
- emergency food aid for Cella victims,
13001
- Florida, description, etc., 607
- forecasting hurricane development with
real data, experiment, 1823
- Galveston Bay hurricane surge study—
hydraulic model investigation, report,
16448
report, 16447

Hurricanes—Continued

- getting through, hurricane safety message to administrators of hospitals and other institutions, 8577
- hemispheric circulation and anomaly patterns observed when tropical storms reach intensity within designated region, 608
- North Atlantic, devastating, 20th Century, 8578
- North Carolina, descriptive listing of tropical cyclones, 10671
- survival in hurricane, general information, 10035
- Hurt, George J., jr., evaluation of two guidance schemes for manned lunar landing, 11663
- Husbands and wives, community property and Federal income tax, 5635
- Husby, David M.:
 - oceanographic observations—
 - North Atlantic standard monitoring sections, 9486
 - North Pacific Ocean Station, November, 3684
- Huschuca Mountain, mesozoic stratigraphy, 4252
- Huseonika, William F., numerical evaluation of preliminary orbit evaluation methods, 12770
- Huss, Ralph E.:
 - despatches from U.S. consuls in—
 - Merida, Mexico, Progreso, Mexico, 4536
 - Minatitlan, Mexico, 4537
 - Piedras Negras, pamphlet, 17024
 - Tabasco, Mexico, 4538
 - Tampico, Mexico, pamphlet accompanying microcopy, 11720
 - despatches from U.S. Ministers to German States and Germany, 1799-1801, 1835-1906, pamphlet accompanying microcopy, 14909
 - notes from Spanish legation in United States to Department of State, 1790-1906, pamphlet accompanying microcopy, 17023
 - records of Department of State relating to—
 - internal affairs of India and Burma, 1910-29, pamphlet accompanying microcopy, 11721
 - political relations between Bolivia and other States, pamphlet accompanying microcopy, 14912
 - political relations between China and other States, 1910-29, pamphlet accompanying microcopy, 11722
- Hutchinson, Minn.:
 - floods, how to avoid damage, 17931
 - South Fork of Crow River, flood plain information, 16431
- Hutchinson County, S. Dak., community profile, 14017
- Hutchison, John E., world demand prospects for wheat in 1980, with emphasis on trade by less developed countries, 11197
- Hutchison, T. Q., consumers' knowledge and use of Government grades for selected food items, 7925
- Huvos, Joseph B.:
 - mineral industry of—
 - Hungary, 14784
 - other European countries, 7469
 - Rumania, 14789
- Hyamine, 3500, toxicity to fish, 6207
- Hybrid memory systems, USSR study, 16771
- Hybridization, introgression with shortleaf pine explains rust resistance in western loblolly pine, 687
- Hyde, Floyd H.:
 - addresses, etc.—
 - Nov. 14, 1969, 744
 - Dec. 3, 1969, 1942
 - Dec. 5, 1969, 1922
 - Feb. 14, 1970, 5610

Hyde County, N.C., community profile, 14018
 Hyde County, S. Dak., community profile, 14019

Hydrates:

- microbial conversion of hydrous calcium sulfate to hydrogen sulfide, 7480
- reaction kinetics, 4300

Hydration:

- ionic solvation study, 14601
- oxidation, and origin of calc-alkali series, 901

Hydraulic brakes, *see* Brakes.

Hydraulic engineering:

- design hydrographs, SCS national engineering handbook, 9153
- work shop, Bureau of Public Roads, report, 7719
- see also* Locks (hydraulic engineering).

Hydraulic mine filling:

- hydraulic backfill, stabilization with portland cement including results with other additives, 4474
- leaching gold-bearing mill tailings from Mercur, Utah, 10333
- selective flotation of minerals from North Carolina mica tailing, 877

Hydraulic pumps, *see* Pumps.

Hydraulic turbines, *see* Turbines.

Hydraulics:

- analysis of pipe-arch culverts, electronic computer program, 18310
- applications of hydraulics, 11400
- bridge waterways, 15135
- design series, 15135
- gas-hydraulic analogy application to shallow-water tow-channel results, 7516
- flood control channels hydraulic design, engineer manual, 17919
- model investigation—
- Arkansas River navigation project, lock and dam no. 13, 16449
- Copan Dam, Little Caney River, Okla., 16450
- Galveston Bay hurricane surge study, etc., report, 16448
- operating forces on sector gates under reverse heads, 10019
- spillways and outlet works, Rowlesburg Dam, Cheat River, W. Va., 11257
- Tocks Island Dam, Delaware River spillway and outlet works, Pa., N.J., and N.Y., 16451
- Vermillion Harbor, Ohio, wave action and breakwater location, 11256
- wave damping effects of screens, errata, 10017
- model studies—
- interstage module piping in 2.5 universal desalination plant, Saline Water Office, 17243
- pump intake manifold and evaporation trays, San Diego Saline Water Test Facility, Office of Saline Water, 7725
- Silver Jack Dam spillway stilling basin, Bostwick Park Project, Colo., 9092
- overland flow on hillslopes, 5559
- river hydraulics (series), 8760
- testing and sampling for oil shale, USBM-AEC Colorado core hole 3, Rio Blanco County, Colo., 7239
- Hydrazine nitrate physical and explosive characteristics, 5854
- Hydroacoustics, *see* Sound.
- Hydrocarbons:
 - air quality criteria, 7563
 - summary and conclusions, 11714
 - control techniques for emissions from—
 - mobile sources, 5989
 - stationary sources, 5991
 - halogenated, determination of trace quantities in gas samples, 4631
 - hydrocarbons and nitrogen oxides, function in photochemical-smog formation, 16921

- Hydrocarbons—Continued**
 hydrocarbons and related substances, chemical thermodynamic properties, organic sulfur compounds in ideal gas state from 0° to 1,000°K, 10320
 polynuclear hydrocarbons in atmosphere, sources, 17015
 seeps in thermal areas, northwestern Wyoming, 11398
- Hydrocasting reverse osmosis membranes, 11443**
- Hydrosulfurization, see Desulfurization.**
- Hydrodynamics:**
 aspects of desalination by reverse osmosis, 11444
 hydrodynamic journal bearing tests and analysis, 12756
 hydrodynamic lubrication, transient journal bearing analysis, 12760
 mammal reaction to hydrodynamic forces studied, USSR study, 18102
 stability of plane Poiseuille flow with heat transfer, 17005
 unsteady Navier-Stokes equations for infinite hydrodynamic step bearing, computer solution, 11630
- Hydroecology, see Ecology.**
- Hydroelectric power, see Electricity.**
- Hydroelectric power plants, see Electric power plants.**
- Hydrogen:**
 and carbon monoxide, activation energies for reactions with hydroxyl radicals, 7543
 cold hydrogen gas, glass-fiber-filled polytetrafluoroethylene reappears in, cooling requirements of ball bearings lubricated by, 8934
 effect of blade leading edge thickness on cavitation performance of 80.6° helical inducer in, 14853
 80.6 helical inducer operated in hydrogen, thermodynamic effects of cavitation, 5933
 H₂-H₂ and H₂-H collisions, semiempirical electric dipole moment and its derivative, 16992
 hot seeded, at 1 atmosphere pressure, measurements of extinction parameters, 5806
 hydrogen-air constant-pressure combustion, analytical chemical kinetic study of effect of carbon dioxide and water vapor, 10402
 in welding of steel hulls, USSR study, 10256
 injection, chemically reacting air couette flow with, diffusion model study, 18224
 leak and fire protection, survey, 16954
- Liquid—**
 analysis of rocket-powered ejectors for pumping, 18212
 discharge from 1.52 meter-(5-ft-) diameter spherical tank, gaseous-helium requirements, 5939
 long-term measurements of corrosion of mild steel in 580°F NaOH solutions, 17195
 operation of electrolytic installations for production, USSR study, 10277
 or methane fuel, thermal feasibility of using for direct cooling of 1st-stage turbine stator, 18219
 spin exchange frequency shifts, 10436
 Stark broadening calculations with unified classical path theory, 10427
- Hydrogen fluoride, and thermochemistry of fluorine, 6008**
- Hydrogen ion concentration, strip-mine spoils, determining pH, 4181**
- Hydrogen sulfide:**
 production by microbial conversion of hydrous calcium sulfate, 7480
 surface films, effect on adhesion of clean iron, 7535
- Hydrogeology:**
 description of geohydrologic provinces of Republic of Ghana in ground-water reconnaissance study, 8758
 geohydrologic significance of lithofacies of Cockfield formation of Mississippi and Louisiana and Yegua formation of Texas, 18044
 geohydrology—
 Claiborne group (series), 18044
 Cross-Florida Barge Canal with special reference to Ocala region, 10167
 Finney County, southwestern Kansas, 12591
 Project Rulison, Garfield County, Colo., with section on aquifer response, 8734
 Information on Glorieta sandstone and Ogallala formation in Oklahoma Panhandle and adjoining areas as related to underground waste disposal, 1912
- Hydrographs:**
 design, SCS national engineering handbook, 9153
 Michigan streamflow data, statistical summaries, 16626
- Hydrography:**
 flood hydrographs for small drainage basins in Wyoming, study, progress report, 734
 hydrographic and cartographic efforts in Colombia, 1010
 International Hydrographic Organization convention between United States and other governments, 17362
 survey of Kajakai Reservoir, Afghanistan, 16641
- Hydrologic cycle, how hydrologic processes affect earth and its inhabitants, conservation and water cycle (poster), 17287**
- Hydrological Decade, International, see International Hydrological Decade.**
- Hydrology:**
 and some effects of urbanization on Long Island, N.Y. (series), 5553, 14536
 Bolinas Lagoon, Marin County, Calif., summary of preliminary studies, 10163
 contributions to hydrology—
 Africa and Mediterranean area (series), 8758
 Asia and Oceania (series), 10186, 16641
 Latin America (series), 735
 United States (series), 10191-192, 14550, 16646, 18052
 design hydrographs, SCS national engineering handbook, 9153
 experimental watersheds in southern Florida, progress report, 3371A
 Geological Survey research, 1913, 4251, 8749, 14538
 ground water hydrologic data in Michigan, summary, 14540
 hydrologic analysis and interpretation, 14542
 hydrologic cycle, 10029
 hydrologic data, compilation—
 Elm Fork Trinity River, Trinity River basin, Tex., 4238
 Mountain Creek, Trinity River basin, Tex., 7230
 Mukewater Creek, Colorado River basin, Tex., 8732
 North Creek, Trinity River basin, Tex., 7231
 Pin Oak Creek, Trinity River basin, Tex., 7232
 hydrologic data for experimental agricultural watersheds in U.S., 12996

Hydrology—Continued
hydrologic effects—

- from urbanization of forested watershed in Northeast, 10131
- of prescribed burning and deadening upland hardwoods in northern Mississippi 11366
- of prescribed burning on abandoned fields, in northern Mississippi, 704
- hydrologic situation north of Snipes Mountain, near Sunnyside, Yakima County, Wash., 8736
- hydrologic studies at 2 recharge basins on Long Island, N.Y., 4246
- hydrology and some effects of urbanization on Long Island, N.Y. (series), 4246
- hydrophysical techniques and equipment, USSR study, 16792
- national hydrologic data system for Chile, design and development, 14531
- Project Gasbuggy site, Rio Arriba County, N. Mex., 8023
- upper Malad River Basin, southeastern Idaho, 10190
- urban, basic data study for Austin, Tex., 4227
- western Cascades of Oregon, 3 small watersheds, hydrologic properties of soils, 4186
- see also* Water.
- Hydrology Office, ESSA technical memorandum, WBTM HYDRO series, 1827-28, 11269
- Hydromagnetic systems, on cosmic hydromagnetic dynamo theory, 5389
- Hydromechanics:
 - draft-tube surging, experimental study and analysis, 7726
 - operating forces on sector gates under reverse heads, hydraulic model investigation, 10019
- Hydrometeorology, hydrometeorological report, 17411
- Hydroporinae, *see* Beetles.
- Hydroxyl, radicals, activation energies for reactions with hydrogen and carbon monoxide, 7543
- Hygiene, housing and hygiene, identification of leaders, and their involvement in planning process, 7044
- see also* Health.
- Hygiene Industrial Week, National, *see* National Industrial Hygiene Week.
- Hymenoptera, *see* Flies—Wasps.
- Hyperbaric chambers, *see* Test chambers.
- Hypercapnia, chronic, displacement of oxygen dissociation curves and red cell cation exchange in, 11567
- Hyperlipoproteinemia, *see* Lipoproteins.
- Hyperonic aircraft, *see* Aircraft.
- Hyperonic flow, *see* Flow.
- Hyperonic speed, *see* Air speed.
- Hypertension, *see* Blood pressure.
- Hypervelocity impact, *see* Impact.
- Hypnotics and sedatives, depressant drug laws, amend, report, 1634
- Hypochlorination unit, acrofeed hypochlorinator, series WF, evaluation, 14434
- Hypokinesia:
 - effect in modern man, USSR study, 10260
 - functional disorders in humans during hypokinesia, USSR study, 10280
- Hypokinesis, *see* Hypokinesia.
- Hypothermia, pneumatic hypothermic devices and craniocerebral cooling apparatus, method for improving effectiveness, USSR study, 5755
- Hypoxia, effect on erythropoiesis, experience of investigating mechanism, USSR study, 16798
- Hyun Joo Lee, *see* Lee, Hyan Joo.

I

- I & N reporter, 2724
- I.C.C., *see* Interstate Commerce Commission.

"I like it here", small town America, film-strip, 16675

- I.R.S., *see* Internal Revenue Service.
- IAEA, *see* International Atomic Energy Agency.
- IAGLO, *see* International Association of Governmental Labor Officials.
- Iampietro, P. F., complex performance during exposure to high temperatures, 6403
- Iberville Parish, La., Lake Verret watershed work plan for watershed protection and flood prevention, 9173
- ICAR, *see* Industrial College of Armed Forces.
- ICC, *see* Interstate Commerce Commission.
- Ice:
 - Antarctic glacier, deep core studies of crystal structure and fabrics, 10001
 - Arctic ice observing and forecasting program, 1968 report, 9048
 - concentrated loads on plates, 8533
 - conditions, weather and crop bulletin (periodical), 3355
 - core drilling through Antarctic ice sheet, 5366
 - deicing, literature review of dusting technology, 10301
 - eastern Arctic, seasonal outlook, 11810
 - floating ice sheet, vibrations, 16409
 - formation of modern ice-push ridge by thermal expansion of lake ice in southeastern Connecticut, 1800
 - fracture of lake and sea ice, 1801
 - ice fog, low temperature air pollution, 11250
 - International Ice Patrol Service in North Atlantic Ocean, report, 13213
 - investigation of ice production from brine in continuous crystallizer, desalination by freezing, 771
 - isothermal compressibility of frozen soil and ice to 30 kilobars at -10°C, 14305
 - North Atlantic Ocean, oceanographic atlas, 4610
 - nucleation from water and electrolyte solutions, kinetics of, 5617
 - pressure on engineering structures, 14306
 - prevention and removal for light aircraft, development of improved method (paper), 6341
 - regime of mouth region of Lena River in natural and regulated states, USSR study, 1993
 - thickness observations, North American arctic and subarctic, 1964-66 observations, 4070
 - see also* Ice crystals—Sea ice.
- Ice Age National Scientific Reserve, development and operation costs, additional Federal financial assistance, authorize, report, 6620
- Ice crystals:
 - growth rate, 4300
 - secondary nucleation of ice in suspension of crystals in turbulent cylindrical couette flow, 5616
- Ice Harbor Dam:
 - fish passage report, 14302
 - salmon research, 9517
- Iceland:
 - air transport services, *modus vivendi*, 15326
 - capsule facts for Armed Forces, 77
 - economic trends and their implications for United States, 5704
 - labor law and practice, 14661
 - lights and fog signals, 15054
 - nautical charts and publications, catalog, 7669
 - United States Marines in Iceland, 12727
- ICEM, *see* Intergovernmental Committee for European Migration.
- Ichthyophthirius multifiliis, fish disease, 6203
- ICR series, 16815-817

INDEX 1970

- ICRL, *see* Injury Control Research Laboratory.
- Ictaluridae, *see* Catfish.
- Ida County, Iowa, community profile, 14020
- Idaho:
- census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 3532
 - retail trade, merchandise line sales, 11991
 - census of governments, 1967, State report, 3562
 - climatological data, 2409
 - county business patterns, 195, 9448
 - internal revenue assessment lists, 1865-66, pamphlet to accompany microcopy, 7568
 - mineral industry, minerals yearbook chapter, 4430
 - Minidoka Project, general information, 9084
 - Orogrande district, low-grade gold deposit, investigation, 16915
 - Pend Oreille area, geologic implications of aeromagnetic data, 18046
 - postal map, 10504
 - precipitation data, hourly, 2718
 - southeastern—
 - availability of ground water for large-scale use in Malad Valley-Bear River areas, initial assessment, 7221
 - gravity and magnetic anomalies in Soda Springs region, 8746
 - hydrology of Upper Malad River Basin, 10190
 - water resources, 1968 data, 8754
 - water supply outlook and snow surveys, 3339.
- Idea (periodical), 9989, 11233
- Ideas:
- upward bound, ideas and techniques, teachers reference manual, 7028
 - war of ideas, 1870-90, United States Navy, 13009
- Identification:
- aircraft and related products, Federal aviation regulations, 2571
 - art objects, application of nuclear technology to problems of identification, 124
 - ATCBI-3 identity readout modifications, 4119
 - automated fingerprint, 14926
 - concepts involved in defining and identifying farms, 12494
 - firearms, for law enforcement officers, 4308, 18702
 - marking of nickel and nickel base alloys, Federal standard amendment, 8663
 - marking requirements for special purpose components, military standard, 545
 - of leaders, and their involvement in planning process, 7044
- Identical bidding in public procurement, 2014.
- Ieasco Data Processing Corp., conglomerate corporation investigation, hearings, 13532
- If you must smoke, 6147
- If you're not ready for another baby, 16376
- IFF radar (Identification-Friend-or-Foe), *see* Display systems.
- IFR, *see* Instrument flight rules.
- Igneous rocks:
- mafic-ultramafic, and associated carbonatites of Gem Park complex, Custer and Fremont Counties, Colo., 16617
 - pegmatitic trachyandesite plugs, and associated volcanic rocks in Saline Range, Inyo Mountains region, Calif., 8742
 - Quadrilatero Ferrifero, Minas Gerais, Brazil, 14537
 - volcanic eruption at Metis Shoal, Tonga, 1967-68, description and petrology, 17272
- IGOSS (Integrated Global Ocean Station System), *see* Weather stations.
- Ikle, Fred C., international negotiation, American shortcomings in negotiation with Communist powers, 13738
- Illiciaceae, *see* Pollen.
- Illinois:
- apples, marketing order authority, extend—
 - law, 13316
 - report, 12223
 - career directory, college level, 9466
 - census of business, 1967—
 - major retail centers, standard metropolitan areas, 8055
 - retail trade, merchandise line sales, 11992
 - selected services, area statistics, 1292
 - wholesale trade, area statistics, 1300
 - census of governments, 1967, State report, 3563
 - census of transportation, 1967, commodity transportation survey, 9435
 - climatological data, 2409
 - county business patterns, 3615, 13161
 - electric rate book, 11313
 - Federal careers projected vacancies, college level, 9469
 - Great Lakes, fishery products, wholesale dealers list, 9544
 - internal revenue assessment lists, 1862-66, for Illinois, microcopy, pamphlet to accompany, 17028
 - mineral industry, minerals yearbook chapter, 4431
 - Mississippi River and tributaries, fishery products, wholesale dealers, list, 9552
 - northeastern, appraisal of potential for outdoor recreational development, 9127
 - pollution of interstate waters, conference proceedings, 7163
 - postal map, 7700
 - precipitation data, hourly, 2718
 - small watershed projects, program, hearings, 17718
 - southern, relation of crown width to tree diameter in upland hardwoods, 16566
 - streamflow data, statistical summaries, 4254
 - water resources data, 4259
- Illinois Central RR., accident report, 5435, 17235
- Illinois iron furnace, Shawnee National Forest, 18009
- Illness, *see* Sick.
- Illumination, *see* Lights and lighting.
- Illusions, *see* Hallucinations and illusions.
- Illusions (optical), *see* Optical illusion.
- Illustrations, plant microfossils from Yazoo clay, Jackson Group Upper Eocene, Mississippi, 8745
- Ilmenite:
- placer deposits, Roseland district, Nelson and Amherst Counties, Va., 5544
 - proposed processes for making rutile substitutes, 7460
- ILO, *see* International Labor Organization.
- ILS, *see* Landing (aircraft).
- Image interpreters:
- image incongruence effects on location of common terrain in comparative cover, 15497
 - information requirements timing procedures and photo scale, effects on interpreter performance, 9359
 - initial, performance affects checker confidence statements, 9362
 - large numbers of image interpretation errors, method for quantifying subjective costs, 15495
 - maintaining interpreter proficiency in computerized facility, programming and feedback method, 9358
 - maintaining target detection proficiency through team consensus feedback, 15496
 - near real-time screening performance, scale, resolution and presentation rate, study, 9361

Images:

- image incongruence effects on location of common terrain in comparative cover, 15497
- image points on aerial photographs, electronic computer program to help in stereocomparator coordinate reduction, 15137
- scale, resolution, and presentation rate, near real-time screening performance of image interpreters, study, 9361
- IMF, *see* International Monetary Fund.
- Imides, imide/pyrrone copolymers, preparation and properties, 940
- Imig, L. A., effect of strain-gage attachment by spotwelding and bonding on fatigue behavior of Ti-6Al-4V, René 41, and Inconel X, 18204
- IMIS (series), 2762
- Imlay, Ralph, W.:
 - ammonites from Buchia zones in northwestern California and southwestern Oregon, 10182
 - some Jurassic ammonites from central Saudi Arabia, 5558
- Immersion, submarine escape and immersion equipment, open sea surface evaluation, 12734
- Immigrants, *see* Immigration and emigration.
- Immigration and emigration:
 - Immigration and nationality act—
 - amend—
 - hearings, 3878
 - laws, 1401, 8184, 12136
 - reports, 1494, 1629, 5135, 12329
 - provisions applicable to Bonin Island inhabitants—
 - law, 12100
 - reports, 1495, 12302
 - worker certification program under the act, 11914
 - immigration to U.S., aliens to professional and related occupations, annual indicator, 16683
 - Investigation—
 - expenses, report, 5224
 - report on findings, etc., reports, 1614, 9834
 - Irish immigrant participation in construction of Erie Canal, 2161
 - laws—
 - administrative decisions, index, 14585-587
 - amendments of 1965, effect of immigration from Ireland and northern Europe, hearings, 15924
 - enforcement, provide better facilities—
 - hearing, 434
 - report, 3826
 - migration and refugee assistance, appropriations, 1970—
 - hearings, 1702
 - reports, 1521, 1561, 3840
 - nonimmigrant visas, hearings, 3878
 - publications, price list, 18307
 - selective migration program for Latin America operated by Intergovernmental Committee for European Migration, hearing, 13516
 - Western Hemisphere businesses, executive officers and managerial personnel, exempt from numerical limitation—
 - law, 8184
 - report, 5135
- Immigration and Naturalization Service:
 - annual report, 10215
 - border patrol agent, examination announcement, 15685
 - I & N reporter, 2724
 - immigration patrol inspector, examination announcement, 3663
 - interim decisions, 2748
 - passenger travel between United States and foreign countries, reports, 2725

Immigration inspector:

- border patrol agent, examination announcement, 15685
- examination announcement, 3663
- immigration patrol inspectors, *see* Immigration inspectors.
- Immunity:
 - immune mechanisms in health and disease, research grants supported by National Heart and Lung Institute, 1949-69, review, 7600
 - wheat from VIR world collection, immunity to Puccinia triticina, USSR study, 1998
- Immunity (legal), *see* Witnesses.
- Immunization:
 - communicable disease and immunization programs, hearing, 8307
 - hemolytic disease of fetus and newborn due to RH isoimmunization, 5841
 - United States immunizations survey, 14951
- Immunology, immunological mechanisms of drug side effects, USSR study, 12623
- Impact:
 - hypervelocity—
 - dimple, spall, perforation characteristics of thin plates of 9 materials, 4524
 - microparticle impact craters and associated filamentary crystal growth, 11668
 - problems, method for solving with consideration of free-surface discontinuities, 924
 - metamorphism studies, small ballistic range, 8947
 - meteoroid-velocity impact simulation by use of dense projectiles, 10390
 - modes of failure of bumper-hull structures discussion, with application to meteoroid hazard, 17007
 - multiple liquid impact erosion, experimental and analytical investigation on metals, 16937
 - prediction, some statistical aspects of power law profiles, 15473
 - seat belt injuries in impact, 1283
 - simulated micrometeoroid impact, ions produced, time-of-flight mass spectrometer for studies, 8950
- Impact limiters, for spherical hard-landing payloads, effect of surface protuberances, 10386
- Impact on community, 7407
- Impact wrenches, *see* Wrenches.
- Impacted areas:
 - federally affected areas, financial assistance, amend law, hearings, 15894, 16073
 - Impact aid reform act of 1970, hearings, 15894, 16073
 - racially impacted areas, financial assistance to schools, hearings, 17638, 17710
- Impedance:
 - cascade impedance synthesis using extension of Fialkow-Gerst theorem, 943
 - cylindrical impedance boundary used in launching azimuthal surface wave, 7951
- Impellers, and fans, Federal item identification guide, 540
- Imperial Beach, Calif., South Bay Union School District, drug abuse education unit, grades K-12, 14943
- Imperial Unit, *see* Colorado River Front Work and Levee System.
- Imperialism, contemporary, diplomacy, USSR study, 7371
- Impingers, single turbulent jet impinging on flat plate, survey of literature on flow characteristics, 5949
- Implants, artificial heart, problems of blood injury during functioning, USSR study, 16738
- Import Bank of Washington, *see* Export-Import Bank of United States.
- Important facts about medical insurance benefits under medicare, 11862

Imports:

- airborne, foreign trade reports, 2672, 3650
- commercial import detentions, monthly report, 2426
- consumption and general imports, 10834-835
- foreign trade reports, 2664-65, 2669, 2673, 10833
- problems and policy (address), 15713
- schedule A, commodity subgroups, for users of U.S. waterborne general import statistics, AM305, SM305-IT, SA305, and SA305-IT, 15659
- steel import data, by TSUSA number, country or origin, etc., 9415
- U.S. commodities, as related to output, 17541
- see also* Tariff—*also* names or classes of articles imported—*also* names of countries.
- imposition (typographical), *see* Printing.
- Imprints (in books):
 - non-GPO imprints: Government publications, received in Library of Congress, July 1967-Dec. 1969, selective checklist, 14755
- Improving quality health care, 8677
- In these hands, story of Federal air traffic control system and crews, 11288
- In your keeping, skywarn 70 tornado safety message to administrators of schools, hospitals, and other institutions, 5396
- Inauguration of the President, *see* President of United States.
- Incentive pay, *see* Pay, allowances, etc.
- Incentives in industry:
 - incentive provisions of Saturn V stage contracts, 5532
 - New Jersey work incentive experiment, preliminary results, 5334
 - work incentive program—
 - annual report, 15956
 - reports, 16049
 - survey of selected welfare and Employment Service agencies, 15957
- Incineration, good practice at Federal facilities, interim guide, 2133
- Incinerators:
 - guidelines, 11260
 - junk auto incinerators, construction and testing, 7500
 - sewage sludge fluidized bed incinerator capacities and costs, mathematical model, 14408
- Incoloy, 800, short-term tensile and low-cycle fatigue studies, 9379
- Income:
 - adequate income for all Americans in need, report of President's Commission on Income Maintenance Programs, 6126
 - agricultural income, improve (address), 9283
 - averaging, tax reform, summary of recommendations, 1728
 - building trades and low income housing (address), 7271
 - consumer income—
 - average family income up 9 percent in 1969, advance data from Mar. 1970 sample survey, 10821
 - families and persons in United States, 1332
 - socioeconomic trends in poverty areas, 1333
 - consumer income series, 1332-33, 3642, 6449, 10821-822, 13177, 15652, 17538
 - distribution—
 - and inflation, in United States (remarks), 1858
 - white and Negro families in U.S. measures of overlap, 8101
 - District of Columbia income and franchise act of 1947, amend—
 - law, 15780
 - reports, 5181, 13685

Income—Continued

- farm income, improve (address), 3392
- farm income situation, 2562
- growth rates in 1939-68 for persons, by occupation and industry groups, for United States, 6449
- household, selected social and economic characteristics of households, 13176
- income-loss protection against illness, 2222
- input-output structure of economy, 1963, detailed industries—
 - direct requirements, 1287
 - total requirements, 1288
 - transactions data, 1286
- limits for below-market interest rate housing, and exception limits, HUD handbook, 8786
- low-income families—
 - homeownership, 8790
 - housing, how nonprofit groups can sponsor, film, 4275
 - rental housing, 1944
 - upward bound program to help youth achieve college education, 1796
- low income presens assist in meeting savings and credit needs, hearings, 17691
- low-rent housing income limits, rents, and occupancy handbook, 1937, 7283, 8788, 11423-429, 16671
- men, annual mean, lifetime, 1956-68, 17538
- Negro community (address), 12531
- New Jersey work incentive experiment, preliminary results, 5334
- occupation and earnings of family heads in 1969, 1965, and 1959, current population reports, 15652
- persons and families, Mar. 1970, selected characteristics, 10817
- President's Commission on Income Maintenance Programs, technical studies, 15122
- railroads, selected items, 3187
- recreation, income crop for Wyoming farmers and ranchers, how and where to get help, 15226
- sector income and employment multipliers, their interactions on national economy, 13008
- social security in your financial planning, 1104
- Soviet national income, dynamics, 4346
- tax returns statistics—
 - business, 18077
 - corporations, 8815, 10240
 - individual, 8814, 16709-710
 - taxable and nontaxable, 5691
 - veterans, increase pension income limitations and rates, hearings, 9771
- see also* Families—*also* subject from which income is derived.
- Income Maintenance Programs, President's Commission, *see* President's Commission on Income Maintenance Programs.
- Income tax:
 - accounting periods and methods, 5674
 - adjustments to income for sick pay, 5632
 - allens, tax guide, 5693
 - American scholars abroad, 5670
 - Armed Forces personnel, 1969 returns, Federal tax information, 2013
 - capital gains for individuals, and corporations, tax reform hearings, summary of recommendations, 8394
 - city income taxes on Federal employees, withholding, authorize, report, 9715
 - civil service annuitants, voluntary income tax withholding tables, 15701
 - civil service retirees, Federal tax information, 1957
 - combined withholding tables for wages paid on or after July 1, 1970 and Jan. 1, 1971, 10235
 - community property, 5635

Income tax—Continued

commuter and municipal income tax, background paper, 10676
 computing your tax under income averaging method, 5638
 condemnations of private property for public use, how Federal income tax applies, 5637
 corporations and Federal income tax, 5638
 cost or other basis of assets, 5676
 credit sales by dealers in personal property, 5639
 deductions—
 alimony payments, 1959
 bad debts, 5677
 business expenses, 5675
 casualty losses and thefts, 5679
 child care and disabled dependent care, 781
 contributions, 783
 educational expenses, 5680
 farm losses and cooperatives, tax reform, summary of recommendations, 8395
 homeowners, information, 5678
 interest expense, 1960
 losses from operating a business, 5654
 medical and dental expenses, 5640
 miscellaneous deductions, 5656
 moving expenses, tax information for employees and employers, 5655
 organizations to which contributions are deductible, list, supplements, 2466
 repairs, replacements, and improvements, 5685
 taxes, 5646
 travel, entertainment and gift expenses, rules, 788
 depreciation, investment credit, amortization, depletion, 5641
 District of Columbia, increase—
 law, 321
 report, 1448
 double taxation, convention with Belgium, text, etc., 13573
 employer's guide for withholding, 10234
 farmer's tax guide, 1970 edition, 782
 foreign scholars and educational and cultural exchange visitors, 5643
 highlights of 1969 changes in tax law, 1958
 information for service personnel about required State taxes, 11522
 installment and deferred-payment sales, 5650
 internal revenue bulletin, cumulative index-digest supplement system, 2727, 7312, 16703
 investment income and expenses, 5682
 IRS looseleaf regulations systems, 784, 2852, 5651-52, 8811, 10236
 laws, reform—
 accumulation trusts, multiple corporations, corporate mergers, stock dividends, and foreign tax credit, summary of recommendations, 1725
 financial institutions, summary of recommendations, 1727
 law, 1423
 oral and written testimony, hearings, 505, 13729
 reports, 478, 1564
 print additional copies, report, 1636
 Senate amendments, 8334-35
 Senate debate opening statement, 8402
 summary, 504
 table of contents for committee amendment to H.R. 13270, 13730
 testimony and additional statements, staff summary, 1709-24, 8391
 mutual fund distributions, 5683
 older Americans, tax benefits, 5667
 organizations, how to apply for exemption, 5645
 overpayments by the elderly, hearings, 16033
 partnership income and losses, 5684

Income tax—Continued

private foundations, Tax reform act of 1969, summary of recommendations, 8399
 recordkeeping requirements, 5659
 rental and royalty income, 5660
 retirement income, 5662
 retirement plans for self-employed, questions and answers, 5658
 returns statistics—
 business, 18077
 corporations, 8815, 10240
 foreign tax credit claimed, etc., 1962
 individual, 8814, 16709-710
 sales and exchanges of assets, 5664
 sales and other dispositions of depreciable property, 5665
 scholarships and fellowships, 5687
 self-employment tax, 5649
 single persons, tax reform hearings, summary of recommendations, 8393
 sponsors of contests and sporting events, 5671
 State and local—
 allow partial Federal income tax credit for payments of, hearings, 8408
 Federal collection, authorize, hearings, 8408
 State tax withholding for interstate transportation employees, exempt—
 hearing, 8308
 reports, 12201, 13474
 students and parents, 5672
 tax information for visitors to United States, 4312
 tax publications, guide, 5659
 tax reform—
 limit on tax preferences and allocation of deductions, summary of, recommendations, 8396
 real estate depreciation, summary of, recommendations, 8400
 subjects—
 recommendations, summary, limitation on interest deduction, moving expenses, income averaging, pension plans, etc., 1728
 with summary of subsequent principal decisions, press releases, 8328
 tax reductions, summary of recommendations, 8401
 Tax reform act of 1969, revenue estimates, House, Senate and conference versions, 8392
 tax return, filing, 5648
 tax sheltered annuity plans for employees of public schools and certain tax-exempt organizations, 5689
 tax treatment of individuals serving on U.S.S. Pueblo at time of capture by North Korea—
 law, 9600
 report, 6777
 tax treatment of interest on FHA insured loans, report, 9716
 taxable income and nontaxable income, 5691
 teaching Federal income taxes, general information, 14616
 teaching taxes program, general and farm teachers' guide, 1963
 tips, reporting for Federal tax purposes, 5661
 U.S. citizens employed in U.S. possessions, tax guide, 5669
 U.S. employees in Guam, withheld taxes held in Guam Treasury, rescission, 17384
 U.S. Government civilian employees stationed abroad, 5673
 U.S. taxpayers abroad, questions asked, 1961
 valuation of donated property, 5694
 withholding—
 and declaration of estimated tax, 5690
 for tax purposes under laws of States or subdivisions, exempt certain wages and salaries, hearings, 13722

Income tax—Continued
withholding—continued
of tax on nonresident aliens and foreign corporations, 5695
taxes from your employee's wages, 5696
your exemptions and exemptions for dependents, 5697
your Federal income tax for individuals, 1965
Inconel x, effect of strain-gage attachment by spotwelding and bonding on fatigue behavior, 18204
Increase and diffusion, brief introduction to Smithsonian Institution, 9105
Indecent publications, *see* Obscene matter.
Independence National Historical Park: acquisition of property, authorize funds—law, 12119
reports, 1657, 10956
Independent Consumer Council, establish, hearings, 5260
Independent offices, *see* Government offices.
Index-digests:
decisions and opinions, Interior Department, 2754, 18339
Federal Communications Commission, decisions and reports, v. 1-15, 2d series, 11294, 14364
index-digest supplement system, internal revenue bulletin, cumulative, 2727-31, 7312-16, 14607-608, 16704-705
Index numbers, *see* subjects, e.g. Prices.
Indexes:
Adjutant General's Office, general correspondence, pamphlet to accompany microcopy, 11726
agricultural production—
Africa and Near East, 6997
Western Hemisphere, excluding United States, and Cuba, 6996
AMC, publications and blank forms, 4846, 7977, 10731, 15467
armed services papers, 3850
Atomic Energy Commission news releases, 6369, 13064
brain sciences, IBRO survey of research facilities and manpower, 11781
broadcasting stations of the world—
amplitude modulations—
country and city, 1874
frequency, 1875
frequency modulation, by country and city, and frequency, 4177
Civil Defense Office, publications, 13191
code of Federal regulations, 11315
cold regions science and technology, bibliography, 597
commanders digest, 6846
congressional record—
daily, 2435
90th Cong., 2d sess., bound volume, 293
consumer prices, 1959-68, U.S., 16828
Defense Department, specifications and standards, 2498, 16145
diabetes literature, 2506, 12856
digest of public bills and resolutions, 2508
endocrinology index, 2538
FAA electronic equipment type designations, handbook, 5407
Federal register, 2622
Federal specifications and standards, 2734, 4163
Federal supply classification—
alphabetic index, 2631, 16107
numeric index, 2630, 16106
fire control notes, 14436
fishery bulletin, 6523
v. 65, title page, contents, and index, 5012
Foreign Agricultural Service, document retrieval subject index, 8878
foreign production and commercial reports, 1966, 2737, 16713
generic names of fossil plants, 1820-1965 index, 10159
highway safety literature, 2714, 14960

Indexes—Continued
Immigration and Naturalization Service, administrative decisions, 14585-587
index medicus, 2732
abridged, 4571
cumulated, 10464
instrument fact sheets, National Oceanographic Instrumentation Center, 15047
international commerce (periodical), cumulative, automated, 2758
letters received by Adjutant General's Office, main series, 1846, 1861-89, pamphlet to accompany microfilm, 8976
local weather studies, catalog, 7961
Maritime Administration, Maritime Subsidy Board, National Shipping Authority, current regulations, 5837
medical and veterinary zoology, 12963
index-catalogue, special publications, 15406
military periodicals, Air University Library, 2319
mineral industries, census 1963, production, 15614
Le Monde, 2735
NASA data requirement description index of technical and management information for use on NASA programs, 10366
NASA 1971 authorization hearings, 11058
National Guard Bureau publications, 4558
national supplier change index, Federal supply catalog, 2627
Naval Training Device Center publications, 18291
nuclear science abstracts, 2976
cumulative report number with public availability citations, 6397
OAR index of research results, 54
output per man-hour—
corrugated and solid fiber boxes industry, 4375
gray iron foundries industry, 4374
selected industries, 1939 and 1947-69, 18123
passenger lists of vessels arriving at Baltimore, 1823-66, city lists, pamphlet to accompany microcopy, 14911
1820-97, Federal lists, pamphlet to accompany microcopy, 17025
pesticides documentation bulletin (periodical), 3018
photonuclear data, supplement, 10431
plastics, technical conference papers, 9967
President's papers—
Roosevelt, Theodore, 11555
series, 11555
research in education (periodical), report resume, 5357
semi-annual index, 14295
Russian accessions, Library of Congress, 2904
scientific and technical aerospace reports, 3176, 14899
soil conditioning rating indices for major irrigated and non-irrigated crops grown in western U.S., 15232, 17286
statistical journals, author and permuted title index, 17036
trademarks, 15102
U.S. Government research and development reports, 3301
quarterly cumulative, 3302
Veterans Administration publications, 4783
water data, catalog of information—
areal investigations and miscellaneous activities, 7226
ground water stations, 10164
surface water station, 7227
water quality stations, 7228
Indexing, automatic indexing, state-of-the-art report, 8982
India:
accessions list, Library of Congress American Libraries Book Procurement Center, New Delhi, 2287

India—Continued
 agricultural commodities, agreement, 8226, 15302, 17349
 background notes, 1139
 economic trends and their implications for United States, 1975, 11472
 economy, basic data, 6508
 higher and professional education, 7014
 mineral industry, minerals yearbook chapters, 7466-67
 plant quarantine, import requirements, 3382
 records of Dept. of State, pamphlets to accompany microcopy, internal affairs, 11721
 selling in India, government procurement procedures, 10876
 trade goods, Indian chintz in collection of Cooper-Hewitt Museum of Decorative Arts and Design, study, 12917
 Indian Affairs Bureau:
 administration of program for aid to public school education of Indian children, improvement, GAO report, 12572
 appropriations, 1970, law, 314
 safety progress report, 1968, pacesetter for safety, 4294
 teachers, service time required when travel and transportation expenses are paid to 1st post of duty, reduce, report, 1653
 Indian Boundary Campground, Tenn., importance of shading to visitors selecting campsite, 16571
 Indian Breastwork in Battle of Horseshoe Bend, Alabama, 17155
 Indian Claims Commission:
 appropriations, 1970, law, 314
 appropriations, 1971—
 hearings, 8268
 law, 13335
 reports, 9702, 13645
 termination date, extend, and expand membership, hearing, 16060
 Indian Health Service:
 appropriations, 1970, law, 314
 dental assisting curriculum, guidelines, 7291
 performance requirements of assistants, 7292
 Health Program Systems Center, design summary, 8802
 nursing careers among American Indians, 7298
 Indian lands:
 Alaska native land claims, settle—
 hearings, 511, 5161
 report, 9882
 Interior Department decisions, 2749
 loans for acquisition of lands by Indian tribes and tribal corporations—
 law, 8188
 report, 6590
 see also names of Indian tribes or reservations.
 Indian Oaks, Ill., railroad accident report, 5435
 Indian Ocean:
 explorations of survey ship, USC&GS Pioneer—
 bathymetry, geomagnetic, and gravity data, errata, 17953
 primary productivity and plankton biological program results, 615A
 lights and fogs signals, list, 6086, 15053
 nautical charts and publications, catalog, 4604
 radio navigation aids, 7675
 south, sailing directions, 1017
 tide tables, 13210
 western, coral islands, 18325
 Indian Opportunity, National Council on, see National Council on Indian Opportunity.

Indian reservations, construct elementary and secondary schools adjoining or in proximity, appropriation of funds, provide, report, 9870
 see also names of reservations.
 Indiana:
 career directory, college level, 9466
 census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 9421
 retail trade, merchandise line sales, 15541
 selected services, area statistics, 157
 wholesale trade, area statistics, 1301
 census of governments, 1967, State report, 3564
 census of transportation, 1967, commodity transportation survey, 9436
 climatological data, 2409
 county business patterns, 3616, 12024
 electric rate book, 16499
 Falls of Ohio Interstate Park compact, consent of Congress—
 law, 17602
 reports, 10957, 15983
 Federal careers projected vacancies, college level, 9469
 fishery products, wholesale dealers, list—
 Great Lakes area, 9545
 Mississippi River and tributaries, 9563
 mineral industry, minerals yearbook chapter, 4432
 minority construction contractors located in selected cities, list, 8794
 needs conservation, summary of 1967 inventory, 9145
 pollution of interstate waters, conference proceedings, 7163
 postal map, 7701
 precipitation data, hourly, 2718
 small watershed projects, program, hearing, 12382
 standing timber coefficients for Indiana walnut log production, 5510
 timber, 5517
 water pollution on Lake Erie and its tributaries, etc., conference proceedings, 5469-70
 Indiana County, Pa., community profile, 16275
 Indianapolis, Ind.:
 area wage survey, 5829
 metropolitan intrastate air quality control region, Federal facilities, 10421
 principal electric facilities, map, 8623
 Weir Cook Airport, climatological summaries, 2258
 Indians:
 American—
 answers to your questions, 10217
 calendar, 8798
 education problems—
 committee print, 1739
 national tragedy, national challenge—
 print additional copies, reports, 1874, 6663
 report, 1612
 1960 population map, 13181
 appeals, Interior Department decisions, 2751
 children attending public schools constructed in school districts adjoining or in proximity of Indian reservations, provide proper housing and educational opportunities, report, 9870
 claims litigation, status, hearings, 16060
 code of Federal regulations, 7125
 community health representative, changing philosophy of Indian involvement, 8799
 dental services, annual report, 18063
 education, Federal boarding school evaluations, compendium, 8425

Indians—Continued

- education of children, extend programs, elementary and secondary education act amendments of 1969—
law, 6549
- reports, 3932, 6646
- financing Indian development, annual credit report, 7290
- health program, 12599
- Public Health Service, 1060
- report to the first Americans, 16658
- health services and facilities, appropriations, hearings, 8268
- Indian children, aid to public school education, improvement of administration of program, GAO report, 12572
- Indian leader (Haskell Institute periodical), 2739
- Indian policy, recommendations, message from the President, 13370
- Indian record (periodical), 2740
- Indian School journal (periodical), 2740A
- industrial growth on Indian reservations as big step in Indian progress (remarks), 8492
- loans for acquisition of lands, provide—
law, 8188
- report, 6590
- North American, folklore, bibliography, 825
- publications, price list, 15127
- sanitary facilities, need to improve practices for obtaining equitable contributions toward cost of constructing, GAO report, 12577
- toward economic development for native American communities, compendium of papers, 3766
- vital statistics, 1968—
Aberdeen, S. Dak., area, 7294
- Albuquerque, N. Mex., area, 7295
- Navajo area, 8901
- Oklahoma, area, 7296
- Phoenix, Ariz., area, 8800
- Portland, Oreg., area, 7297
- see also names of reservations or tribes.

Indicators:

- direct-reading humidity-temperature indicator, equip tips, 10114
- isotopic altimeter setting indicator, design and development, 10636
- mercury electrochemical coulometer as battery state-of-charge indicator, 12789

Individuality, *see* Psychology.

Indochina:

- new peace initiative (address), 17330
- U.S. military actions, documents relating to, 16052

Indonesia:

- accessions list, Library of Congress American Libraries Book Procurement Center, Djakarta, 2288
- cumulative list of serials, supplement, 14752
- agricultural commodities, agreement, 6237, 7831, 9201, 15333
- area handbook, 13052
- capsule facts for Armed Forces, 69
- economic trends and their implications for United States, 1969, 8823
- mineral industry, minerals yearbook chapter, 16904
- surplus property, agreement, 7832
- United States AID Operations, report, 1543
- United States naval medical research unit, establish, agreement, 7820

Induced reaction:

- phase 2, bench-scale research on CSG process—
laboratory physico-chemical studies, 254
- mechanics of fluo-solid systems, studies, 6487
- operation of bench-scale continuous gasification unit, 255

Inducers:

- 80.6" helical, operated in hydrogen, thermodynamic effects of cavitation, 5933
- helical in hydrogen, effect of blade leading edge thickness on cavitation performance, 14853
- tandem-bladed—
overall performance, 7530
- tested in water—
blade-element performance, 941

Inductance:

- induction motors, service, engineering and operations manual, 4656
- rotary inductosyn, general information and error theory, USSR study, 7389, 10283

Induction angular displacement sensor, rotor inductosyn tests, USSR study, 11515

Induction (military service), *see* Conscription.

Induction heating, *see* Heating.

Inductors:

- induction devices for detecting underground communications, investigation, USSR study, 5736
- selection and use of, military standard, 13808

Inductosyn, *see* Induction angular displacement sensor.

Industrial accidents *see* Accidents.

Industrial arbitration:

- national emergency labor disputes, recommendations and proposals, 5093
- why arbitrators reinstate discharged employees, 821

Industrial arts, publications, list, 16545

Industrial chemistry, industry, employment outlook, 14719

Industrial College of Armed Forces:

- catalog, 12619
- catalog of publications, 10253
- correspondence courses, national security management, information booklet, 5721
- monograph publication R series, 10253
- National Security Seminar—
background readings, 11487
- information guide for conduct, 11486
- presentation outlines, 16735
- prospectus, 12620
- perspectives in defense management (periodical), 3017

Industrial designers, employment outlook, 14076

Industrial designs, *see* Designs (Industrial).

Industrial equipment, *see* Production equipment.

Industrial Hygiene Week, National, *see* National Industrial Hygiene Week.

Industrial machinery, *see* Machinery.

Industrial management:

- civil defense, preparation for wartime and peace-time disaster in industry, 9460, 13189
- Industrial mobilization production planning manual, 11161
- management, and scientific and technical revolution, USSR study, 11511
- management of aircraft modifications, improvements needed, GAO report, 4222
- management systems need to be improved, USSR study, 11503
- nuclear materials, safeguards and management, bibliography, 1272
- solid waste management abstracts and excerpts, 15258

Industrial parks:

- EDA industrial park program, analysis of its impact, 13822
- planning airport industrial park, 11209

Industrial pensions, *see* Pensions.

Industrial plants, *see* Plants (Industrial).

Industrial Pollution Control Branch:

- Federal Water Pollution Control Administration projects, 14410, 18003

Industrial production, *see* Production.

Industrial property, *see* Patents.
 Industrial Property, International Bureau for Protection of, *see* International Bureau for Protection of Industrial Property.
 Industrial relations:
 bibliography, Labor management relations act, 1947, as amended by Labor management reporting and disclosure act, 1959, supplement, 17145
 BLS studies, 1954-69, directory, 4386
 compliance enforcement and reporting in 1969 under Labor management reporting and disclosure act, 4361
 court decisions relating to National labor relations act, 6054
 labor-management relations—
 field examiner, career with National Labor Relations Board, 17146
 in Federal service, report and recommendations, 4367
 Labor-management relations act—
 amend—
 hearings, 517
 law, 302
 reports, 1547, 3837, 5199
 rules of NLRB, revised pages, 2149
 labor relations, labor-management policies for State and local government, 4796
 National labor relations act, summary, 10462
 railway labor-management dispute, temporary strike prohibition, law, 5062
 railway labor-management relations, reports, 6594, 6613, 6740
 science and industry, plans to aid relations, USSR study, 5758
 seafaring guide and directory of labor-management affiliations, 7447
 unfair labor practices, case developments, quarterly report, 3122
 work stoppages, 1968, analysis, 7423
 Industrial safety, *see* Safety of life.
 Industrial security, *see* National security.
 Industrial services handbook, 12948
 Industrial waste, *see* Waste products.
 Industrial workers, *see* Labor.
 Industrialized housing, hearings, 1429
 Industries, *see* Industry—also names of industries.
 Industries Commission, National Special, *see* National Special Industries Commission.
 Industry:
 civil defense highlights, 2741
 current industrial reports, 217-220, 2475-76, 9453
 Defense Dept. industry symposium, proceedings, 16156
 defense industry bulletin (periodical), 2494
 depreciation allowed regulated industries, tax reform, summary of recommendations, 8400
 design of new industrial facilities, fallout protection, 149
 disaster, preparation for wartime and peacetime through industrial civil defense management, 9460, 13189
 domestic industries and workers injured by increased imports from low-wage areas, establish procedures to relieve, hearings, 15896
 economic and industrial affairs, Eastern Europe, translations, 3271
 economy at midyear 1970, with industry projections for 1971, 13092
 heavy, economic geography of USSR, 2000
 how to improve your community by attracting new industry, 11188
 how to make industrial site survey, formula for growth, 566
 improving education-industry relations (address), 4985
 industrial growth on Indian reservations as big step in Indian progress (remarks), 8492

Industry—Continued
 industrial mobilization production planning manual, 11161
 industrial outlook, 1285
 industrial R & D spending, 1968, science, 11797
 industrial radio services, FCC rules and regulations, 8606
 industrial users, Federal grants awarded for constructing waste treatment facilities which benefit, Federal Water Quality Administration, GAO report, 10145
 industry reports, 2403, 2443, 2449, 2452, 3097, 3115
 injury rates, 14663
 innovations, study of underlying factors in selected firms, 1005
 input-output structure of economy, 1963, detailed industries, 1286-88
 joint industry administered trusts funds for product promotion, employer contributions, permit—
 hearings, 517
 reports, 1547, 3837, 5199
 military-industrial complex, case for balanced viewpoint (remarks), 10772
 new, impact on local government finances in 5 small towns in Kentucky, 16378
 output per man-hour, selected industries, indexes, 18123
 patterns of industrial growth (series), 4903-4, 6408-9, 8052-64
 Ph. D. scientists and engineers in private industry, 10292
 private industry and nutrition, hearings, 521, 3984
 process industries, manpower implications as result of computer process control, outlook, 14730
 programs in 2-year colleges to upgrade employees (paper), 11239
 research and development, funds, 1967, scientists and engineers, Jan. 1968 report, 4590
 rural industrialization—
 brick factory in Summerville, S.C., case study, 5338
 tissue paper mill in Pickens, Miss., case study, 14266
 safety in industry instructor outline, instructor institute, 7415
 scientific and technical personnel, 14741
 seasonal nature and marked seasonal peaks of operation, fair labor standards and regulations, 10668
 special machinery, except metalworking machinery, census of manufactures, 1967, industry statistics, 12007
 trade and industry publication, 4844, 11966-968, 13034-35
 TVA area, development, 9224
 unemployment insurance tax rates by industry, 15369
 United States, classified information released under Government contracts, protect against sabotage, espionage, etc., reports, 1543, 3838
 useful market surveys and industry reports issued by United Nations Economic Commission for Africa, supplement, 13227
 USSR—
 industrial affairs, translations, 3282
 republic gosplans, 1969-70, reports on economy, finance, and planning at Republic Supreme Soviet sessions, 7360
 wage survey—
 communications, 11546
 contract cleaning services, 4376
 cotton and man-made fiber textiles, 818
 educational institutions, nonteaching employees, 11547
 laundry and cleaning services, 2025
 machinery manufacturing, 14737
 men's and boys' shirts (except work shirts) and nightwear, 7426

Industry—Continued

wage survey—continued
nursing homes and related facilities, 819
women's and misses' dresses, 7424
wood household furniture, except upholstered, 11531
see also names of industries.

Industry Committee on Engineering and Construction Services, report, 15719

Inequalities, finitely converging algorithms for solution of denumerable systems of inequalities and their application in problems of adaptive system synthesis, USSR study, 5729

Inertia:

apparent mass and movement of inertia of large disk suspended as pendulum at different air densities, experimental determination, 12819
inertial properties of all-flexible parawing, determination, 12821
Inertia wheels, *see* Reaction wheels.

Inertial guidance:

novel inertial navigation system, analysis and evaluation, 906
radio/optical/strapdown radio guidance study for advance kick stage applications, summary, 4497
strapdown inertial guidance, new concept, 7554
strapdown inertial reference system and onboard computer for attitude control of spacecraft, 16974
Inertial navigation, *see* Inertial guidance—Navigation.

Inertial systems, *see* Inertial guidance.

Infantry:

battalions, field manual, 3463
Old Guard, history of 3d infantry regiment, 9350

Infants:

and fetal mortality trends, possible causal relationship of strontium 90 fallout deposition, evaluation, 8557
breast feeding your baby, 13182
casefinding development approach, with reference to cerebral palsy, mental retardation, and related disorders, 8885
centers of gravity, determination, 11977
District of Columbia infant education research project, preschool program in compensatory education, 8524
hemolytic disease of fetus and newborn due to RH isoimmunization, 5841
mortality—

key issues, conference, report, 9011
study from linked records, methods of study, and registration aspects, 6017
neonatal narcotic addiction, 11565

Infection:

half a century of combatting, USSR, results, 10285
space environment's effect on man's response, review of literature and annotated bibliography, 2073
spread of droplet infections in closed collective, mathematical models, USSR study, 5746
Infectious diseases, *see* Contagion and contagious diseases.

Infectious pancreatic necrosis (IPN) virus, *see* Pancreas.

Infiltration, *see* Water.

Infinite periodic minimal surfaces without self-intersections, 11628

Infirmaries, *see* Hospitals.

Inflammable materials, Apollo command module mockup flammability tests, 8939

Inflation (finance):

anatomy of inflation, 815
anti-inflationary policies and programs (remarks), 2270, 2272, 18389-390
cost-push inflation, what it is and what not to do about it (remarks), 7873
curb inflation facts (remarks), 10656

Inflation (finance)—Continued

debilitating effect on advanced industrialized countries (remarks), 17392
Federal budget, inflation, and full employment—

hearings, 3764
report, 322

fundamental challenge to stabilization policies (remarks), 10079
gradualism on trial (remarks), 1179

inflation and income distribution in United States (remarks), 1858

inflation, need for more balanced policy mix, expressing sense of Senate, hearings, 9897

inflationary pressures are beginning to recede (remarks), 10655

some free information (remarks), 8152
state of the economy, 1970 midyear review, hearings, 15317, 17613

ways of pursuing policy of monetary and fiscal restraint (remarks), 2271

Influenza, anthrozoosis, USSR study, 8830

INFORMAP (Information Necessary for Optimum Resource Management and Protection), *see* Information storage and retrieval systems.

Information, scientific and technical, forecasting, USSR study, 7391
see also Public information.

Information bulletins, *see* names of departments, etc., issuing bulletins.

Information centers, *see* Information services.

Information communication occupations, suggested curriculum guide, 5352

Information for Armed Forces, Office of, DoD pamphlets, 10218, 11437, 16689

Information Office, Agriculture Dept.:
appropriations, 1970—

law, 1392
report, 1482
appropriations, 1971, hearings, 9724

Information requirements for supersonic transport operations, 12764

Information services:
Army technical information, points of contact, directory, 15500

career information center, working model, 7007
Commerce Dept. special services, authorize—

law, 15797
report, 1632

Federal information processing standards publications—

Federal general data standard representations and codes—

counties and county equivalents of States of United States, 14918
States and outlying areas of United States, 14917

FIPS pubs, 954, 14917-919
federally supported information analysis centers, directory, 11298

health information system, 188
information systems, USSR study, 11504

management of information and knowledge, Panel on Science and Technology, 11th meeting, papers, 15935

motorist wants to know, 10528
multilingual telephone information (remarks), 280

Philadelphia housing information service, report, 4288

program information act, hearings, 510
project report on countywide information and referral designs for action for older Americans, 15395

State urban information and technical assistance services, 1st 6 months, report 11418

toxicology, general, resources in U.S., directory, 2037

Information storage and retrieval systems: automatic indexing systems, state-of-the-art report, 8982
 census tabulation available on computer tape series, 8094-95
 community mental health center data system, description of existing programs, 4565
 computer program for plotting data points from multichannel analyzers, 8902
 computerized data retrieval and manipulation, final 1970 census plans and 4 programming systems, papers, etc., 4929
 conversion of information form and automation of research, USSR study, 5793
 Data Reduction Laboratory, aid to space scientists, 7532
 digital model for aquifer evaluation, 8751
 edit-insertion programs for automatic typesetting of computer printout, 8992
 fast, flexible, highly parallel associative processor, 15063
 hybrid memory systems, USSR study, 16771
 INFORMAP, computerized information system for fire planning and control, 8712
 information acquisition, sensing, and input, selective literature review, research and development in computer and information sciences, 8983
 information requirements, timing procedures and photo scale, effects on interpreter performance, 9359
 information systems, USSR study, 11504
 informational technology and ergonomics, USSR study, 16753
 interactive specification of data displays, 14828
 Internal Revenue Service Data Center, Detroit, Mich., space requirements, hearing, 11056
 Labor Statistics Bureau system, systems manual, 14660
 management of information and knowledge, Panel on Science and Technology, 11th meeting, proceedings, 8322
 Navy manpower and personnel management information system, improvement needed in reliability, GAO report, 11375
 overall system design considerations, selective literature review, research and development in computer and information sciences, 11730
 processing, storage, and output requirements in information-processing systems, selective literature review, research and development in computer and information sciences, 8984
 SIMPO-1 model development, summary of results, 9365
 Soviet scholars discuss problems of information systems, 16772
 standard data elements, DoD data elements, standardization program, manual, 9958
 summary tapes—
 first count from 1970 censuses of housing and populations, 8094
 general information about use, by Census Bureau, 10824
 toward uniform information system, USSR study, 12632
 transform operation in TOS assessment of human component, 9360
 Information theory:
 DIME geocoding system, census use study, 15618
 information and knowledge management, Panel on Science and Technology, 11th meeting, papers, 15935
 information requirements, timing procedures, and photo scale, effect on interpreter performance, 9359
 informational technology and ergonomics, USSR study, 16753

Information theory—Continued
 psychology, principles of information processing in visual system, USSR study, 16761
 some information processes for arrays of sensors, 18297
see also Computer science.
 Infrared rays:
 airborne infrared Fourier spectrometer, USSR Study, 16805
 effects on visual performance, preliminary investigation, 7452
 high resolution infrared radiometer on Nimbus II, accuracy for mapping, 10380
 infrared absorption used in determination of oxygen concentration in silicon and germanium, 10438
 infrared evaluation of starch products used in iron ore flotation, 867
 infrared radiometric microscope used in nondestructive determination of flexible package seal defects, 13041
 ocean water, infrared characteristics, $1\frac{1}{2}$ to 15 microns, 4620
 satellite infrared radiation data, estimating cloud amount and height from, 17948
 Infrared spectrum, *see* Spectra.
 Ingestion:
 generalized hot-gas ingestion investigation of large scale jet VTOL fighter-type models, 4511
 scaling of VTOL recirculation effects, 14827
 vapor, phenomenon in hemispherically bottomed tanks in normal gravity and in weightlessness, 12776
 Ingots, *see* Aluminum.
 Inhabited orbital stations, USSR, 10263
 Inhalation, carcinogenesis, conference proceedings, 9375
 Inheritance and transfer tax:
 career opportunities, estate tax attorney, 14606
 Federal tax guide for survivors, executors and administrators, 5642
 gift and estate taxes, accelerated payment, tax recommendations of the President—
 committee print, 15955
 hearings, 15954
 internal revenue bulletin, cumulative index-digest supplement system, 2728, 7313, 14607
 IRS looseleaf regulations system, 2853, 12616
 State tax death payments, enlarge Federal tax credit, hearings, 8408
 Inhibitors, organophosphorus, effect of structure on degree of reactivation of inhibited cholinesterase, USSR study, 16781
 Injections:
 hydrogen injections, chemically reacting air couette flow with, diffusion model study, 18224
 injection molding processing parameters, literature search, 8489
 multiple jet liquid injection into hypersonic flow, experimental investigation, 11685
 nonsimilar laminar boundary-layer equations including foreign gas injection, method for solving, 919
 two-dimensional jet injected at angle to moving stream, mixing region, analysis, 929
 Injuries:
 accident and injury data, collection and utilization, hearing, 415
 automobile accident injuries, economic consequences, 9234-35
 automobile personal injury claims, 15355 appendix, 15356
 blood injury during functioning of implanted artificial heart, problems, USSR study, 16738

INDEX 1970

Injuries—Continued

- coal-mine injuries and worktime, monthly report, 2412
- crash/injury ejection study, commercial vehicle, accidents, 7501
- experience in metallic mineral industries, 851, 14778
- experimental comparison of trauma in lateral (+Gy), rearward facing (+Gx) and forward facing (-Gx) body orientations when restrained by lap belt only, 10780
- falls hurt, safety precautions, 6303
- fatal and injury accident rates, 1968, on Federal-aid and other highway systems, 2209
- Federal work injury facts, occupational distribution, duration, and direct cost factors, etc., as reported under Federal employees' compensation act, 1798
- industrial safety, 4388
- injured and sick, training of ambulance personnel and others responsible for emergency care at scene and during transport, 8775
- ionizing radiation exposure and delayed injury, workmen's compensation decisions involving, digest, 6399
- mineral industries—
 - by States, injury experience and worktime, minerals yearbook chapter, 4411
 - work injury experience, 16899
- oil and gas industry, 844, 16890
- persons injured and disability days due to injury, health statistics, 7584
- rates, by industry, 14663
- recording employee injuries, 11528
- seat belt injuries in impact, 1283
- see also* Radiation injuries.
- Injury Control Research Laboratory, research report ICRL-RR series, 5378-79, 8557, 15754-755.
- Ink, GPO standard ink book, 5568
- Inland waterways:
 - riverine warfare, Navy's operations on inland waters, 1023
 - transportation of mineral resources of South-Central States, 849
 - waterborne commerce, 1968 calendar year, 8552-54
- Inlets, *see* Air inlets (aircraft).
- Inman, Guy M.:
 - reactor fuel burnup calculations, annotated bibliography, 1273
 - safeguards and nuclear materials management, annotated bibliography, 1272
- Inner city, *see* Cities and towns.
- Inner tubes, Federal item identification guides for supply cataloging, supplements, 2590
- Innis, Robert C., airworthiness considerations for STOL aircraft, 5930
- Innovation in measurement (address), 10870
- Innovations, technological, *see* Technological innovations.
- Inorganic compounds:
 - miscellaneous, military standard, 558
 - research materials developed under NBS inorganic materials program, 17037
 - salts, high temperature properties and decomposition, 956
- Input-output analysis, *see* Linear programming.
- Input-output and government policy, 279
- Input-output structure of U.S. economy, 1286-88
- Insane, persons filing tort actions, extend time, amend U.S. Code, report, 1457
- Insect repellents, new candidate materials as toxicants, repellents and attractants against stored-product insects, preliminary evaluation, 12989
- Insect vectors, *see* Vectors (biological).

Insecticides:

- act, administration deficiencies, report, 1463
- act, amend, hearing, 11017
- animal systemic, materials screened at Kerrville, Tex., 9322
- bacterial insecticide preparation BIP-805, USSR study, 1981
- chemicals and pathogens tested against caterpillars on cabbage, 13002
- control of cabbage loopers, field experiments, 10702
- organochlorine and organophosphorous insecticides, acute toxicities to estuarine fishes, 15277
- Scientific Institute of Fertilizers and Insecto-Fungicides, 1919-69, USSR study, 5770
- seed orchardist's guide to handling of insecticides and calibration of spray equipment, 8716
- toxicity of new compounds to stored-product insects, 17442
- see also* Aerosols—Pesticides—*also* names of insecticides.
- Insects:
 - control—
 - house plants, 17436
 - in farm-stored grains, 25
 - protecting home cured meat, 15423
 - cooperative economic insect report, 2450
 - fabric, candidate mothproofers, toxicity and persistence through washing and drycleaning, 17443
 - forest—
 - conditions in United States, 14438
 - pest conditions in Pacific Northwest, 15486
 - grape, control in eastern U.S., 9285
 - injuriously, in eastern U.S., protecting log cabins, rustic work, and unseasoned wood from attack, 17434
 - insect enemies of yellow-poplar, 16577
 - numbers infesting raisin packages, effect of oil treatment, 10679
 - pests in cottonfields, distribution, 29
 - potato control, methods, 11949
 - quarantine notices under Plant quarantine act, P.P.C. series, 3001
 - resistant packaging, 1913-69, bibliography, 12960
 - watch for new small grain insects, 6312
 - worms and insects harmful to man, animals, and plants, publications, price list, 10516
 - see also* names or classes of insects.
- Inserts, helical-wire in test of single-tube-in-shell water boiler, 5948
- Insolvency, *see* Bankruptcy.
- Inspecting airways, 5408
- Inspection (industrial):
 - food inspection roles of Federal organizations, need to reassess, Agriculture Dept., Defense Dept., and Interior Dept., GAO report, 11377
 - health and sanitation inspection of imported livestock products, provide, report, 17684
 - how to inspect chart—
 - fabricated structural steel industry—piling and stacking, 7417
 - punch press, 7416
 - HTIC LS series, 7416-17
 - imported livestock products, hearings, 17632
 - inspection milestones, brief history of meat and poultry inspection in United States, 16088
 - nondestructive testing or inspection, materials and defect simulator for calibrating ultrasonic equipment, 9059
 - safety road checks, motor carriers of property, 4488, 16929
 - see also* names of articles, etc. inspected.
- Inspection (military), *see* names of articles, etc., inspected.

- Inspectional analysis, botanical techniques for on-site inspections of suspected underground nuclear explosion, 16605
- Inspector General, Agriculture Dept.: appropriations, 1970—
law, 1392
report, 1482
appropriations, 1971, hearings, 9724
- Inspectors:
air carrier operations, handbook, 7067
bridge inspector's training manual, 11388
plant quarantine, examination announcement, discontinuance notice, 8121
see also types of inspectors.
- Inspectors (manufacturing):
employment outlook, 16834
- Installation instructions for ILS glide slope, FAA handbook, 4110
- Installation practices for aircraft electric and electronic wiring, 17469
- Installations (military):
Army, continental U.S., list, 10735
Army facilities construction criteria, technical manual, change, 6359
Army, Navy, and Air Force, questionable need for overtime, GAO report, 1903
concrete for military structures, standard practice, technical manual, 15491
construction appropriations, 1970—
hearings, 400, 1703
law, 3743
reports, 1460-61, 1650, 3813, 3832
construction appropriations, 1971—
hearings, 9729, 11023
reports, 9704, 10951, 10985
requests, amendments, 8210
waiving points of order, report, 13404
construction authorization, 1970—
hearings, 487
law, 1406
report, 476
construction authorization, 1971, hearings, 17688
construction in theater of operations, Army technical manual, 6358
construction of mess halls in Defense Department, basis for determining need, GAO review, 722
courier station design, technical manual, 7997
defense disposal manual, changes, 1760, 4004, 8460, 16110
facilities engineering, grounds maintenance and land management training conferences, Army pamphlet, 1231
military club systems, fraud and corruption in management, investigation, hearings, 1730, 3975
military construction—
requirements in southeast Asia, subcommittee report, 6699
survey of use of advertised contracting in, GAO report, 14516
military fields, instrument approach procedure charts, 2884
naval installations, improved procedures needed for obtaining facilities for U.S. Naval Support Activity, Naples, Italy, by lease-construction method, GAO report, 4221
naval shore facilities, safety precautions, 15100
replacement and relocation, creation of defense facilities fund, draft of bill to authorize hearings, 12261
roads, walks, storage areas, geometric design, etc., Army technical manual, 7995
Seabee planner's and estimator's handbook for construction, 9041
- Installment credit:
automobile installment credit developments (periodical), 2359
commercial banks, holdings, monthly report, 2446
- Installment credit—Continued
consumer credit—
consumer finance companies, 2445
monthly release, 2444
installment and deferred-payment sales, tax information, 5650
- Institute for Applied Technology:
programs and organization, 17033
technical highlights, 1969 fiscal year, 6006, 10433
- Institute for Basic Standards, technical highlights, 1969 fiscal year, 6006, 10434
- Institute for Materials Research, technical highlights, 1969 fiscal year, 6006, 10435
- Institute for Telecommunication Sciences:
ESSA technical report, ERL-ITS series, 612-615, 1839, 4090-93, 5390-91, 7051, 8573-74, 10023-25, 11273-274, 12513, 14348-350, 16457-461, 17951-952
ESSA technical memorandums, ERLTM-ITS series, 1819
ionospheric predictions (periodical), 2773
- Institutes for Environmental Research, ESSA technical memorandum, IERTM-ATDL series, 604
- Institutions:
Great Lakes, concerned with water and related resources, survey, 5570
higher educational personnel training programs, 1970-71, institutes and short-term training program, 8517, 9985
Ingram, William T., quad-city solid wastes project, June 1, 1966-May 31, 1967 interim report, 9074
- Institutions:
impacts of Head Start centers on community institutions, national survey, 16648
summary, report, 16649
museums and related institutions, basic program survey, 7016
science and institutions in Belorussia, USSR study, 5804
scientific institutions selected articles, USSR study, 4357
States, funds for research, 8449
see also Mental institutions.
- Instruction, *see* Programmed instruction—Teaching.
- Instruction reports, Waterways Experiment Station, 10015, 11254
- Instructional materials, *see* Teaching.
- Instructional Technology Commission, to improve learning, report, 15897
- Instructors, *see* Teachers.
- Instrument approach procedure charts, *see* Maps and charts.
- Instrument flight rules:
aviation air traffic patterns, 11282
enroute IFR air traffic survey, peak day, 12515
en route IFR altitudes over particular routes and intersections, minimum, 3451, 17454
IFR altitudes, Federal aviation regulations, 624, 2575
off-airway routes (non part 95), 3449
VFR-IFR experimental training program (paper), 6341
- Instrument flying:
attitude instrument flying, 11973
flight procedures and airspace, 11287
instrument rating (airplane) written test guide, 5409
pilot heart rate during in-flight simulated instrument approaches in general aviation aircraft, 13089
- Instrument landings, *see* Landing (aircraft)
- Instrument makers, mechanical, employment outlook, 14710
- Instrument repairmen, *see* Instrumentmen.
- Instrumentation:
foundation, at Pleasant Valley pumping plant, Calif., 18319
journal of research, National Bureau of Standards, 2787

INDEX 1970

Instrumentation—Continued
 kryptonate-based, development for automobile exhaust pollutants, feasibility, 15517
 nuclear, Radiochemical Analysis Section, July 1968–June 1969 summary of activities, 4554
 S.S. *Boston*, container vessel, ship response results from—
 first operational season, 17267
 two operational seasons in North Atlantic service, 17268
 Instrumentmen, repairmen, employment outlook, 16831
 Instruments:
 and laboratory equipment, Federal item identification guides for supply cataloging supplements, 2494
 atomic absorption, spectrum-1 and SFPA used to determine magnesium and calcium content of urine, feces and meals of man, USSR study, 8833
 census of transportation, 1967, commodity transportation survey, shipper group, 3608
 hazard-detecting instruments and apparatus, Federal item identification guide, 16129
 instrument bearing performance in space and laboratory vacuum, 18214
 instrument fact sheets—
 IFS series, 15047–50
 National Oceanographic Instrumentation Center, index, 15047
 moving graph instrument display for landing approaches with helicopter, evaluation, 18210
 selected, and related products, shipments 1961–67, patterns of industrial growth, 8049
 three instrument displays to assist in airplane thrust management, simulation study, 18205
 see also names and types of instruments.
 Insulation:
 development of radiation resistant insulating layers for planar silicon technology, 10358
 durability of insulating glass, seminar proceedings, 5997, 8978
 heated rooms excavated in permafrost, spray-applied polyurethane foam to insulate, 10330
 insulating workers, employment outlook, 14695
 mineral-based insulating materials, economic potential for combating noise problem in residences, 10322
 sleeving, electrical, Federal item identification guide, 4011
 technology, selected advances, 18322
 see also Heat shields.
 Insurance:
 administration of negotiated pension, health, and insurance plans, major collective bargaining agreements, 11529
 business, employment outlook, 14725
 Canal Zone, annual business report, 15540
 Coast Guard not requiring shipbuilders to buy insurance and performance and payment bonds as means of reducing cost of vessel construction, GAO report, 14510
 crime insurance, impact on small business in urban areas, hearings, 15941
 Federal broker-dealer insurance corporation act, hearings, 13529
 Federal Housing Administration, insurance operations, examination of financial statements pertaining to, GAO examination, 9630, 10143
 Federal share insurance for Federal and State credit unions member accounts—

Insurance—Continued
 hearings, 12358, 15892
 report, 13703
 HUD urban property insurance, reports, 15878, 16026
 industry, investigation, hearings, 8419
 insurance and risk management in small business, 18324
 insurance arrangements under workmen's compensation, 8858
 nonprofit hospital mortgage insurance program, 16678
 publications, price list, 15125
 student loan insurance fund, 1968, financial statements, GAO examination, 1889
 urban property, FAIR plan, extended coverage program, 8781
 Veterans Administration, policy loans, need for specific criteria for adjusting interest rate charged, GAO report, 12579
 see also types of insurance.
 Insurance agents, *see* Salesmen and salesmanship.
 Insurance companies:
 conglomerates, and insurance companies solvency, State regulation and case study of one nonrenewal, hearings, 8419
 insolvencies, protect American public against, hearings, 5262
 Insured banks, *see* Banks and banking.
 Insurrections, *see* Revolutions.
 Integral equations, *see* Equations.
 Integrals:
 collision integrals for nonelastic processes in plasma kinetic theory, 2096
 exponential integral, high-precision Chebyshev series approximation, 14885
 Integrated circuits, *see* Circuits.
 Integrated Global Ocean Station System, *see* Weather stations.
 Integrated logistics support (ILS), support integration, 10744
 Integration, *see* Race problems.
 Integration (mathematics):
 computational method for photopeak location and integration, 9394
 integration of relativistic equations of motion of artificial earth satellite, 14894
 measures of overlap of income distributions of white and Negro families in U.S., 8101
 Newtonian-type integration coefficients and some applications to orbit calculations, derivation, 18201
 numerical integration of orbits in multi-revolution steps, 16965
 Intellect:
 brain and psyche, USSR study, 7398
 human intelligence, extensive bibliography, 6041
 Intellectual Property Organization, World *see* World Intellectual Property Organization.
 Intelligence *see* Intellect.
 Intelligence tests *see* Mental tests.
 Interaction of 42-MeV alpha particles with helium-3, 928
 Interactions of intermediate energy protons with light nuclei, 14888
 Interagency Committee on Manpower Research, manpower research, inventories, 14289
 Interagency Committee on Mexican-American Affairs:
 appropriations, 1970—
 hearings, 1700
 law, 6536
 reports, 1683, 5254
 see also Cabinet Committee on Opportunities for Spanish-Speaking People.
 Inter-Agency Committee, Youth Conservation Corps, *see* Youth Conservation Corps Interagency Committee.
 Interagency Coordination Council on Drug Abuse Education, *see* Drug Abuse Education Interagency Coordination Council.

- Interagency training programs, *see* Government officials and employees.
- Inter-American Development Bank:
act, amend, hearing, 13733
appropriations, 1970—
hearings, 1702
law, 5053
reports, 1521, 1561, 3818, 3840, 3926
appropriations, 1971, hearings, 9728
bank's first decade, increase in resources, and perspective for future (address), 9244
establishing agreement, amendment, 17353
funds, U.S., increase, hearings, 11029, 13733
U.S. participation—
foreign policy implications, hearings, 12271
replenishment of resources, special report, proposal, 13360
- Inter-American relations, *see* American states.
- Inter-American Social Development Institute:
appropriations, 1971, amendment, proposal, 13569
create, law, 1425
- Intercommunicating systems, intercommunication and public address systems, Federal item identification guide, 1768, 8468
- Interdepartmental Committee on Children and Youth, annual report, 231
- Interest and usury:
charge on insurance policy loans by Veterans Administration, need for specific criteria for adjusting, GAO report, 12579
- Emergency student loan act of 1969—
hearings, 413
law, 311
- Federal interest costs, opportunity to reduce by changing loan disbursement procedures under guaranteed student loan program, Education Office, GAO report, 10149
- high interest rates, rollback, expressing sense of Congress, hearing, 8277
- housing, low-rent—
change in interest rate provision in annual contributions contract, HUD handbook, 7274
interest rate on assistance loans, 7276, 11431
- Interest equalization tax act, extend, proposal, written comments, 8332
- interest equalization tax, tax information, 5681
- interest expense, income tax deductions, 1960
- interest on deposits, Federal reserve regulation, 7154-56, 11327, 12535
- interest on FHA insured loans, tax treatment, report, 9716
- interest rate—
ceilings and access of State and local governments to capital markets (remarks), 5464
criteria, change proposed for determining financing costs of Federal power, program, GAO report, 4217
- limitation on deduction for investment interest, tax reform summary of recommendations, 1728
- payment of interest on deposits, regulation, amendment, 656
- rates, regulate—
hearings, 1576
law, 1410
reports, 1546, 1555, 1616, 3829
- savings bonds, increase interest rate—
laws, 1395, 15778
report, 1648
- Interest equalization tax act:
extend—
law, 1393
reports, 1455, 1481
- Interest rates, *see* Interest and usury.
- Interfaces:
enhancement, and vortex flow for vertical tube evaporator, 16700
glossary of terms for electronic and weapons control interface functions in naval ship combat systems, military standard, 6879
low-gravity liquid-vapor interface configurations, in spheroidal containers, 8938
- Interference, *see* Radio interference.
- Interference drag, *see* Drag (aerodynamics).
- Interferometers:
improved ultraviolet interferometer, 18187
interferograms of window wavefront deformations as measure of angular deviations to line of sight, 10396
laser interferometer with phase modulation of visual signal as means of extending range of measurement of plasma density, 4869
see also Fabry-Perot interferometer.
- Interferon, production by human and animal macrophages and leukocytes, USSR study, 4330
- Intergovernmental Advisory Council on Manpower, establish, hearings, 17642
- Intergovernmental Committee for European Migration, selective migration program for Latin America, hearing, 13516
- Intergovernmental cooperation act, *see* Intergovernmental relations.
- Intergovernmental Personnel Policy Advisory Council, *see* Advisory Council on Intergovernmental Personnel Policy.
- Intergovernmental relations:
call for cooperation, message from the President, 15118
Federal-State partnership for education, Advisory Council on State Departments of Education, report, 14284
intergovernmental cooperation act of 1968, amend, hearings, 510
intergovernmental cooperation act of 1969, hearings, 510, 9741, 11036
Intergovernmental coordination of power development and environmental protection act, hearings, 13737
Intergovernmental manpower act of 1969, report, 1608
Intergovernmental personnel act of 1969—
hearings, 17639
report, 1608
Intergovernmental revenue act of 1969, hearings, 8408
print additional copies, report, 9831
model cities, step towards new Federalism, 15121
need for revenue sharing (remarks), 17388
new federalism—
breakthrough for housing and economic development, etc. (address), 747
fiscal slide (remarks), 1178
financial dimension (remarks), 7876
Safe streets act, making it work, challenge, 17418
study, expenditures, reports, 467, 5214
towards workable federalism (address), 14566
- Intergovernmental relations, *see* States.
- Intergovernmental Relations, Advisory Commission on, *see* Advisory Commission on Intergovernmental Relations.
- Intergovernmental Relations Office:
expenses, appropriations, authorize—
law, 3756
report, 1474
- Interim management control systems list, 1771

INDEX 1970

Interior and Insular Affairs Committee,
House:
calendars, 2805-6
committee print, 15915
hearings, 422, 1585, 3868-69, 5161-62,
8304, 9747, 11038-40, 12275-276,
13523-526, 15913-914, 15916-917,
17647
investigations and studies—
Cherokee Strip opening to homestead-
ing, establish national park system
unit to commemorate, report, 9713
expenses, report, 8241
reports, 365, 367-368, 1458-59, 1462, 1532,
1550-51, 3784-86, 5105-7, 6582, 6584-
85, 6590, 6594, 6606-12, 6619-20, 6680-
81, 6688, 6691, 8254, 8257, 9668, 9705,
9712-13, 10955-956, 10961, 10975-980,
12210, 12213, 12230, 12240-241, 13409,
13413-415, 13431, 13435, 13437-438,
13458-463, 13481-484, 15831, 15837,
15845, 15847, 15862-866, 15872
Interior and Insular Affairs Committee,
Senate:
calendar, 2825
committee print, 8412
hearings, 511-512, 1731, 5267-68, 6805-8,
8413, 9914-18, 11128-131, 12366-368,
13740-743, 16059-64, 17702-705
investigations and studies—
authorization report, 5217
expenses, report, 13628
reports, 471, 1609-10, 1653-58, 1664,
1668-69, 3920, 5253, 6741, 6758, 6760-
61, 8348, 8356-63, 8366-71, 8374, 9818,
9820-22, 9832, 9835, 9851-52, 9855-59,
9867, 9870, 9882, 11069, 11072, 11074-
75, 11087, 11090-92, 11094, 12292,
12320-323, 12343-345, 12349-350,
12355, 13576, 13638, 13646, 13648-650,
13658-660, 13702, 15994-16003, 16006,
17683
Interior decorators, and designers, employ-
ment outlook, 14676
Interior Department:
appointment papers, 1849-1907, Territory
of Oregon, microcopy, pamphlet to ac-
company, 11728
appropriations, 1970—
amendment, proposal, 443
law, 314
appropriations, 1971—
amendments, proposal, 13564
hearings, 8268, 9888
law, 13335
proposals, 9627, 9785
public works—
hearings, 13709
underground electric power transmis-
sion research, hearings, 13709
reports, 9702, 12207, 12254, 13645,
13697, 15873
career opportunities, directory for college
students, 14592
Cello-Mead Transmission Line project as-
surance needed that cost will be re-
covered, GAO report, 14493
code of Federal regulations, 8654, 10075
contracts for protection of public lands
from fires, authorize—
law, 17610
reports, 13648, 15866
cooperative water resources, research and
training, report, 4297
decisions, 2749
contract, appeals, 2750
index-digest, 2754
Indian appeals, 2751
land appeals, 2752
solicitor's opinions, 2753
decisions and opinions, decennial index-
digest, 18339
environmental education, so you want to
get involved, 11452

Interior Department—Continued
Federal lands, opportunity for benefits
through increased use of competitive
bidding to award oil and gas leases, GAO
report, 7215
food inspection role, need to reassess,
GAO report, 11377
interest rate criteria for determining fi-
nancing costs of Federal power program,
change proposed, GAO report, 4217
investigate feasibility of water resource
development proposals, law, 297
press releases, 3064
redesignate as Resources, Environment,
and Population Department, hearings,
417
saline water research and development
progress reports, 769-780, 1947-56,
4298-4304, 5316-30, 7304-10, 8803-7,
10221-232, 11441-451, 12608-614,
14593-601, 16697-701, 18067-72
Secretary, report to American Revolution
Bicentennial Commission, 16695
telephone directory, 11453
Trust Territory of Pacific Islands, im-
provements needed in financial manage-
ment, GAO report, 14503
U.S. imports of watch movements duty-
free from Virgin Islands, benefit islands'
economy, GAO report, 7217
Under Secretary, nomination of Fred J.
Russell, hearing, 9915
water resources projects, inappropriate
source of power used as basis for allo-
cating costs, GAO report, 11376
Youth Conservation Corps, establish, law,
13345
Interior Department Library, bibliography
series, 14602-603
Interkosmos-1 satellite in orbit, USSR study,
11495
Interlocking directorates, communications
carriers, applications, FCC rules and regu-
lations, 2585
Intermediate credit banks, *see* Banks for co-
operatives.
Intermittency, *see* Probabilities (mathemat-
ics).
Intermodulation, merger of transportation
regulatory agencies (address), 17982
Intermountain Forest and Range Experiment
Station:
publications, list, 11345
recent reports, list, 3131
Intermountain region:
Forest Service, yearbook, national forests
in profile, 10119
precipitation in Plateau States from 850-
and 500 millibar lows during winter,
charts, 7049
Internal combustion engines, *see* Engines.
Internal conversion, optical parametric up-
conversion processes in nonlinear crystals,
computer program to analyze, 2179
Internal revenue:
assessment lists—
Connecticut 1862-86, pamphlet to ac-
company microcopy, 4542
Delaware, 1862-86, pamphlet to accom-
pany microcopy, 7567
District of Columbia, 1862-86, pamphlet
to accompany microcopy, 4543
Florida, 1865-86, pamphlet to accom-
pany microcopy, 4544
Georgia, 1865-86, pamphlet to accom-
pany microcopy, 4545
Idaho, Territory of, 1865-86, pamphlet
to accompany microcopy, 7568
Illinois, 1862-86, pamphlet to accom-
pany microcopy, 17028
code of Federal regulations, 5444-52,
5692, 7126-27, 8648-47, 10070, 11458
code of 1954—
amend reports, 9842, 10982, 13398,
13662

Internal revenue—Continued
 code of 1954—continued
 tax exemption, pension trust procedures
 and guides for qualification, 11457
 Federal receipts for 1970 and 1971, estimates, 18553
 Internal revenue bulletin, 2755
 cumulative, index-digest supplement
 system, 2727-31, 7312-16, 14607-608,
 16703-705
 semiannual, cumulative, 4309, 14610
 Federal tax laws and committee reports, 8810
 procedure and administration, IRS, loose-
 leaf regulations system, 7317, 10238,
 16707, 18076
 refunds and credits of taxes, report, 8204
 see also Taxation—also names of certain
 taxes, e.g. Excise taxes.
 Internal revenue agents, examination an-
 nouncements, 8118, 15684
 Internal Revenue Service:
 annual report of Commissioner, 1969—
 departmental edition, 4306
 document edition, 3776
 automatic data processing centers at
 Fresno, Calif., Memphis, Tenn., Suffolk,
 County, Long Island, N.Y., and Detroit,
 Mich., consider amended lease prospec-
 tuses to increase authorized annual
 rental, hearing, 9940
 career opportunities—
 estate tax attorney, 14606
 internal auditor, 14609
 internal revenue aide, begin your pro-
 fessional career, 5634
 revenue agent, 14615
 tax auditors, 786, 16711
 tax law specialist, 787
 taxation, 12615
 census establishment and IRS corporation
 data, link, 1963 enterprise statistics,
 10827
 circulars, 10234
 forms, form letters, notices, catalogue,
 10233
 IRS data center, Detroit, Mich., space
 requirements, hearing, 11056
 liquor laws and regulations for retail
 dealers, 14611
 looseleaf regulations system—
 employment tax, 2854, 10237, 14613,
 18075
 estate and gift tax, 2853, 12616
 excise taxes, 785, 2855, 4310, 5653,
 8812-13, 11455-456, 14614
 income tax, 784, 2852, 5651-52, 8811,
 10236
 procedure and administration, 2856,
 7317, 10238, 16707, 18076
 new dimension in taxation, career oppor-
 tunities, 16708
 past is prologue (qualifying you for IRS),
 5657
 Internal Revenue Taxation Joint Com-
 mittee:
 committee prints, 8334-35, 13554
 estimates of Federal receipts, 13553
 Internal security, *see* National security.
 Internal Security Committee, House:
 annual report, 1969, 91st Congress, 1st
 session, report, 6679
 committee prints, 1587, 12277
 hearings, 1586, 3870, 5163, 6716, 8305,
 9748-49, 17648
 investigations and studies, expenses, re-
 port, 6657
 reports, 1548, 6679, 15861, 15879
 rules of procedure, 9750
 International agencies, *see* International or-
 ganizations.
 International Agency for Research in Can-
 cer, amendments to statute, adopted at
 23d World Health Assembly, 18346

International agreements:
 Alaskan fisheries, role of international
 agreements, 9526
 in force, list, 4756
 treaties and other international agree-
 ments, 6253, 7838, 12943, 18364
 1776-1949, compilation, 4755, 17364
 International arbitration, *see* Arbitration.
 International Association of Governmental
 Labor Officials, 1969 convention proceed-
 ings, 11527
 International Association of Machinists and
 Aerospace Workers, emergency board re-
 port, 1797
 International Astronomical Union, collo-
 quium, spectrum formation in stars with
 steady-state extended atmospheres, sym-
 posium proceedings, 18235
 International Atomic Energy Agency:
 application of safeguards to cooperation,
 agreement with Austria, 9198
 atomic energy safeguards, application to
 United States reactor facilities, agree-
 ments, 4739, 7829
 International Bank for Reconstruction and
 Development:
 resources, increases, special report, 8205
 U.S. capital subscription, related adjust-
 ment (statement), 9253
 U.S. participation, increase, hearings,
 8280, 12364
 International Biological Program:
 hearing, 8429
 reports, 3805, 13676
 International boundary study, 7815, 15295-
 297, 17334-336
 International Brotherhood of Boiler-makers,
 Iron Ship Builders, Blacksmiths, Forgers
 and Helpers, emergency board report, 1797
 International Brotherhood of Electrical
 Workers, emergency board report, 1797
 International Bureau for Protection of In-
 dustrial Property, Paris convention as re-
 vised at Stockholm, report, 6732
 International business in changing world
 (addresses), 4986, 6503, 8143
 International Centre for Study of Preserva-
 tion and Restoration of Cultural Property,
 U.S. participation, authorize—
 law, 9607
 reports, 6612, 8363
 International Civil Aviation Organization
 Council, *see* Council of International Civil
 Aviation Organization.
 International Clergy Week:
 designate,
 law, 5051
 report, 3936
 International commerce (periodical), 2757
 International cumulative index, 2758
 International Commerce Bureau:
 international business publications, check-
 list, 18089
 press releases, 3065
 International conferences, *see* Conferences,
 congresses, etc.
 International Convention for Conservation
 of Atlantic Tunas, text, 1164
 International Convention for Northwest At-
 lantic Fisheries:
 entry into force of proposals adopted by
 the Commission, protocol, 7836
 panel membership and regulatory meas-
 ures, protocol—
 message from the President, 3901
 report, 8346
 International cooperation:
 Central Treaty Organization, general in-
 formation, 7817
 patent cooperation treaty, funds for in-
 ternational conference, organize and
 hold in U.S., 1970—
 law, 1416
 report, 1516
 strengthened programs, for halting illicit
 supply of drugs, 10609

INDEX 1970

International cooperation—Continued
to save succeeding generations, report,
5122
United States-Japan cooperative program
in natural resources, 5-year report, 8808
Western Hemisphere (address), 8140
International Development Agency:
AID operations in Indonesia, report, 1543
appropriations, 1970—
hearings, 1702
reports, 1521, 1561, 3818, 3840, 3926
appropriations, 1971, hearings, 9728
biographic register, 15292
excess property program—
hearing, 1582
Kenya and Pakistan, administration, GAO
report, 1898
field staff, Foreign Service list, 2662
need for increased control over local cur-
rency made available to Vietnam Repub-
lic for support of its military and civil
budgets, GAO report, 12578
operations reports, 5718, 14646
overseas missions, bibliography on hous-
ing, building and planning, 11417
policies covering collection of dollar claims
from Government of Vietnam, GAO re-
port, 1902
press releases, 3066
procurement regulations, 4317-18, 10246,
14645
procurements financed by AID, position
and problems of small business—
hearings, 1600
report, 1559
progress and problems in U.S. aid to eco-
nomic unification of Central America,
GAO report, 14511
publications and film list, 1978
telephone directories, 6220, 10611
Uganda, building farmers' enterprises, co-
operatives, etc., 10250
war on hunger, monthly report, 3334
International Development Association:
appropriations, 1970—
law, 5053
reports, 3818, 3926
appropriations, 1971, hearings, 9728
International education, *see* Education.
International Educational and Cultural Af-
fairs, Advisory Commission on, *see* Advi-
sory Commission on International Educa-
tional and Cultural Affairs.
International exchanges:
cultural relations, agreement with Saudi
Arabia, 1149
education foundation and financing of ex-
change program, agreement with New
Zealand, 10612
foreign language and area studies pro-
gram, research and training opportuni-
ties abroad, 16408
international educational and cultural ex-
change of persons program, 1969 report,
11899
international educational and cultural ex-
change (periodical), 2759
international negotiation, when academic
door to Peking opens, memorandum,
11126
public health exchange program with
USSR, anatomy of East-West coopera-
tion, 969
reviewing commitment, report on academic
exchanges, 7180
teachers, opportunities abroad, 14291
International finance, role and function of
Special Drawing Rights (remarks), 7878
see also Euro-dollar market.
International Human Rights Year, for free
men in a free world, survey of human
rights in United States, 1142
International Hydrographic Organization,
convention between United States and
other governments, 17362

International Hydrological Decade, contribu-
tions to, 10192
International Ice Patrol Service, in North
Atlantic Ocean, report, 13213
International Indian Ocean Expedition,
1964:
survey ship, USC&GS Pioneer—
bathymetry, geomagnetic, and gravity
data, 17953
primary productivity and plankton bi-
ological sampling program results,
615A
International Institute for Unification of
Private Law, amendment to Institute
statute adopted at UNIDROIT General
Assembly, 6223
International investment position of United
States, 3693
International labor (periodical), 2761
International Labor Organization:
conference in Geneva
appoint representatives, 13397
U.S. delegates to 53d session, evalua-
tions of work of conference, hearing,
13504
conventions adopted and recommenda-
tions, improvement of conditions of life
and work of tenants, sharecroppers,
agricultural workers, etc., 335
testimony, hearings, 13493
International law:
digest, 10602
questions in relation to U.S. military ac-
tions in Cambodia, 11895
rule of law and settlement of international
disputes (address), 15294
suboceanic lands policy, United Nations
special study, hearings, 13725
International Monetary Fund:
international monetary systems, 1970's,
reasonable expectations (remarks), 655
pedigreed gold system, a good system, why
spoil it? 1430
proposed quota increase and its implica-
tions for 2-tier gold market, hearings,
5196
resources, increases, special report, 8205
role and function of Special Drawing
Rights (remarks), 7878
SDR's in Federal reserve operations and
statistics, 11329
U.S. quota, increase—
hearings, 8280, 12364
statement, 9253
International notams, 2763
International Olympic Committee, welcome
Olympic delegations to 1976 Olympic
games, law, 5050
International organizations:
discuss conservation of nature, USSR
study, 16764
international agencies, population pro-
gram assistance, aid to developing na-
tions by United States, other nations,
etc., 7346
international organization and conference
series, 1146, 4730, 7816-17, 9196,
15298, 18345
international organizations series, 2241,
7817, 12937
public, exempt from District of Colum-
bia unemployment compensation act,
law, 298
U.S. missions, field staffs, Foreign Ser-
vice list, 2662
United States contributions, 346
International perspectives, economics of
aging, 12356
International Petroleum Exposition, Tulsa,
Okla., 1971, invitation to States of Union
and foreign nations to participate, report,
5248
International Poplar Commission, conven-
tion, as amended, agreement, 18361
International postal service:
directory of international mail, changes,
2513

International postal service—Continued
foreign postal debts owed to United States, report, 12229
international mail, 18395
International Rehabilitation Panel, proceedings 1969 panel on international scene, 6128
International relations:
China, Republic, U.S. security agreements and commitments abroad, hearings, 11125
code of Federal regulations, 7124
Communist China, foreign policy of U.S., issues, 4724
convention on consular relations and optimal protocol on disputes, text, 7825
conversation with the President, television interview, transcript, 17333
diplomatic and strategic impact of multiple warhead missiles, report, 8290
economic foreign policy series, 9193
Ethiopia, U.S. security agreements and commitments abroad, hearings, 17701
foreign affairs research, Governmental resources, directory, 4727
foreign economic policy for 1970's—
multinational corporation and international investment, hearings, 17612
survey of issues, hearings 5067
trade policy toward developed countries, hearings, 10938
U.S. policies toward developing countries, hearings, 12156
foreign policy briefs, 2661
foreign policy implications of—
racial exclusion in granting visas, hearing, 6707
satellite communications, hearings, 11033
foreign policy of U.S.—
American foreign policy, 1967, current documents, 6211
investigations and studies—
authorization, report, 5238
expenses, reports, 5215, 6659
1970's, new strategy for peace—
departmental edition, 6129
document edition, 5009
State Department bulletin, 2500
foreign relations legislation, requiring reports to Congress, study of provisions of law, 13734
foreign relations of U.S.—
Council of Foreign Ministers, documents—
departmental edition, 17331
document edition, 15819
diplomatic papers, American Republics—
departmental edition, 2237
document edition, 1431
Near East and Africa—
departmental edition, 1143
document edition, 324
Paris Peace Conference documents—
departmental edition, 10608
document edition, 9613
proceedings, 10607
general foreign policy series, 2238, 4728, 9194, 10609, 15294, 17332-333
Greece and Turkey, U.S. security agreements and commitments abroad, hearings, 16056
Indonesia, United States AID operations, report, 1543
international affairs, Government-supported research completed and in progress, 7814
international information and cultural series, 4729, 11899
Japan and Okinawa, U.S. security agreements and commitments abroad, hearings, 13735
Korea, Republic of, U.S. security agreements and commitments abroad, hearings, 16056
Laos, U.S. security agreements and commitments abroad, hearing, 8406

International relations—Continued
legislation on foreign relations, collection, 9910
NATO and defense of Europe, United States foreign policy issues, 7316
Near East and South Asia, special papers available, Foreign Affairs Research Documentation Center, 11897
Okinawa, preparatory measures for transfer of administrative rights, agreement with Japan, 15301
Peking's approach to negotiation, selected writings, print additional copies, report, 9826
Philippines, U.S. security agreements and commitments abroad, hearings, 1729
postwar Nigerian situation, implications for U.S., hearing, 6708
Rhodesia and United States foreign policy, hearings, 1581
rule of law and settlement of international disputes (address), 15294
Soviet approach to negotiation, selected writings, print additional copies, report, 9827
strategic arms limitation talks (address), 2238
strategy and science, toward a national security policy for 1970's, hearings, 343
students views toward U.S. policy in southeast Asia, hearings, 13517
Thailand, U.S. security agreements and commitments abroad, hearings, 9912
U.S. and Africa in 70's, 9185
U.S. participation in Inter-American Development Bank, foreign policy implications, hearings, 12271
U.S. policy towards Cuba, hearings, 13510
U.S.-Soviet relations in era of negotiation (address), 4728
United States affairs, student conference, proceedings, 2046
United States and the world, introduction for foreign relations, color film-strip, teacher's manual, 17385
United States relations with Europe in 1970s, hearings, 9740
Western Europe, Great Britain, and Canada, special papers available, Foreign Affairs Research Documentation Center, 15293
see also Diplomacy.
International science notes (periodical), 2764
International security, Asia, southeast and other areas, background information, 9907
International Shoe Co., wage chronology, 1967-69 supp., 10291
International system of units, physical constants and conversion factors, 4506
International Telecommunications Satellite Consortium:
District of Columbia, tax exemption—
hearing, 9904
report, 5130
International Telephone & Telegraph Corporation, conglomerate corporations investigation, hearings, 13532
International trade, *see* Commerce.
International Union for Protection of Literary and Artistic Works, Berne Union, membership countries as of July 1, 1970, list, 17728
International Whaling Commission, convention, amendment to schedules, 6233
Interns, *see* Physicians.
Interparliamentary Group, Canada-United States, *see* Canada-United States Interparliamentary Group.
Interparliamentary Group, Mexico-United States, *see* Mexico-United States Interparliamentary Group.
Interparliamentary Union:
conference, report of U.S. delegation to meeting, 16053

INDEX 1970

- Interparliamentary Union—Continued
 - United States delegation to spring meeting, held in Vienna, Austria, Apr. 7-13, 1969, report, 8405
- Interplanetary missions, *see* Planets.
- Interplanetary trajectories *see* Trajectories.
- Interpolation, phase interpolation circuits for scanning phased arrays, 14854
- Interpretation (law), *see* Law.
- Interpretative bulletins, Wage and Hour and Public Contracts Divisions, 6279, 15386
- Interpreters, *see* Image interpreters.
- Interrogators, interrogation repetition frequency sets nonsynchronous for interrogations, methods for calculating and analyzing, 15081
- Intersections, *see* Roads and highways.
- Interstate agreements:
 - air quality control, designation of interstate control regions, 8963
 - Connecticut-New York railroad passenger transportation compact, consent of Congress—
 - law, 1415
 - reports, 1451, 1628
 - detainers, enact into law, report, 8255
 - Falls of Ohio Interstate Park compact, consent of Congress—
 - law, 17602
 - reports, 10957, 15983
 - Hudson River Basin compact, negotiations, amend act—
 - hearing, 9914
 - law, 10906
 - reports, 5107, 9818
 - Lake Tahoe regional planning compact, consent of Congress—
 - hearings, 1590
 - law, 1408
 - reports, 473, 1476
 - Mid-Atlantic States air pollution control compact, consent of Congress, report, 13643
 - oil and gas compact, extension and renewal, consent of Congress—
 - hearing, 425
 - law, 1414
 - Pacific marine fisheries compact, amendment, consent of Congress—
 - law, 12138
 - reports, 524, 12336
 - personnel training, authorize compacts—
 - hearings, 17639
 - report, 1608
 - Potomac Valley Conservancy District compact, amendments, consent of Congress—
 - law, 17606
 - report, 13467
 - regional intercity rail passenger service authority compact, consent of Congress, hearings, 13724
 - West Virginia-Ohio air pollution control compact, consent of Congress, report, 5203
 - western interstate nuclear compact, granting consent of Congress, report, 13640
- Interstate and Foreign Commerce Committee, House:
 - activities, 91st congress, 1st session, report, 3836
 - calendar, 2806
 - committee print, 9759
 - hearings, 424-426, 3871-76, 5164-66, 6718-20, 8306-8, 8228, 8243, 9751-58, 11041-47, 12278-279, 13527-529, 15918-919, 17649
 - investigations and studies, expenses, report, 6655
 - reports, 389, 395, 1522-23, 1530, 1535, 1588-89, 3886, 3877, 6590, 6618, 6622, 6625, 6641, 6673-74, 9669, 9714, 9718, 10974, 10981, 10996, 12200, 12217, 12228, 12237, 12248, 12252, 13410-411, 13436, 13451, 13480, 13489, 15867
 - supplemental hearings, 11048
- Interstate carriers, *see* Carriers.
- Interstate commerce, *see* Commerce.
- Interstate commerce act, *see* Carriers—Commerce—Railroads.
- Interstate Commerce Commission:
 - annual report, 1969—
 - departmental edition, 5719
 - document edition, 5085
 - appropriations, 1970—
 - hearings, 1701
 - law, 3742
 - reports, 1468, 1556
 - appropriations 1971—
 - amendment, proposal, 12291
 - hearings, 9726
 - report, 9719
 - decisions (bound report), 1979, 8827, 11484, 14647, 16732
 - decisions (separates)—
 - finance, 2765
 - motor carrier, 2766
 - motor carrier finance, 2767
 - traffic, 2768
 - judicial review of ICC orders, hearing, 5261
 - member, nomination of Robert C. Gresham, hearings, 3965
 - reorganization, hearing, 420
- Interstate Commission on Potomac River Basin:
 - appropriations, 1971, report, 13697
 - extend authority and expand program, consent of Congress—
 - hearing, 1598
 - law, 17606
 - report, 13467
- Interstate compacts, *see* Interstate agreements.
- Interstate effects surveillance network, 1969 data, 11716
- Interstate land sales can be risky, 5604
- Interstitial compounds as fuel cell catalysts, their preparative techniques and electrochemical testing, 7454
- Inter-Tribal Council, Inc., land conveyance, report, 9857
- Interviewing:
 - Air Force job inventory procedure, study, 7953
 - health interview survey, current estimates, 11755
- Intoxicants, *see* Liquors.
- Intoxication, *see* Alcoholism.—Drunkenness.
- Inventions:
 - relating to defense, patents, safeguarding and secrecy, agreement with other governments, revision, 6228
 - significant NASA inventions available for licensing in foreign countries, 17011
- Inventories:
 - Air Force, 10 job inventories, construction and administration, 7952
 - air pollutant emissions, nationwide inventory, 17018
 - automatic data processing equipment in Federal Government, 7161, 14399
 - Defense Supply Agency, inventory investments, potential for reducing through improved computation of stock needs, GAO report, 11379
 - department store price indexes, 16858
 - Federal Aviation Administration, executive selection and inventory system, handbook, 18475
 - Federal tourism programs, Federal agencies, commissions programs reviewed, etc., 10658
 - fish data—
 - Norris Reservoir, 15351
 - Wheeler Reservoir, 11912
 - Florida 1970 conservation needs, summary, 17292
 - forecasting warehouse produce movement, 15398
 - green coffee, current business reports, 2469

Inventories—Continued

- Indiana, 1967 conservation needs, inventory, 9145
- interagency committee in which HUD participates, 12607
- inventory management, bibliography, 7732
- job inventory procedures, 3 studies, selecting duty categories, interviewing, and sampling, 7953
- land resource inventory and engineering surveys using photogrammetry, 8685
- livestock and poultry, 6257
- Louisiana's conservation needs, 15219
- manufacturers—
 - current industrial reports, 2475
 - shipments and orders, 15656
- monthly wholesale trade, current business reports, 2472
- National Archives inventory series, 11718, 14908
- physical facilities in institutions of higher education, 7015
- plants, material received by New Crops Research Branch, 17426
- real property leased to U.S. throughout world, report, 10155
- springs in Morey Peak area of central Nevada, 7240
- summary of 1968 conservation needs inventory Puerto Rico, 9150
- vocational education statistics available in Federal agencies, 11234
- Invertebrates, aquatic, chronic effects from methorychlor, 11892
- Inverters:
 - high-efficiency power inverter, development and evaluation, 12813
 - magnetic materials, cyclic and constant temperature aging effects, 10344
 - series capacitor inverter-converter for multikilowatt power conversion, 11696
 - switching with sine-wave output, 15088
 - 2.5 kVA pulse-width-modulated static inverter, design analysis and performance, 5929
- Investigators:
 - Federal—
 - training programs for investigative personnel, hearings, 15906
 - unmet training needs, report, 13486
- Investment companies:
 - act, amendments, of 1970, reports, 13451, 13475
 - act of 1940—
 - amend, hearings, 3873-74
 - SEC releases, 2771
 - investment companies and restricted securities problem (address), 9099
 - mutual fund amendments, hearings, 3873-74
 - mutual fund distributions, 5683
 - mutual funds, taxation, amend act—
 - law, 15780
 - reports, 5131, 13685
 - small business, starting, 1091
 - Small business investment act, of 1958, amend—
 - hearings, 3855
 - report, 16011
- Investments:
 - advice for persons who are considering investment in franchise business, 5468
- Advisers act of 1940, amend—
 - hearings, 3873-74
 - reports, 13451, 13475
- Defense Supply Agency, inventory investments, potential for reducing through improved computation of stock needs, GAO report, 11879
- District of Columbia, legal investments for trust funds, list, 5324, 13818
- equitable standards governing relationships between their investment advisers and principle underwriters, define, hearings, 3873-74

Investments—Continued

- foreign direct investment program and its relationship to U.S. balance of payments (remarks), 5480
- foreign direct investment regulations—
 - general bulletin, 668
 - regulations, 16533
- guaranties, agreement with—
 - Burundi, 10621
 - Costa Rica, 4746
 - Dominica, 17339
 - Mauritius, 15309
 - Swaziland, 18353
 - Vietnam, 12940
- International, 1968, United States, 3693
- Investment advisers act, SEC releases, 2770
- investment credit, tax information, 5641
- investment guide for cooperative forest management in Pennsylvania, 16576
- investment income and expenses, tax information, 5682
- pension funds, investment policies, hearings, 12157
- petroleum industry, U.S. 1950-68, changing investment patterns, 11580
- public, in natural resources, secondary impacts, 12997
- rank, pitfalls of using internal rate of return in forestry, 8694
- U.S. balance of payments and investment position, 10088
- Investors:
 - corporate takeover bids, additional protection, hearing, 8895
 - Farmers Home insured notes, investor's opportunity, 1202, 11957
 - filing of institutional investor study, extend time, hearing, 13528
 - institutional, effect on securities market study—
 - extend time and increase authorization, law, 310
 - extend reporting date—
 - law, 15795
 - report, 13480
 - protection in corporate equity ownership and in corporate takeover bids, reports, 9895, 15985
 - securities, protection for customers of registered brokers, dealers, and members of national securities exchanges, hearings, 13529
- Inviscid flow, *see* Flow.
- Inyo Mountains, Saline Range region, Calif., pegmatitic trachyandesite plugs and associated volcanic rocks, 8742
- Iodine:
 - filter tests at NRL nuclear reactor, 15078
 - retention studies, progress report, 15512
- Ion beams, Kaufman ion thruster beams, angular distribution, 10412
- Ion Capacitor Corporation, Columbia City, Ind. Tariff Commission report, 17374
- Ion exchange:
 - cation exchange capacity of earth materials using radiotracer technique, determination, 7033
 - materials, poisoning by surface active ions, 14599
 - membranes, newly developed, evaluation for electrodialysis and/or transport depletion, 775
 - selected, use in ammonia removal from agricultural runoff and secondary effluents, 4168
- Ion exchange resins, *see* Resins:
- Ion thrusters:
 - electric thrusters onto spacecraft components, distribution of neutral propellant, 2111
 - 15-centimeter-diameter Kaufman thruster 100-hour endurance test of glass-coated accelerator grid, 14859
 - Kaufman ion thruster beams, angular distribution, 10412

INDEX 1970

Ion thrusters—Continued

SERT II, comparative in-flight measurements, 18208

Ionite, pulverized, prospects for treating water from nuclear electric power stations, USSR study, 4342

Ionization:

dose and dose-equivalent rates to man in atmosphere from galactic cosmic-rays, calculation, 13073

ground wave propagation in ionized atmosphere with arbitrary variation of conductivity with altitude, 11274

photoionization mass spectrometer, application to analysis of contaminant gases, study, 8927

potentials and ionization limits derived for analysis of optical spectra, 17034

Ionizing radiation:

ecological techniques utilizing radionuclides and ionizing radiation, selected bibliography, 3499

effect on resistance, germination, and toxin synthesis of *Clostridium botulinum* spores, types A, B, and E study, 120, 134, 1264

exposure and delayed injury, workmen's compensation, decisions involving, digest, 6399

Ionograms, oblique-incidence high-frequency backscatter ionograms of midlatitude ionosphere, atlas, 10025, 16457

Ionosphere:

E-region heights, role of vertical neutral-gas motions in producing ion convergence, 16460

F2-layer maximum usable frequencies from local magnetic activity, short-term prediction, 8572

high-frequency over-the-horizon earth backscatter, computer simulation of structural details, 4630

ionospheric aerodynamics, USSR study, 2004

ionospheric channel and atmospheric noise simulators, recommended specifications, 613

ionospheric channel model, experimental verification, 4090

ionospheric conditions for space vehicles, simulation, 14860

ionospheric disturbances in Antarctica, 1968, observation, 11275

ionospheric plasma, one-dimensional time-dependent, interaction of satellite with, 8954

ionospheric predictions (periodical), 2773

low power (VHF) ionospheric scatter communications exhaustive search for best (20, 8) code, 16459

lower E-layer alkali-plasma-cloud releases, instabilities observed and their implications regarding sporadic E, 17192

midlatitude, atlas of oblique-incidence high-frequency backscatter ionosphere ionograms, 10025, 16457

normal ionospheric absorption measurements obtained from radio and pulse reflections, survey and analysis, 16453

research by satellites, agreement with Canada, 15317

short term ionospheric forecasts for selected southeast Asia DCA trunks, evaluation, 612

traveling ionospheric disturbances, observation by Doppler technique with spaced transmitters, 5394

Ionospheric Telecommunications Laboratory, progress report, 1819

Ions:

cold cathode ion source mass spectrometer employing ion counting techniques, 4491

cupric ion absorption through denuded epithelium, 14761

Ions—Continued

dissolved, study of specific influence on structure of water, 5630

ferrous ions reduction in phosphoric acid, titrimetric determination of uranium in product, fuel, and scrape materials, 13075

formed within stress-corrosion cracks, spectrophotometric procedures for determination, 4625, 15061

heavy, in energy range 60 to 400 KEV, range in metals and metal oxide systems, 12746

heavy ion sources, conference, 15532

ion-adsorption electrodes for demineralization of saline water, research, 8804

ion convergence at E-region heights, role of vertical neutral-gas motions in producing, 16460

ion-polar-molecular collisions, computer-made motion pictures and time history plots, 14849

ion selective electrochemical sensors, 4299

ion-selective electrodes, proceedings of symposium, 2137

ion sputtering techniques, for regeneration of neutron producing targets within an accelerator, proposed methods, 4513

ionic concentration gradients in permafrost, Barrow, Alaska, 4069

ionic conductivity of lanthanum fluoride, 913

ionic solvation study, 14601

plasma, turbulent heating during development of electron-acoustic instability, 4870

poisoning of ion exchange materials by surface active ions, 14599

produced by simulated micrometeoroid impact, time-of-flight mass spectrometer for studies, 8950

reaction rate constants measured in ESSA flowing afterglow system to Aug. 1969, compilation, 4088

red cell cation exchange and displacement of oxygen dissociation curves in chronic hypercapnia, 11567

water and ionic solutions, neutron scattering study, 1952

Iowa:

census of business, 1967—
major retail centers, standard metropolitan statistical areas, 6414

retail trade merchandise line sales, 13104

selected services, area statistics, 158
wholesale trade, area statistics, 173

census of construction industries, 1967, statistics, 17487

census of governments, 1967, State report, 3565

census of manufactures, 1967 statistics, 17500

climatological data, 2409
county business patterns, 3617, 12025

electric rate book, 16500
establishment of water quality standards for

Mississippi River basin interstate waters, conference proceedings, 1867

Missouri River Basin interstate waters, conference proceedings, 861

medicaid program, improvement need in administration by fiscal agents, Social and Rehabilitation Service, GAO report, 18033

mineral industry, minerals yearbook chapter, 858, 13154

Mississippi River and tributaries, fishery products, wholesale dealers, list, 9553

postal map, 15114

precipitation data, hourly, 2718

rural renewal area, economic analysis, 11190

Upper Iowa River, wild and scenic river study, 18299

water resources, 1969 data, 16633

Iowa County, Iowa, community profile, 14021
IP series, 7286, 8790
IPS beetles, *see* Beetles.
Ips locustei Sw, *see* Beetles.

Iran :

background notes, 7798
economic trends and their implications for United States, 11481
establishing business in, 10878
military and political problems, subcommittee report, 5144
military mission, agreement, 6224, 15319
mineral industry, minerals yearbook chapter, 5861

Irani, Meherwan C. :

columbium and tantalum, 18144
mineral industry of West Virginia, 4469
mineral materials for chemical manufacturing, 8397

Iraq :

environmental studies, bibliography, 10723
Iraq-Syria boundary study, 15297
mineral industry, minerals yearbook chapter, 8904

Iredell County, N.C., community profile, 14022

Ireland :

economic trends and their implications for United States, 5703, 14630
foreign trade regulations, 4997
immigration from, effect of 1965 law, hearings, 15924
meat imports into U.S., trade agreement, 7826
minerals industry, minerals yearbook chapter, 5862
process-verbal of rectification to protocol for accession, GATT, 10629
selling in Republic of Ireland, 9505

Iris, growing in home garden, 15420

Irish immigrant participation in construction of Erie Canal, 2161

Iron :

adhesion, friction, and wear with 3½ percent silicon added, effect in various media, 5958
clean (001) and (011) surfaces, LEED and Auger studies of effect of oxygen on adhesion of, 8943
compounds, Mossbauer effect spectrometry for analysis, 10760
copper-carbon powder metallurgy alloy, use of cement copper in, 7479
effect of sulfur, oxygen, and hydrogen sulfide surface films on adhesion of clean iron, 7535
evaluating economic availability of Mesabi Range taconite iron ores with computerized models, 14777
ferrous iron in acid mine water, catalytic oxidation by activated carbon, 2058
foundries, census of manufactures, 1967, industry statistics, 12006
high-silica, for production of metallic concentrates, 873
iron and steel industry, employment outlook, 14720
iron and steel, minerals yearbook chapter, 4412
iron ore pellets, prereduced, preparation, properties, utilization, 5848
low-cost, iron-base alloy, development to resist corrosion in hot sea water, 772
Minnesota manganiferous iron ores, magnetic roasting and leaching, for upgrading, 11595
ore
 floatation, infrared evaluation of starch products used, 887
 Grace Mine iron ore disposal system and estimated costs, 2049
 mineral industry surveys—
 annual, 2052
 monthly, 2774
 minerals yearbook chapter, 4413

Iron—Continued

ore—continued
 transportation on Great Lakes waterway system, 11575

products, primary, census of transportation, 1967, commodity transportation survey, shipper group, 1312
slag-iron and steel, minerals yearbook chapter, 16926

surface, adsorption of ethylene oxide and vinyl chloride and effect of these films on adhesion, 16996

see also Cast iron—Ferrous metals.

Iron castings, *see* Castings.

Iron County, Mo., community profile, 16276

Iron County, Utah, community profile, 6923

Iron isotopes, interaction of methane, ethane, ethylene, and acetylene with iron (001) surface and their influence on adhesion studies with LEED and auger, 11666

Iron ores, *see* Ilmenite—Iron—*also* names of iron ores.

Iron oxide, pigments, minerals yearbook chapter, 853, 18148

Irons, Frank, hand sprayers and dusters, 11951

Ironworkers, structural and other ironworkers, employment outlook, 14700

Iroquois National Wildlife Refuge, birds, list, 11888.

Irradiation, *see* Neutrons—Radiation—Ultraviolet rays.

Irradiators :

fishery products, operations of marine products development irradiator, annual report, 9402

Hawaii Development Irradiator program, annual report, 3490

portable cesium, demonstrations conducted and operation, 1262

Irrigation :

and municipal wells in San Luis Valley, Colo., 4241

conservation irrigation guide for design of sprinkler irrigation system for south Georgia coastal plain, 15197, 17288

desalted water, value, 778

Four-States Irrigation Council, annual meeting, proceedings, 9087

level bench systems for forage production in North Dakota, economic analysis, 6291

major irrigated and non-irrigated crops, soil conditioning rating indices of those grown in western United States, 17286

operation and maintenance bulletin, 2775

operators' workshop, 1969, lecture notes, 6143

pilot drainage and irrigation project, Thanh Quoi, An Giang Province, Vietnam, feasibility study, 5368

sprinkler irrigation, bibliography selected from foreign literature, 14603

water, improved application can save water, soil and labor and increase yields, 7766

water management study, San Luis Valley, Colo., 10560

water requirements, technical release, 9166

see also Canals—Reclamation of land.

Irrigation projects, *see* names of projects.

IRS, *see* Internal Revenue Service.

Irvine, Dallas, military operations of Civil War, guide-index to official records of Union and Confederate Armies, main eastern theater of operations, comprehensive index of recognized military operations, 14907

Irving, Tex. :

Delaware Creek floods, how to avoid damage, 4083

flood plain information, 4076

Irwin, James H., hydrogeologic information on Glorieta sandstone and Ogallala formation in Oklahoma Panhandle and adjoining areas as related to underground waste disposal, 1912

INDEX 1970

- Irwin, Richard, projections of population of United States, by age and sex, 1970-2020, interim revisions, 13175
- Irwin, William P., mineral resources of Agua Tibia Primitive Area, Calif., 12588
- Ishenour, W. J.:
approach, naval aviation safety review, 2340
Fathom (periodical), 6079
Mech (periodical), 2876
- Island County, Wash., community profile, 6924
see also names of islands.
- Islands of America, inventory of recreational, scenic, natural and historical values, 17203
- Isle Royale National Park:
climatic summaries of resort areas, 601
general information, 12871
- Isolimmunization, *see* Immunization.
- Isolation:
active vibration isolation systems for severe ground transportation environments, study, 893
techniques for use in hospitals, 12854
vibration isolation of commercial jet transport pilots during turbulent air penetration, 14811
water plant isolation from contamination, study, 8805
- Isolators, isolation system with relaxation type damping, response and optimization, 10350
- Isomers, of cresol as possible fish-collecting aids, with toxicities, 6207
- Isotopes:
cation exchange capacity of earth materials using radiotracer technique, determination, 7033
development program, AEC authorizing legislation, 1971, hearings, 13348
discharge measurements using radioisotope velocity, integrated sample, dilution, and total count methods at Flatiron Power and Pumping Plant, Colorado-Big Thompson Project, 6389
isotope device safety testing study, industrial gauges and radiography devices, 123
isotope effect in B zirconium, 12822
isotopes and radiation technology, quarterly technical progress review, 2776
minor isotope safeguard techniques in reactor fuel reprocessing, evaluation, 8028
- radioisotopes—
excited x-ray fluorescence techniques, program to explore and evaluate potential applications in criminalistics and national security, final report, 9398
how to license to use, 3514
isotopic altimeter setting indicator, design and development, 10636
nuclear detonations for peaceful purposes, approaches to calculation of limitation, papers, 5384
powered cardiac pacemaker program, 10761
- techniques—
measuring water in large trees, further development, 15531
stream pollution problems in pulp and paper industry, studies on application, 6386
Radiochemical Analysis Section, July 1968-June 1969 summary of activities, 4554
use in discharge measurements in high-head turbines and pumps at Flatiron Power and Pumping Plant, Colorado, Big Thompson Project, 3504
X-ray methods for field analysis of wet concrete quality, methodology and conceptual instrument design, 4889
radioisotopic sand tracer study, RAPLOT, computer program for data processing and graphical display, 16408
- Isotopes—Continued
terrestrial/marine radioisotopic power units, implications of substitution of strontium oxide for strontium titanate, 8027
see also names of isotopes, e.g. Carbon isotopes.
- Isotopes Development Division, AEC, research and development projects, 1969, progress reports, 10769
- Israel:
accessions list, Library of Congress, American Libraries Book Procurement Center, Tel-Aviv, 2289
agricultural commodities, agreement, 12941, 18350
background notes, 4722
capsule facts for Armed Forces, 7972
dedication and hope, key to future progress (address), 11322
economic trends and their implications for United States, 8819
economy, basic data, 6510
education in Israel, print additional copies, report, 13449
environmental studies, 1960-69, bibliography, 7963
gazetteer, official standard names, 16604
housing development and urban planning, policies and programs, report, 8195
special study mission to report, 8294
- Israeloff, Joseph, newsletter of U.S. Army Medical Department, 9369
- Issaquena County, Miss., community profile, 16277
- It works, 4051-54, 4060-61, 4063, 5351, 5355-56, 5358, 7020-21, 8523-24, 11214-220, 11238, 11243-244, 17910
- Italy:
claims of U.S. nationals against Government, text of act, regulations, etc., 5479
cooperative satellite research project, agreement, 6248
economic trends and their implications for United States, 7340
grain price formation and reporting, 12495
harpischord building in 16th and 17th centuries, 10465
launching facilities for satellites, agreement, 6247, 15330
loan of vessels, U.S.S. Barb, U.S.S. Dace, and U.S.S. Lizardfish, extension agreement, 10617
military and political problems, subcommittee report, 5144
mineral industry, minerals yearbook chapter, 4433
selling in Italy, 6512
- Itawamba County, Miss., community profile, 16278
- Item identification, *see* Identification.
- Iteration (mathematics):
convergence of iterative methods applied to large overdetermined linear and nonlinear systems of equations using least squares, 17950
technique to identify certain relative errors in radar X-Y plots, 15471
- Iterative technique for reducing sidelobes of circular and cylindrical arrays, 15085
- ITOS night-day meteorological satellite, 11600
- ITS, *see* Institute for Telecommunication Sciences.
- It's hard to come back, 14287
- ITV (instructional television), *see* Television.
- Ivory Coast:
background notes, 15289
economic trends and their implications for United States, 1976, 14620
health data, 1241
- Iwo Jima, uncommon valor was common virtue, 7441
- Izembek National Wildlife Range, general information, 10588

J

- J. Clark Salyer National Wildlife Refuge, birds, list, 4706
- J. N. "Ding" Darling National Wildlife Refuge, birds, list, 4709
- Jack, John R., thermal radiative property measurements using cyclic radiation, 7534
- Jack Creek, Madison County, Mont., mineral resources of basin, 10163
- Jackson, Dorothy G., research 1970, annotated list of research and demonstration grants, 10550
- Jackson, Edward S., determination of equinox and equator from meridian observation of minor planets, 18282
- Jackson, Henry M., selected materials on Outer Continental shelf, memorandum, 8412
- Jackson, Margaret, making raisins, 7941
- Jackson, Melvin H., privateers in Charleston, 1793-96, 4666
- Jackson, Samuel C.:
addresses, etc.—
Dec. 4, 1969, 761
Feb. 6, 1970, 5608
Feb. 13, 1970, 5595
- Jackson, Miss., area wage survey, 8868
- Jackson County, Ala., community profile, 16279
- Jackson County, Iowa, community profile, 14023
- Jackson County, Miss., community profile, 16280
- Jackson County, Mo., community profile, 17797
- Jackson County, N.C., community profile, 14024
- Jackson County, Ohio, community profile, 14025
- Jackson County, S. Dak., community profile, 14026
- Jackson Group, see Eocene period.
- Jacksonville, Fla.:
area wage survey, 8867
preschool program in compensatory education, learning to learn program, 4061
solid waste disposal, bearings, 1745
- Jacobs, Howard D.:
magnetic roasting and leaching for upgrading Minnesota manganiferous iron ore, 11595
production of metallic concentrates from high-silica iron ores, 873
- Jacquot, Louis, soil survey, Randall County, Tex., 11870
- JAG Journal, 2777
- JAG law review, 2778
- Jaggi, R. Krishan, stability of electron beam injected into space, 12803
- Jamaica:
air transport services, agreement, 4740
background notes, 15283
economic trends and their implications for United States, 14634
prospects for U.S. agricultural exports, 574
trade in cotton textile, agreement, 17350
- James, George A., importance of shading to visitors selecting campsite at Indian Boundary Campground, Tenn., 16571
- James, Harry K., physical and explosion characteristics of hydrazine nitrate, 5854
- James E. "Bud" Smith Plant Materials Center, Knox City, Tex., annual report, 7760
- James Madison Memorial Building:
Library of Congress, construction funds, increase authorization—
hearing, 435
law, 6546
reports, 1566, 6588
- James River and Valley, flood control emergency projects, hearings, 523
- Jameson, Albert E., jr., relief, 13264, 13597
- Jameson, Antony, wing slipstream flow interaction, 14829
- Janezeck, Elizabeth G., survey of Federal Government publications of interest to small business, 1092
- Janitors, janitorial services, trash removal, and similar services in federally owned and leased properties, 3 year contracts, authorize, report, 13444
- Jansons, Gertrude, relief, 1446
- Japan:
agricultural imports, efforts to diversify sources, 8506
air transport services, agreement, 6229
area handbook, 1232
canned clams and wool knit gloves, trade agreement, 15947
capsule facts for Armed Forces, 6344
economic trends and their implications for United States, 5709, 11479
farm commodity market view of U.S.-Australian competition, 6999
labor law and practice, 14662
military personnel of U.S. Army ordered to Japan, helpful hints, 9355
mineral industry, minerals yearbook chapter, 4434
north Pacific fur seals, extending interim convention, of Feb. 9, 1957, agreement, 4744
northern, sailing directions, change, 4609
offensive mine laying campaign against Japan, U.S. Strategic Bombing Survey, 2186
- Okinawa—
preparatory measures for transfer of administrative rights, agreement, 15301
tracking station, agreement, 4748
pocket guide, 14590
- Ryukyu Islands Advisory Committee to High Commissioner, abolish, agreement with Japan, 15308
- sailing directions, Naikai (Inland Sea), 10487
- seasonal variation of oceanographic conditions from Ocean Station Victor to coast along 34°N latitude, 262
- U.S.-Japanese fast reactor exchange program, test manufacturing of fuel assemblies for experimental fast breeder reactor, 8016
- U.S. security agreements and commitments abroad, hearings, 17375
- United States-Japan conference on toxic microorganisms, mycotoxins, botulism, proceedings, 18065
- United States-Japan cooperative program in natural resources, 5 year report, 8808
- Japan Air Lines, Co., Ltd., accident reports, 11799, 15037
- Japanese beetles, see Beetles.
- Japanese flowering cherry, cherry blossoms, Washington, D.C., general information, 2155
- Jars, Federal item identification guide, 16119
- Jarvis, Calvin R., evaluation of effect of yaw-rate damper on flying qualities of light twin-engine airplane, 12817
- Jasper County, Iowa community profile, 14027
- Jasper County, Miss., community profile, 16281
- Jasper County, Mo., community profile, 16282
- Jech, Robert W.:
influence of fiber aspect ratio on stress-rupture life of discontinuous fiber composites, 12782
preparation of fibered ceramics by mechanical deformation, 11638
- Jefferson, F. W., ATS-1 VHF communications experimentation, 18370
- Jefferson, Roland M., crabapples of documented authentic origin, history, progeny, and location, 9282

INDEX 1970

- Jefferson County, Ala., community profile, 14028
- Jefferson County, Iowa, community profile, 14029
- Jefferson County, Ky.:
flood plain information—
Beargrass and Upper Mill Creeks, 14309
Floyds Fork, 14312
Pond Creek, 14317
floods, how to avoid damage—
Beargrass Creek, 14324
Floyds Fork, 14326
Pond Creek, 14329
Upper Mill Creek, 14325
- Jefferson County, Miss., community profile, 16283
- Jefferson County, Mo., community profile, 16284
- Jefferson County, Nebr., community profile, 17798
- Jefferson County, N.Y., community profile, 14030
- Jefferson County, Ohio, community profile, 14031
- Jefferson County, Pa., community profile, 16285
- Jefferson County, Tenn., appraisal of potentials for outdoor recreational development, 15185
- Jefferson County, Wash., community profile, 6925
- Jefferson Davis County, Miss., community profile, 16286
- Jeffrey, Thomas E., effects of information requirements, timing procedures and photo scale on interpreter performance, 9359
- Jellyfish:
and other such pests, control, extend program, hearings, 8313
control, authorization, extend, report, 10995
- Jenkins, C. T., computation of rate and volume of stream depletion by wells, 14542
- Jenkins, Julian L. jr., investigation of level-flight and maneuvering characteristics of hingeless-rotor compound helicopter, 4517
- Jenkins, Kenneth H., sewage and water works construction, 10101, 17999
- Jennings, D. A., laser power and energy measurements, 961
- Jennings, Jerry T.:
characteristics of American youth, 4943
characteristics of men with college degrees, 9455
school enrollment, Oct. 1969, 15647
- Jensen, Keith F., how 2 types of fluctuating temperatures affect growth of *Fusarium solani*, 8693
- Jeran, Paul W., computer program for stereographic analysis of coal fractures and cleats, 7463
- Jerauld County, S. Dak., community profile, 14032
- Jerke, John M., geometric properties of modified whirling membrane solar-energy concentrator, 11683
- Jernell, Lloyd S., aerodynamic characteristics of oblate pteroid and sphere at Mach numbers from 1.70-10.49, 4515
- Jersey cattle, *see* Cattle.
- Jersey City, N.J.:
area wage survey, 11532
census of transportation, 1967, commodity transportation survey, 8066
- Jet aircraft, *see* Aircraft.
- Jet airplanes, *see* Airplanes.
- Jet engines, *see* Engines (aircraft).
- Jet fuels, *see* Fuels.
- Jet plumes:
jet-engine exhaust and trailing vortex wakes, introduction, 13024
jet exhausting into Mach 2.20 external stream, experimental determination of equivalent solid bodies to represent, 2099
- Jet pumps, *see* Pumps.
- Jet streams, *see* Winds.
- Jets:
coaxial—
free-jet computer code, improved data agreement using new eddy viscosity equations, 11673
heterogeneous axisymmetric coaxial confined jets, turbulent mixing in initial region, 11620
recirculation patterns in initial region of, 8929
flow characteristics on single turbulent jet impinging on flat plate, experimental, 7536
gas jet impingement on liquid surfaces during weightlessness, 7548
cavity stability, 16982
jet flow refraction of sound, effects of temperature-profile variation, 10405
laminar gas jet diffusion flames, effects of gravity on intensity, 11690
liquid effect of steady velocities on dynamic response of atomization, 2106
multiple jet liquid injection into hypersonic flow, experimental investigation, 11685
shear layer and jet instability in stratified media, 5941
single turbulent air jet impinging on flat plate, survey of literature on flow characteristics, 5949
six-jet, 0.16 scale, V/STOL model in transition, induced interference effects on aerodynamic characteristics, 11635
sonic and supersonic jet penetration from flat plate into Mach 2 airstream, optical study, 12778
supersonic, shock-free, turbulence measurements by optical cross-beam method, 5917
turbulent, compressible free jets, investigation of mixing and combustion, 2067
two-dimensional jet injected at angle to moving stream mixing region, analysis, 929
wing slipstream flow interaction, analysis, 14829
- Jetties, proposed reconstruction at Port of Chittagong, East Pakistan, economic analysis, final report, 6264
- Jewelers and jewelry repairmen, employment outlook, 16832
- Jewelry:
census of manufactures, 1967, industry statistics, 12011
costume, census of manufactures, 1967, industry statistics, 15611
gold and silver content, manufactured articles, misrepresentation of quality, provide civil remedy—
hearings, 3872
law, 16765
reports, 6641, 12205
- Jewelry repairmen, *see* Jewelers.
- Jewish War Veterans, and civil defense, 10843
- Jhawar M. M., vacuum-freezing vapor-compression process evaluation on brackish water, 14593
- Jimmy has more fun, 7177
- Jimsphere balloons, *see* Balloons.
- Job analysis:
Air Force job inventories, construction and administration, 7952
Job evaluation policy act—
hearings, 3885, 11054
law, 6548
reports, 5112, 6737
job grading standard, civil service—
asphalt worker, 6477
baker, 8125
cement finisher, 8126
die sinker, 6478
leader, 13198
mason, 6479
meatcutter, 8127

- Job analysis—Continued
 job grading standard, civil service—con.
 office appliance repairer, 6480
 packer, 8128
 painter, 6481
 plasterer, 6482
 roofer, 8129
 supervisors, 13199
 job grading system for trades and labor
 occupations, 2608, 6475, 8123-24, 15688
 job inventory procedures, 3 studies, select-
 ing duty categories, interviewing, and
 sampling, 7953
 job qualification system for trades and
 labor occupations, handbook, 15690
 job restructuring handbook, 4362
 job types for low aptitude airmen, method
 for determining, 7954
 merchandising your job talents, 4365
 position classification system within execu-
 tive branch, improve—
 hearings, 3885, 11054
 law, 6548
 report, 6737
 supervisory grade-evaluation guide and
 qualification standard, 13206
 Job Bank Program, *see* National Comput-
 erized Job Bank Program.
 Job Corps:
 general information, 8854
 PM (series), 5813
 residential job training, basic education,
 human renewal, 5810
 staff newsletter, 2779
 teacher and guidance counselor examina-
 tion announcement, amendment, 1345
 what happens now? guide to your future
 after Job Corps, 809
 Job description, *see* Job analysis.
 Job evaluation, *see* Job analysis.
 Job performance, *see* Work.
 Job setters (machine shop):
 employment outlook, 14710
 Jobe, Larry A., nomination, hearing, 494
 Jobs, *see* Civil service.—Employment—Oc-
 cupations—Training—Women—Work.
 Johansen, Henry, survey of general coverage
 navoids for VS/TOL aircraft, VOR/DME
 error model, 10359
 Johler, Ralph:
 ground wave propagation in ionized
 atmosphere with arbitrary variation of
 conductivity with altitude, 11274
 theoretical LF, VLF field calculations with
 spherical wave functions of integer
 order, 14348
 John, Otto L., effects of maturity changes on
 nondestructive measurements of citrus
 fruit quality, 7946
 John Day Dam, fish passage report, 14302
 John E. Fogarty International Center for
 Advanced Study in the Health Sciences,
 general information, 7349
 John F. Kennedy Center for the Performing
 Arts:
 act, amend, law, 306
 additional funds authorization, law, 306
 John F. Kennedy Space Center:
 Cape Kennedy thunderstorms, frequency
 and duration, forecasting application,
 11271
 future utilization, hearings, 11059
 improved accounting control over equip-
 ment, GAO report, 14500
 John was OK, until his momma caught him,
 (poster), 15016
 Johnny Horizon:
 character, unauthorized manufacture and
 use, prevent—
 law, 15803
 reports, 12349, 13442
 Johns, H., tests on preformed polysulfide
 strips for canal contraction joints, Wah-
 luke Branch Canal, Columbia Basin Pro-
 ject, 9090
 Johnson, Allan, M., electrosorb process for
 desalting water, 5627
 Johnson, Charles B.:
 heat-transfer measurements at Mach 8 on
 flat plate with deflected trailing-edge
 flap with effects of transition included,
 14861
 power-law velocity-profile-exponent varia-
 tions with Reynolds number, wall cool-
 ing, and Mach number in turbulent
 boundary layer, 10397
 Johnson, Charles E.:
 feasibility of Georgia education model for
 teacher model, elementary—
 basic report, 11223
 job descriptions, 11223
 technical report, 14282
 Johnson, Colle L., Jr., relief, 9642, 17600,
 17679
 Johnson, Constance R., Korea, 13028
 Johnson, Donald R., Bureau of Mines ap-
 paratus for thermal analysis, simultaneous
 DTA-TG-EGA for oil shale and solid fuels,
 16917
 Johnson, Donald W., compilation, State den-
 tist manpower reports, 11409
 Johnson, Elmar, remarks, Oct. 28, 1970, 18321
 Johnson, Florence C., how workmen's com-
 pensation laws changed during 1969, 7418
 Johnson, George V., insects and related
 pests of house plants, how to control them,
 17436
 Johnson, Guy A., mineral industry of Iowa,
 858, 18154
 Johnson, Harry R., changing investment
 patterns of U.S. petroleum industry 1950-
 68, 11580
 Johnson, Hugh A.:
 outdoor recreation, publications and
 articles by Economic Research Service,
 16381
 private outdoor recreation enterprises in
 rural Appalachia, 4044
 Johnson, James S., jr., separations processes,
 5623
 Johnson, Joseph M., forecasting warehouse
 produce movement, 15398
 Johnson, Lloyd E., Florida landings, 1368
 Johnson, Lyndon B., public papers of the
 President, 5461-62
 Johnson, Malzie, records of Marine Corps,
 14908
 Johnson, Nicholas:
 remarks—
 Feb. 12, 1970, 7079
 Mar. 2, 1970, 7080
 Mar. 12, 1970, 7077
 Johnson, Paul W., computer program for
 calculating capital and operating costs,
 846
 Johnson, Philip L., aerial sensing and photo-
 graphic study of El Verde rain forest,
 P.R., 4067
 Johnson, R. L.:
 benefits from thinning black willow, 688
 field germination of nuttall oak acorns,
 11361
 Johnson, Richard L., compliance, enforcement
 and reporting in 1969 under labor-
 management reporting and disclosure act,
 4361
 Johnson, Robert C., mineral industry of
 South Carolina, 18160
 Johnson, Robert L., nomination, hearing, 488
 Johnson, Sven I., surface currents as deter-
 mined by drift card releases on Continental
 Shelf off northwestern U.S., 11891
 Johnson, Thomas A., Army logistician, 2348
 Johnson, W. M. pot tests indicate fertilizers
 can improve soils from Black mesa in
 western Colorado, 685
 Johnson, Warren B., jr., compact portable
 temperature recorder, 604
 Johnson, Wilfrid E., remarks, Dec. 1, 1969,
 137

INDEX 1970

- Johnson County, Iowa, community profile, 14033
- Johnson County, Ky., fresh water occurrence in Lee formation, 8759
- Johnson County, Mo., community profile, 16287
- Johnson County, Nebr., community profile, 17799
- Johnson County, Tenn., appraisal of potentials for outdoor recreational development, 9126
- Johnson Creek, Milwaukie, Oreg., flood plain information, 16435
- Johnston, Denis F., education of adult workers, projections to 1985, 18133
- Johnston County, N.C., community profile, 14034
- Johnston County, Okla., Lower Clear Boggy Creek watershed, revised work plan for watershed protection and flood prevention, 15229
- Joiner, Brian L., author and permuted title index to selected statistical journals, 17036
- Joint Chiefs of Staff:
Chairman—
former, military retired pay, recomputation under certain circumstances—
hearings, 6697
report, 5121
nomination of Thomas H. Moorer, hearing, 11109
- Joint Committee on Environment and Technology, *see* Environment and Technology Joint Committee
- Joint economic report, 13393
- Joint financial management improvement program, annual report, 7206
- Joint funding simplification act of 1969, 393
- Joint Oceanography Institutions Deep Earth Sampling Program:
Deep Sea Drilling Project, cruises of drilling vessel Glomar Challenger—
Dakar, Senegal to Rio de Janeiro, Brazil, 9033
Hoboken, N.J., to Dakar, Senegal, 6069
Orange, Tex., to Hoboken, N.J., 1004
- JOIDES cores on continental margin off Florida, detailed stratigraphic description, 4245
- Joint Publications Research Service, JPRS series, 1981-2012, 2430, 2516-23, 2542, 2710, 2735, 3210-12, 3268-87, 3317-23, 3328-28, 4325-57, 5723-5804, 7351-7401, 8830-50, 10256-285, 11489-521, 12622-656, 16737-813, 18091-112
- Joints:
ammonium salt-treated southern pine, cure rate of resorcinol and phenol-resorcinol adhesives, 8700
- canal contraction joints, preformed polysulfide strips, tests, Wahluke Branch Canal, Columbia Basin Project, 9090
- contraction joints in concrete-lined canals, use of coal-tar extended polysulfide sealers, laboratory tests, 7723
- dissimilar thickness stainless-steel T-joints, magnetic force upset welding, 14866
- finger joints—
fatigue strength, 693
pith-associated and non-pith associated southern pine 2 by 6's, tensile strength, 14469
- gap-filling adhesive in finger joints, 16574
- pipe joint welding, rings-locking, and miscellaneous hardware, Federal item identification guide, 17740
- polysulfide canal contraction, joint sealer, 17245
- rock, shear and sliding resistance tests for Forebay Dam, Grand Coulee, 3d powerplant project, 15145
- Joists, one-way concrete joist construction, types and sizes of forms, voluntary product standard, 10441
- Jones, C. W., effect of polymer on properties of soil-cement, 17244
- Jones, Dale N., introduction to jet-engine exhaust and trailing vortex wakes, 13024
- Jones, David L., structural and stratigraphic significance of Buchia zones in Colyear Springs, Paskenta area, Calif., 4249
- Jones, Donald R.:
psychologists in mental health, 1069
staffing patterns in mental health facilities, 15017
- Jones, John E.:
observations of ionospheric disturbances in Antarctica, 11275
observation of traveling ionospheric disturbances by Doppler technique with spaced transmitters, 5394
- Jones, John R., review and comparison of site evaluation methods, 700
- Jones, Lawrence A., crop-hall insurance, 1967-68, volume, cost, indemnities, 1786
- Jones, M. C., far infrared absorption in liquefied gases, 8988
- Jones, Mildred V., wool statistics and related data, 13007
- Jones, Owen W., mineral industry of Louisiana, 4439
- Jones, R. N., precision, high frequency calibration facility for coaxial capacitance standards, 8986
- Jones, Robert A., preliminary surveys of wall boundary layer in Mach 6 axisymmetric tunnel, 5938
- Jones, Robert L., long-term measurements of corrosion of mild steel in 580° F. NaOH solutions, 17195
- Jones, Robert S., gold content of water, plants, and animals, 5547
- Jones, Roseanne, relief, 3792, 12102, 12313
- Jones, Ruben L., block and strip solutions involving Lunar Orbiter photographic data used to prepare contour charts for five Apollo landing sites, 14872
- Jones, W. Webster, sanitary regulation of fluid milk industry, inspection, cost, and barriers to market expansion, 12990
- Jones, William K., notes on history and material culture of Tonkawa Indians, 4575
- Jones County, Iowa, community profile, 14035
- Jones County, Miss., community profile, 16288
- Jones County, N.C., community profile, 14036
- Jones County, S. Dak., community profile, 14037
- Joo Lee, Hyun, *see* Lee, Hyun Joo.
- Joo Lee, Myung, *see* Lee, Myung Joo.
- Jordan, C. A.:
cushioning performance of multilayer corrugated pads at center only, 14468
cushioning properties of 5-layer corrugated fiberboard pads, 1882
- Jordan, John W., task scheduling for real time multiprocessor, 12790
- Jordan, Stuart D., temperature distribution in solar chromosphere, 946
- Jordan:
agricultural commodities, agreement, 18358
area handbook, 4860
background notes, 9187
- Jorgensen, Donald L.:
charts giving station precipitation in Plateau States from 700-Mb, lows during winter, 1834
persistence of precipitation at 108 cities in conterminous United States, 14344
- Josceyln, Kent B., car/trees, rollover, multidisciplinary accident investigation, 14987
- Josephson junctions, some applications of Josephson effect, 960, 7522
- Joshua Tree National Monument, general information, 6063
- Jossi, Jack W., annotated bibliography of zooplankton sampling devices, 15747

Journalists, French, visit Soviet scholars, 4338
see also Reporters and reporting.

Journals:
 Antarctic journal of United States, 2335
 civil service, 2407
 Federal Home Loan Bank Board, 2782
 footnote, HEW Audit Agency, 10196, 12594
 House of Representatives, 91st Cong., 1st sess., 15818
 JAG journal, 2777
 journal of research, National Bureau of Standards, 2785-87
 Library of Congress quarterly, 3119
 National Cancer Institute, 2783
 Navy civilian manpower management, 2784
 Prologue, journal of National Archives, 3103
 Senate, 91st Cong., 1st sess., 6728
 statistical journals, author and permuted title index, 17036
 Supreme Court, 3249
 Journals (machinery), *see* Bearings (machinery).

JPRS, *see* Joint Publications Research Service.

Juab County, Utah, community profile, 6926

Juarez, Jocelyn Tandoc, *see* Tandoc-Juarez, Jocelyn.

Judge Advocate General, Air Force:
 activities, Air Force manual, 15456
 law review, 2778
 report, 6842

Judge Advocate General, Army:
 legal service, pamphlets, 2788
 report, 6842

Judge Advocate General, Navy:
 JAG journal, 2777
 manual, 14649
 report, 6842

Judge Advocates General of Armed Forces, boards of review, court-martial reports, holdings and decisions, 1758, 17731

Judges:
 circuit, nomination of William E. Miller, report, 11068
 district, additional, appoint—
 hearings, 3879
 law, 10932
 reports, 5141, 6628, 9695

District of Columbia—
 Court of Appeals, increase salaries, report, 1645
 Court of General Sessions, increase salaries, report, 1645
 retirement act of 1964, amend survivors annuity provisions, law, 1405
 Tax Court, increase salaries, report, 1645

Federal, retirement benefits after 20 years service regardless of age—
 hearings, 8311
 report, 9661

judicial reform act, hearings, 1735
 military, guide, 86

Judgments, *see* Actions at law—Claims—
also names of courts rendering judgments—*also* special subjects.

Judicial administration, *see* Justice Department.

Judicial Conference of United States:
 proceedings—
 departmental edition, 12956, 15394
 document editions, 15824, 15826

Judicial Disabilities and Tenure Commission, establish, hearings, 1735

Judicial officers, assaults on, prohibit, hearings, 17706

Judicial procedure, *see* Civil procedure.

Judicial reform act, hearings, 1735

Judicial review:
 ICC orders, hearing, 5261
 military justice, courts of military review, rules of practice and procedure, 6327

Judicial tribunals, *see* Courts.

Judiciary, *see* Courts of United States—Justice Department.

Judiciary Committee, House:
 calendar, 2807
 committee prints, 427, 9761, 11049
 Federal rules of appellate procedure, with forms, 11032
 hearings, 428-429, 1590-92, 3878-79, 5167, 6721-22, 8309-11, 9760, 11050-51, 13530-533, 15920-924, 17650
 investigations and studies—
 expenses, reports, 8237, 13446
 Federal judicial system, expenses, report, 461
 reports, 348-359, 362, 1446, 1451, 1456-57, 1464-67, 1476-77, 1494-95, 1662, 3788-3803, 5096-5102, 5109, 5116, 5118-19, 5124, 5135, 5141, 6578-80, 6640, 6645, 6668, 6676, 8255-56, 8258, 8261, 9635-47, 9661, 9671, 10957-958, 10990-991, 12164-183, 12189, 12198, 12200, 12216, 13376-378, 13380-392, 13433, 13439, 13442, 15832-836, 15849-850, 15876, 17618-625

Judiciary Committee, Senate:
 calendar, 2826
 committee prints, 8414-15, 8421-22, 9921, 12369, 13745, 17708
 hearings, 513, 1732-38, 3978-981, 5269-74, 6809, 8416-20, 9919-20, 9922-23, 11132-134, 12370-371, 13744, 13746-750, 16065-70, 17706-707, 17709
 Internal Security Subcommittee, investigations, expenses, report, 1635
 investigations and studies—
 administrative practices and procedure in Federal agencies, expenses, report, 5218
 antitrust and monopoly—
 activities, 1969, report, 9843
 laws, administration, expenses, reports, 457, 5219
 constitutional amendments—
 expenses, reports, 458, 5220
 report on actions and recommendations, 1685
 constitutional rights—
 authorization report, 16023
 constitutional rights—
 expenses, reports, 464, 1605, 5221, 15989
 subcommittee activities, report, 1681
 constitutional separation of powers between executive, judicial, and legislative branches of Govt.—
 expenses, report, 5232
 report of subcommittee work, 1642
 criminal law and procedures, expenses, reports, 459, 5222
 Federal charters, holidays, and celebrations, expenses, report, 5223
 Federal judicial system—
 expenses, report, 5225
 subcommittee report, 9865
 immigration and naturalization—
 expenses, report, 5224
 reports on findings, etc., 1614, 9834
 internal security laws, etc., administration, expenses, reports, 460, 5226
 juvenile delinquency, expenses, reports, 462, 5227
 national penitentiaries, expenses, report, 5229
 Patent Office administration and patent statutes, expenses, report, 5228
 refugees and escapees, expenses, reports, 465, 5230
 revision and codification of U.S. statutes—
 authorization, report, 15984
 expenses, reports, 463, 5231

INDEX 1970

Judiciary Committee, Senate—Continued
 reports, 452, 473, 1603-4, 1613-14, 1619,
 1628-30, 1634, 1642, 1646, 1660-61,
 1663, 1670, 1681, 1684-85, 1695, 3903-
 19, 3928, 3935-36, 5247, 9790-9816,
 9819, 9834, 9842-43, 9864-65, 9869,
 9874, 11068, 12293-317, 12329, 12331-
 337, 13577-823, 13640-842, 13644,
 13654, 13696, 13698, 13700, 15976,
 15982-984, 15986, 16023-25, 16029,
 17657-679, 17681-682

Judy, R. W., Jr., procedures for stress-cor-
 rosion cracking characterization and inter-
 pretation failure-safe design for high-
 strength steels, 9060

Juenke, E. F., physical-chemical studies of
 clad UO₂ under reactor accident conditions,
 9378

Juhola, A. J., regeneration of spent granular
 activated carbon, 14405

Julia Kim, *see* Kim, Julia.

Juneau, Alaska:
 Lemon Creek—
 flood plain information, 17923
 floods, how to avoid damage, 17940
 Mendenhall River, flood plain information,
 16422
 principal electric facilities, map, 8629
 Jungle warfare, jungle operations, field
 manual, 84

Junlata County, Pa., community profile,
 16289

Junior colleges:
 higher education, basic student charges,
 tuition and fees for board and room,
 11230
 programs in 2-year colleges to up-grade
 employees of business and industry
 (paper), 11239

Junior Federal assistant, examination an-
 nouncement, special test, 9478

Junior high school students, *see* Students.

Junior high schools, summer institutes, New
 York City, secondary program in compensa-
 tory education, 1124

Juniper, *see* Cedar.

Juno (asteroid):
 heliocentric coordinates, 1928-2000, list,
 9042

Jupiter (planet):
 atmosphere, 14898
 Jovian atmosphere, on inference of phys-
 ical properties from photometry of
 eclipses of Galilean satellites, 17009
 mass, determination from motion of 65
 Cybele, 17170
 particles and fields nearby, 18191

Jurassic period:
 ammonites from central Saudi Arabia,
 5558
 Jurassic (Tithonian) and cretaceous
 Buchia zones in northwestern California
 and southwestern Oregon (series), 4249,
 10182

Morrison formation stratigraphy and
 structure of Ambrosia Lake district, N.
 Mex., 11386

Jurisdiction:
 Court of Claims, 16102
 Federal jurisdiction for consumer class
 actions, to improve judicial machinery,
 hearings, 9919
see also Criminal jurisdiction.

Jury, jury duty, summonses, prescribe man-
 ner of serving, amend U.S. Code, report,
 1465

Just for the fun of it, on waters of the
 Allegheny, 16550

Justice:
 administration, and Mexican-Americans
 in Southwest, 6468
 criminal—
 and law enforcement in U.S., improve-
 ment and reform, hearings, 410
 drug abuse and crime in America, hear-
 ings, 409

Justice—Continued
 criminal—continued
 expenditures and employment for large
 governmental units, 6458
 matter of simple justice, report of Presi-
 dent's Task Force on Women's Rights
 and Responsibilities, 10510
 to establish justice, to insure domestic
 tranquility, final report of National
 Commission on Causes and Prevention of
 Violence, 2203

Justice Department:
 annual report, 10286
 appropriations, 1970—
 law, 3738
 reports, 472, 5104
 appropriations, 1971—
 hearings, 8270, 13708
 report, 9686, 15990
 waive points of order, report, 9688

Attorney General—
 approval concerning title to lands ac-
 quired, amend revised statutes—
 law, 15782
 reports, 6668, 13696
 control of D.C. correctional institutions
 in Fairfax County, Va., hearings,
 5153
 function and organization, 7404
 ICR series, 16815-817
 judgment debt collection operations—
 hearing, 416
 report, 1515
 judicial administration, code of Federal
 regulations, 5454
 opinions of Attorney General, separates,
 2993, 5807, 8851
 PR series, 16819-820

Justices, *see* Judges.

Juvenile courts:
 District of Columbia proceedings, revise—
 hearings, 3857, 3968, 6704
 reports, 1687, 6623, 6629
 family and juvenile court acts, legislative
 guide for drafting, 233
 juvenile justice, crime in America, hear-
 ings, 5150
 legal bibliography, supplement, 9108

Juvenile delinquency:
 delinquency and crime in District of Colum-
 bia, schools, hearings, 501
 Federal agencies role in crime and delin-
 quency field, Federal support programs,
 compilation, 11778
 investigation, expenses, reports, 462, 5227
 neglected and delinquent children, pro-
 gram under ESEA title 1, questions and
 answers, 7022
 nonmetropolitan delinquency, action pro-
 gram, 1098
 prevention and control act of 1968, grants
 authorized under act, lists, 10549

Juveniles, *see* Youth.

K

Kaattari, George S., method for predicting
 pressures on elliptic cones at supersonic
 speeds, 14884

Kafer, Frank W., defense industry bulletin
 (periodical), 2494

Kahan, Archie M., prospect for increasing
 useful water supply in Lebanon by pre-
 cipitation management, 7727

Kahn, Gerald, statistics of local public school
 systems, 11245, 14297

Kaiser, Harold F., Jr., input-output analysis
 of Southern forest economy, 701

Kaiser Peak quadrangle, central Sierra Ne-
 vada, Calif., analytic data, 16616

Kaltz, Evelyn F., household consumers' ac-
 ceptance of experimental dry whole milk,
 9806

Kajakal Reservoir, Afghanistan, hydro-
 graphic and sedimentation survey, 16641

- Kalawao County, Hawaii, community profile, 6927
- Kallispell, Mont.:
flood plain information, 4078
floods, how to avoid damage, 7039
- Kallarakal, V. V., photographic measures of double stars, 7667
- Kalman filters:
lunar midcourse navigation system using statistical filter theory and hand-held sextant observations, hardware simulation, 927
use for evaluation of lunar beacons in estimation of lunar orbits, 14865
- Kalousek, G. L., abnormal set of Portland cement, causes and correctives, 7724
- Kamehameha I, memorial statue, Hawaii's presentation to National Statuary Collection, proceedings, 13558
- Kamel, Ahmed A.:
perturbation method in theory of non-linear oscillations, 7520
perturbation theory based on Lie transforms and its application to stability of motion near sun-perturbed earth-moon triangular libration points, 14825
- Kampe, Ronald E., underemployment estimates by county, United States, 4041
- Kamper, R. A., some applications of Josephson effect, 960, 7522
- Kanawha Valley, W. Va., air pollution study, 7566
- Kane County, Utah, community profile, 6928
- Kane 9 (USNS): global ocean floor analysis and research data, 1009
- Kanluka, R. P., agricultural research, 2307
- Kalnel, William B., epidemiological investigation of cardiovascular disease, 7620
- Kanning, Gerd, influence of thermal distortion on performance of gravity-stabilized satellites, 902
- Kansas:
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 4909
retail trade, merchandise line sales, 10787
selected services, area statistics, 159
wholesale trade, area statistics, 174
census of construction industries, 1967, statistics, 17488
census of governments, 3566
climatological data, 2409
county business patterns, 196, 13162
irrigation council, annual meetings, proceedings, 9087
medicaid program, improvement needed in administration by fiscal agents, Social and Rehabilitation Service, GAO report, 18033
mineral industry, minerals yearbook chapter, 4435
Mississippi River and tributaries, fishery products, wholesale dealers, list, 9554
Picher Field, geology and ore deposits, 5549
postal map, 17212
precipitation data, hourly, 2718
production potential of copper deposits associated with Permian red bed formations, 16912
southeast, impact from ammunition production for Vietnam, 10729
water resources, 16634
- Kansas City, Kans.:
Blue River vicinity, engineers report—departmental edition, 11248
document edition, 10946
- Kansas City, Mo.:
area wage survey, 4378
Black Panther Party chapter, investigation hearings, 9748
Blue River vicinity, engineers report—departmental edition, 11248
document edition, 10946
principal electric facilities, map, 8624
- Kanuti River and Valley, Kanuti River region, Alaska, preliminary geologic investigations, 1911
- Kaplan, Irving:
area handbook for—
Somali Democratic Republic, 15486
Zambia, 1234
- Kara Sea, oceanographic survey results, 1965, summer and fall, 7681
- Karn, Fred S.:
coal investigations using laser irradiation, 4475
diffusion studies of light hydrocarbon gases through coal, 16925
- Karp, Sherman, photon counting, problem in classical noise theory, 10413
- Karst, terminology, glossary, 10192
- Kasemir, Heinz W.:
lightning hazard to rockets during—
launch 1, 7050
launch 11, 5388
- Kaskaskia River, appraisal of potentials for outdoor recreational development of basin, 4680
- Kass, J. N., evaluation of tantalum/316 stainless steel bimetallic tubing, 8926
- Katan, factors affecting performance of porous structures used as oxygen fuel cell electrodes, 12767
- Katell, Sidney, investment and operating costs for chemical and petroleum plants, bibliography, 14776
- Katmai National Monument, distributions of fishes and their zoogeographical implications, 3717
- Katsuwonus pelamis, *see* Tuna fish.
- Kattegat:
lights and fog signals, list, change, 17181
sailing directions, change, 6082
- Kauai, Hawaii, glimpses of soil and water conservation, 9140
- Kauai County, Hawaii:
community profile, 6929
flood plain information, 4075
- Kaufman thruster, *see* Ion thrusters.
- Kaufmann, Pierre, distribution of trapped particles at altitude of 900 km near South Atlantic geomagnetic anomaly, 9061
- Kautz, Harold E., phosphorus diffusion conditions for shallow-junction solar cells, 4528
- Kay, Evelyn R., inventory of vocational education statistics available in Federal agencies, 11234
- Kay, William K., keep it alive! tips on living history demonstrations, 11795
- Kaye, Melvin A., relief, 13260, 13586
- Kaylor, J. D., operations of marine products development irradiator, annual report, 9402
- Kaysinger Bluff Dam and Reservoir:
rename as Harry S. Truman Dam and reservoir—
law, 10927
report, 9850
- Keane, Leo M., global navigation and traffic control using satellites, 14895
- Kearney County, Nebr., community profile, 17800
- Keaty, John, development of base techniques for ceiling and visibility prediction, 18371
- Keeler, Charles M., some physical properties of alpine snow, 4068
- Keener, Earl R., use of Preston tubes for measuring hypersonic turbulent skin friction, 937
- Keep it alive! 11795
- Keeping up with change in rural society, 5415
- Keim, Kathleen:
basic data on economy of Burma, 4994, 8509
foreign trade regulations of—
Kuwait, 8694
Pakistan, 10873
- Kelsch, Bernard, application of nuclear technology to art identification problems, 124

INDEX 1970

- Keith, Arvid L., affects of variable turbine area on subsonic cruise performance of turbojets designed for supersonic application, 18976
- Keith, George H., electrowon tungsten sheet, evaluation, 10325
- Keith, R. E., potting electronic modules, report, 4505
- Keith County, Nebr., community profile, 16290
- Kellogg, Charles E., travel notes of soil scientists, together with list of useful items for long journey, 6202
- Kellogg, Frazier, toward economic development for native American community, compendium of papers, 3766
- Kellogg Creek, Milwaukie, Oak Grove, Oreg. flood plain information, 16435
- Kelly, Elizabeth C., FDA clinical experience abstracts, 2568
- Kelly, James R., evaluation of VTOL flight-director concept during constant-speed instrument approaches, 11684
- Kelly, T. E., saline water ground-water resources of Rio Grande drainage basin, pilot study, 14596
- Kelly, William H., economic report on influence of market structure on profit performance of food manufacturing companies, 8666
- Kelly Air Force Base, Tex., Air Force civilian employees, overpayments of salaries, relief, 12165
- Kelsey, Eugene L., development and evaluation of high-efficiency power inverter, 12813
- Kelsey, L. P., revision of Scenopinidae (Diptera) of the world, 2151
- Kemp, Florence B., noncredit activities in institutions of higher education, 1967-68, institutional distribution, 7018
- Kemp, Joseph H., Jr., Ames M-50 helium tunnel, 8948
- Kemper County, Miss., community profile, 16291
- Kenaf, cultural and harvesting methods, annual crop source of pulp in Southeast, 6315
- Kenai National Moose Range, general information, 10586
- Kenai Peninsula, Alaska, Nuka Bay area, geology and lode-gold deposits in area, 8743
- Kendall School:
Gallaudet College to maintain and operate as demonstration elementary school for the deaf—
hearings, 13751, 17640
report, 13678
- Kenilworth Model Sanitary Landfill Interim report on solid waste demonstration project, 8558
- Kennedy, David M.:
addresses, etc.—
Nov. 10, 1969, 2270
Nov. 13, 1969, 1178
Nov. 18, 1969, 2272
Nov. 21, 1969, 2271
Jan. 14, 1970, 6272
Jan. 28, 1970, 6271
Feb. 20, 1970, 6270
Mar. 25, 1970, 9255
Apr. 4, 1970, 9251
Apr. 9, 1970, 9252
Apr. 16, 1970, 9254
Apr. 23, 1970, 9244
May 6, 1970, 9253
May 9, 1970, 10656
May 14, 1970, 10655
May 20, 1970, 10653
June 9, 1970, 11924
June 10, 1970, 10654
June 16, 1970, 11921
June 26, 1970, 11922
Sept. 22, 1970, 17390
Oct. 6, 1970, 17391
- Kennedy, David M.—Continued
addresses, etc.—continued
Oct. 19, 1970, 18389
Oct. 23, 1970, 18390
- Kennedy, Harry D., chronic effects of methoxychlor on bluegills and aquatic invertebrates, 11892
- Kennedy, Marjorie D., confectionery manufacturers' sales and distribution, 11983
- Kennedy, Robert S., optical space communications, 5912
- Kennedy, Thomas E., dynamic response of model buried field shelter, Project LN314, Operation Prairie Flat, 10020
- Kennedy, Vance C., fluorescent sand as tracer of fluvial sediment, 7243
- Kennedy Round, *see* General agreement on tariffs and trade
- Kennedy Space Center, *see* John F. Kennedy Space Center
- Kennison, David L., relief, 12167
- Kenosha, Wisc., census of transportation, 1967, commodity transportation survey production, area series, 6426
- Kentucky:
black walnut on nonforest land, 11367
bluegrass and Pennyroyal areas commercial tobacco-livestock farms, costs and returns, 8498
career directory, college level, 9466
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 8056
retail trade, merchandise line sales, 11993
wholesale trade, area statistics, 175
census of construction industries, 1967, statistics, 15555
census of governments, 1967, State reports, 3567
census of manufacturers, 1967 statistics, 15576
climatological data, 2409
county business patterns, 197, 12026
eastern coal field region, occurrence of fresh water in Lee formation in parts of Elliott, Johnson, Lawrence, Magoffin, and Morgan Counties, 8759
Falls of Ohio Interstate Park compact, consent of Congress—
law, 17602
reports, 10957, 15983
Federal careers projected vacancies, college level, 9469
impact of new industry on local government finances in 5 small towns, 16378
mineral industry, minerals yearbook chapter, 4436
minority construction contractors located in selected cities, list, 8793
Mississippi River and tributaries, fishery products, wholesale dealers, list, 9558
narcotics addicts, National Institute of Mental Health Study, 1064
precipitation data, hourly, 2718
travel costs less than you think, please come, invitation from people of U.S., 7885
Dutch edition, 7882
German edition, 7880
Japanese edition, 7886
Portuguese edition, 7883
Spanish edition, 7881
water resources, 4260, 8755
- Kenya:
background notes, 9189
economic trends and their implications for United States, 5705, 14636
excess property program, observations on AID's administration, GAO report, 1898
foreign trade regulations, 4998
mineral industry, minerals yearbook chapter, 4437
- Kenyon, Karl W., sea otter in eastern Pacific Ocean, 15269

- Keokuk County, Iowa, community profile, 14038
- Kepes, Gyorgy, toward civic art, 11766
- Kepler's laws, *see* Orbits.
- Kern, H. M., Coast Guard reservist, 2413
- Kern River and Valley, Miocene gastropods and biostratigraphy, Calif., 18615
- Kerogen, use of centrifugal separation to investigate how it is bound to minerals in oil shale, 7499
- Kerr, Pat C., interrelation of carbon and phosphorous in regulating heterotrophic and autotrophic populations in aquatic ecosystems, 14413
- Kerrville, Tex., laboratory screening of materials as animal systemic insecticides, 9322
- Kessler, Dooyne W., experimental trawling and pot fishing for giant Alaska prawn, 12067
- Ketchikan, Alaska, principal electric facilities, map, 8629
- Ketchum, M. D., contamination of refractory metals by oxygen, water vapor, and carbon monoxide, 11607
- Ketchum, Idaho, Big Wood River, flood plain information, 16419
- Ketterson, F. A., jr., historical base map and documented narrative, 1869, Golden Spike National Historic Site, 15031
- Keuhl, Frederick W., evaluation of multiplicative generator of pseudo-random numbers, 15493
- Keum Ja Kim, *see* Franks, Keum Ja.
- Keum Jo Kim, *see* Franks, Keum Ja.
- Key questions on revenue sharing (remarks), 1180
- Key to aviation weather reports, 18401
- Key to meteorological records documentation, 4095, 10030-31, 11277, 17954
- Key West National Wildlife Refuge, birds, list, 15273
- Keya Paha County, Nebr., community profile, 17801
- Keyes, C. G. jr.:
disposal of brine by solar evaporation—data, 11445
design criteria, 14598
field experiments, 14597
laboratory experiments, 11446
- Keys, *see* Locks and keys.
- Khalifalla, Sanaa E., pretreating steel scrap to speed oxidation, 4476
- Khe Sanh, battle, historical study, 2041
- Kiddler County, N. Dak., community profile, 14039
- Kidney Diseases and Kidney-Related Diseases Office:
establish—
hearings, 5277, 8428
report, 12248
- Kidney seam, Northern Field, Pa., Pennsylvania, anthracite, preparation characteristics, 7488
- Kidneys:
disease—
and related diseases of urinary system, economic cost, 6146
benefit-cost analysis of programs, 6144
renal disease and hypertension, Public Health Service cooperative study conference proceedings, 14367
research program, extend and improve—
hearings, 5277, 8428, 12279
reports, 12248, 17627
transplants and leukemia, USSR study, 16800
see also Artificial kidneys.
- Kier, David A., flight comparison several techniques for determining minimum flying speed for large subsonic jet transport, 12793
- Kies, J. A., graphical methods for plasticity corrections in fracture mechanics, 9057
- Kilgore area, Nebr., late Miocene nonmarine diatoms, 16622
- Killsgaard, Thor H., mineral resources of Sawtooth Primitive Area, Idaho, 14525
- Kiln-drying, *see* Kilns.
- Kilns, accelerated kiln drying of presurfaced 1-inch northern red oak, 4201
- Kilpatrick, E. L.:
scaled-model measurements on—
nested-tandem array of 4 rhombic antennas, 4092
transportable log-periodic dipole antenna, 5391
- Kilpatrick, George A., environmental effects on airport pavement grove patterns, final report, 7850
- Kilpatrick, Jack F., notebook of a Cherokee shaman, 9025
- Kim, C., 60 Co heat source demonstration program, phase 1, preliminary analysis and design technical report, 10770
- Kim Julia, relief, 17671
- Kim, Keum Ja. *see* Franks, Keum Ja.
- Kim, Keum Jo, *see* Franks, Keum Ja.
- Kimball, Spencer, mass marketing of property and liability insurance, 11915
- Kimball Bros. Lumber Co., relief, 6579, 12101, 12303
- Kimball County, Nebr., community profile, 17802
- Kimbell, Charles L.:
mineral industry of—
India, 7466
Pakistan, 14787
- Kimmel, Grant E., Shenango formation (Mississippian) in northwestern Pennsylvania, 10158
- Kimoko, A. Duke, *see* Duke, Kimoko A.
- Kinematics:
hypervelocity microparticles with selected kinematic properties, electrostatic acceleration system, 8946
rotational, digital simulation, 900
- Kinetics:
analytical chemical kinetic study of effect of carbon dioxide and water vapor on hydrogen-air constant-pressure combustion, 10402
experimental study of structure, thermodynamics and kinetic behavior of water, 1955
fluorination of silver, kinetic study, 10410
gases, kinetic behavior, first order effects of plane surfaces, 14864
hydrate reaction, 4300
kinetic data on gas phase unimolecular reactions, 8985
kinetic electron temperature measurement techniques for helium, 12806
kinetic energy balance in developing tropical disturbance, 1822
kinetics and thermodynamics of high-temperature gases, conference proceedings, 12768
kinetics of ice nucleation from water and electrolyte solutions, 5617
numerical experiments in modifying kinetics of cloud spectrum formation, by introducing additional condensation nuclei, USSR study, 10269
reaction kinetics related to reduction of air pollution from gas burner flames, 10319
- SIXBIT generalized reaction kinetics program, 16463
- King, Charles E., ostracoda in Texas bays and lagoons, ecologic study, 6155
- King, D. L., hydraulic model studies of pump manifold and evaporation trays, San Diego Saline Water Test Facility, Office of Saline Water, 7725
- King, E. G.:
heats of formation of 3 oxides of rhenium, 881
low-temperature heat capacities at 298.15° K of goethite and pyrophyllite, 7492

INDEX 1970

- King, Elizabeth R., geologic implication of aeromagnetic data in Pend Oreille area, Idaho and Montana, 18048
- King, H. C., 1970 proceedings of National Brucellosis Committee of Livestock Conservation Inc. and progress report of cooperative State-Federal brucellosis eradication program, 17427
- King, Marjorie, testimony, hearings, 13747
- King County, Wash.:
- community profile, 6930
 - Cumberland, Hobart, and Maple Valley quadrangles, geology and coal resources, 5551
 - geology of Renton, Auburn and Black Diamond Counties, 16620
- King of desks, Wooton's patent secretary, 7737
- King Range National Conservation Area, establish, report, 15863
- Kingman, Woodward:
- addresses—
 - Nov. 10, 1969, 748
 - Jan. 27, 1970, 4272
- Kings County, N.Y., community profile, 14040
- Kingsbury County, S. Dak., community profile, 14041
- Kingsley, Neal P., timber resources of Ohio, 14483
- Kingston, Gary A.:
- availability of U.S.—
 - chromium resources, 8901
 - primary nickel resources, 11579
- Kingsville, Tex.:
- floods, how to avoid damage, Tranquitas, Santa Gertrudis, and Escondido Creeks, 17932
 - Tranquitas, Santa Gertrudis, and Escondido Creeks, flood plain information, 16432
- Kinney, Edward C., cooperative fishery unit report for period Jan. 1968-June 1969, 4713
- Kinney, Jo Ann S.:
- effect of vibration on performance with electro-optical aids to night vision, 2044
 - effects of diving experience on visual perception under water, 10318
 - measurement of blood vessels in retinal photographs of submariners, 11571
- Kirby, Donald E., electrowinning aluminum from aluminum chloride, operation of single-compartment cell, 5884
- Kirby, James G., crude petroleum and petroleum products, 4403
- Kirgiz, Ukrainian SSR, Academy of Sciences, development, 16740
- Kirk, R. Gordon, transient journal bearing analysis, 12760
- Kirkham, James F., assassination and political violence, 1042
- Kirsch, Ok Yon, relief, 12173
- Kissinger, Henry A., comment on National Security Council, use in Presidential decision-making, 6804
- Kitchen equipment, kitchen hand tools and utensils, Federal item identification guide, 16131
- Kitchen utensils, and hand tools, Federal item identification guide, 16131
- Kites:
- flying in District of Columbia, permit, report, 9681
 - moored, Federal aviation regulations, 2573
- Kits, sets, kits, and outfits, Federal item identification guide, 13782
- Kitsap County, Wash., community profile, 6931
- Kittitas County, Wash., community profile, 6932
- Kittner, Dorothy R.:
- digest of 50 health and insurance plans, for salaried employees, 2023
 - major collective bargaining agreements, administration of negotiated pension, health, and insurance plans, 11629
- Kittrell, F. W., practical guide to water quality studies of streams, 11334
- Klabr, Carl N., fabrication of silicon microcircuits by neutron transmutation doping, final report, 9397
- Klamath, Calif., field measurement of initiation of large bed particle motion in Blue Creek, 4243
- Klamath Forest National Wildlife Refuge, birds, list, 1120
- Klamath River and Valley, Klamath Basin national wildlife refuges, birds, list, 1120
- Klann, John L., steady-state analysis of Brayton space-power system, 5964
- Klatt, Judith, short summary of 10 model teacher education programs, 5359
- Klawitter, Ralph A., does bedding promote pine survival and growth on ditched wet sands? 12558
- Klein, Carolyn K., establishing business in Morocco, 15732
- Klein, David, causation, culpability and deterrence in highway crashes, 12949
- Klein, H., hydrologic and biologic aspects of Big Cypress Swamp, 16624
- Klein, William H., charts giving station precipitation in Plateau States from 850- and 500-millibar lows during winter, 7049
- Klement, Alfred W., jr., natural environmental radioactivity, 10771
- Klepfinger, R. W., Cabriolet, analysis of ground motion, 3496
- Klickitat County, Wash., community profile, 6933
- Klingberg, C. L., change detection in aerial photo coverage as influenced by methods of comparison, 106
- Klinger, F. L.:
- mineral industry of—
 - Italy, 4433
 - Portugal, 4458
 - Spain, 7471
 - Sweden, 7472
- Klock, Glen O., forest and range soils research in Oregon and Washington, 8706
- Klotz, Benjamin P., productivity analysis in manufacturing plants, 12661
- Klyce, Donald F.:
- mineral industry of—
 - Indiana, 4432
 - Michigan, 5864
- Knipe, O. D., establishment and survival of several grasses in sagebrush type, west-central New Mexico, 681
- Knit goods:
- knit cloth, shipments, including interplant transfers, current industrial reports, 6439
 - shipments of knit cloth, current industrial reports, 2476
 - see also names of clothing.
- Knochenmus, Darwin, reconnaissance of quality of water in Lake Dicle and West Crooked Lake near Eustis, Fla., 733
- Knock, knock, door-to-door salesmen and consumer protection, 17217
- Knolls Atomic Power Laboratory, Schenectady, N.Y., trip made, Sept. 23, 1970, by Antisubmarine Warfare Subcommittee, report, 17634
- Knop, C. M., study of pulse propagation of electromagnetic signals through solar corona, 14815
- Knoppert, Andre L., citizenship, confer posthumously, 6578, 9575
- Know your FBI, 11292
- Knox County, Mo., community profile, 17803
- Knox County, Nebr., community profile, 17804
- Knox County, Ohio, community profile, 14042
- Knutilla, R. L., statistical summaries of Michigan streamflow data, 16626
- Knutson, Donald M., method for sampling yeasts and bacteria in sound wood, 18014

- Knutson, Robert, look at mine-timber market in Appalachian bituminous coal region, 10132
- Koa, growth rings, lignin staining, limited success in identifying, 18017
- Koch, George S., Jr., statistical interpretation of sample assay data from Getchell Mine, Humboldt County, Nev., 8911
- Koczala, Louis J., study of spaceborne multiprocessing, phase 1, 5891
- Kodhenderfer, James N., erosion control on logging roads in Appalachians, 14473
- Kodiak Island, Gulf of Alaska, Cape Spencer westward to Kodiak Island, coastal weather and marine data summary, 1817
- Koelling, Gordon W.:
mineral industry of—
Colombia, 18152
Venezuela, 5868
- Koenke, Edmund J., analysis and evaluation of novel inertial navigation system, 906
- Koesser, R. L., report of 54th National Conference on Weights and Measures, 959
- Kofsky, Milton G., experimental evaluation of 3.50-inch radial turbine designed for 10-kilowatt space power system, 939
- Kogruk formation, Mississippian period, DeLong Mountains, northwestern Alaska, carbonate facies and lithostrotionid corals, 16619
- Kohl, A. L.:
development of direct contact condensation multistage flash distillation process—
phase 1, 1949
phase 2, 16698
- Kohl, Fred J.:
mass spectrometric determination of dissociation energy of vanadium and chromium dicarbide and vanadium tetracarbide, 7547
mass spectrometric investigation of vaporization thermodynamics of yttrium dicarbide-carbon system and dissociation energy of yttrium dicarbide and tetracarbide, 8937
- Kohn, Raymond F., UNESCOPE, 9207
- Kohnhorst, David T., OGO program, bibliography, 5981
- Kokolik River, coalbeds, sampling and coking studies, 879
- Kolb, William P., research directed toward perfecting design for space qualified He-Ne laser, 16946
- Kolodrubetz, Walter W., employee-benefit plans, 9115
- Kommunist (periodical):
translations, 3268
- Kong Wan Nor, relief, 9585, 9800
- Konkle, Ward W., agricultural science review, 2308
- Koontz, Elizabeth D., address, June 12, 1970, 11938
- Koopman, F. C., investigation of water supply near Enrico, N. Mex. in relation to nearby high-energy detonations, 14530
- Koplay, Janos B.:
extension of weighted airman promotion system to grades E-8 and E-9, 9331
field test of weighted airman promotion system, 3431
- Korea:
area handbook, 94
basic bibliography, 13028
combat action, history, etc., 4399
economic trends and their implications for United States, 8818
military personnel of U.S., helpful hints, Army pamphlet, 3476
mineral industry, minerals yearbook chapter, 18161
North—
area handbook, 4861
central yearbooks, 8840, 12639
translations, 3277
pocket guide, 11438
- Korea—Continued
Republic—
agricultural commodities, agreement, 10614, 10626
extension of loan of vessels, agreement, 17345
foreign trade regulations, 8145
labor law and practice, 2018
loan of vessels, U.S.S. Muir, U.S.S. Sutton, U.S.S. Erben, and U.S.S. Holt, extension, agreement, 9205
tobacco production and trade, 11340
U.S. security agreements and commitments abroad, hearings, 18056
vessels, fishing off Alaskan coast, hearing, 16044
sailing directions, change, 1018
Korean War, 1950-53, veterans, see in main alphabet, Veterans.
- Kornicker, Louis S.:
Myodocopid Ostracoda (Cypridinacea) from Philippine Islands, 6160
Ostracoda (Myodocopina) from Peru-Chile trench and Antarctic Ocean, 6158
Kosmos, see Satellites.
- Kosofsky, L. J., moon as viewed by Lunar orbiter, 10372
- Kossack, Charles A., air pollution report, Federal facilities, metropolitan Toledo interstate air quality control region, 14901
- Kossuth County, Iowa, community profile, 14043
- Kost, Keith, public health reports, 3107
- Koue, A. Lewis, English Camp, San Juan Island, NHP, historic structures, report, 2157
- Kovacs, Austin:
Camp Century revisited, pictorial view, 16411
pile driving by means of longitudinal and torsional vibrations, 18410
variation of some mechanical properties of polar snow, Camp Century, Greenland, 5364
- Koyanagi, Robert Y., Hawaiian Volcano Observatory, summary, 2706
- Kraft paper, see Paper.
- Krajewski, Barbara, calculation of stratospheric air sample volumes, 123
- Kramer, David:
seasonal and geographic characteristics of fishery resources, California Current region—
jack mackerel, 12071
Pacific saury, 13240
- Kramm, Elizabeth R., vocation rehabilitation for disabled public assistance recipients, cooperative demonstration, 17276
- Krasnowiecki, Jan, model State housing societies law, 5376
- Kratchman, Jack, mosaic, 6070
- Krauer, John J., value of circuit training at Officer Candidate School, Quantico, Va., 16882
- Krause, Lloyd N., performance of mass-flux probe in a Mach 3 stream, 942
- Krause, Orville E., cropland trends since World War 2, regional changes in acreage and use, 6992
- Krawec, Roman, effect of aperture on measurement of axial distribution function, in magnetically confined plasma, 10394
- Krec, Frank J., citizenship, confer posthumously, 12176, 13293, 15976
- Krewatch, Albert V., farm lighting, 17435
- Krickich, Joseph, mineral industry of Ohio, 4451
- Krickovic, Stephen, methane emission rate studies in northern West Virginia mine, 14800
- Krist, William K., basic data on economy of southern Africa (South Africa, Botswana, Lesotho, and Swaziland), 6507

INDEX 1970

- Krochmal, Arnold:
germinating poleberry seed, 14459
guide to medicinal plants of Appalachia, 10130
- Kroll, Carl G., sediment discharge, San Juan drainage basin, Orange and Riverside Counties, Calif., 8738
- Kroll, Robert J., vibration characteristics of cylinder partially filled with liquid with attached elastic drain pipe, 4495
- Krombein, Karl V.:
behavioral and life history notes on 3 Floridian solitary wasps (Hymenoptera, Sphecidae), 9106
revision of Melanesian wasps of genus *Cerceris* Latreille (Hymenoptera, Sphecidae), 2218
- Krone, Paul R., starting and managing retail flower shop, 6154
- Kruchow, Roman, performance of turboalternator gas-bearing system, at steady-state conditions, 2093
- Kruger, W. Stanley, trouble in high schools, they don't have to drop out, 7027
- Kruslewski, S. Victoria, selected bibliography on radioactive occurrences, in United States, 10762, 13083
- Kryptonate-based instrumentation development for automobile exhaust pollutants, feasibility, 15517
- Kryter, K. D.:
judgment tests of flyover noise from various aircraft, 16936
possible modifications to calculation of perceived noisiness, 14831
- Kubek, Anthony, Amerasia papers, clue to catastrophe of China, 8414-15
- Kuchta, B. J., study to determine flight characteristics and handling qualities of variable geometry spacecraft, high L/D concept with single pivot 2-position skewed wing, 10351
- Kuenzi, Edward W., buckling coefficients for simply supported, flat, rectangular sandwich panels under biaxial compression, 14467
- Kueser, P. E.:
ceramic-metal bore seal development, 14816
high temperature (800°-1600°) magnetic materials, 12752
- Kuhlman, W. C., 1000 hour-2300° C thermocouple stability tests, 9385
- Kuhn, Paul, residual tensile strength in presence of through cracks or surface cracks, 7531
- Kukachka, B. Francis, properties of imported tropical woods, 10128
- Kukpowruk River, coalbeds, sampling and coking studies, 879
- Kulke, Bernhard, energy distribution of spiraling electron beam, 2086
- Kunce, Joeck, relief, 12094, 12309
- Kunde, Virgil G., opacity probability distribution functions for carbon monoxide at elevated temperatures, 5977
- Kundu, M. R., radio astronomical studies with 1500-meter diameter low-frequency telescope, 4499
- Kunkel, Fred:
deposits of Colorado River on Fort Mojave Indian Reservation, 16613
summary of ground water occurrence in California, 14541
- Kunzman, W. A., network analysis series, accuracy of computer program BMD02R stepwise regression, 15184
- Kupper, Louis, containers and packaging, quarterly industry report, 2449
- Kusler, David J., mineral industry of Virginia, 4467
- Kusuda, T., algorithms for psychometric calculations (skeleton tables for thermodynamic properties of moist air), 5998
- Kutter, H. K., electrohydraulic effect, potential application in rock fragmentation, 875
- Kuwait:
economic trends and their applications for United States, 11462
foreign trade regulations, 3694
Kuwait-Saudi Arabia boundary, study, 17335
mineral industry, minerals yearbook chapter, Kuwait-Saudi Arabia Neutral Zone, 18155
- Kwajalein Missile Range:
construction of test facilities, appropriations, 1970, authorization—
law, 1386
report, 1450
- Kwok Kwen Ng, *see* Ng, Kwok Kwen.
- Kyanite:
and related minerals, minerals yearbook chapter, 14780
ore, beneficiation in Georgia, 7498
Kyhos, Milton, relief, 13580
Kyung Ae Oh, *see* Oh, Kyung Ae.
- L
- L-Dopa, *see* Levo-Dihydroxyphenylamine.
- L series, 6466, 8113, 10843, 12044, 13190, 15681
- Labels:
catalog of copyright entries, 1753, 17726
Cigarette labeling and advertising act, amend—
hearing, 496
law, 8181
reports, 1652, 6614
fair packaging and labeling act, operation, review, hearings, 418, 500, 8385
model state packaging & labeling regulation, 10426, 17031
- Labor:
adult workers, education, projections to 1985, report, 18133
American, history of movement, 12662
automotive soft trim workers of American Motors Corp. plant, Wyoming, Mich., how they might be affected by imports, Tariff Commission, report, 15343
certain workers, protective footwear of rubber or plastics, etc., Tariff Commission report, 15346
code of Federal regulations, 5455, 8648, 10071
college educated workers, 1968-80, study of supply and demand, 16856
construction laborers, employment outlook, 14698
defense-related workers, skills and location, 12720
educational and labor market experience of male youth, career thresholds, longitudinal study, 5812
handicapped workers legislation, 1970, hearings, 13752
how to train workers on job, 14654
improving conditions in merchant fleet, noise control on seagoing ships, USSR study, 4327
international labor (periodical), 2761
job qualification, system for trades and labor occupations, 15690
labor developments abroad (periodical), 2791
labor statistics, 1970, handbook, 16854
man-hour output indexes—
corrugated and solid fiber boxes industry, 4375
gray iron foundries industry, 4374
selected industries, 7425, 18123
monthly labor review, 2905
reprints, 820-821, 2036, 4389, 12720, 16863, 18129-131
pensions and severance pay for displaced defense workers, 4845

Labor—Continued

- pre-retirement years, labor market experience of men, longitudinal study, 5811, 16822
- procurement contracts and worker surpluses, Defense manpower policy no. 4, questions and answers, 11913
- production and maintenance workers—bicycle tires and tubes at Indianapolis plant of Uniroyal Tire Co., Tariff Commission report, 11907
- electrical components and apparatus and allied products, F. W. Sickles Corporation, General Instrument Corporation, Tariff Commission report, 15344
- promoting worker interest in safety, instructor outline, 16826
- publications, price list, 15126
- Secretary's report on record during Nixon's administration (address), 16823
- seniority in promotion and transfer provisions, major collective bargaining agreements, 7421
- special labor force reports, 18133-134
- stake of today's workers in retirement security, working paper, 16034
- technological advance requires reform in vocational education (address), 10867
- telephone system construction contract, REA, 17257
- trends in important labor issues and legislation (address), 18271
- urban wage earners and clerical workers, consumer price index, 4385
- why not be an apprentice? and become skilled craftsman, 12953
- work stoppages, 3364
- worker certification program under Immigration and nationality act, 11914
- worker relocation, role in active manpower policy, symposium, 7412
- workers aged 65-72, effects of 1966 retirement test changes on earnings, 9114
- working age population, initial findings, poverty area profiles, 7436
- see also Employment—Farm labor—Hours of labor—Manpower—Migrant labor—Occupations—Wages—also headings beginning Labor.
- Labor and Public Welfare Committee, Senate:
 - calendar, 2827
 - committee prints, 1739-40, 8425, 12373, 12376, 17711
 - expenses, additional, authorize, report, 469
 - hearings, 514-519, 1741-42, 3982-83, 5275-77, 6810-15, 8286, 8424, 8426-35, 9824-31, 11135-141, 12372, 12374-375, 12377-379, 16071-81, 17710, 17712
 - investigations and studies—
 - authorization, report, 5216
 - research activities to ascertain causes and develop cures to eliminate cancer, authorization, report, 12318
 - United Mine Workers election of 1969, etc., expenses, report, 5252
 - reports, 453, 470, 520, 1606, 1612, 1667, 1686, 3932, 3939, 5199, 5204, 5252, 6740, 6765, 6774-75, 9875, 11079, 12330, 12339, 12348, 13575, 13651, 13653, 13676-679, 13704, 13751-755, 15975, 15980, 16013, 16015-16, 16019
- Labor bureaus, etc., United States and Canada, directory, 5816
- Labor Department:
 - annual report, 8852
 - appropriations, 1970—
 - hearings, 1571, 1700
 - law, 6536
 - reports, 1563, 1683, 3834, 5254
 - supplemental, proposal, 13565
 - appropriations, 1971—
 - hearings, 11021, 12259, 16036, 17687
 - reports, 13426, 16031
 - waiving points of order, reports, 13429

Labor Department—Continued

- Assistant Secretary, nomination of Malcolm R. Lovell, jr., hearing, 16079
- black news digest, 16821
- concentrated employment program, effectiveness and administration efficiency, GAO reports—
 - Chicago, Ill., 713
 - St. Louis, Mo., 1887
- construction costs of certain Federally financed housing projects, increased due to inappropriate minimum wage rate determinations, GAO report, 14496
- current bibliographies prepared by Library, 8853
- general information, 10288
- Library, list of recent additions, 3188
- material, etc., administration proposal to amend Federal unemployment compensation statutes, 8326
- Neighborhood Youth Corps program, effectiveness and administration efficiency, GAO reports—
 - Chicago, Ill., 714
 - St. Louis and St. Louis County, Mo., 715
- Philadelphia Plan, congressional oversight of administrative agencies, hearing, 5273
- press releases, 3067
- publications—
 - list, 2952
 - 1964-June 1969, subject listing, 4366
- safety training programs—
 - how to inspect chart, HTIC LS series, 7416-17
 - occupational safety aid, OSA LS series, 813, 4370-71, 5819, 12658-659, 14658
 - safe work guide, SWG LS series, 4369, 8859, 12660
 - student reference, SR LS series, 7420
- Secretary, nomination of James D. Hodgson, 16078
- Solicitor, nomination of Peter G. Nash, hearing, 13754
- special impact program in Los Angeles is not meeting goal of providing jobs for disadvantaged, GAO report, 18037
- Under Secretary of Labor, nomination of Laurence H. Silberman—
 - hearing, 13754
 - report, 13575
- work incentive program, annual report, 15956
- Youth Conservation Corps, establish, hearings, 1579
- Labor disputes:
 - agriculture, interfering with flow of commodities to consumer, settling, hearings, 9886
 - emergency board reports, National Railway Labor Conference and Eastern, Western and Southeastern Carriers' Conference Committees, 1797
 - national emergency, recommendations and proposals, 5093
 - railroad labor-management dispute—
 - 1970, settlement—
 - hearings, 9753
 - reports, 8243-44
 - temporary strike prohibition, report, 6594, 6740
 - railway shopcraft dispute, hearings, 6814-15
 - see also Industrial relations.—Strikes and lockouts.
- Labor force, see Labor.
- Labor laws:
 - labor law and practice in—
 - Afghanistan, 814
 - Belgium, 18114
 - Iceland, 14601
 - Japan, 14662
 - Korea, Republic, 2018
 - Panama, 8861
 - labor law series, 5818

INDEX 1970

Labor laws—Continued

- labor laws and their administration, 1969 convention proceedings of International Association of Governmental Labor Officials, 11527
- National Labor Relations Board, case developments, quarterly report, 3122
- sex discrimination in employment, Federal and State laws, 10673
- State—
 - affecting women, Ohio, 4793
 - legislation passed 1969, 7419
- State and Federal, legislation, 1968, annual digest, 16824
- Labor legislation, *see* Labor laws.
- Labor management relations, *see* Industrial relations.
- Labor-management relations act, *see* Industrial relations.
- Labor-management reporting and disclosure act of 1959:
 - administration and enforcement rel. to UMW election, investigation and study, report, 5252
 - compliance, enforcement and reporting in 1969 under act, 4361
 - electing union officers as prescribed in title 4, etc., requirements, 8857
 - qualifications for union office, issue of reasonableness in court cases, under the act, 11526
 - technical assistance aid (series), 8857
- Labor market, *see* Labor.
- Labor offices, *see* Labor bureaus, etc.
- Labor organizations, *see* Labor unions.
- Labor relations, *see* Industrial relations.
- Labor standards:
 - agriculture and child labor requirements under fair labor standards act, 11935
- Fair labor standards act—
 - agricultural handling and processing industries evaluation of overtime exemptions available under act, data, 9263
 - agricultural provisions, farmers' guide, 9264
 - amend, hearings, 15896, 16071
- application to—
 - automobile and truck dealers, 17407
 - forestry or logging operations, 6279
 - hospitals, 15385
 - industries of seasonal nature and industries with marked seasonal peaks of operation, 10668
 - institutions of higher education, 9265
 - laundries and dry cleaning establishments, 9266
 - residential care enterprises, 10669
- defining terms, executive administrative, professional, etc., under act, 7897
- executive, administrative, professional, and outside salesmen, exemptions, 15384
- exemptions relating to agriculture, 17408
- handy reference guide, 7896
- message to young workers, 9267
- Public Roads Bureau, labor compliance manual, 17232
- safety standards (periodical), 3170
- Labor Standards Bureau:
 - bulletins, 811-812, 4368, 5816-17, 7415, 8858, 11527, 14657, 168224
 - safety standards (periodical), 3170
- Labor Statistics Bureau:
 - BLS report series, 814-815, 2018, 4372, 6861, 14661-663, 18114
 - BLS staff papers, 5820, 12661, 14664
 - bulletins, 816-819, 2019-34, 4373-83, 5821-33, 7421-35, 8862-73, 10291-298, 11529-547, 12662-718, 14665-741, 16828-856, 18115-128
 - establishment employment estimates revised to Mar. 1969 benchmark levels, 14659
 - information system, systems manual, 14660

Labor Statistics Bureau—Continued

- long-range manpower requirements, pilots and mechanics in civil aviation, 1967-77, study, 12707
- 1970 major programs, 16861
- occupational outlook publications, 16864
- publications—
 - catalog, 4384
 - list, 18132
- regional reports, Middle Atlantic region, 7436
- studies in industrial relations, 1954-69, directory, 4386
- Labor supply:
 - micro model, 14664
- pre-retirement years, labor market experience of men, longitudinal study, 5811, 16822
- Labor surplus *see* Unemployed.
- Labor turnover, factory, monthly release, 2559
- Labor unions:
 - American labor movement, history, 12662
 - conventions 1970, list, 10299
 - Labor-management reporting and disclosure act—
 - electing union officers, requirements, 8857
 - qualifications for union office, issue of reasonableness in court cases, 11526
 - membership in 1966, advance report based on data from 1967 survey of economic opportunity, 10815
 - national union benefit plans, 8856
 - recognition in Federal Government, statistical report and listings for agency, etc., 10849
 - trade union growth in changing economy, 2036
- unaffiliated intrastate and single-employer unions, 2024
- wages and hours—
 - local transit operating employees, 14738
 - local truckdrivers and helpers, 12717, 14739
 - printing industry, 14740
- Laboratories:
 - case for national environmental laboratories, report by Ad Hoc Nel Concept Committee, Oak Ridge National Laboratory, 9937
 - directory of Federal R & D installations, report to Federal Council for Science and Technology, 12879
 - FBI laboratory, brief outline of history, etc., 632
 - Federal laboratory-university programs and relationships, report, 4657
 - instrument bearing performance in laboratory vacuum, 18214
 - laboratory analysis, 10185
 - national laboratories and man's environment, conference proceedings, 1248
 - outdoor laboratory brings textbooks to life, 2225
 - rearing larval tunas in laboratory, 9528
 - standards, directory, 14916
 - see also* Medical laboratories—Research laboratories—also names of laboratories or places where located.
- Laboratory apparatus and supplies:
 - design of herbicide sprayer for laboratory, 7902
 - Federal item identification guides for supply cataloging, supplements, 2494
 - instruments, industrial plant equipment handbook, 6849
- Laborers, *see* Labor.
- Labus, Thomas L.:
 - cavity stability during gas jet impingement on liquid surfaces in weightlessness, 16982
 - gas jet impingement on liquid surfaces during weightlessness, 7548
- Lac du Flambeau Band of Chippewa Indians, *see* Chippewa Indians.

- Lachenbruch, Arthur H., some estimates of thermal effects of heated pipeline in permafrost, 4237
- Lachner, Ernest A., exotic fishes and other aquatic organisms introduced into North America, 17273
- Lackawanna County, Pa., community profile, 16292
- Lackawanna River and Valley, basin, micro-filming maps of abandoned anthracite mines, 7462
- Laclede County, Mo., community profile, 17805
- Lacquer and lacquering, current industrial reports, 218, 2475
- Lacreek National Wildlife Refuge, birds, list, 4710
- Las Crosse, Wis.:
floods, how to avoid damage, 17933
Mississippi River and tributaries, flood plain information, 16425
- La Cruces, N. Mex., U.S. highway 70, designate as part of interstate system, hearing, 3987
- Ladd, Harry S., deep drilling on Midway Atoll, 5561
- Lafayette County, Miss., community profile, 16293
- Lafayette County, Mo., community profile, 17806
- LaFleur, Philip D., Activation Analysis Section, summary of activities, 12846
- LaFourche Bayou, Monroe, La., flood plain information, 17925
- Lagrange equation of motion, *see* Equations of motion.
- Laguna Atascosa National Wildlife Refuge: general information, 10587
master plan, 9178
- Laguna Pueblo, lands, hold in trust, law, 3726
- LaHue, Delmon W., evaluation of malathion, diazinon, silica aerogel and diatomaceous earth as protectants on wheat against lesser grain borer attack in small bins, 7924
- Lainhart, W. S., pneumoconiosis in Appalachian bituminous coal miners, 8560
- Laird, Melvin R.:
statement, 1971, defense program and budget, 5323
Vietnam briefing, testimony, hearings, 506
- Laird, Wilson M., remarks, Nov. 14, 1969, 768
- Laissez faire:
American economy and its opportunities for future growth (address), 4979
Cannolene Company, result of American free enterprise (address), 10880
economic contest between freedom and authoritarianism (address), 11323
triumph of free enterprise (address), 11331
- Lake Charles, La. port, 16441
- Lake Chelan National Recreation Area, general information, 10471
- Lake County, Colo., Leadville district, silver potential and economic aspects, 11576
- Lake County, Fla., soils, classification and correlation, 15194
- Lake County, Ill., soil survey report, 18333
- Lake County, Ohio, community profile, 14045
- Lake County, S. Dak., community profile, 14046
- Lake County, Tenn., appraisal of potentials for outdoor recreational development, 15186
- Lake currents, wind-driven circulation in shallow sea or lake, equation for calculation method for obtaining analytical solutions, 16988
- Lake Mead National Recreation Area: general information, 4583
winds, study, 610
- Lake Oswego, Oreg.:
floods, how to avoid damage, 17934
Willamette River, flood plain information, 16435
- Lake States, *see* Great Lakes States.
- Lake Survey:
research reports, 10301, 18135
transfer some functions to National Oceanic and Atmospheric Administration—
hearings, 15912, 16057
reports, 15875
- Lakes:
birectilinear recruitment curves to assess influence of lake size on survival of sockeye salmon (*Oncorhynchus nerka*) to Bristol Bay and forecast runs, 8168
Clean lakes act of 1970, hearings, 16087, 17719
lake and sea ice, fracture, 1801
lake ice in southeastern Connecticut, information of modern ice-push ridge by thermal expansion, 1800
Michigan, compilation of data, 16612
wind-driven circulation in shallow sea or lake, equation for calculation, method for obtaining analytical solutions, 16988
see also names of lakes or places where located.
- Lamar, John E., design charts of static and rotary stability derivatives for cropped double-delta wings in subsonic compressible flow, 5955
- Lamar County, Ala., community profile, 14047
- Lamar County, Miss., community profile, 16294
- Lamb, Fred M., variation in density of sugar maple sapwood and heartwood, 12554
- Lamb:
fresh, USDA institutional purchase specifications, 12386
USDA yield grades, description, etc., 11953
- Lambayeque River and Valley, ground-water resources, 735
- Lambe, T. W., effect of mineralogical composition of fines on frost susceptibility of soils, 598
- Lambert, Robert W., documents on disarmament, 17459
- lamb crop, statistics, 6256, 15337
on feed, 1165, 7845, 9213
- Lambs:
- Laminar boundary layer, *see* Boundary layer.
- Laminar flow, *see* Flow.
- Laminated materials:
laminar boundary layer in presence of suction, 11703
large glued-laminated timber beams with 2 grades of tension laminations, 692
titanium alloy honeycomb solar absorber having blackened walls, preliminary analysis errata, 10376
- Lamination, flexural properties of glued-laminated southern pine beams with laminations positioned by visual-stiffness criteria, 8701
- La Moure County, N. Dak., community profile, 14044
- Lampi, Rauno A., use of infrared radiometric microscope in nondestructive determination of flexible package seal defects, 13041
- Lamps, Federal item identification guides for supply cataloging, supplements, 2494
see also Electric lamps.
- Lanai, Hawaii, glimpses of soil and water conservation, 9139
- Lancaster, Pa., census of transportation, 1967
commodity transportation survey, production, area series, 6422
- Lancaster County, Nebr., community profile, 17807
- Lancaster County, Pa., community profile, 16295

INDEX 1970

- Land, Larry F., seepage investigation on Medina Canal, Bexar-Medina-Atascosa Counties, Tex., Water Improvement District No. 1 Canal System, 10184
- Land, Patterson B., wave climatology as aid to ship routing, north Pacific Ocean, 7682
- Land:
- acquisition for public airports, Federal aviation regulations, 2574
 - agricultural, draining along west side of San Joaquin Valley, Fresno County, Calif., guide, 7765
 - appraisals for large cooperative housing communities, Housing and Urban Development Dept., GAO report, 5536
 - cropland trends since World War 2, regional changes in acreage and use, 6992
 - donations for roadway entrance and interchange, Great Smoky Mountains National Park, amend act, law, 3722
 - forest land use and streamflow in central Oregon, 8703
 - interstate land sales can be risky, 5604
 - Land and water conservation fund act of 1965, amend—
 - hearings, 11039, 12367
 - reports, 12213, 13428
 - land and water resource accomplishments, Federal reclamation projects, statistics, 18315
 - land in Pennsylvania, 9146
 - land records, defects, validate, amend D.C. code—
 - hearing, 9904
 - report, 384
 - land-surface tilting near Wheeler Ridge, southern San Joaquin Valley, Calif., 8741
 - land treatment, Eel and Mad River basins, 15449
 - look of our land, airphoto atlas of rural U.S., 3394, 17431
 - management, grounds maintenance and land management training conferences, facilities engineering, Army pamphlet, 1231
 - nonfarm rural land, FHA housing loans to lessees, authorize, report, 15987
 - planning bulletin, 8616
 - private and public ownership, differentiation, Federal reclamation laws, acreage limitation amendments—
 - law, 12133
 - reports, 6611, 10998
 - problems in acquisitions for national recreation areas, National Park Service, GAO report, 8725
 - resource inventory and engineering surveys using photogrammetry, 8685
 - selected resource projects, summary analysis of 19 tests of proposed evaluation procedures, report, 17410
 - soil conservation (periodical), 3207
 - standard land use coding manual, 11839
 - State and privately-owned, protection within national forest protection areas, 11370
 - suboceanic lands policy, United Nations special study, hearings, 13725
 - title bill S. 1343, referring to chief Commissioner of Court of Claims, report, 1610
 - title to lands acquired for, on or behalf of, United States, approval by Attorney General, amend revised statutes—
 - law, 15782
 - reports, 6668, 13696
 - uniform relocation assistance and land acquisition policies—
 - hearings, 9764
 - report, 1607
 - use—
 - adjustment, hearings, 6785
 - controls in airport environs, environmental planning paper, 16659
- Land—Continued
- use—continued
 - national policy, provide, hearings, 12368, 16062
 - planning and community development resource data on soils, Creswell area, Oreg., 15228
 - planning assistance, upper Willamette Resource Conservation & Development project, 9169
 - planning in New York State, soil surveys aid, 9163
 - what can you do to benefit wildlife on your land?, 4773
 - see also Natural resources—Public lands—Real estate—Soil conservation.
 - Land and Water Resources Planning Council, establish, hearings, 12368, 16062
 - Land banks, see Federal land banks.
 - Land burning, see Burning of land.
 - Land-grant colleges, status to Virgin Islands College, amend Organic act, reports, 1664, 6741
 - Land Management Bureau :
 - appropriations, 1970, law, 314
 - appropriations, 1971, hearings, 8268
 - "Johnny Horizon" character, prevent unauthorized manufacture and use—
 - law, 15803
 - reports, 12349, 13442
 - press releases, 3068
 - technical bulletins, 16871
 - Tillamook Resource Area, economic analysis of accelerated road construction, 16580
 - unauthorized subpoena regulations, report, 6631
 - Land policy, see Land.
 - Land reform :
 - Thanh Quoi, An Giang Province, pilot drainage and irrigation project, feasibility study, 5368
 - Viet-Nam, program to speed land distribution, 5369
 - Land tenure :
 - farm tenure and cash rents in U.S., 14267
 - Vietnam, Communist strategy and tactics of employing dissatisfaction for revolutionary ends, 17646
 - Land titles, see Land.
 - Land vehicles, see Vehicles.
 - Landers, H., climate of South Carolina, 11266
 - Landfills, see Refuse.
 - Landgrebe, Anton J., simplified procedures for estimating flapwise bending moments on helicopter rotor blades, 890
 - Landing (aircraft) :
 - advanced integrated landing system for all-weather landing, test and evaluation, 18372
 - approach and landing systems, weather effects, 18375
 - approach guidance method using single onboard optical measurement, 18202
 - equipment, Federal item identification guides for supply cataloging, supplements, 2598
 - ILS glide slope, installation instructions, FAA handbook, 4110
 - instrument landing approach of heavy subsonic jet transport with external-flow jet-flap system used for additional lift, simulator study, 11686
 - instrument landing system improvement program, 18368
 - interference predictions for VFH/UHF air navigation aids, 4093
 - landing approach using 'Svod' system, USSR study, 16786
 - moving-graph instrument display for landing approaches with helicopter, evaluation, 18210
 - normal load factor just prior to ground contact for five light airplanes, statistical study, 12787

Landing (aircraft)—Continued
 pilot scanning and control behavior during simulated instrument approaches, measurement and analysis, 12759
 rain models for landing guidance systems, 52
 standard instrument approach procedures, Federal aviation regulations, 624, 2375
 used airfield landing mat, criteria for inspection, evaluation, classification, and reuse, 11254
 visibility measurement for aviation use, 18378
 XB-70 airplane in landing approach, handling qualities, 5967
 Landing (spacecraft), *see* Spacecraft.
 Landing craft, landing vessels and small craft, Federal item identification guides, 4012, 8469-70
 Landing fields, *see* Aviation fields.
 Landing gear, landing mat and landing mat tie bars, preliminary tests in conjunction with expedient reinforcement for concrete, for use in Southeast Asia, 11255
 Landing vessels, *see* Landing craft.
 Landlords and tenants:
 District of Columbia straw party deeds in joint tenancies, eliminate—
 hearing, 9904
 report, 388
 Improvement of life and work of tenants, ILO recommendation, 335
 low-income tenants, how nonprofit groups can sponsor housing, filmstrip, 4275
 tenant rights and management rights (address), 5592
 Landmarks, *see* Historic sites.
 Lands, *see* Public lands.
 Landsberg, Arne, factors affecting production of phosgene using gamma radiation, 4479
 Landscape:
 national estuary study, survey and analysis—
 departmental edition, 15265
 document edition, 13355
 quantitative comparison of some aesthetic factors among rivers, 4235
 Landscape architects, employment outlook, 12684
 Lane, Elizabeth, agricultural economics research, 2303
 Lane, Paul H., new and easier way to estimate quality of inland Douglas-fir saw timber, 14477
 Lane County, Oreg., Oakridge flood protection, 6186
 Lang, Helen W., effect of cetane improvers in fuel on nitrogen oxides concentration in diesel exhaust gas, 870
 Lange, David L., violence and the media, 4641
 Lange, Eugene A.:
 dynamic tear energy, practical performance criterion for fracture resistance, 15064
 fracture toughness of structural metals, 12893
 standard method of $\frac{5}{8}$ inch dynamic tear test, 18296
 Language and languages:
 bilingual schooling in United States, 8509
 expanded language arts, Buffalo, N.Y., compensatory education, 5358
 foreign languages and your career, 16860
 higher education programs in foreign language and area studies, research and training opportunities abroad, 16406
 language and area studies, agreement with Republic of China, 1158
 language in relation to mental retardation, bibliography, 7449
 language stimulation program, Auburn, Ala., preschool program in compensatory education, 5355
 learning to talk, speech, hearing, and language problems in pre-school child, 6051

Language and languages—Continued
 National defense education act awards for modern foreign language and area study, 5345
 National Defense Foreign Language (NDFL) fellowships, manual for participating institutions, 7017
 speech and language development program, Milwaukee, Wis., elementary program in compensatory education, 11219
 standard data elements, DoD data elements standardization program, manual, 9958
see also Computer programs/programming—also names of languages.
 Lamsche, Arnold M.:
 calcium and calcium compounds, 14778
 sodium and sodium compounds, 14797
 Lansdale, Pa., area, market test of dry whole milk, 4046
 Lanthanum fluorides, ionic conductivity, 913
 Lao language, Foreign Service Institute, basic course, 12938
 Laos:
 background notes, 15285
 hostilities, governments participating in treatment of prisoners of war relative to Geneva Convention, with reservations, if any, 13511
 refugee and civilian war casualty problems, hearings, 13749
 scope of U.S. involvement (statement), 9191
 U.S. security agreements and commitments abroad, hearings, 8406
 Lapeer County, Mich., North Branch, Mill Creek watershed, water conservation, 4686
 Lapel buttons, gold star, more equitable standard for awarding, report, 10970
 Larceny, air cargo shipments, theft and pilferage losses, report, 3925
 Larch casebearers, toxicity of aerosols to larvae, 18020
 Lard, commercial production.
 Larrabee, David M., serpentinite and rodingite in Hunting Hill quarry, Montgomery County, Md., 8728
 Larson, Clarence E:
 remarks—
 Oct. 24, 1969, 1278
 Jan. 15, 1970, 3512
 Mar. 26, 1970, 9409
 Larson, Clayton J., snowmobiles, 1284
 Larson, Emile E., prediction of disciplinary offense early in Army service, 108
 Larson, J. D., inventory of springs in Morey Peak area of Central Nevada, 7240
 Larson, Leonard P., mineral industry of Arizona, 4416
 Larson, M. M., root competition between ponderosa pine seedlings and grass, 5516
 Larson, Signe M., fire in far northern regions, bibliography, 14602
 Larvae, *see* names of insects.
 Larynx, cancer, health information, 10520
 Laser beams:
 CO₂, thermal defocusing, in air doped with SF₆, 17193
 laser interferometer with phase modulation of visual signal as means of extending range of measurement of plasma density, 4869
 laser radar range equation considerations, 6106
 laser schlieren signals, direct measurement of most probable preferred angular velocity of turbulent structures by optical correlation, 17006
 meteorological objects identified from reflected laser signals, USSR study, 7378
 scintillation—
 0.63 μ m in strong atmospheric turbulence, measurements, 8576
 wavelength dependence, 2090
 Laser radar, *see* Radar.

INDEX 1970

Lasers:

- airborne laser-radar studies of lower atmosphere, 2104
- biological effects of laser radiation, USSR study, 12633
- communications today and tomorrow, USSR study, 18092
- electrical noise in GaAs diode lasers, 12888
- frequency stabilization, investigation, 2063
- fundamentals and experiments, 18314
- laser breakdown of copper vapor, 11679
- laser-generated plasma as spectroscopic light source, 18222
- laser heating of ionized helium, 12792
- laser irradiation, use in coal investigations, 4475
- laser materials, ARPA-NBS program of research, 7576, 11737
- laser power and energy measurements, 961
- laser radars, USSR study, 7370
- plasma, noise characteristics and amplitude stabilization, investigation, 14826
- sodium line, with NA+ and H- recombination, USSR study, 18094
- space qualified laser, design, 16946, 18186
- spaceborne laser altimeter, optical altimeter receiver systems study and design, 5901
- used for laser transmissometer calibrator, evaluation, 15340
- visibility measurement for aviation use, 18378
- see also* Ruby lasers.
- Lash Italla (SS):
 - launching (remarks), 14757
- Lasker, Reuben, experimental sea-water aquarium, 3708
- Lasley, Floyd A., economic aspects of dairying in Northeast, 11194
- Lassen, L. E., sapwood thickness of Douglas-fir and 5 other western softwoods, 5507
- Las Vegas, N. Mex., soil survey, 15234
- Las Vegas National Wildlife Refuge, birds, list, 15275
- Lateral stability, *see* Stability of aircraft.
- Lath house for nursery plants, 1200
- Latham, Howard, hazards to people and animals from Bureau-constructed canals, open and closed conduit systems program, 9091
- Lathers:
 - apprenticeship, national standards, 3455
 - employment outlook, 14697
- Lathing:
 - industry, apprenticeship, national standards, 3455
 - special trade contractors, census of construction industry, 1967, statistics, 13128
- Lathrop, Robert L., guidelines for dental assisting curriculum in Indian Health Service, 7391
- Latin America:
 - action for progress for the Americas (address), 1145
 - aircraft sales in, hearings, 13507
 - alliance for progress U.S. aid programs, improving operations progress report, 9745
 - contributions to hydrology (series), 735
 - economic study, 8279
 - market profiles, 13222
 - northern, avifauna, symposium, 7734
 - nuclear weapons, prohibit in, additional protocol II to treaty, 15970
 - partnership for development means two way street (address), 9487
 - quality of life in Americas, report of Nelson A. Rockefeller, hearings, 3861, 3974
 - selective migration program, operated by Intergovernmental Committee for European Migration, hearing, 13516

Latin America—Continued

- thrift institution development, staff study, 10939
- translations, 3274
- U.S. military assistance and developmental television reports of special study mission, 9738
- Latitude, tables for air navigation, 18285-286
- Latta, R.E.:
 - liquidus and solidus temperatures of UO2 and ThO2 systems, 9381
 - melting point and phase transformation—of beryllium oxide, 9383
 - melting point of pure zirconia, 9382
- Lattas Creek:
 - flood plain information, 4079
 - floods in Alice, Tex., how to avoid damage, 4081
- Latvian Soviet Socialist Republic, science, progress, 5749
- Lau, Richard A., application of gas-hydraulic analogy to shallow-water tow-channel results, 7516
- Lauder, Ruth, goal is mobility, environmental and transportation barriers encountered by the disabled, 7741
- Lauderdale County, Ala., community profile, 14048
- Lauderdale County, Miss., community profile, 16296
- Launch vehicles, *see* Spacecraft.
- Launchers, and guided missile components, Federal item identification guide, 17737
- see also* Rocket launchers.
- Launching facilities:
 - aircraft equipment, Federal item identification guides for supply cataloging, supplements, 2598
- Italian satellites, agreement with Italy, 15330
- NASA satellites from San Marco Range, agreement with Italy, 6247
- Laundrie, J. F., butt swells of water tupelo for pulp and paper, 4199
- Laundries, *see* Laundry and laundries.
- Laundry and laundries:
 - census of business, 1967, laundries, cleaning plants, and related services, 15547
 - chemicals and chemical products used for DOD laundering, military standard, 559
 - industry wage survey, 2025
 - under Fair labor standards act, as amended, 9266
- Laundry machines, laundry and dry cleaning equipment, Federal item identification guide, 8471
- Laurel, Miss., railroad accident report, 7658
- Laurel, Pa., floods, how to avoid damage, 17918
- Laurens County, S.C., Beaverdam-Warrior Creeks Watershed, work plan, 4702
- Lava, foundation of Hawaii's soils, 9134
- Law:
 - Chesapeake Bay in legal perspective, 8671
 - classification, class K, draft outline, Library of Congress, 18138
 - farmworker legal problems, hearings, 16074
 - JAG law review, 2778
 - Judge Advocate legal service, Army pamphlet, 2788
 - law and order reconsidered, 1044
 - law in action, legal services program of war on poverty (periodical), 2793
 - legal, peaceful and responsible way, legal service program of Economic Opportunity Office (remarks), 17903
 - legal phases of farmer cooperatives, sample legal documents, 14354
 - legal problems affecting older Americans, working paper, 12357
 - legal proceedings, testimony by FAA employees and production of records, Federal aviation regulations, 2571

Law—Continued

- legal questions associated with low income and minority housing, 15374
- legal services program, Economic Opportunity Office, 518
- procurement legal service, Army pamphlet, 7991
- publications, price list, 4643
- role in America (address), 15709
- slip laws (private), 91st Congress, 1373-82, 5036-49, 6535, 9573-96, 12091-103, 13257-299, 15756-600
- slip laws (public), 91st Congress, 295-321, 1383-1425, 3721-60, 5050-62, 6536-49, 8176-89, 9597-9609, 10906-935, 12104-154, 13300-347, 15765-811, 17601-610
- young lawyers (remarks), 1943
- see also Codes of law—International law—Military law—also subjects.
- Law enforcement:
 - and criminal justice in U.S., improvement and reform, hearings, 410
 - assistance amendments—
 - proposals, hearings, 11050
 - reports, 12189, 12212, 16029
 - comprehensive law enforcement planning and action grants under title I, Omnibus crime control and safe streets act of 1968, guide, 7402
 - customs and immigration laws, provide better facilities—
 - hearing, 434
 - report, 3826
 - drug abuse control, reports, 13489, 15867
 - equal employment opportunity enforcement procedures—
 - hearings, 15893
 - report, 15858
 - Federal assistance, hearings, 16068
 - Federal civil rights enforcement effort, report of Commission on Civil Rights, 15683
 - Federal handling of demonstrations, hearings, 16069
 - Federal, school desegregation, 243
 - housing code administration and enforcement, 11259
 - Justice Department, function and organization, 7404
 - law enforcement education program manual, 4358
- LEEP—
 - educational opportunities, 5806
 - newsletter, 2795
 - opportunity to move ahead, 7403
- Mexican-Americans and administration of justice in Southwest, 6468
- National Conference on Law Enforcement Education, 1970, selected presentations, 11523
- need to know, NILE&CJ, goals and programs, 14651
- officers—
 - firearms identification, 4308, 16702
 - group life insurance act of 1970, hearings, 16068
 - prohibit assaults, hearings, 17706
 - public speaking on drug abuse prevention, handbook, 7504
- Omnibus crime control and safe streets act of 1968—
 - amend—
 - hearings, 11050
 - reports, 12189, 12212, 16029
 - discretionary grant programs, guide, 5805
- safer, more just America, program, 14650
- training police as specialists in family crisis intervention, 16819
- Treasury Department has major role in Federal enforcement (remarks), 11921
- Law Enforcement Assistance Administration:
 - annual report, 14652
 - corrections program, 16814
 - ICR series, 16815-817

Law Enforcement—Continued

- LEAA newsletter, 16818
- LEAA project reports, 4359
- LEEP—
 - educational opportunities, 5806
 - opportunity to move ahead, 7403
 - PR series, 16819-820
 - program for safer, more just America, 14650
- Law Enforcement Education, National Conference on, see National Conference on Law Enforcement Education.
- Lawlor, John T., relief, 9595, 9811
- Lawns, fertilizers, selecting, 15422
- Lawrence, Deloris, architecture, building and engineering, 13026
- Lawrence, J. M., supplement to aquatic herbicide data, 11
- Lawrence, Mass.:
 - area wage survey, 16848
 - census of transportation, 1967, commodity transportation survey, production, area series, 6417
- Lawrence County, Ala., community profile, 14049
- Lawrence County, Ky., fresh water occurrence in Lee formation, 8759
- Lawrence County, Miss., community profile, 16297
- Lawrence County, Mo., community profile, 17808
- Lawrence County, Ohio, community profile, 14050
- Lawrence County, Pa.:
 - community profile, 16298
 - preparation characteristics of coal, 882
- Lawrence County, S. Dak., community profile, 14051
- Lawrenceburg, Ind., motor carrier accident, 887
- Laws, see Codes of Law—Labor laws—Law—also subjects.
- Lawson, Richard, transportation demand projections and forecasts, 7869
- Lawyers:
 - attorney's fees for police when sued, provide, hearings, 6704
 - employment outlook, 12685
 - estate tax attorney, career with Internal Revenue Service, 14606
 - in public practice, positions in Federal Government, 6483, 15693
 - judge advocates and law specialist officers for Armed Forces, procurement and retention, amend U.S. Code, report, 378
 - legal services in connection with FHA loans, borrowers to employ attorneys of their own choice, hearing, 1698
 - pay, national survey, 5822
 - VISTA lawyers, job opportunities, 5332
 - young lawyers (remarks), 1943
 - see also Public defenders.
- Laxar, Kevin, preliminary investigation of effects of near infrared radiation on visual performance, 7452
- Lay leaders:
 - layman as leader of worship, report of conference, 2175
 - lead program, 2174
- Laycock, John N., relief of estate, 452
- Laying house for poultry, farm building plan, 3416
- Layout, see Plants (Industrial).
- Layout men (machine shop):
 - employment outlook, 14710
- Layouts for flat-bed, rotary, and web press imposition, 11403
- Lazarow, Arnold, diabetes literature index, 2506
- Lazarowitz, Miriam, relief, 9806
- LEAA, see Law Enforcement Assistance Administration.
- Leaching:
 - and magnetic roasting for upgrading Minnesota manganiferous iron ores, 11595

INDEX 1970

- Leaching—Continued
gold-bearing mill tailings from Mercur, Utah, 10333
leach-precipitation-flotation studies on red-bed copper ore using controlled atmosphere, 7497
percolation cyanide leaching, recovering gold from stripping waste and ore, 4485
principles of leaching valuable components from ores, USSR study, 5795
Leaching solutions, *see* Solutions.
- Lead:
additives in gasoline, tax recommendations of the President, 15955
hearings, 15954
deposits, White Mountain plutonic series in New Hampshire and Maine, 5543
industry, mineral industry survey, monthly, 2794
lead in glass used for shielding television receiver components, field method for determination, 4086
minerals yearbook chapter, 854
recovery from galena concentrate, using fabric sulfate leach, 7484
some leaded and prototype lead-free automobile fuels, comparative emissions, 8913
zinc mining operation, relative effects of grouped physical variables on revenue-cost system, 871
- Lead poisoning, lead-based paint poisoning, eliminating causes, provide Federal assistance, hearings, 13502
- Lead tellurides, thermoelectric elements inclusions, electron microprobe study, 2081
- Leadbetter, Sumner A., application of analysis and models to structural problems related to Apollo-Saturn V launch vehicle, 11672
- Leadership:
education, U.S. Army OCS, 3462
leader job grading standard for trades and labor occupations, civil service, 13198
military, field manual, 15479
preferred for good business reasons, business and industry speak out on value of Army ROTC, 3478
ROTC program, where the leaders are, 13062, 15501
- Leadville district, Lake County, Colo., silver potential and economic aspects, 11576
- Leaf, C. Gordon, mineral industry of Massachusetts, 861
- Leaf cast, needle blight of southern pines, 673
- Leafhoppers, *see* Potato leafhopper.
- Leaflets, *see* names of departments, etc., issuing leaflets—*also* subjects.
- Leak, William B.:
cutting strategies & timber yields for unbalanced even-aged northern hardwood forests, 12563
estimates of energy utilization in even-aged northern hardwoods, 12557
silvicultural guide for northern hardwoods in Northeast, 5512
- Leak, William M., report of NRL progress, 3144
- Leak detectors, leak detector for use in space environment, 11676
- Leake County, Miss., community profile, 16299
- Leaks, vacuum leakage tests of simulated lightweight spacecraft air lock, 12808
- Learning:
learning for earning, new opportunities for paycheck education, 586
learning to talk, speech, hearing, and language problems in pre-school child, 6051
nutrition education for young children, guide for teachers and aides, 741
opportunities for schools, 1093
- Learning—Continued
self-study course in FORTRAN programming—
textbook, 12753
workbook, 14808
systems in development of elementary teacher education models, 5360
teaching-learning process and educational technology, bibliography, 16655
to improve learning, report, 15897
to learn program, Jacksonville, Fla., 4061
tool and die maker trade, 10287
Learning machines, *see* Teaching machines.
- Leary, Richard J., mineral industry of New Jersey, 4447
- Leases:
airspace in District of Columbia, authorize—
hearing, 8388
report, 13670
geothermal steam deposits, issuance of leases—
hearings, 17702
report, 17683
oil and gas—
reinstatement in—
Alaska, report, 8358
Wyoming, report, 8360
termination and reinstatement—
law, 9609
report, 6691
rental space for accommodation of District of Columbia agencies, authorize, report, 13647
SBA lease guarantee, Old Dominion Sugar Corp., hearings, 12285
Least squares, curve-fitting method of least squares as applied to petroleum engineering, review, 7459
Leather goods, *see* Leather, hides and skins.
- Leather, hides and skins:
Federal item identification guide, 6866, 11174
futures trading and open contracts, 2684
leather products, census of transportation, 1967, commodity transportation survey, shipper group, 1311
leathers, Federal item identification guides for supply cataloging, supplements, 2597
miscellaneous leather goods, census of manufacturers, 1967 industry report, 12004
personal leather goods, current industrial reports, 2475
tanning, industrial leather goods, census of manufacturers, 1967, industrial statistics, 12003
tanning materials, duty free status, extend—
law, 15778
reports, 1518, 12324
Leathwood, William, air and highway modes, cost analyses for NECTP, 8637
- Leave of absence:
Federal agencies, principles and procedures GAO guidance manual, 8720
Government officials and employees, FPM supplement, 2614, 4971
maternity benefits for Federal employees, Federal employee facts, 1348
uniformed service members voluntarily extending tour of duty in hostile fire area, special 30-day period of leave, extend authorization—
law, 12126
reports, 10867, 13637
- Leavens, W. M., solutions of Vlasov-Poisson equations for oscillations of nonuniform plasma, 1818
- Leaves:
foliage color and height growth in Scotch pine provenance study in northern Michigan, 675
foliage plants, production and sales, etc., 7842

Leaves—Continued

foliar moisture content of chaparral in Arizona, accounting for variation and relating to prescribed fires, 11348
Leaving drug world behind, 5353

Lebanon:

agricultural commodities agreement, 18357
air transport services, agreement, 18360
economic trends and their implications for United States, 1968
environmental studies, bibliography, 10723
health data, 1240
water supply, prospect for increasing by precipitation management, report, 7727
Lebanon County, Pa., community profile, 16300

Le Baron, Walt, systems analysis and learning systems in development of elementary teacher education models, 5360
Lectures, *see* Addresses, lectures, etc.

Lee, Arthur N., relief, 3781, 3787, 5047

Lee, Dorothy B., heat transfer rate and pressure measurements obtained during Apollo orbital entries, 18211

Lee, Frank R., permissible mine equipment approved by Bureau of Mines, 8900

Lee, George R., sport fishery abstracts, 3218

Lee, Hyun Joo, relief, 17594, 17621, 17673

Lee, J. S., smooth limiting of two signals in narrowband system, 15094

Lee, Jerry S., transport properties at high temperatures of $\text{CO}_2\text{-N}_2\text{-O}_2\text{-Ar}$ gas mixtures for planetary entry applicants, 2085

Lee, John M., nomination, hearing, 6799

Lee, K. Y., rare-element mineral deposits in mainland China, 11388

Lee, Kim L., high-precision Chebyshev series approximation to exponential integral, 14885

Lee, Marion M., relief, 3781, 3787, 5047

Lee, Myung Joo, relief, 17594, 17621, 17673

Lee, R., investigation of floods in Hawaii, 10169

Lee, Robert E.:

Lincoln. Lee and American Civil War, National Park Service publications list, 6130

location-logistics system for feed firm management, 3409

Lee County, Ala., community profile, 14052

Lee County, Iowa, community profile, 14053

Lee County, Miss.: community profile, 16301

water resources, 14550

Lee County, N.C., community profile, 12448

Lee County, S.C., board of education, land conveyance law, 3724

Lee Formation, *see* Pennsylvania period.

LEED (Low energy electron diffraction), *see* Electron diffraction.

Leeds, Alice A., psychopharmacology bulletin, 3105

LEEP (Law enforcement education program), *see* Law enforcement.

Leeward Islands, British, economy, basic data, 15724

Leflore County, Miss., community profile, 16302

Legal aid, legal assistance, new minority enterprises, 1371

Legal Aid Agency for District of Columbia, redesignate Public Defender Service for District of Columbia, hearings, 501, 3963

Legal documents, *see* Law.

Legal procedures, *see* Law.

Legal rights of the disabled and disadvantaged, 6164

Legal services, *see* Law.

Legality of revised Philadelphia plan, 5807

Legends for use in aircrew stations and on airborne equipment, military standard, 4024

Legion Warehouse Corp., motor carrier accident, 14803

Legislation:

all things are changing and we are changing with them, Republican report, 91st Congress, 1st session, 3900

call for cooperation, message from the President, 15118

consumer legislative monthly report, 18301

family and juvenile court acts, legislative guide for drafting, 233

Legislative reorganization act of 1970—

improve legislative branch—

hearing, 5179

reports, 11013, 12206

summary of draft, 8320

State, 1970 cumulative program of Advisory Commission on Intergovernmental Relations, 2

various legislative matters, message from the President, 341

see also Labor laws—Law—*also* subjects.

Legislative appropriations, *see* Appropriations.

Legislative Reference Service, technology assessment services, hearings, 12283, 15936

Legislative reorganization act, *see* Congress of United States.

Legumes, stabilization of newly constructed road backslopes by mulch and grass-legume treatments, 18013

Leguminosae, *see* Tephrosia vogelli.

Lehigh County, Pa., community profile, 16303

Lehner, Joseph, lectures on modular forms, 4547

Leigh, John H., multiple phase ejector pilot plant, 18070

Leighton, Fred, rock noise source location techniques, 16920

Leighton, Hope I., solar-geophysical data periodical, 3203

Leissa, Arthur W., vibration of plates, 5910

Leithead, H. L., Fort Worth prairie, 6179

Lejins, Peter P., introducing law enforcement curriculum at State University, 16816

Lemar Shoes, Inc., Haverill, Mass., women's and misses' dress shoes with leather, vinyl, or fabric uppers, Tariff Commission report, 10642

Lemon Creek:

Juneau, Alaska—

flood plain information, 17923

floods, how to avoid damage, 17940

Lemon-gum eucalyptus, *see* Eucalyptus.

Lemons, fresh, sold in selected markets, prices and spreads, 10691

Lena, River, mouth region, ice regime in natural and regulated states, USSR study, 1993

Lencl, Maria P., relief, 12297, 17588

Lenders handbook, guarantee or insurance of loans to Veterans, GI loan program, 9262, 15380, 17403

Lending operations, *see* Loans.

Lenin, Vladimir I.:

and gnoseological principles of scientific prognosis, USSR study, 5734

Lenin Centennial, statements by Ukrainian academicians, 12648

Lenin days of Tadzhik science in Moscow, 5747

Lenin prizes, 1970, competition in science and technology, 11519

Leninism, *see* Communism.

Lennon, Robert E., resume on field applications of Antimycin A to control fish, 11878

Lenoir County, N.C., community profile, 12449

Lens grinders, ophthalmic lops and lenses. Federal item identification guide, 4013

Lenses:

ideal, in coherent optical systems, Fourier transform representation, 5976

ophthalmic, Federal item identification guide, 4013

INDEX 1970

- Lentils, how to buy, 12983
 Leonard, Bruce R., acoustic and aerodynamic performance of 6-foot-diameter fan for turbofan engines, design of facility and QF-1 fan, 14856
 Leonard, Clarence G., moisture conditioning of seed cotton in ginning as related to fiber quality and spinning performance, 4821
 Leonard, Joseph T.:
 effect of Navy special fuel oil on charging tendency of jet fuel, 4626
 effect of static dissipator additive on charging tendency of jet fuels, 6104
 Leonard, Regis F., alpha-gamma angular correlations in reaction tin, etc., 2108
 Leopold, Estella B., Miocene pollen and spore flora of Eniwetok Atoll, Marshall Islands, 4242
 Leopold, Luna B., quantitative comparison of some aesthetic factors among rivers, 4235
 Lepidoptera, *see* Microlepidoptera.
 Lepisma sacchauna, *see* Silverfish.
 Lepkowski, J. Richard, study of near real-time screening performance, scale, resolution, and presentation rate, 9361
 Lepson, Benjamin, some labeling theorems for planar linear graphs, contribution to 4-color problem, 4621
 Lerch, Francis J., determination and comparison of GRARR MADGAR site location, 899
 Lesco, Daniel J., rotating shaft-mounted microelectronic data system, 5969
 Lescure, William J., naval research reviews, 2939
 Lesions, experimental cerebellar vermal, relationship of chronic gastric ulceration, 56
 Lesotho:
 background notes, 17324
 economy, basic data, 6507
 special study mission, report, 390
 print additional copies, reports, 9696, 13634
 LeSourd, David A., benefit-cost analysis of kidney disease programs, 6144
 Lessmann, G. G.:
 determination of weldability and elevated temperature stability of refractory metal alloys—
 long-time temperature stability of refractory metal alloys, 18178
 weldability of tungsten base alloys, 18180
 Let's grow! community benefits from watershed projects, 3396
 Let's talk about wealth, 999
 Letters:
 Adjutant General Office, letters received, main series, microcopy, pamphlet to accompany, 5595, 8976
 drafting and editing naval letters, 11813
 foreign, 1785-90, of Continental Congress and State Department, microcopy, pamphlet to accompany, 14910
 sent by Secretary of Treasury relating to—
 public lands (N series), 1801-78, microcopy, pamphlet to accompany, 11727
 subtreasury system, U series, 1840-78, microcopy, pamphlet to accompany, 17027
 transporting military mail from Okinawa to points in Southeast Asia, reductions achieved in cost, Defense Department, GAO report, 12586
 Treasury Department Secretary, 1870-87 and Assistant Secretary 1876-93, miscellaneous letters sent, pamphlet to accompany microcopy, 4540
 Lettuce:
 market quality affected by modified-atmosphere, when shipped by rail, 9301
 marketing orders to include paid advertising, hearings, 15882
 Leucocytes, human and animal, production of interferon, USSR study, 4330
 Leucopenia, functional and relative lymphocytoses effect of solar activity on frequency, 5980
 Leucotrichia, *see* Flies.
 Leuders, H. G., experimental investigation of advanced concepts to increase turbine blade loading, performance evaluation of modified turbine rotor blades, 11621
 Leuk-:
 NOTE.—For most subjects beginning with this combining form, *see* Leuc-.
 Leukemia:
 camptothecin, antileukemia alkaloid, camptotheca acuminata Decaisne (nys-saceae) as source, 6319
 childhood, and fetal mortality, relation to radioactive fallout, reconsideration, 6375
 kidney transplants and leukemia, USSR study, 16800
 Leukosis, *see* Avian leukosis.
 Levin, Arthur D., bicentennial era, American Revolution Bicentennial Commission newsletter, 9347
 Levin, Louis, nomination, hearing, 9928
 Levine, Eugene, nursing personnel, 5576
 Levine, Harry, field method for determination of lead in glass used for shielding television receiver components, 4086
 Levine, Jerome A., agriculture in United States and Soviet Union, statistical comparison, 8501
 Levine, Jerrold M., method for quantifying subjective costs of large numbers of image interpretation errors, 15495
 Levine, Milton, American science manpower, 1968, report, 7649
 Levine, Morton, adjusting to technology on railroads, 4389
 Levno, Al., increases in maximum stream temperatures after slash burning in small experimental watershed, 4185
 Levo-Dihydroxyphenylamine:
 L-Dopa, suspension of duty—
 law, 12132
 reports, 9689, 12326
 Levy, Benjamin, Death Valley National Monument, historical background study, 4570
 Lewins, Leon:
 basic data on economy of Bulgaria, 6506
 trading with East Europe, 15733
 Lewis, Anthony R., electrostatic acceleration system for hypervelocity microparticles with selected kinematic properties, 8946
 Lewis, Colston A., nomination, hearing, 16076
 Lewis, Everett M., Jr., effects of alcohol on dark adaptation time, 15754
 Lewis, John R., magnesium, 14781
 Lewis, R. D., bibliography of lobsters, genus Homarus, 6524
 Lewis, Richard L., recursion formula for logarithmic derivatives of spherical Bessel functions in complex plane, 12513
 Lewis and Clark Trail Commission:
 appropriations, 1970, law, 314
 appropriations, 1971, report, 9702
 final report, 11551
 Lewis County, Mo., community profile, 17809
 Lewis County, N.Y., community profile, 14054
 Lewis County, Wash., community profile, 6934
 Lewis Research Center, Cleveland, Ohio, cyclotron modification, radiofrequency system analysis, 2094
 Lewiston, Maine:
 flood plain information, 1804
 floods, how to avoid damage, 1810
 LF, *see* Frequency band.
 Lhost, A., irradiations of UO₂-PuO₂ ceramic fuels with high burn-up ratios, 1250

- Li, Ta Cheng:**
 mineral industry of—
 Burma, 14782
 Japan, 4434
 Philippines, 14788
- Liability (law):**
 District of Columbia hotels, etc., liability to guests, hearing, 9904
see also Claims.
- Liapunov method, Lyapunov stability criteria for randomly sampled systems, 5970**
- Libbey Dam, project, modify, hearing, 3991**
- Liberation Front, National, *see* National Liberation Front.**
- Liberia:**
 agricultural commodities agreement, 18351
 background notes, 10596
 mineral industry, minerals yearbook chapter, 4438
 ships registered under Liberian flag deemed by Navy Dept. under U.S. control, 3198
- Liberty, economic contest between freedom and authoritarianism (address), 11323**
- Liberty bonds, *see* Bonds of United States.**
- Liberty of the press:**
 has American press become product of times (remarks), 5426
 subpoenas, outtakes, and freedom of press, appeal to media management (remarks), 7079
- Librarians:**
 career opportunities, Government Printing Office, college graduates in library science, 14557
 employment outlook, 12686
 examination announcement—
 amendment, 1345
 Veterans Administration installations, discontinuance, 3865
 professional careers, 3674
 vacancy roster, Federal Government Libraries, 2649
see also Medical record librarians.
- Libraries:**
 American reading rooms in Yugoslavia, agreement with Yugoslavia, 1152
 American, symbols used in national union catalog, 4393
 colleges and universities—
 data for individual institutions, 14288
 statistics, fall 1968, analytic report, 9990
 coordinators of children's and young adult services in public libraries serving from 100,000 people, 1970 directory, 14277
 depository libraries—
 law governing, and list, 6727
 list, 2900
 Federal Government, roster of libraries and vacancies, 2649
 library programs, facts, 582
 Library services and construction act, amend—
 hearings, 8430, 17641
 report, 16013
 Medical library assistance act extend—
 law, 6544
 report, 5138
 new serial titles—
 classed subject arrangement, 2956
 union list, alphabetical arrangement, 2957
 public, serving areas with at least 25,000 inhabitants, 1968, statistics, 12505
see also names of departments, etc.—*also* names of libraries or places where located.
- Library accessions:**
 Adjutant General's Office, Army Library, 3186
 Ceylon, American Libraries Book Procurement Center, New Delhi, 2286

- Library accessions—Continued**
 Eastern Africa, Library of Congress National Program for Acquisitions and Cataloging, Nairobi, Kenya, 14751
 Federal Fire Council, list, 2838
 foreign statistical publications, 2663
 India, American Libraries Book Procurement Center, New Delhi, 2287
 Indonesia, American Libraries Book Procurement Center, Djakarta, 2288
 cumulative list of serials, supplement, 14752
 Israel, American Libraries Book Procurement Center, Tel-Aviv, 2289
 Labor Department Library, 3188
 Middle East, American Libraries Book Procurement Center, Cairo, 2290
 Nepal, American Libraries Book Procurement Center, New Delhi, 2291
 Pakistan, American Libraries Book Procurement Centers, Karachi and Dacca, 2292
 Reclamation Bureau Library, list, 2831
 Russian, Library of Congress, monthly index, 2904
 Soviet literature accessions in Atmospheric Sciences Library and Geophysical Sciences Library, guide, 7054, 8579
 Library assistants, library technicians employment outlook, 12686
 Library Committee, Federal, *see* Federal Library Committee.
 Library list, National Agricultural Library, 951, 5983
 Library of Congress:
 accessions—
 Ceylon, American Libraries Book Procurement Center, New Delhi, 2286
 Eastern Africa, National Program for Acquisitions and Cataloging, Nairobi, Kenya, 14751
 India, American Libraries Book Procurement Center, New Delhi, 2287
 Indonesia, American Libraries Book Procurement Center, Djakarta, 2288
 cumulative list of serials, supplement, 14752
 Israel, American Libraries Book Procurement Center, Tel-Aviv, 2289
 Middle East, American Libraries Book Procurement Center, Cairo, 2290
 Nepal, American Libraries Book Procurement Center, New Delhi, 2291
 Pakistan, American Libraries Book Procurement Centers, Karachi and Dacca, 2292
 Russian, monthly index, 2904
 additional supergrade positions, establish, recommendations, 8315
 annual report—
 departmental edition, 10304
 document edition, 9616
 appropriations, 1971—
 hearings, 6695, 9890
 law, 15773
 reports, 6685, 12351, 13440
 calendar of events, 2384
 cataloging service bulletin, 2391
 catalogs—
 books, subjects, 2038, 2332
 dictionary, subject headings used, supp., 3236
 motion pictures and filmstrips, 2833
 music and phonorecords, 16873
 national union catalog, 2935
 register of additional locations, 10306
 symbols used for American libraries, 4393
 classification—
 additions and changes, quarterly list, 2790
 class K, law, draft outline, 18136
 class N, fine arts, 12723
 outline, 16874
 collection of papers of Ridgely, Charles, Roe, Francis; Walker, John, 16872

INDEX 1970

- Library of Congress—Continued
 exhibitions, Alabama sesquicentennial of
 statehood, 4391
 Government publications, non-GPO im-
 prints received from July 1967-Dec.
 1969, list, 14755
 information bulletin, 2744
 James Madison Memorial Building, con-
 struction funds, increase authori-
 zation—
 hearing, 435
 law, 6546
 reports, 1566, 6588
 music and phonorecords, 12724
 National Program for Acquisitions and
 Cataloging, accessions list, Eastern
 Africa, 14751
 newspapers, currently received and per-
 manently retained, 11554
 PL 480 newsletter, 2834
 policing of buildings and grounds, amend
 act—
 law, 12109
 reports, 8248, 13624
 President's papers index series, 11555
 Public law 480 project, accessions list—
 Ceylon, 2286
 India, 2287
 Indonesia, 2288
 cumulative list of serials, supplement,
 14752
 Israel, 2289
 Middle East, 2290
 Nepal, 2291
 Pakistan, 2292
 publications in print, list, 11553
 purchase of office equipment and furniture,
 transfer authority from Architect of
 Capitol to Librarian of Congress—
 law, 12108
 reports, 6889, 11081
 quarterly journal, 3119
 serials, MARC format, 11556
 special recruit program, 2039
 Library science, college graduates, career
 opportunities, Government Printing Office,
 14557
 Librations, libration-point satellites, control
 and use, 18223
 see also Moon.
 Libya :
 area handbook, 6354
 background notes, 10593
 economic trends and their implications for
 United States, 18079
 economy, basic data, 13220
 geology and mineral resources, recon-
 naissance, 8747
 military and political problems, subcom-
 mittee report, 5144
 mineral industry, minerals yearbook chap-
 ter, 16905
 plant quarantine import requirements,
 11942
 Licenses :
 activity which may affect resources of
 Hudson Riverway, extend time for
 review of applications—
 hearings, 9914
 law, 10906
 reports, 5107, 9818
 biological products, requirements, amend
 act, report, 9669
 export licenses approved and reexports
 authorized, list, 2553
 hydroelectric projects on Middle Snake
 River below Hells Canyon Dam, 10-year
 moratorium, hearing, 9917
 nuclear powerplants, precicensing anti-
 trust review, hearings, 5063, 9610
 see also Inventions—Motor vehicle opera-
 tors—also classes of persons to whom,
 or subjects for which, licenses are issued.
 Licensure to Practice the Healing Art, Com-
 mission on, composition, revise, hearings,
 411
- Licht, L., design, fabrication and testing of
 foil gas bearing test rig, 10353
 Licking County, Ohio, community profile,
 14055
 Lidar, *see* Radar.
 Lide, David R., jr., critical evaluation of
 data in physical sciences, status report on
 national standard reference data systems,
 14927
 Liders, Asja J., relief, 1446
 Lido Key :
 Sarasota County, Fla., engineers report—
 departmental edition, 10066
 document edition, 9625
 Lids, paper, Federal standard, 5467
 Lie series, *see* Algebra.
 Liebe, H. J., atmospheric propagation prop-
 erties in the 10- to 75-GHz region, survey
 and recommendations, 615
 Liebert, Curt H. :
 solar-cell performance at low temperatures
 and simulated solar intensities, 2095
 spectral emittance of soot, 7533
 Lienhard, John H., interacting effects of
 gravity and size upon peak and minimum
 pool boiling heat fluxes, 10352
 Lietzke, Armin F., simplified analysis of
 nuclear fuel pin swelling, 5932
 Life :
 for your life, new dimension, Army career,
 15480
 quality, top priority (remarks), 9255
 Life cycle costing :
 LCC-series, 16146
 procurement guide, 16146
 Life insurance :
 Administration views on bill to increase
 availability of guaranteed home loan
 financing for veterans, etc. (statement),
 2274
 Federal employees group insurance—
 annual report, 1346
 FPM manual, supplement, 2611
 program administered by Civil Service
 Commission, GAO report, 5520
 Government, information and premium
 rates, K policies, 18400
 group, coverage of full-time State and
 local government employees, 17280
 group mortgage, protection for paraplegic
 and quadriplegic veterans, report, 17628
 Law enforcement officers' group life insur-
 ance act of 1970, hearings, 16068
 national service—
 information and premium rates—
 J and JR policies, 15381
 RH policies for service-disabled vet-
 erans, 2281
 RS-W policies, 10667
 V-H policies, 10666
 regular dividend schedules, 7892
 total disability income provision pre-
 mium rates, 15382
 veterans mortgage financing, use of
 NSLI investment funds—
 hearings, 3973
 report, 1545
 servicemen's group life insurance—
 can protect you as a veteran, 17404
 conversion, 17405
 increase—
 law, 13302
 report, 9659
 survivor benefits, estimated amount in
 force as survivor benefits under social
 security program, 11855
 veterans and servicemen, Government pro-
 grams, annual report, 7889
 veterans, service-disabled, information and
 premium rates, 2280
 Life sciences, occupations, employment out-
 look, 14674
 Life support systems :
 astronaut water recovery systems, uni-
 versity role in developing, 11624
 portable, conference, proceedings, 11627

Life support systems—Continued
trade-off study and conceptual designs of
regenerative advanced integrated life
support systems (AILSS), 14807
university role, atmospheres, 8925

Lift (aircraft):

calculated wind-tunnel-boundary lift-in-
terference factors for rectangular
perforated test sections, 5943
high L/D concept with single pivot 2-
position skewed wing, study to determine
flight characteristics and handling
qualities of variable geometry space-
craft, 10351
parawing-lifting body landing system,
model wind-tunnel and flight investiga-
tion, 18196
6 wing-mounted lift fans, wind tunnel in-
vestigation V/STOL transport model,
14348, 16957
V/STOL transport model with 4 pod-
mounted lift fans, wind tunnel investi-
gation, 14881, 18199
wake effect of panel tip-mounted fan-jet
engine on lift-induced vortex, exploratory
wind-tunnel investigation, 11636
wing slipstream flow interaction, analysis,
14829

Lifting:

entry (L/D<C.2) for unmanned Viking
class Mars landers, 11670
teach them to lift, 14657

Light:

bias, and heat treatment, effects on spec-
tral response of cadmium sulfide thin film
photovoltaic cells, 2088
laser-generated plasma as spectroscopic
light source, 18222
light scattering in atmosphere, 2129
principles of information processing in
visual system, USSR study, 16761
relation to epicormic sprouting of sugar
maple, 16560
see also Polarization (light).

Light filters, Federal item identification
guide, 6861

Light Horse Harry Lee Bridge, designate
report, 13452

Light lists, *see* Lights and lighting.
Light water reactors, *see* Reactors (atomic)
Lighters, *see* Barges.

Lighthouses, Rock Island Lighthouse Sta-
tion, Orleans, N.Y. surplus property study,
17161

Lighting, *see* Lights and lighting.

Lighting equipment, *see* Lights and lighting.

Lightning:

bibliography, 51
hazards to rockets during—
launch 1, 7050
launch 11, 5388

Lights and lighting:

anticollision lights for supersonic trans-
port (SST), 17477
Coast Guard list—

Atlantic and Gulf Coast and Antilles,
4977

Atlantic Coast, local, 3681

Great Lakes, 6497

Mississippi River system, 6498

Pacific Coast and Pacific Islands, 3682

economy approach lighting aids, 16470
electrical lighting fixtures, current indus-
trial reports, 15632

farm lighting, 17435

fixtures, Federal item identification guides
for supply cataloging, supplements,
2494

4-microsecond flashing light synchronized
with framing of motion-picture cameras
and its application in Schlieren photog-
raphy, 11682

heliport, flight test and evaluation for
VFR, 4112

Lights and lighting—Continued

Naval Oceanographic Office, list—
Baltic Sea with Kattegat, etc. 17181
British Isles, English Channel, and
North Sea, 6087

Greenland, North and South America,
east coast, etc., 7674

Norway, Iceland and Arctic Ocean,
15054

Pacific Ocean, western, etc., change,
6086, 15053

west coast of Europe and Africa, etc.,
10488

night lighting for herring, old technique
may have new possibilities, 10892

portable lightning unit for firefighting,
equip tips, 7193

runway alignment indicator light (RAIL)
for approach guidance, test and eval-
uate, 4113

TRACON facilities, improvement of oper-
ating conditions, handbook, 14359

see also Electric lamps—Electricity.

Lignin, staining, limited success in identi-
fying koa growth rings, 18017

Lignite:

bench-scale carbonization, from Northern
Great Plains Province, statistical ap-
proach, 10326

evaluation as carbon source, anode ma-
terials for alumina reduction, 7493

lignite gasification, pipeline gas, commer-
cial economics, current, 1357

North Dakota lignite, slagging fixed-bed
gasification at pressures to 400 psig,
11593

sodium concentration in, prediction, 14794

technology and use of lignite, symposium
proceedings, 14774

see also Coal.

Lille, Robert J., air pollutants affecting per-
formance of domestic animals, literature
review, 15413

Lima beans, dehydrated, quality as influenced
by processing variables and storage tem-
perature, 6349

Lime, David W., wildlife esthetics & auto
campers in Superior National Forest, 5509

Lime:

liming of acid strip-mine spoil, pine seed-
lings respond, 5498

minerals industry survey, monthly, 2835

minerals yearbook chapter, 4414

Lime-soda sintering, role of alumina-to-silica
mole ratio, 16922

Limestone:

transportation on Great Lakes waterway
system, 11575

treatment, mine water research, plant de-
sign and cost estimates, 7491

treatment of acid mine drainage, 10105

Limestone County, Ala., community profile,
14056

Liming, *see* Lime.

Limitations (law):

private and public ownership of lands,
differentiation, Federal reclamation
laws, acreage limitation amend-
ments—

law, 12133

reports, 6611, 10899

Limiters, *see* Impact limiters.

Limnology:

limnological study of lower Columbia
River, 15748

paleolimnology of trona deposits and as-
sociated authigenic minerals of Green
River formation of Wyoming, 727

Lin-Fu, Jane S:

hemolytic disease of fetus and newborn
due to Rh immunization, 5841

neonatal narcotic addiction, 11565

LINAC (linear electron accelerator), *see*
Accelerators.

INDEX 1970

- Lincoln, Abraham:
 Ford's Theatre and House Where Lincoln Died, general information, 996
 Lincoln, Lee, and American Civil War, National Park Service publications list, 6130
 Lincoln County, Minn., soil survey report, 6194
 Lincoln County, Miss., community profile, 16304
 Lincoln County, Mo., community profile, 17810
 Lincoln County, Nebr., community profile, 17811
 Lincoln County, N.C., community profile, 14057
 Lincoln County, Okla., soil survey report, 6195
 Lincoln County, S. Dak., community profile, 14058
 Lincoln County, Wash., community profile, 6935
 Lincoln Museum:
 designate as Ford's Theatre National Historical Site—
 law, 12115
 reports, 9705, 11091
 Lindane, spray effective against mountain pine beetle in Rocky Mountains, 14463
 Lindbergh, Jon M., lecture, Feb. 17, 1969, 2219
 Lindenmuth, A. W., jr., foliar moisture content of chaparral in Arizona, accounting for variation and relating to prescribed fires, 11348
 Lindmark, Ronald D., black walnut on non-forest land in Kentucky, 11367
 Lindsey, Walter F., 4-microsecond flashing light synchronized with framing of motion-picture cameras and its application in Schlieren photography, 11632
 Linear algebra, *see* Algebra.
 Linear equations, *see* Equations.
 Linear inequalities, *see* Inequalities.
 Linear programming:
 input-output analysis—
 of southern forest economy, 701
 use in studying industry problems applied to employment changes in U.S. textile industry, 4828
 minimum fuel attitude control of nonlinear satellite system with bounded control by method based on, 892
 potential for input-output economics in the 1970's (remarks), 3696
 use of input-output analysis by Federal Interagency growth project (paper), 822
 Linear systems:
 class of semilinear hyperbolic systems analogous to differential-integral equations of gas dynamics, some general properties, 15076
 control with large time delays in control, 7519
 controllability of nonlinear systems with linearly occurring controls, 2064
 frequency domain approach to design and analysis of linear multivariable systems, 10392
 linear dynamical systems, simultaneous estimation of state and noise statistics, 7555
 linear homogeneous systems, conservation laws, 12779
 linear time optimal control problem from a calculus of variations point of view, 11619
 Linemen, telephone, employment outlook, 18121
 Liners, *see* Lining fabrics.
 Lines, *see* Electric lines—Telephone lines.
 Ling-Temco-Vought, Inc., conglomerate corporations, investigation, hearings, 15921
 Lining fabrics:
 inner liners, position numbers, military standard, 16149
 plastic garbage-can-liners, equip tips, 10116
 Linings:
 glass-fiber reinforced polyester lining, 18320
 lining and shoe, friction, Federal item identification guide, 11172
 pond, for desalting plant effluents, 17246
 Linn County, Iowa, community profile, 14059
 Linn County, Mo., community profile, 17812
 Linstedt method, *see* Mathematics.
 Linters, *see* Cotton.
 Linville, Bill, petroleum and oil-shale research of Bureau of Mines, 1967-68, 5853
 Lipoproteins:
 hyperlipoproteinemias—
 diagnosis and treatment, 6030
 dietary management—
 handbook for physicians, 6026, 9006, 18244
 type 1 diet, 9007, 17067
 type 2 diet, 6027, 17068
 type 3 diet, 6025, 9008, 17069
 type 4 diet, 9009, 17070
 type 5 diet, 6029, 7599, 17071
 Lipscomb, Glenard P., memorial services, 15761
 Liquefied gases *see* Gas—Liquefied petroleum gases.
 Liquefied petroleum gases, natural gas liquids, review of their role in petroleum industry, 4408
 Liquid fuels:
 combustion stability of single swirl-can combustor modules using ASTM-A1, 903
 damping of liquid oscillations on rectangular tanks, effect of wall roughness, 5973
 Federal test method standard, 1863
 vibration characteristics of cylinder partially filled with liquid with attached elastic drain pipe, 4495
 Liquid hydrogen, *see* Hydrogen.
 Liquid metals, *see* Metals.
 Liquid oxygen, *see* Oxygen.
 Liquid-propellants, *see* Propellants.
 Liquidity (economics):
 Federal Reserve policy and liquidity squeeze (remarks), 17991
 liquidity demands, fiscal policy, and tasks of monetary management (remarks), 10080
 Liquids:
 continuous heavy liquid concentration of spodomene, 8907
 conversion of coal into liquids, Project Western Coal, 13207
 cylindrical tank partly filled with liquid, head to base transfer function characteristics, 12804
 films spread on liquid surfaces, compressibility, modulus of compressibility, and perpendicular component of molecular dipole moment, CDC 3800 computer program to calculate and plot, 15070
 liquid sphere, boundary layer separation, 16948
 liquid surfaces, gas jet impingement on—
 during weightlessness, 7548
 in weightlessness, cavity stability, 16982
 long, cylindrical, liquid-filled independent cargo-tank barges, structural design review, 11846
 low gravity liquid vapor interface configurations in spheroidal containers, 8938
 multiple-jet liquid injection into hypersonic flow, experimental investigation, 11685
 multiple liquid impact erosion, experimental and analytical investigation on metals, 16937
 nematic liquid crystals, electron paramagnetic resonance study of order in several, 5954

Liquids—Continued
solidus and liquidus temperatures of UO₂ and ThO₂ systems, 9381
theory, 10228
thermocapillary induced breakdown of falling liquid film, 4523
warm flowing, conformal mapping analysis by steady frozen-layer configuration inside cold rectangular channels, 4529

Liquors:

alcoholic beverage dosages and altitudes, how combinations affect blood alcohol concentrations, 11981
distilled spirits, amend Internal revenue code, report, 10982
District of Columbia—
alcoholic beverage control act, amend report, 9683
class A liquor license, return and cancellation procedure, report, 5129
intoxicating, code of Federal regulations, 5453
laws and regulations for retail dealers, 14611

Lisagor, W. Barry, some factors affecting stress-corrosion cracking of Ti-6Al-4V alloy in methanol, 2103

Liston, Laurence L., road user and property taxes on selected motor vehicles, 1970, 7720

Lishka, Raymond J.:
water chlorine (residual), report of study, 1815
water metals, 8566
water nutrients, 7046

Lists, see names of departments, etc., issuing lists—also subject of lists.

Litchfield County, Conn., community profile, 6936

Literature, literature search series, 17150
see Children's literature—English literature—Russian literature.

Lithium:

mood disorders, treatment, 9018
nomographs for use in fabrication and testing of Ge(Li) detectors, 14925

Lithium carbonates, current drug information, FDA, 11337

Lithium chloride, magnesium electrode in molten mixtures of anolyte studies, 5952

Lithium fluoride:
compatibility with columbium base alloys, 7515
thermoluminescence spectrum and energy conversion efficiency, 9389

TL-700 high sensitivity LIF ribbon for low-level environmental radiation measurements, tests, 15514

Lithium hydroxide, water vapor effect on LiOH-CO₂ reaction, dynamic isothermal system, 4623

Lithofacies, Cockfield formation of Louisiana and Mississippi and Yegua formation of Texas, geohydrologic significance, 18044
Lithographers 3 & 2, Navy training course, 1026

Lithographic prints, see Lithographs.

Lithographs:

Air Force lithograph series, 7964-65, 10724-725
lithographic occupations employment outlook, 14712

Lithology, see Rocks.

Litigation, see Actions at law.

Little, C. G., remote sensing of wind profiles in boundary layer, 16465

Little, Elbert L., Jr., subdivisions of Genus Pinus (Pines), 3410

Little Bigby Creek, watershed work plan, Maury County, Tenn., 9171

Little Calumet River, pollution of interstate waters, Ind.-Ill., conference proceedings, 7163

Little Caney River, Copan Dam spillway, Okla., hydraulic model investigation, 16450

Little Creek, Chapel Hill, N.C., flood plain information, 16420

Little Grass Valley Recreation Area, general information, 16552

Little Lake Harbor, Lake Superior, bottom stability and sedimentary processes, 18135

Little River, S.C., to Rio Grande, Tex., and Antilles, light list, 4977

Little Rock, Ark., area wage survey, 2027, 18124

Little Timber Creek:

Camden County, N.J.—
flood plain information, 8540
floods, how to avoid damage, 8549

Little Wekiva River, Orange County, Fla., flood plain information, 16421

Littman, F. E., research on porous glass membranes for reverse osmosis, 5621

Litton Industries, Inc., conglomerate corporations, investigation, hearings, 15921

Littoral environment observation program in California, preliminary report, 10000

Liu, Han-Shou, thermal contraction of Mercury, 11688

Liuzzo, Joseph A., radiation pasteurization of Gulf shellfish, 15518

Liver, glycogen content of rats at ground level and at altitude, effects of decarboxane, 57

Livestock:

animal industry, publications, price list, 12907

commercial tobacco-livestock farms, 8498
cooperatives in Southeast, 10039

Denmark's livestock and meat industry, 666

effective grazing practices and systems for national forests and national grasslands, managing public rangelands, 15

foreign agriculture circulars, 2657
grazing, regulations on National Forest system lands and other lands under Forest Service control, 16557

health requirements, etc., governing interstate and international movement, 1191

industry, New Zealand, 18005

international quarantine station to permit entry of animals from any country to improve livestock breeds, establish—

hearings, 1569, 3949
law, 9604

reports, 3933, 6587

inventory, 6257

livestock and meat situation, 2844

market news—
service, 7923

weekly summary and statistics, 2845

meat animals, farm production, etc., 10632

payment, guidelines for producers, 36

slaughter—
commercial slaughter, meat and lard production, etc., 9211

monthly report, 2846

plants, Mar. 1, 1970 number, 10634

State associations, resolutions adopted in 1969 relating to National Forest System, Forest Service comments, 1877, 5488

statistics, 1969, supplement, 10704

tuberculosis eradication, State-Federal cooperative program, 1969 fiscal year, statistical tables, 3380

western range and livestock monthly report, 3357

see also Cattle—Food for livestock.

Livestock products, see Animal products.

Living conditions, see Cost and standard of living.

Living expenses, see Cost and standard of living.

Livingston, A. L., xanthophyll, carotene, and α -tocopherol stability in alfalfa as affected by plot and industrial-scale dehydration, 4829

Livingston, Rockwell:
poverty in United States, 3642

trends in social and economic conditions in metropolitan and non metropolitan areas, 15648

INDEX 1970

- Livingston County, Mo. community profile, 17813
- Livingston County, N.Y., community profile, 14060
- Lizardfish (U.S.S.)
 - loan to Italy, extension, agreement, 10617
- Lizards, catalogue of neotropical squamata, 6057
- LMFBR (liquid metal fast breeder reactor), *see* Reactors (atomic).
- LMRDA, *see* Labor-management reporting and disclosure act of 1959.
- Load (aerodynamics):
 - rotocraft external-load operations, Federal aviation regulations, 14357
- Load (mechanics):
 - aerodynamic load and aerodynamics, design of light aircraft, published information, study, 7508
 - beam columns, frames, and arches, finite element approach to structural instability, 10406
 - bending loads, analytical and experimental investigation of end-plane rotations of truncated cones under, 932
 - buffet and static aerodynamic characteristics of systematic series of wings determined from subsonic wind-tunnel study, 11656
 - concentrated loads on plates, 8533
 - end rings of isotropic conical shells loaded by external pressure, preliminary design procedure, 16985
 - fatigue-crack growth under simple variable amplitude loading, investigation, 12775
 - flat built-up panels under streamwise in-plane load, experimental and analytical investigation of flutter, 8953
 - load-carrying capacities of existing concrete beams, study of feasibility of methods for increasing, 14336
 - load measurement, accuracy of flight-beating simulation and its effect, study, 12784
 - nonuniform loading use included in nonlinear actuator disk theory and flow field calculations, 16950
 - normal load factor just prior to ground contact for 5 light airplanes, statistical study, 12787
 - pilot's weight and balance handbook, 12541
 - rectangular plates, moments and reactions, 15142
 - self-acting thrust bearings, optimization for load capacity and stiffness, 14886
 - short- and long-term deflections of reinforced concrete flat slabs, 8556
 - turbine blade loading, advanced concepts to increase, experimental investigations, 10355, 11621
 - uniaxial tensile loads applied to lightweight coated fabric with and without prior cycling, air permeability studies, 14873
- Loader, Maurice, and wife, relief, 12304, 13390
- Loading, *see* Load (mechanics)—Unloading and lading.
- Loan associations, *see* Federal savings and loan associations.
- Loans:
 - Administration views to increase availability of guaranteed home loan financing for veterans, etc. (statement), 2274
 - Alaska, reconstruction of areas damaged by earthquakes—
 - law, 15766
 - reports, 1669, 12230
 - assessment of fees for processing loan applications would help recover program costs of Farmers Home Administration, GAO report, 5523
 - bank lending practices, 1969, survey of changes, 11321
- Loans—Continued
 - cancellation benefit for registered nurses, list of hospitals, handbook, 11412
 - commercial and industrial, outstanding by industry, 2423
 - defense production, guarantees, regulations, supplements, 657, 14396
 - Economic Development Administration—
 - business development loans, who can borrow, how to apply, 16163
 - grants and loans for public works and development facilities, 17750
 - Emergency insured student loan act of 1969, lender practices relating to guaranteed student loan program, survey, 15895
 - Emergency student loan act of 1969—
 - hearings, 413
 - law, 311
 - farm ownership loans, 9313
 - Farmers Home Administration—
 - borrowers to employ attorneys of their own choice, hearing, 1698
 - characteristics of new borrowers obtaining farm ownership loans, 9971
 - construction of farm buildings, guide, 8587
 - desertland entrymen, assistance, report, 3830
 - emergency loans for milk farmers, authorize hearing, 16035
 - housing loans to lessees of nonfarm rural land, authorize, report, 15937
 - Indian tribes and tribal corporations, provide for acquisition of lands—
 - law, 8183
 - report, 6590
 - insured loans, tax treatment of interest, report, 9716
 - real estate loans, increase limitation—
 - hearing, 11019
 - report, 12226
 - rental & co-op housing in rural areas, 10696
 - rural housing, 12999
 - water systems, sanitary sewer systems, solid waste disposal serving rural areas, general information, 9315
 - farmers home insured notes, for building rural America, 3423
 - Federal emergency incentive payments to lenders under insured student loan program, authorization, law, 311
 - Federal Housing Administration—
 - dealer and contractor guide, property improvement loans, 4273
 - digest of insurable loans, 1927
 - home improvement program, one of HUD's roles, 4282
 - insurable loans, digest, and summaries of other FHA programs, 8784
 - FHA and VA, exempt from interest and usury laws of District of Columbia—
 - hearings, 6796
 - reports, 6769, 9720
 - fisheries loan fund, extension—
 - law, 15777
 - reports, 9860, 12236
 - fishing vessels, financing and refinancing cost of purchasing, construction, etc., authorization, hearings, 8313
 - fixing up your home, what to do and how to finance it, 4274
 - grants & loans to rehabilitate homes in certified areas, 8782
 - guaranteed student loan program under Higher education act of 1965, lender practices, survey, 15895
 - health professions students, repayment, deferment, and cancellation, guide, 7263
 - home loan financing for veterans, use of NSLI funds—
 - hearing, 3973
 - report, 1545

Loans—Continued

housing and small business, increase funds available—
law, 1410
reports, 1546, 1555, 1616, 3829
lenders handbook, VA, 9262, 15380, 17403
loan guaranty benefits for veterans with service since Jan 31, 1955, summary, 9260
loaning of money and interest rates under D.C. cooperative association act, exempt from D.C. laws—
law, 15775
reports, 10952, 12346, 13450
low-rent housing, applications and preliminary loans handbook, 1931
nursing student loan program, information, 7265
nursing students—
information for schools, 5582
repayment, deferment, and cancellation, guide, 5575
operating, for better farming, better living, 7931
paraplegic veterans housing program, authorize, report, 15988
public facilities construction, 7288
rehabilitation financing, public body approval, 7273
savings and home financing, 1969, source book, 17973
SBA business loans for veterans, announcement, 1087
sharing benefits of credit union membership, guidelines, 4131
Small Business Administration—
analyses of applications need improvements, 711
financial assistance programs and policies, review, hearings, 5283
guarantee, clarify authorization—
hearing, 3855
report, 16011
lending objectives, etc., 1089, 15157
loan fund ceilings, increase, hearings, 15891
principal lending programs, key features, 1088
simplified blanket loan guaranty plan, questions and answers, 10544
student loan program—
health professions, career information, 5577
opportunity to reduce Federal interest costs by changing loan disbursement procedures, Education Office, GAO report, 10149
students—
health professions, educational assistance program for Cuban refugees, repayment, deferment, and cancellation, guide, 7264
loan insurance fund, 1968, financial statements, GAO examination, 1889
timing advances of loan and grant funds with actual cash requirements, savings available to Government, Farmers Home Administration, GAO report, 11382
veterans—
guaranteed and direct, questions and answers, 9261
home-buying guide, 2279
Veterans Administration insurance policy loans, need for specific criteria for adjusting interest rate charged, GAO report, 12579
veterans home loan programs, mobile homes—
hearings, 13545, 13755
report, 15871
water development and soil conservation, questions and answers, 6309
see also Federal savings and loan associations—Mortgage insurance—Mortgages.

Lobbying, practices affecting House of Representatives, amend House rules, report, 12196

Loblolly pine, *see* Pine.

Lobsters:

genus Homarus, bibliography, 6524
offshore, northern, size composition, sex ratio, and size at maturity, 5013

Local board memoranda, 2848

Local governments, *see* Government.

Local public agency letters, 2850

Local transit:

FHA bus public transit project (address), 7718

National Capital transportation act of 1969, Federal contribution for transit development program—

law, 1407

report, 3812

operating employees, union wages and hours, 1969 and 1929-69 trend, 14738

Location identifiers, airport, etc., handbook, 2851

Location-logistics system for feed firm management, 3409

Lochsa River, river plan, 3769

Locke, Ah Mee, relief, 17586

Locke, Amy, *see* Locke, Ah Mee.

Locke, J. W., criminal court data on pre-trial release of defendants, 14924

Lockers, frozen food locker cooperatives with and without slaughtering facilities, production and performance, 12514

Locks (hydraulic engineering):
operating forces on sector gates under reverse heads, hydraulic model investigation, 10019
see also names of locks.

Locks and keys, keys, Federal item identification guide, 16130

Locomotion:

and blood supply of cardiac valves in pin-nipedia, USSR study, 7374

lunar self-locomotive tasks, reduced-gravity simulators used for studying, comments, 8951

Locust borers, description, control, etc., 12547

Locust trees:

black locust, deer prefer pine seedlings growing near, 16568

locust borer injury, control, etc., 12547

Lode mining, *see* Gold.

Lodgepole pine, *see* Pine.

Lodging, *see* Housing.

Loen, Raymond O., personnel management, 4662

Loewy, Robert G., dynamics of rotating shafts, 16157

Loftin, Lester L., soil interpretations, St. Mary's Parish, La., 15236

Log cabins, protecting from injurious insects in eastern U.S., 17434

Logan County, Nebr., community profile, 16305

Logan County, N. Dak., community profile, 14061

Logan County, Ohio, community profile, 14062

Logarithms, recursion formula for logarithmic derivatives of spherical Bessel functions in complex plane, 12513

Logging, *see* Lumbering.

Logging roads, *see* Roads and highways.

Logic (symbolic and mathematical):

universal logic blocks, 6101

Logistics:

Army logistician (periodical), 2348

foreign military sales, Air Force manual, 4837

integrated logistics support—

from concept to reality, monograph, 4823

maintenance engineering analysis data system, 10746

INDEX 1970

Logistics—Continued

- integrated logistics support—continued
 - management guide, 10743
 - procedural guide, 10745
 - supported integration, 10744
- symposium, annual, proceedings, 3479
- location-logistics system for feed firm management, 3409
- logistics airlift system contracted for by Air Force, management, GAO report, 1893
- method for achieving equipment reliability, maintainability, and logistics support, 4763
- 1970 census logistics, report, 5136
- propulsion units, policy and guidance, Air Force manual, 3438
- see also Naval art and science.

Logs:

- and related products, 1958-68 U.S. exports, 4905
- Douglas-fir butt, estimating volume, 8699
- export restrictions of Western States and British Columbia, 4208
- green, and limewood, directions for treatment to prevent splitting and checking, 14429
- quality index log values, adjusting to represent local and regional commercial sawlog product values, 4205
- standing timber coefficients for Indiana walnut log production, 5510
- veneer industry in Northeast, 5-year data on veneer-log production, 14484
- veneer-log production and receipts, north central region, 12568

- Logsdon, Donald F., jr., reproducibility of repeated total body water measurements with tritium, 55

- Lone Pine, Calif., aircraft accident, 7654
- Loneragan, Bobbie D., education associations, directory, 14278

Long, Edward E.:

- oceanographic cruise summary marine biofouling studies off Oahu, Hawaii, 9044
- visual acuity in viewing scaled objects on television compared with that in direct viewing, 931

- Long Beach, Calif., area wage survey, 12708

- Long Beach Island, N.J., joint probability method applied to tide frequency analysis, 11269

Long Island, N.Y.:

- East Meadow Brook, Nassau County, effects of urban development on direct runoff to brook, 5553

- hydrologic studies at 2 recharge basins, 4246

- hydrology and some effects of urbanization (series), 4246, 5553, 14536

- oyster culture in Long Island Sound, 12069
- streams, urbanization and its effects on temperature, 14536

- Long Island R.R., accident investigation report, 11316

- Long-term care facility administration, case study manual, 6527

- Long Valley, Idaho, quaternary geology, 14521

- Longitudinal stability, see Stability of aircraft.

- Longleaf pine, see Pine.

- Longley, A. G., comparison of propagation measurements with predicted values in 20 to 10,000 MHz range, 10023

Longshoremen:

- contracts (remarks), 17981
- longshoring, maritime safety digest (periodical), 2870
- union role in shipping industry (remarks), 10052

- Longshoring, see Longshoremen.

- Longwall mining, see Coal mines and mining.
- Lonsdale, H. K., research on improved reverse osmosis membranes, 1951, 16701

- Loo, Gon Ming, see Chinn, Yau Ming.

- A look at HUD one year later (remarks), 10212

- The look of our land, airphoto atlas of rural U.S., 3394, 17431

- Looking deep into reading process, 8519

- Looking for a job? GPO has place for you! 7257

Loopers:

- cabbage, insecticidal control, field experiments, 10702

- western hemlock looper, controlled field test of stabilized pyrethrins against, 16570

Loops:

- Cb-1Zr Rankine system corrosion test loop, 11602

- hybrid phase-lock loop analysis, 11629
- primary, electromagnetic pump design for reactors, 11612

- Looting, see Pillage.

- Lopez, Armando E., study of display systems for manual guidance of large launch vehicles utilizing X-15 airplane and flight simulators, 5940

- Lorain, Ohio, census of transportation, 1967, commodity transportation survey, 8067

- Lorain County, Ohio, community profile, 14063

Loran:

- Loran-C/D airborne systems, evaluation, 18369

- tests at Anniston, Ala., and Panama City, Fla., evaluation, 14349

- Lorenzo, Carl E., head to base transfer function characteristics of cylindrical tank partly filled with liquid, 12804

Los Angeles, Calif.:

- aircraft accident report, 10479
- alcoholism and narcotics problem, hearings, 5275

- area wage survey, 12708
- designate as site for 1976 Olympic games—law, 5050

- reports, 1622, 3843

- elementary program in compensatory education, malabar reading program for Mexican-American children, 4053

- geologic environmental map, 10768

- International Airport, climatological summaries, 2259

- metropolitan air quality control region, Federal facilities, 8959

- principal electric facilities, map, 8626

- south central, surveys, plans and studies undertaken, analysis, 4038

- special impact program is not meeting goal of providing jobs for disadvantaged, GAO report, 18037

- Watts riot, civil and criminal disorders, investigation, hearings, corrected print, 423

- Los Angeles Airways, Inc., accident report, 7653

- Loss, F. J., dynamic tear test investigations of fracture toughness of thick-section steel, 15077

- Lostwood National Wildlife Refuge, birds, list, 4706

- Lotspeich, Frederick B., effects of large scale forest fires on water quality in interior Alaska, 10100

Lotteries:

- preselected winners sweepstakes promotions, investigation—

- hearings, 8770, 11060

- report, 10984

- Loudness, see Sound.

- Loudon County, Tenn., Sweetwater Creek watershed work plan, 4703

- Loudspeakers, distortion-canceling loud-speaker system, disclosure report, 11741

- Louis County, Iowa, community profile, 14064

- Louisiana:
 census of business 1967—
 major retail centers, standard metro-
 politan statistical areas, 9422
 retail trade, merchandise line sales,
 10788
 selected services, area statistics, 3543
 wholesale trade, area statistics, 176
 census of construction industries, 1967
 statistics, 15556
 census of governments, 1967, State re-
 ports, 3568
 census of manufactures, 1967 statistics,
 15577
 climatological data, 2409
 coastal area, fishery products, wholesale
 dealers, list, 12082
 Cockfield formation, geohydrologic signifi-
 cance of lithofacies, 18044
 conservation needs inventory, 15219
 county business patterns, 198, 12027
 District Court, middle district, create,
 report, 1660
 electric rate book, 11314
 geochemistry of some petroleum-associated
 waters, 4473
 landings, fish and shellfish, 2857
 mineral industry, minerals yearbook chap-
 ter, 4439
 minority construction contractors located
 in selected cities, list, 8795
 northern, exotic trees unsatisfactory for
 forestry, 4194
 parishes, estimates of population, July 1,
 1967, and 1968, 3640
 precipitation data, hourly, 2718
 seasonal distribution of nutrients in plants
 of 7 browse species, 12566
 Southern Coastal Plain and associated
 areas, soil survey interpretations for
 woodlands, 7782
 Louisville, Ky.:
 principal electric facilities, map, 8623
 Standford Field, climatological summa-
 ries, 2260
 Louisville, Ky.-Ind., area wage survey, 5832
 Loup County, Nebr., community profile,
 17814
 Loustaunau, Cherie, foreign trade regula-
 tions of Cyprus, 9508
 Louvers, louvered devices, as air mixers,
 performance, 8979
 Love, J. D.:
 cenozoic geology of Granite Mountains
 area, central Wyoming, 8740
 hydrocarbons in thermal areas, north-
 western Wyoming, 11398
 Love, Travis D., survey of sun-dried-shrimp
 industry of north central Gulf of Mexico,
 9521
 Lovell, Malcolm R., jr., nomination, hearing,
 18079
 Lovell, Wyo., soil map of area, 7768
 Low, George M., nomination, hearing, 481
 Low, Melvin H., South Carolina landings,
 1367
 Low Countries, *see* Belgium—Benelux—
 Luxembourg—Netherlands.
 Low-Emission Vehicles Certification Board:
 establish—
 hearings, 8386
 report, 8349
 Low-power microwave electron generators,
 4350
 Low-rent housing, *see* Housing.
 Low Yin, *see* Yin, Low.
 Low Ying, *see* Yin, Low.
 Lowder, Enoch A., sand and gravel con-
 veyance, 1880
 Lowell, Mass., census of transportation,
 1967, commodity transportation survey,
 production, area series, 6417
 Lower Clear Boggy Creek, revised work plan
 for watershed protection and flood pre-
 vention, Atoka, Bryan, Coal, and Johns-
 ton Counties, Okla., 15229
 Lower Klamath National Wildlife Refuge,
 birds, list, 1120
 Lower Monumental Dam, fish passage re-
 port, 14302
 Lowitz, Donald S., nomination, hearing, 8433
 Lowndes County, Ala., community profile,
 14066
 Lowndes County, Miss., community profile,
 16306
 Lowrie, Allen J., Kane 9, 1009
 Loxahatchee National Wildlife Refuge, birds,
 list, 1123
 LRS, *see* Legislative Reference Service.
 LSD, *see* Lysergic acid diethylamide.
 Lubbock, Tex., area wage survey, 10297
 Lubricants:
 antiwear and extreme-pressure additives
 in synthetic paraffinic lubricant on ball
 spinning torque, effects, 12797
 Federal item identification guides for sup-
 ply cataloging, supplements, 2495
 Federal test method standard, 1863
 NRL-NB-20B, improved instrument ball
 bearing lubricant, 15086
 Lubrication:
 gallium-lubricated low speed copper slip-
 rings, friction and contact resistance in
 vacuum, 16989
 hydrodynamic lubrication, transient jour-
 nal bearing analysis, 12760
 low-speed gallium-lubricated sliding elec-
 trical contacts of beryllium, in vacuum,
 friction and contact resistance, 7542
 military equipment, military standard,
 546
 rolling-element lubrication with fluori-
 nated polyether at cryogenic tempera-
 tures (160° to 410°R), 944
 self-acting thrust bearings, optimization
 for load capacity and stiffness, 14886
 Lucas, Edwin L., approach to yellow-poplar
 tree valuation, 10129
 Lucas County, Iowa, community profile,
 14066
 Lucas County, Ohio, community profile,
 14067
 Luce, Gay Gaere, biological rhythms in psy-
 chiatry and medicine, 17137
 Ludington Harbor:
 engineers report—
 departmental edition, 10007
 document edition, 9634
 Lueders, H. G., experimental investigation
 of advanced concepts to increase turbine
 blade loading, performance evaluation of
 jet flap rotor blade, 10355
 Luganda language, pretaining program,
 11900
 Luggage, *see* Baggage.
 Lukas, Jerome S.:
 awakening effects of simulated sonic
 booms and subsonic aircraft noise on
 6 subjects, 7-12 yrs. of age, 10362
 effects of sonic booms and subsonic jet
 flyover noise on skeletal muscle tension
 and paced tracing task, 5902
 Luken, K., accuracy studies of differential
 Omega technique, 18292
 Lukens, H. R., study to develop neutron
 activation for measuring bone calcium
 content, 11618
 Lull, Howard W., hydrologic effects from
 urbanization of forested watersheds in
 Northeast, 10131
 Lumber:
 air drying lumber in forklift yard, 16558
 American softwood lumber, voluntary
 product standard, 8997
 automatic photoelectric triggering mech-
 anism for data-recording camera, 18012
 board-foot volumes to 8-inch top for lodge-
 pole pines in Colorado and Wyoming,
 5505
 board products, 1958-68 U.S. imports,
 6410

- Lumber—Continued
 census of transportation, 1967, commodity transportation survey, shipper group, 4927
 exports, 17479
 Federal item identification guides for supply cataloging, supplements, 2593
 hard maple, charts for calculating dimension yields, 4198
 imports, 13094
 locating lumber defects by ultrasonics, 4200
 multiple member structures, strength, 18022
 production and mill stocks, current industrial reports, 8085
 red oak, makes good shade-shelter for hogs, 16565
 softwood standard and impact on small business, hearing, 15042
 yellow-poplar tree valuation, 10129
see also Logs.
- Lumbering:
 cutting angle and depth of cut, effect on occurrence of chipped grain on sycamore, 12556
 Fair labor standards act, applicability to forestry and logging operations, 6279
 logging camps, census of manufactures, 1967, industry report, 12001
 logging practices, industrial waste guide, 14403
 single-span skyline timber volume survey, Pacific Northwest region, 14486
 skyline tension and deflection handbook, supplement, 8704
 tree and sawyer factors effects on costs of felling large alligator junipers, 14478
- Luminescence:
 alternating-current electroluminescence in typical zinc sulfide phosphors, observation and mechanism of direct current quenching, 16984
 bioluminescence of sea, USSR study, 16779
 soil thermoluminescence in relation exposure under field conditions, ecological and environmental effects from local fallout from Schooner, 8020
 thermoluminescence spectrum and energy conversion efficiency of lithium fluoride, 9389
 TLD-700 high sensitivity LiF ribbon for low-level environmental radiation measurements, tests, 15114
- Lummi Reservation, Lummi aquaculture project, dedication (remarks), 6889
- Lunar:
 NOTE.—For other subjects beginning Lunar, *see* Moon.
 Lunar escape systems (LESS) feasibility study:
 final technical report, 16935
 summary report, 11623
- Lunar landings:
 first lunar landing as told by astronauts, 8932
 five Apollo landing sites, block and strip solutions involving Lunar Orbiter photographic data, 14872
 two guidance schemes for manned lunar landing, evaluation, 11693
- Lunar missions, *see* Moon.
- Lunar modules, *see* Spacecraft modules.
- Lunar Orbiter, *see* Spacecraft.
- Lunar orbits, *see* Orbits.
- Lunar roving vehicles, lunar transport, method of computing and applying extremal maximum range thrust limited rocket trajectories, 16986
- Lunar science, Apollo 12, new vista, 5909
- Lunar soil simulant study, outgassing characteristics, 4064
- Lunar trajectories, *see* Trajectories.
- Lunches, *see* School lunches.
- Lundgren, Allen L., biological growth functions described published site index curves for Lake States timber species, 14471
- Lundquist, Raynard V., role of alumina-to-silica mole ratio in lime-soda sinter process, 16922
- Lundquist, Robert G., energetics of percussive drills, longitudinal strain energy, 2056
- Lungs, cancer and smoking, 7591
- Luria, Saul M.:
 average age at death of scientists in various specialties, 10317
 underwater vision, 16585
- Lutton, Richard J., natural rubble slopes and their relevance to crater fallback slopes, 5375
- Lutz, G. J.:
 activation analysis, bibliography—
 addendum, 8990
 appendices, 8991
 determination of light elements in metals, bibliography of activation analysis papers, 8995
 forensic science, bibliography of activation analysis papers, 7578
 14-MeV neutron generators in activation analysis, bibliography, 11739
 oceanography, bibliography of selected activation analysis literature, 11740
 pollution analysis, bibliography of literature of activation analysis, 11738
- Lutz, J. F., buckle in veneer, 8692
- Luxembourg:
 economic trends and their implications for United States, 14625
 mineral industry, minerals yearbook chapter, 4419
 mutual defense assistance, agreement, 17355
 pocket guide to Low Countries, 10219
- Luzader, John F., construction and military history of Fort Stanwix, 12864
- Luzerne County, Pa., community profile, 16307
- Lyapunov method, *see* Liapunov method.
- Lycoming County, Pa., community profile, 16308
- Lyerly, Ray L., nuclear power plants, 1282
- Lyford, Forest P.:
 test wells T-15, etc., White Sands Missile Range, Dona Ana and Sierra Counties, N. Mex., 7251
 water supply well SRC-2, Stallion Range Center, White Sands Missile Range, Socorro County, N. Mex., 7256
- Lyles, Charles H., fishery statistics of United States, 6526
- Lyman County, S. Dak., community profile, 14068
- Lymphocytes, relative lymphocytoses and functional leukopenias, effect of solar activity on frequency, 5980
- Lymphoid leukosis, *see* Avian leukosis.
- Lymphomatosis, *see* Avian leukosis.
- Lynch, M. T., Navy medical newsletter, 2946
- Lyndon B. Johnson National Historic Site: establish—
 law, 1399
 report, 1462
 Lyng, Richard E.:
 addresses—
 Nov. 19, 1969, 3389
 May 26, 1970, 12972
- Lynn, R. L., Cabriolet, spectroradiometric detection of effluents, 3495
- Lyon, Robert L., toxicity of aerosols to larch casebearer larvae, 18020
- Lyon County, Iowa, community profile, 14069
- Lyophilization:
 freeze-dried peas, factors affecting quality, 85
 freeze-dried RTP cherries and blueberries, reversible compression studies, 7986
 freeze-drying of foods for Armed Services, 13045

Lysergic acid diethylamide, LSD-25, factual account, layman's guide to pharmacology, physiology, psychology, and sociology of LSD, 14805
 Lystad, Myra H., social aspects of alienation, annotated bibliography, 1075

M

M.H.D., *see* Magneto-hydrodynamics.
 Ma, M. T., theoretical methods for computing characteristics of Wullenweber antennas, 8574
 MA SP series, 831-832, 4395-96, 5838, 7444-45, 8879-84
 Mabey, Don R., gravity and magnetic measurements in Soda Springs region, southeastern Idaho, 8746
 MAC, *see* Military Airlift Command.
 McAnallen, Harry W., communications and electronics, 13027
 McAndrew, Donald W., water supply outlook and Federal-State-private cooperative snow surveys for Nevada, 3341, 18337
 Macao, background notes, 7801
 McBarron, H. Charles, American soldier posters, 4850
 McBeth, Kenneth E.:
 logging camps, sawmills, and planing mills, 12001
 office, public building, and miscellaneous furniture, office and store fixtures, 15595
 McCafferty, James A.:
 Federal offenders in United States district courts, 6288
 persons under supervision of Federal probation system, 1186
 McCardell, Abby, Job Corps staff newsletter, 2779
 McCarthy, Justin H., static stresses on wide-blades propellers, 15097
 McCarthy quadrangles, B-4, C-4, and C-5, Wrangell Mountains, Alaska, Skolai Group, definition and description, 4228
 McCarty, John L., effect of surface protuberances on impact limiters for spherical hard-landing payloads, 10386
 McCauley, Orris D., adjusting quality index log values to represent local and regional commercial sawlog product values, 4205
 McClellan Creek watershed, Tex., project, program, hearings, 17718
 McClure, Frank J., water fluoridation, search and victory, 9013
 McClure, Joe P., forest statistics for northeast Florida, 1970, 10139
 McConaghy, James A., reconnaissance of water resources in Haines-Port Chilkoot area, Alaska, 11391
 McCook County, S. Dak., community profile, 14070
 McCord, John W., relief, 351, 13274, 13594
 McCormick, John F., testimony, hearings, 3980
 McCoy, Charles E., heavy construction equipment mechanic (D.O.T. occupational code 620.281), suggested guide for training course, 1791
 McCracken, David S., establishing business in Venezuela, 4991
 McCracken County, Ky., forest inventory statistics, 4771
 McCreary County, Ky., soil survey of McCreary-Whitley area, 12927
 McCulloch, David S.:
 effects of earthquake of Mar. 27, 1964 on Alaska Railroad, 11394
 effects of water circulation in San Francisco Bay estuary, effects of fresh-water inflow on flushing of South San Francisco Bay, 11393
 McCullough, Mary T., photography, 15463
 McDonald, Gordon G., area handbook for Burundi, 3474
 MacDonald, Gordon J. F., nomination, hearing, 11129

MacDonald, John R., safety clauses in collective bargaining agreements in Federal service, 16510
 McDonald, Keith L.:
 on cosmic hydromagnetic dynamo theory, 5389
 on solar dynamo theory, 16455
 McDonald, Kent A., locating lumber defects by ultrasonics, 4200
 McDonald, Lehman L.:
 candidate mothproofers, toxicity to fabric insects and persistence through washing and drycleaning, 17443
 preliminary evaluation of new candidate materials as toxicants, repellents and attractants against stored-product insects, 12989
 McDonald, Malcolm E., catalogue of Helminths of waterfowl (Anatidae), 1133
 McDonald, Philip M., silvical characteristics of California black oak, 8711
 McDonald County, Mo., community profile, 17815
 McDonough, Donald P., selling in Switzerland, 6511
 McDowell County, N.C., community profile, 14071
 Mace, Arnett C., jr., modifications and evaluations of evapotranspiration tent, 699
 McElroy, Robert C., hired farm working force of 1969, statistical report, 8497
 McElveen, Jackson V., rural industrialization in Southeast coastal plain, case study of new brick factory in Summerville, S.C., 5338
 McEvilla, Joseph D., drugstores, 15158
 McGee, Mary, impact of medicare, annotated bibliography of selected sources, 6169
 McGinnis, John M., evaluation of Army aircrew protective armor in Vietnam, 13044
 McGonegal, Donal E., relief, 13578
 MacGregor, John S., fecundity, multiple spawning, and description of gonads in Sebastodes, 8166
 McGregor, Mark D., pinyon sawfly, Neodiprion edulcolus Ross, 4179
 McGrew, John R.:
 control of grape diseases and insects in eastern United States, 9285
 strawberry diseases, 4809
 McGuinn, Linda W., progress in sport fishery research, 17318
 Machalilla phase, *see* Culture.
 McHenry County, N. Dak., community profile, 14072
 Machiasport, Maine, foreign trade subzone, establish, hearings, 11110
 Machine shops, machines and machine shops, service industry, 1967, industry statistics, 18152
 Machine tool operators, employment outlook, 14710
 Machine Tool Week, National, *see* National Machine Tool Week
 Machine tools, numerical control, point-to-point, suggested guide for training course, 17911
 Machinery:
 assembly machines, and miscellaneous industry machinery, industrial plant equipment handbook, 1759
 census of transportation, 1967, commodity transportation survey group, shipper group, 1315-16
 designers of machinery not materially stimulated, USSR study, 12638
 general industrial, and equipment, census of manufactures, 1970, industry statistics, 17527
 general purpose, for construction, mining, agricultural, food industries, paper, industries, and printing, trade and tariff information summaries, 6262
 industrial controls, current industrial reports, 8089

INDEX 1970

- Machinery—Continued
 industrial machinery repairmen, employment outlook, 14706
 machines and machine shops, service industry, census of manufactures, 1967, industry statistics, 13152
 manufacturing, industry wage survey, 14737
 mechanical equipment, noise control, Army technical manual, 17466
 special industry—
 except metalworking machinery, census of manufactures, 1967, industry statistics, 12007
 Federal item identification guides for supply cataloging, supplements, 2597
 visual and mechanical defects for equipment, electronic, wired, and other devices, classification, 6876
 wrapping and packaging, Federal item identification guide, 13800
 see also names or types of machinery.
 Machines, see Machinery—also names or types of machines.
 Machining, occupations, employment outlook, 14710
 Machinists, all-round employment outlook, 14710
 see also Aviation machinists.
 MacInnis, Joseph B., lecture, Feb. 17, 1969, 2219
 McIntire-Stennis act, see Forests and forestry.
 McIntosh County, N. Dak., community profile, 14073
 McIntyre, David H., cretaceous and lower tertiary stratigraphy in northwestern Puerto Rico, 1909
 McIntyre, George T., mineral industry of Kansas, 4435
 McIntyre, John A., evaluation of high specific activity 60 Co source used in gamma monochrometer, 3493
 McIntyre, Ruluff D., high-strength tantalum composite by thermomechanical working, 4530
 McIntyre, T., old house borer, 9300
 Mack Truck, Inc., aircraft accident, report, 18277
 McKay, Christine L., decrease in perceived distortion with repeated exposure, application for naval diver training, 11568
 McKay, Roger E., distributing value gain from 3 growth factors for yellow-poplar, 5499
 Mackay, T. L., stress corrosion cracking of titanium alloys at ambient temperature in aqueous solutions, 894
 McKay Creek, watershed work plan, Washington and Multnomah Counties, Oreg., 15244
 McKean County, Pa., community profile, 16310
 McKee, Harley J., records of buildings in Charleston and South Carolina low country, 12872
 McKee, W. M., safety review, 3169
 McKelvey, Robert K., comparison of attitudes toward several cross-chest safety belt systems after operational experience, 5379
 Mackenthun, Kenneth M., practice of water pollution biology, 4166
 MacKenzie, Clyde L., jr., oyster culture in Long Island Sound, 12069
 Mackenzie, George C.:
 demolition property investigation of U.S. Post Office and Customhouse, Bath, Maine, 2156
 Indian breastwork in Battle of Horseshoe Bend, Ala., 17155
 surplus property study, Rock Island Light-house Station, Orleans, N.Y., 17161
 McKenzie County, N. Dak., community profile, 14074
 McKeown, Cornelius J., development of heater, immersion, M-87, liquid-fuel-fired for corrugated cans, 1216
 Mackerel, Jack, seasonal and geographic characteristics in California current region, 12071
 McKinney, C. M., aviation fuels, 7477
 McKinney, K. R., effect of surface finishing on structural-ceramic failure, 4624
 McKinney, Tex., floodwater retarding structures during storm of Sept. 20-21, 1964, performance, 6187
 Mackintosh, Barry, Booker T. Washington National Monument administrative history, 4576
 McKinzie, Daniel J., jr., calculating thermal conductance of rough, nominally flat surfaces in high vacuum, 4526
 Mackison, Frank W., sanitary food service, instructor's guide to be used in training food-service personnel, 4087
 McKnight, Edwin T., geology and ore deposits of Picher Field, Okla. and Kans., 5549
 McKnight, M. E., estimating numbers of eggs in western budworm egg masses, 678
 McLain, Allen G., investigation of char formation and surface recession of composite ablation material with silicone-resin base, 16999
 McLaughlin, Milton D., simulation study of 3 instrument displays to assist in airplane thrust management, 18205
 MacLaury, Bruce K.:
 remarks—
 Jan. 20, 1970, 6269
 Feb. 26, 1970, 7878
 Oct. 16, 1970, 18388
 Maclay, Susan, selling in India, government procurement procedures, 10876
 McLean County, N. Dak., community profile, 14075
 McLellan, Robert:
 addresses—
 Nov. 6, 1969, 269
 Nov. 13, 1969, 268
 Dec. 2, 1969, 271
 Feb. 16, 1970, 4983
 Feb. 17, 1970, 4986
 Mar. 9, 1970, 4987
 Mar. 18, 1970, 8143
 Apr. 2, 1970, 6503
 Apr. 9, 1970, 8142
 May 14, 1970, 9490
 May 21, 1970, 9495
 Sept. 24, 1970, 15713
 Oct. 13, 1970, 15716
 Oct. 21, 1970, 15737
 McLemore, H. Clyde, generalized hot-gas ingestion investigation of large-scale jet VTOL fighter-type models, 4511
 McLynn, J. M., passenger demand and modal split models, 7862
 McMahan, Arel B., mineral industry of Oklahoma, 4452
 McMahon, T. F., computer aids highway construction quality assurance, 6137
 McManus, La., railroad accident report, 17235
 McMartin, Wallace, economic analysis of level bench systems for forage production in North Dakota, 6291
 McMillen, John M., accelerated kiln drying of presurfaced 1-inch northern red oak, 4201
 McMinn County, Tenn.:
 forest inventory statistics, 13739
 Sweetwater Creek watershed work plan, 4703
 McNally, William D., FORTRAN program for calculating compressible laminar and turbulent boundary layers in arbitrary pressure gradients, 12772
 McNary Dam:
 fish passage report, 14302

- McNary Dam—Continued
townsite, Umatilla County, Oreg., release
and convey reversionary interest of U.S.—
10975, 17597
- McNatt, J. Dobbin, rail shear test for evalu-
ating edgewise shear properties of wood-
base panel products, 5506
- McNay, Lewis M., surface mine reclamation,
Moraine State Park, Pa., 8896
- McNeil, Ferne M., land conveyance to, re-
port, 15995
- McNeillis, Margaret M., relief, 9635
- McNitt, Harold A., selling in Denmark,
13226
- Macon County, Ala., community profile,
14077
- Macon County, Mo., community profile, 17816
- Macon County, N.C., community profile,
14078
- Maconochie, G., new synthetic membranes for
reverse osmosis desalination, 10225
- McPherson County, Nebr., community profile,
17817
- McPherson County, S. Dak., community pro-
file, 14076
- McQuate, P. L., tabulations of propagation
data over irregular terrain in 230- to 9200-
MHz frequency range, North Table Moun-
tain-Golden, 17951
- McQuown, Carleton R., relief, 12312
- Macroeconomic effects of social insurance on
aggregate demand, 6170
- Macrophages, human and animal, produc-
tion of interferon, USSR study, 4330
- McSwain, George A., American woods, Engel-
mann spruce, 3682
- Macy, Bruce W., ammunition production for
Vietnam, impact on southeast Kansas,
10729
- MAD, *see* Magnetic anomaly detection.
- Mad River, sediment yield and land treat-
ment, 15449
- Madagascar:
 cyclopoid copepods of genus *Pseudanthes-*
 sius associated with crinoids, 11852
- economic trends and their implications for
 United States, 14628
- tenrecs, study in mammalian behavior and
 evolution, 6156
- Madden, Robert R., Walker Sisters Home,
historic structures report, and furnishing
study, 4587
- Madison County, Ala., community profile,
14079
- Madison County, Fla., include in northern
Judicial district of Florida, report, 9671
- Madison County, Iowa, community profile,
14080
- Madison County, Miss., community profile,
16309
- Madison County, Mo., community profile,
17818
- Madison County, Mont., mineral resources
of Jack Creek basin, 10163
- Madison County, Nebr., community profile,
17819
- Madison County, N.C., community profile,
14081
- Madison County, N.Y., community profile,
14002
- Madison County, Ohio, community profile,
14083
- Madison Memorial Building, *see* James Madi-
son Memorial Building.
- Mafic and ultramafic igneous rocks and as-
sociated carbonatites of Gem Park com-
plex, Custer and Fremont Counties, Colo.,
16617
- Magazines, *see* Periodicals.
- Magee, William P., relief, 9587, 9802
- Magnesium:
 and calcium content of urine, feces and
 meals of man using atomic absorption
 instruments, spectrum-1 and SFPA, de-
 termination, USSR study, 8833
- copper-oxide magnesium thermal cells,
 catholyte studies, 10389
- Magnesium—Continued
 disposal from national stockpile—
 law, 12144
- reports, 6600, 6754, 12202
- electrode, in molten mixture of lithium
 chloride, etc., anolyte studies, 5952
- impurities, removal from phosphate rock
 concentrates, 7486
- minerals yearbook chapter, 14781
- primary, quarterly report, 3096
- sequential determination in biological ma-
 terials, 6376
- Magnesium chloride, magnesium electrode in
 molten mixtures of, anolyte studies, 5952
- Magnesium oxide, effects of oral administra-
 tion on renal calcium excretion of crew
 members during submarine patrol, 8893
- Magnetic amplifiers, *see* Amplifiers.
- Magnetic anomaly detection, influence of
 natural environment on MAD operations,
 9049
- Magnetic compass, *see* Compasses.
- Magnetic fields:
 averaged high-frequency field forces, used
 in amplifying electromagnetic radiation,
 study of possibility, 4872
- forming high-frequency fields in plasma
 devices, 4873
- 4 x 6 prismatic model, 5560
- interaction of moving plasma with oblique
 magnetic field, 6371
- magnetic attitude and spin control of S^a-A
 small scientific satellite, 5925
- magnetic configurations with shear and
 minimum B, 4871
- magnetic traps, 6372
- particles and fields near Jupiter, 18191
- plasma confinement in close magnet sys-
 tems, conference proceedings, USSR
 study, 4883
- propulsion and power research, conference
 proceedings, 4503
- short-term prediction from local magnetic
 activity of F2-layer maximum usable
 frequencies, 8572
- single particle behavior in axisymmetric
 magnetic field, experimental investiga-
 tions, 18221
- Magnetic materials:
 cyclic and constant temperature aging
 effects for inverters and converters,
 10344
- high-temperature (800°-1600°F.) mag-
 netic materials, 12752
- magnetic water, phenomena, USSR study,
 7376
- transportation of magnetized materials,
 Federal aviation regulations, 2573
- Magnetic measurements:
 bathymetry and magnetics of region
 (POL-421-3) 29°-35°N., 155°-165°W.,
 16462
- magnetic and bathymetric profile in Pa-
 cific from Cocos Ridge to central Cali-
 fornia, 17949
- magnetic anomalies and gravity in Soda
 Springs region, southeastern Idaho,
 8746
- Magnetic memory, permanent memories of
 digital computers, USSR study, 5790
- Magnetic mirrors, systems application to
 simulation of Fokker-Planck equation by
 Random walks of test particles in velocity
 space, 5962
- Magnetic storms, equatorial Dst (storm time
 variation), provisional hourly values,
 10395
- Magnetic tape:
 management by Goddard Space Flight
 Center, further improvement needed,
 GAO report, 8723
- NBS secondary standard magnetic tape
 (computer amplitude reference), cali-
 bration using reference tape amplitude
 measurement process A, 957

INDEX 1970

- Magnetic tape—Continued
summary tapes—
first count from 1970 censuses of population and housing, 8094
fourth count from 1970 census of population and housing, 8095
general information about use, by Census Bureau, 10824
1970 census, user guide, 12014
visual confirmation, 17175
- Magnetism:
electron-paramagnon interaction effects in nearly ferromagnetic metals, 12897
magnetic anomalies and gravity in Soda Springs region, southeastern Idaho, 8746
magnetic force upset welding of dissimilar thickness stainless-steel T-joints, 14866
magnetic systems for uragan stellarator, development and construction, and studies of magnetic surfaces of large "latitude", 15507
magnetic traps, 6372
magnetically confined plasma, effect of aperture on measurement of axial distribution function, 10394
plasma confinement in closed magnet systems, conference proceedings, USSR study, 4883
stellarator magnetic system geometry for long-wave perturbations, 111
see also headings beginning Magnetic.
- Magnetogasdynamics, *see* Magneto hydrodynamics.
- Magneto hydrodynamic generators, thermodynamic, electrical, physical, and compositional properties of seeded coal combustion products, 12739
- Magneto hydrodynamics:
channel flow, variational principle, 2122
equations for plasmas, critical analysis of Grad approximation for closing out, 2128
magnetic systems for uragan stellarators, development and construction, and studies of magnetic surfaces of large "latitude", 15507
MHD, for pollution-free production of electrical energy from low-grade coal, hearings, 5267, 9916
MHD generation of electric power from high-temperature combustion of coal seeded with potassium carbonate, 7485
MHD power system burning char with oxygen, study, research and development report, 9481
MHD system with pressure melt gasification and CO₂ recycle, 10852
- Magnetometers:
fluxgate, miniature 2-axis, 4508
respirometer for laboratory and diving studies, 834
- Magnetoplasma, magnetoplasma dynamic (MPD) converters, 15509
- Magnetosphere:
earth's, pulse of, USSR study, 5780
magnetospheric duct propagation, ray tracing digital computer program for study, 14842
magnetospheric ducts characteristics observed by Alouette-2 topside sounder, 12805
magnetospherically trapped particles, sources, losses, and transport, 16464
- Magnetron gages, cold cathode magnetron ultrahigh vacuum gage, research and development program, 2070
- Magnets, anisotropic Heisenberg ferromagnets, theory, 18216
- Magnitude method for identifying underground nuclear explosions, 8847
- Magnolia, American woods, general information, 16534
- Magnuson, Larry N., evaluation of dental calculus formation rate indices in Antarctic personnel, 10316
- Magoffin County, Ky., fresh water occurrence in Lee formation, 8759
- Magrini, O. James, control of electronic circuit designs for space vehicles, 12825
- Mahan, John N., fertilizer supply, 12970
- Mahantango Creek, Pa., watershed, soil survey interpretations, 15235
- Mahaska County, Iowa, community profile, 14084
- Mahnken, George H., ATCBI-3 altitude and identity readout modifications, 4119
- Mahoning County, Ohio, community profile, 14085
- Mabrey, Ernest L., general purpose programs for CalComp plotters, 9043
- Maler, Milton H., development of improved aptitude area composites for enlisted classification, 13059
- Mail carriers:
employment outlook, 14728
substitute clerk-carrier, examination announcements, 1355, 4962, 6486
- Mail matter:
address correction service to postal patrons, unrecovered costs in providing for, Post Office Dept., 10154
fraud, obscenity, extortion, enforcement report, monthly, 2539
mailing articles which present hazard to postal employees or mail processing machines, restrict, report, 15850
military assistance program, address directory, 562, 1781-82, 4035, 6882-83, 8488, 11182-184, 13812-813, 16155
obscene material sold or offered to minors, exclude from U.S. mails as nonmailable, hearings, 3884
obscene or offensive mail, protect person's right of privacy—
hearing, 16083
report, 16027
postal rates and revenue and cost analysis, hearings, 12281
prepared with care, how to prepare Government mail, 5538
revenue and cost analysis, 7699
second class mail, money loser to Post Office Dept., better controls needed over assessment and collection of postage, GAO report, 16588
sex-oriented mail, protection of minors and rights of privacy—
hearings, 13530
reports, 6624, 9655, 13439
sexually oriented advertisements, invasion of privacy, stronger Federal controls, law, 13342
sexually oriented mail, intrusion into homes through postal service, protection to public, hearings, 3888
what mailers should do to get best service, 4639
see also Letters—Postal service.
- Mailers, what mailers should do to get best service, 4639
- Mailing lists, furnished by Government agencies to public, prohibit hearings, 15928
- Mailloux, R. J. interpolation circuits for scanning phased arrays, 14854
- Mails, *see* International postal service—Postal service.
- Maine:
Androscoggin River water pollution, conference proceedings, 8668
brit herring along coast, 12072
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 3533
retail trade, merchandise line sales, 13105

Maine—Continued

census of construction industries, 1967, statistics, 17489
 census of governments, 1967 State report, 3569
 census of manufactures, 1967, statistics, 17501
 counties, estimates of population, 6448
 county business patterns, 3618, 10801
 fishery products, wholesale dealers, list, 9540
 landings, fish and shellfish, 2860
 annual summary, 10886
 lead-zinc-silver deposits related to White Mountain plutonic series, 5343
 Maine statehood, 6-cent commemorative postage stamp (poster), 11826
 marine aquaculture has great potential dollar value (remarks), 14374
 mineral industry, minerals yearbook chapter, 18156
 postal map, 17213
 small watershed projects, program, hearings, 17718
 Maine, Gulf of, zooplankton in coastal waters, seasonal and areal distribution, 15746
 Mainland, Donald, notes on biometry in medical research, 6277, 15377
 Maintenance :
 aerospace maintenance safety, 2299
 air-ground communications facilities, FAA handbook, 1844
 aircraft—
 potential for savings, GAO report, 11380
 preventive maintenance, etc., Federal aviation regulations, 622, 2572
 Army maintenance management system, TAMMS, field command procedures, technical manual, 3483
 certification procedures, FAA handbook, 5407A, 8601
 commander's supply and maintenance handbook, change, 10739
 computerized onboard expeditious monitor and maintenance analyst (EMMA) for spacecraft systems, 11634
 Defense Dept. vehicle maintenance in Europe, reduction of cost by improved management, GAO report, 14514
 electrical switchgear, handbook, 1041
 electronic traffic counters, guide, 10113
 engineering analyses control numbers (MEACNS) for aeronautical equipment uniform numbering system, military standard, 6877
 engineering handbook, 7683
 equipment and facilities maintenance reporting, 4790
 equipment, facilities in shore establishment, Navy design manual, change, 11807
 field, of routed woods signs, 16540
 floors, Post Office Dept. facilities handbook, 1040
 industrial plant and equipment maintenance trades apprenticeship schedules, 13034
 irrigation operation and maintenance bulletin, 2775
 maintainability guide for design, engineering design handbook, 13037
 maintenance and operation of municipal waste treatment plants, need for improvement, Federal Water Quality Administration, GAO report, 14505
 maintenance and safety in industry, 812
 maintenance engineering analysis data system (MEADS), integrated logistics support (ILS), Army technical manual, 10746
 maintenance handbooks MS series, 1041
 management, Air Force equipment, manual, 4831

Maintenance—Continued

method for achieving equipment reliability, maintainability, and logistics support, 4763
 motor vehicle maintenance and repair shop specialized equipment, industrial plant equipment handbook, 11160
 naval aircraft, Mech (periodical), 2876
 organizational—
 DS, GS, and depot maintenance manual, 17469
 DS maintenance manual for survival kits, Army aircraft, technical manual, 6364
 mechanic/repairman course tactical and support vehicles, amphibian resupply (LARC V), 17463
 supplies and equipment, operating guide for TDA support maintenance activities, Army pamphlet, 7992
 vehicle maintenance, non-personnel offices, facilities handbook, Post Office Dept., 2195
 Maintenance operators, transmitter and receiver operator, examination announcement, amendment, 6470
 Maintenance shops, equipment, Federal item identification guides for supply cataloging, supplements, 2592
 Maintenance technicians, examination announcement, amendment, 10845
 Malr, Andrews J., remarks, May 1, 1970, 9323
 Malsel, Sherman J. :
 remarks—
 Dec. 2, 1969, 1860
 May 22, 1970, 10081
 July 11, 1970, 12533
 Malsenhelder, Louis C. :
 identifying juvenile seedlings in southern hardwood forests, 14480
 magnolia, American woods, 16534
 Malsin Bros. Transport, Lt., motor carrier accident, Selkirk, N.Y., 18176
 Maitlen, J. C., aldcarb residues in apples, pears, sugarbeets, and cottonseed, performance in apples and pears, 9276
 Major metropolitan market area, 17394
 Makah Indians, lands, hold in trust, report, 12210
 Making and preserving apple cider, 11948
 Making raisins, 7941
 Malacca Strait, sailing directions, change, 6084
 Malad River and Valley :
 southeastern Idaho—
 availability of ground water for large-scale use, initial assessment, 7221
 hydrology of upper basin, 10190
 Malagasy Republic, *see* Madagascar.
 Malathlon :
 residues in stored agricultural products, improved procedure for determining, 4800
 wheat protectant, against lesser grain borer attack in small bins, evaluation, 7924
 Malawi :
 background notes, 7802
 economic trends and their implications for United States, 14624
 gazeteer, official standard names, 10156
 special study mission report, 390
 print additional copies, reports, 9696, 13634
 Malaya, *see* Malaysia.
 Malaysia :
 air transport services, agreement, 9199
 background notes, 1137
 capsule facts for Armed Forces, 6343
 cotton textiles, trade agreement, 18362
 country market survey, 4315
 economic trends and their implications for United States, 14619
 establishing business in, 8148
 mineral industry, minerals yearbook chapter, 859

INDEX 1970

Malaysia—Continued
trade in wool and man-made fiber textile products, agreement, 18363

Malcolm, Gerald N., effects on nonrigidly supported ballast on dynamics of slender body descending through atmosphere, 4522

Males, *see* Men.

Maleske, Marcia J., basic data on economy of Netherlands Antilles, 4995

Maletic, John T., engineering and economic relationships in selection and classification of irrigable lands, 17240

Malheur National Wildlife Refuge, birds, list, 12933

Mall:
background notes, 7803
economic trends and their implications for United States, 14632

Malignant diseases, brain, research, 14932

Malin, Oreg., property, quietclaim of U.S. interests, 6582, 13258, 13649

Mallards, post-mortem changes, experimental studies, 17322

Malliaras, Constantina, relief, 1376, 3918

Malliaras, Georgia, relief, 1376, 3918

Malliaras, Panagiotis, relief, 1376, 3918

Mallison, Earl D., feasibility of using 50- by 30-centimeter cell box for exporting McIntosh and golden delicious apples, 4819

Malmgren, Robert C., soil survey interpretations for selected areas in Wayne Co., Pa., 4695

Malnutrition:
human needs in health, national nutrition survey, hearings, 5278
study, authorization, report, 5239

Malone, Kevin:
mineral industry of—
Alaska, 4415
Minnesota, 4440

Malta:
maritime matters, deployment of USS Shenandoah, agreement, 15307
Peace Corps volunteers, agreement, 15332

Malthusian spectre, challenges of food and population, Air Force Academy Library, bibliography, 15450

Mammals:
juvenile, radiation biology, 4886
Paleocene, in Evanston Formation, southwestern Wyoming new occurrence, 2216
reaction to hydrodynamic forces studied, USSR study, 18102
small, seed losses after fall sowing of pine seed, 695
Willamette Valley national wildlife refuges, list, 1126
see also Tenrecs.

Man:
among automata, USSR study, 5738
crossroads for man in uniform, 11972
effects of 2, 4, 5-trichlorophenoxyacetic acid, hearings, 12360
environmental, ecological education, for survival of a humane society (remarks), 8516
formative cultures in the Americas, diffusion or psychic unity of man, comparison, 991
health and the environment, some research needs, 15010
human motor activity in sealed chambers and during space flight, USSR study, 10273
human needs in health, national nutrition survey, hearings, 5278
human operator state, signals, 11705
human radiobiology, 10774
in-the-sea, sleep requirements, 4398
man and animal, changing concepts, 11879
man's challenging environment, the seas (remarks), 5427
man's environment, conference proceedings, 1248

Man—Continued
mercury poisoning effects on man and the environment, hearings, 17693
modern, hypokinesia effect, USSR study, 10260
motor effects from visually induced disorientation in man, 11878
myeloproliferative disorders, symposium proceedings, 13066
physiological responses during sleep deprivation, 17476
radiation hazards to man on extended near earth missions, study, 2065
space environment's effect on man's response to infection, review of literature and annotated bibliography, 2073
underwater, USSR study, 10261

Man and his World, Montreal, Canada, dedication of U.S. pavilion (remarks), 11929

Man-hours, *see* Labor.

Man-machine systems, transform operation in TOS, assessment of human component, 9360
see also Human engineering.

Management, defense management education and training catalog, 16111
see also Administrative management—
Forest Management—Industrial management—Planning—Project management—Wildlife Management.

Management and Budget Office:
appropriations, 1971, hearings, 13711
establish—
disapproval, report, 8260
hearings, 8301, 11127
message from the President, 6574

Management auditors, *see* Auditors.

Management Sciences Training Center, CSC schedule Jan.—June 1971, 17552

Management Services Office, Agriculture Dept.:
appropriations, 1970—
law, 1392
report, 1482
appropriations, 1971, hearings, 9724

Managers:
directing major research and development projects, high turnover, Army Dept., GAO report, 14499
hotel managers and assistants, employment outlook, 14728
traffic, industrial, employment outlook, 12667

Manar, Thomas A., progress in 1967-68 at Bureau of Commercial Fisheries Biological Laboratory, Honolulu, 290

Manasquan, N.J. to Cape Hatteras, N.C. and Chesapeake Bay, marine weather services chart, 17412

Manassas National Battlefield Park, national cemetery adjacent, establish, hearing, 440

Manchester, N.H., area wage surveys, 4377, 15125

Maneuverability, handling qualities of XB-70 airplane in landing approach, 5967

Manganese:
mineral industry surveys, monthly, 2861
minerals yearbook chapter, 8903
Minnesota manganese iron ore, magnetic roasting and leaching for upgrading, 11595
natural battery grade, disposal from national and supplemental stockpile—
law, 13306
reports, 6637, 6747, 12203
ore, disposal from national and supplemental stockpile—
chemical grade, type A—
law, 12145
reports, 6601-2, 6755, 10999, 11009
chemical grade, type B, law, 12146
ores, suspension of duties—
law, 12129
reports, 9690, 9707, 11098

Manifolds, pump intake manifolds and evaporation trays. San Diego Saline Water Test Facility Office of Saline Water, hydraulic model investigation, 7725

Manitowoc County, Wis.:
flood plain information, 14313
floods, how to avoid damage, 14322

Manjikian, S., development of reverse osmosis membranes, 10226

Manlucu, Albina, L. C., relief, 17666

Manmade fiber broadwoven goods, *see* Textiles.

Mann, W. B., radioactivity calibration standards, special session, proceedings, 14923

Manned spacecraft, *see* Spacecraft.

Manners and customs, solving the seventies (address), 16161

Manning, Raymond B., review of genus *Harplosquilla* (Crustacea: Stomatopoda), with descriptions of 3 new species, 4664

Mannino, Fortune V., consultation in mental health and related fields, reference guide, 10051

Manometers:
gas-purged, response to oscillations in water level, 8760
survey of micromanometers, 12841

Manpower:
active manpower policy, role of worker relocation, symposium, 7412
Air Force manpower determinants, 3432, 10714-715
air pollution control, manpower and training needs, report, print as Senate document, report, 13681
allied health manpower supply and requirements, 1950-80, 10197
American science, 1968 report of National Register of Scientific and Technical Personnel, 7649
analyzing requirements using statistical estimates, 8044
availability from educator's viewpoint (remarks), 1276
brain sciences, IBRO survey of research facilities and manpower, index and supplement, 11781
civilian manpower management (periodical), 2784
comprehensive development program, establish—hearings, 8431, 11138, 12377, 13753
Comprehensive manpower act of 1969, hearings, 17642
computer process control, manpower implications for process industries, outlook, 14730
developing your manpower, 5809
development and training act of 1962—amend, report, 13704
good training, good jobs, MDTA through private school, 12502
training activities, annual report, 7258
training programs under, impact on public assistance caseloads, 2726
development and training legislation, 1970, hearings, 8431, 11138, 12377, 13753
enlisted, computer-simulated conventional and branching testing comparison, 15494
Federal civilian manpower statistics, monthly release, 2907
good training, good jobs—
MDTA facts for manpower administrators, 12501
MDTA project transition, 7013
MDTA water pollution control operator, 585
health manpower source book, 5576, 10197
health manpower trends, facts, 4390
health resources statistics, 12850

Manpower—Continued

improved management in Federal Government, reports, 1565, 10992

Intergovernmental manpower act of 1969, report, 1608
job restructuring handbook, 4362
JOBS '70, introducing programs, 14655
manpower (periodical), 2862
manpower and mental retardation, exploration of issues, conference proceedings, 12903
manpower and seasonality in construction, 14666
manpower research study summary, 2863
manpower technical exchange periodical, 2864
MDTA experimental and demonstration findings, 807, 4364
national emergency standby regulations and instructions, Federal personnel, 2615
national patterns of R & D resources, funds, 1953-70, in United States, 4589
pre-retirement years, labor market experience of men, longitudinal study, 5811, 16822
procedures handbook, Army pamphlet, 7990
procurement contracts and worker surpluses, Defense manpower policy, no. 4, questions and answers, 11913
programs, orientation, counseling, and assessment, 807
remedial manpower action for criminals, 804
report of the President—
departmental edition, 7409
document edition, 6577
requirements, pilots and mechanics in civil aviation 1967-77, study, 12707
research bulletin, 2017
research inventory, 14289
research monographs, 4363, 5811-12, 8855, 10287, 11524, 16822
research projects, 806
services to minority groups, desk reference for ES personnel, 11525
special impact program in Los Angeles is not meeting goal of providing jobs for disadvantaged, GAO report, 18037
specialized, in USSR, 1950-75 estimates and projections, 8099
State dentist manpower reports, 1965-67 compilation, 11409
technician manpower, 1966-80 projected outlook, 8864
training, job program, opportunities in business sector, background information, 12376
U.S. manpower in the 1970's, opportunity and challenge, 18113

Manpower Administration, current situation and short-range outlook, pilots and mechanics in civil aviation, 1967-77, study, 12707

Manpower Advisory Committee, *see* National Manpower Advisory Committee.

Mansfield, Mike:
perspective on Asia, report, 507
tributes commemorating longest tenure as majority leader of Senate, 13560

Manteo (Shallowbag) Bay:
engineers report—
departmental edition, 10008
document edition, 9621

Manthey, Robert S., investment guide for cooperative forest management, 16578

Manuals, *see* names of departments, etc., issuing manuals—*also* subjects.

Manufacturers, *see* Manufactures and manufacturers.

Manufacturers' agents, manufacturers' salesmen, employment outlook, 14690

INDEX 1970

Manufactures and Manufacturers:
 annual survey of manufactures, 151, 10784
 census 1963, special report, 151
 industry groups and industries, general statistics, 10784
 summary, statistics, etc., 1239
 census, 1967—
 area statistics, 15569-590, 17497-510
 concentration ratios in manufacturing, 13154
 final industry reports, announcement and order form, 15613
 industry statistics, 10795-796, 11998-12012, 13144-152, 15591-611, 17511-534
 manufacturing activity in Government establishments, 13153
 miscellaneous industries, industry report, 17534
 preliminary reports, 2397
 special reports, 13153-154
 statistics, 15612
 census publications, price list, 11836
 enterprise statistics, 1967, preliminary reports, 2541
 exports sales and orders of durable goods, current industrial reports, 2475
 Federal supply code for manufacturers—excluding United States and Canada, 2633, 16108
 United States and Canada—
 code to name, 2634, 4003
 name to code, 536, 1756, 2635, 17730
 financial report of corporations, quarterly, 3118
 manufacturers claims for floor stock tax refunds, extend time for filing, report, 9721
 manufacturers' shipments, inventories, and orders, 15656
 current industrial reports, 2475
 sales representative, bibliography, 18323
 shipments of commodities by manufacturers, map, 15661
 small manufacturing plants, traffic patterns, commodity transportation survey, 13156
 wage developments, 1969, 1st 6 months, 11549
see also names of commodities—*also* names of manufactured articles.
 Manuscript Copying, Center for Coordination of Foreign, *see* Center for Coordination of Foreign Manuscript Copying.
 Manvel, Allen D., urban America and Federal system, 4
 MAP (military assistance program), *see* Military aid.
 Mapiro (U.S.S.):
 loan extension, agreement with Turkey, 17357
 Maple Shade, N.J., Palmyra-Maple Shade area, N.J., floods and flood plain management for Pennsauken Creek and South Branch, 8537
 Maple:
 diseases and their control, homeowners guide, 9290
 hard lumber, charts for calculating dimension yields, 4198
 sap, ultraviolet irradiation techniques for preserving, 7904
 sugar—
 defect indicators, photographic guide, 12562
 estimating bark thickness and volume, 16575
 pole-size, sprouting potential of dormant buds on bole, 12552
 relation of light to epicormic sprouting, 16560
 sapwood and heartwood, variation in density, 12554
 trees, some effects of paraformaldehyde on wood surrounding tapholes, 12565

Maple—Continued
 sugar—continued
 xylem age effect on volume yield & sugar content of sap, 4203
 Maple sirup, testing for creaming, 7920
 Maple Valley quadrangle, Wash., geology and coal resources, 5551
 Mapping, *see* Maps and charts.
 Mapping (mathematics), *see* Transformation.
 Maps and charts:
 Air Force, aeronautical charts, latest editions, 2792
 airline service in U.S.A., 4779
 ASCS aerial photography status maps, 17429
 catalog of copyright entries, 5294, 8451, 17724
 Census Bureau, United States maps, GE-50 series, 13181, 15661-668
 census use study, reports now available
 computer mapping, announcement, 3609
 Coast and Geodetic Survey—
 aeronautical charts, dates of latest editions, 2489
 authorized nautical chart sales agents, lists, 8132, 17558
 instrument approach procedure charts, 2745
 Alaska, Hawaii, U.S. Pacific Islands, 2746
 military fields, 2884
 nautical chart catalog—
 Atlantic and Gulf Coasts, Puerto Rico and Virgin Islands, 4976
 Pacific Coast, Hawaii, Guam and Samoa Islands, 9485
 congressional districts, 92d Congress, 15668
 DIME geocoding system, computer mapping, 15618
 Federal item identification guides for supply cataloging, supplements, 2597
 flood-hazard mapping in metropolitan Chicago, 5546
 hydrographic and cartographic efforts in Colombia, 1010
 hydrographic and sedimentation survey of Kajakal Reservoir, Afghanistan, 16641
 lunar stratigraphy, telescopic observations, 18045
 map users, opportunity for savings and better service through improved coordination of federally financed mapping activities, Geological Survey, 1901
 mapping, charting, and geodetic terms, glossary, 1770
 maps, Federal item identification guide, 5304
 MARC [machine readable cataloging] format, data elements, etc., for magnetic tapes, 14754
 multicolor microchart/map transparencies, navigation display, military standard, 4031
 nautical charts and publications—
 catalog—
 introduction, 4599-4600
 region 1, Canada, Greenland, and Iceland, 7669
 region 2, Central and South America and Antarctica, 15051
 region 3, Western Europe, 4602
 region 4, Scandinavia, Baltic and U.S.S.R., 4603
 region 5, West Africa and the Mediterranean, 7670
 region 6, Indian Ocean, 4604
 numerical list introduction, pt. 3, 4601
 starfield mapping system, investigation of optimum detection scheme, 14890
 Universal transverse mercator grid tables for latitudes of 0°-80°, transformation of coordinates from grid to geographic—

Maps and charts—Continued

- Universal transverse mercator grid tables, etc.—continued
- Australian national spheroid (meters), 10741
- Clarke 1880 spheroid (meters), 10740
- Weather Bureau, daily synoptic series, 2482
- see also* Aerial mapping—Atlases—Conformal maps—*also* names of localities—*also* subjects.
- MARAD 1969, year of challenge, annual report of Maritime Administration, 7446
- Maraging steel, *see* Steel.
- Marble:
 - setters, employment outlook, 14696
 - work, special trade contractors, census of construction industry, 1967, statistics, 13129
- MARC (machine-readable cataloging), *see* Cataloging.
- March, Bernard W., relief, 3904
- Marchionna, Nicholas R., turbojet combustor performance with natural gas fuel, 8933
- Marden, Richard M., defect indicators in sugar maple, photographic guide, 12562
- Marek's disease, *see* Avian leukosis.
- Marengo County, Ala., community profile, 14086
- Marengo South quadrangle, Ill., floods in northeastern area, 7238
- Margarine, *see* Oleomargarine.
- Margason, Richard J., review of propulsion-induced effects on aerodynamics of jet-STOL aircraft, 5936
- Margin (securities) trading, *see* Securities.
- Maricopa County, Ariz.:
 - community profile, 6937
 - land conveyance for recreational purposes, report, 13414
 - uranium, 1950-57, preliminary reconnaissance, 15523
- Maries County, Mo.,
 - community profile, 17820
- Marihuana:
 - fables and facts, 9019
 - study, report, 6675
 - views on marihuana, and crime in America, hearings, 3856
 - wild hemp (marijuana), how to control it, 10701
- Marihuana Commission, establish, hearings, 1736, 5167, 8256
- Marijuana, *see* Marihuana.
- Marin County, Calif., Bolinas Lagoon, summary of preliminary studies of sedimentation and hydrology, 10165
- Marine accidents:
 - marine casualty reports—
 - Continental Oil rig 43-A, 7656
 - Lake Michigan squalls, vessels lost and damage, 6073
 - M/V Thorstream (Nor.), 6075
 - SS Gulfstag, 7661
 - SS Ocean Eagle (Lib.) San Juan, P.R., harbor, 7657
 - SS Panoeceanic Faith, North Pacific Ocean, 6074
- Marine aids, *see* Navigation.
- Marine aircraft wing, 11558
- Marine animals, *see* Marine fauna.
- Marine Band:
 - director and assistant grades, remove statutory restrictions—
 - law, 5056
 - reports, 374, 3943
- Marine biofouling, *see* Fouling organisms.
- Marine biology:
 - biological noise propagation characteristics in shallow water regions of Black Sea, 11500
 - chum salmon, *Oncorhynchus keta* (Walbaum), 1792, synopsis of data, 13233
 - see also* Benthos—Marine flora.

Marine Corps:

- and Naval air stations, pavement evaluation data, 18280
- appropriations, 1971, military construction, hearings, 9729
- artillery, annotated bibliography, 12726
- bases—
 - Camp Lejeune, N.C., disturbances, inquiry, report of special subcommittee, 1573
 - Camp Pendleton, Calif., conditions in brig, inquiry, report of special subcommittee, 5145
 - battle for Khe Sanh, historical study, 2041
 - commissioned officers, date of rank, adjust, amend U.S. Code, report, 375
 - Fleet Marine Force manual FMFM series, 827-828, 7440, 11558-559, 16376
 - historical bibliographies series, 12726-727
 - historical reference pamphlets, 12727, 18138
 - infantry regiment, Fleet Marine Force manual, 827
 - management review (periodical), 2945
 - officer candidate school training, effects on serum uric acid levels, 14762
- officers—
 - professional reading guide, 15057
 - register—
 - departmental edition, 11816
 - document edition, 10941
 - woman marine officer candidate, recruiting information, 829
 - ranks and grades, 1775-1969, history, 18138
 - records, National Archives inventory group, 14908
 - rifle companies and platoons, Fleet Marine Force manual, 828
 - travel regulations, 2781, 4017
 - uniforms, regulations, 7442
 - United States marines in Iceland, 12727
- Marine Corps Band, *see* Marine Band.
- Marine Corps Reserve:
 - officers, register—
 - departmental edition, 11816
 - document edition, 10941
 - officers, serving on selection boards, increase number—
 - law, 5058
 - reports, 373, 3942
 - reserve marine (periodical), 3150
- Marine engineering:
 - Marine resources and engineering development act of 1966, amend—
 - law, 13324
 - report, 13656
- Marine fauna, poisonous and venomous marine animals of world, 13815
- see also* Benthos.
- Marine flora, algae of Dominica, 11849
- Marine geodesy, *see* Geodesy.
- Marine industry, *see* Merchant marine.
- Marine Minerals Technology Center:
 - transfer functions from Interior Dept. to National Oceanic and Atmospheric Administration—
 - hearings, 15912, 16057
 - report, 15875
- Marine navigation, *see* Navigation.
- Marine pollution, *see* Water pollution.
- Marine radioecology, selected bibliography of non-Russian literature, 3501
- Marine resources, California coast, marine sanctuaries, create, hearings, 16068
- Marine Resources and Engineering Development, National Council on, *see* National Council on Marine Resources and Engineering Development.
- Marine resources conservation, anadromous fish resources, their conservation, development, enhancement, 14421-422
- Marine science, *see* Oceanography.
- Marine Sciences Affairs Staff, publication series, 2140

INDEX 1970

Marine services:
 weather charts—
 Eastport, Maine to Montauk Point,
 N.Y., 18402
 Great Lakes, Superior and Michigan,
 18403
 Manasquan, N.J. to Cape Hatteras, N.C.
 and Chesapeake Bay, 17412
 Mexican border to Point Conception,
 Calif., 15388
 Montauk Point, N.Y. to Manasquan,
 N.J., 18404
 Savannah, Ga. to Apalachicola, Fla.,
 6280
 Marine terminals, *see* Terminals (transportation).
 Marine water pollution, *see* Water pollution.
 Mariner, *see* Spacecraft.
 Mariner-Mars 1969, preliminary report, 5914
 Mariners, *see* Notice to mariners—Submariners.
 Mariners weather log (periodical), 2869
 Marines, *see* Marine Corps.
 Marion, Kans.:
 local flood protection project, engineers report—
 departmental edition, 5370
 document edition, 5088
 Marion County, Ala.:
 community profile, 14087
 forest inventory statistics, 9223
 Marion County, Iowa, community profile, 14088
 Marion County, Mo., community profile, 17821
 Marion County, Ohio, community profile, 14089
 Marital status, *see* Marriage.
 Maritime Administration:
 annual report—
 departmental edition, 7446
 document edition, 6565
 appropriations, 1970, authorization, law, 301
 appropriations, 1971, authorization—
 hearing, 9899
 law, 10908
 reports, 6591, 6593, 9839
 challenging careers, general information, 4394
 costs of operating nuclear merchant ship
 Savannah, GAO report, 11371
 current regulations, index, 5837
 introducing programs and activities, 830
 press releases, 3069
 shipping research for decade to come (remarks), 16877
 SP series, 831-832, 4395-96, 5838, 7444-45, 8879-84, 10307-309, 11560-563, 12728, 14757, 16877-878
 vessels in support of military activities in Southeast Asia, Government owned, operation improvements needed, GAO report, 5531
 Maritime industry, *see* Merchant marine—Shipping.
 Maritime safety digest (periodical), 2870-71
 Maritime service, *see* Shipping.
 Maritime Subsidy Board, current regulations, index, 5837
 Mark sensing, *see* Electronic data processing systems.
 Mark Twain National Forest, Eleven Point River plan, classification, boundaries and development as unit of national wild and scenic rivers system, 337
 Mark Twain National Wildlife Refuge, general information, 12931
 Markakis, P., irradiation of fruits and vegetables, annual report, 121
 Markers, Federal item identification guide, 13780
 Marketing, *see* Markets and marketing.
 Markets and marketing:
 acreage marketing guides, 525, 1746, 5284, 6820-26, 13762

Markets and marketing—Continued
 agricultural marketing (periodical), 2304
 agricultural marketing costs and charges, statistical series of Agriculture Dept., 11946
 can marketing order help farmers? 7934
 country market digest (series), 2762
 country market survey (series), 5714, 16729
 defense utilization and marketing handbook, supplements, 1761-62, 11164
 distributive education in highschool suggested guide for teacher and administrators, 8514
 exhibitor's export market guide (series), 2762
 export opportunities, information sources from Marketing information guide, 3524
 farm equipment and repair parts, what distributors should do with them in national emergency, 7932
 forecasting warehouse produce movement, 15398
 Ghana, country market survey, 5714
 international marketing information service, IMIS (series), 2762, 4315, 5714, 16729
 market factors in—
 Austria, 4990
 Colombia, 6505
 Mexico, 8150
 Singapore, 278
 market news service on livestock, meat and wool, 7923
 market profiles—
 Africa, 17562
 Latin America and Caribbean, 13222
 Near East and South Asia, 13223
 Western Europe and Canada, 13221
 market share reports, catalog, 7343
 market structure, economic report of its influence on profit performance of food manufacturing companies, 8666
 market surveys and industry reports issued by United Nations Economic Commission for Africa, supplement, 13227
 marketing America's food, 17904
 marketing and transportation, 2872
 marketing bulletins, 7922-23, 11953, 12988, 15433
 marketing Hawaii timber products, opportunities, 8714
 marketing information guide, annotated bibliography, 2873
 marketing margins for selected dairy products and their substitutes, 11196
 marketing order costs, hearings, 396
 marketing research, information sources from Marketing information guide, 3525
 marketing research reports, 26-28, 1199, 4819-21, 7924-25, 9301-7, 10688-691, 12989-993, 15434-438, 17442-445
 marketing research workers, employment outlook, 12665
 packaging, information sources from Marketing information guide, 3526
 preharvest research under marketing agreement, authorize, reports, 383, 5110, 5113
 selling in—
 Greece, 10872
 India, government procurement procedures, 10876
 Ireland, Republic of, 9505
 small marketers aids, 11848
 Spain, country market survey, 16729
 statistics and maps for market analysis, bibliography, 4661
 technology and marketplace (remarks), 10439
 turkey marketing, 1970 guide, 1749
 world markets for U.S. exports (series), 2762
 youth market, information sources from Marketing information guide, 3527

Markets and marketing—Continued
see also names of commodities, etc., marketed.

Marking:

- aircraft and missile propulsion system parts fabricated from critical high temperature alloys and stainless steel, military standard, 547
- electrical and electronic parts, military standard, 4030
- identification marking—
 - administrative wheeled vehicles, military standard, 549
 - nickel and nickel base alloys, Federal standard, amdt., 8663
 - requirements for special purpose components, 545
- industrial plant equipment handbook, 1759
- registration, aircraft and related products, Federal aviation regulations, 2571
- shipment and storage, military standard, 9960, 17741
- steel products, recommendations of trade, amdt., 4552
- supplies and equipment, packaging and handling deficiencies, quarterly summary, AMC pamphlet, 3460

Markov processes:

- first-order Markov structures of quarterly events, probability learning, 5971
- Markov chain models for probabilities of hot and cool days sequences and hot spells in Nevada, 14345

Marks, David H., mathematical analysis of solid waste collection, 18340

Marks, R. E., measurements of subsurface and close-in surface dynamic effects, 13082

Marmor, Barbara R., relief, 5096, 9578

Marpole (vessel):

- documentation for use in coastwise trade, authorize, 6735, 9573

Marquis, David A., thinning in young northern hardwoods, 5-year results, 697

Marriage:

- marital status, population characteristics, 221, 6441
- marriage, divorce and remarriage, probabilities, current population report, 12036
- vital statistics of U.S., 8998, 17051

Married persons, see Husbands and wives.

Mars (planet):

- aerodynamics of entry probe-lander configurations at Mach 10 number, 5931
- earth, and sun, relative geometries, 1973-2000, 7528
- Mariner-Mars 1969, preliminary report, 5914
- minimum-energy mission plan for manned exploration, 912
- parametric design of interplanetary and orbital trajectories with examples for 1973-77 opportunities, 14880
- round-trip trajectories with stopovers at both Mars and Venus, 10398
- unmanned Viking class Mars landers, lifting entry ($L/D \leq C.2$), 11670

Marsden, Charles P.:

- tabulation of data on semiconductor amplifiers and oscillators at microwave frequencies, 7577
- tabulation of published data on electron devices of U.S.S.R., 18237

Marsh, James G., intercomparison of mini-track and optical tracking networks using GEOS I Long-arc orbital solutions, 5919

Marshall, Raymond L., soil surveys aid land use planning in New York, 9163

Marshall, Tex.:

- floods, how to avoid damage, Parker Creek, 17941
- Parker Creek, flood plain information, 16429

Marshall County, Ala., community profile, 14090

Marshall County, Iowa, community profile, 14091

Marshall County, Ky., forest inventory statistics, 4771

Marshall County, Miss., community profile, 16311

Marshall County, S. Dak., community profile, 14092

Marshall Islands:

- Bikini and nearby Atolls series, 4242
- Eniwetok Atoll, Miocene pollen and spore flora, 4242

Marshes, marshland wildlife drive, Seney National Wildlife Refuge, Mich., description, 15261

Marston, Norman, revision of new world species of Anthrax (Diptera: Bombyliidae), other than Anthrax albofasciatus group, 11850

Martens, Wanda, relief, 12294

Martian atmosphere, see Atmosphere.

Martin, Arnold W., XB-70 flight test data comparisons with simulation predictions of inlet unstart and buzz, 11625

Martin, E. Dale, study of directional-mean-free-path method for gas flow in translational nonequilibrium, 12785

Martin, Franklin W., biology of poor seed production in tephrosia vogelii, 7947

Martin, James A., grasses of Albuquerque public schools outdoor education center, 9142

Martin, James H., relief, 9644, 12092

Martin, John M., recruitment and community penetration, 7411

Martin, Preston:

- addresses, etc.—
 - Aug. 25, 1969, 5420
 - Sept. 13, 1969, 5418
 - Nov. 18, 1969, 1852
 - Oct. 30, 1970, 17974

Martin, Richard A., dynamic analysis of XB-70-1 inlet pressure fluctuations during takeoff and prior to compressor stall at Mach 2.5, 11669

Martin, Robert E., cranial and bacular variation in populations of spiny rats of Genus Proechimys (Rodentia: Echimyidae) from South America, 4663

Martin, V. G., computer programs for counter-current distribution, 1190

Martin County, N.C., community profile, 14093

Martinelli, M., jr., measuring angles with carpenter's folding ruler, 684

Martinique:

- background notes, 6215
- capsule facts for Armed Forces, 71
- economic trends and their implications for United States, 11473

Martins:

- purple martins—
 - general information, 10565
 - ways to attract, 12929

Martinson, Otto B., standard classification system for indirect costs of defense contractors in aircraft industry, 6320

Martinson, R. Kahler, waterfowl status report, 7790

Martorell, Jorge R., see Fernandez, Jorge R.J.B.M.y.

Marvin, Joseph G., method for solving non-similar laminar boundary-layer equations including foreign gas injection, 919

Maryland:

- automobile scrapping processes and needs for Maryland, 10576
- census of business, 1967—
 - major retail centers, standard metropolitan areas, 8057
- retail trade—
 - area statistics, 1290
 - merchandise line sales, 13106
- selected services, area statistics, 4918
- wholesale trade, area statistics, 177
- census of construction industries, 1967, statistics, 15557

INDEX 1970

Maryland—Continued

- census of governments, 1967 State report, 3570
- census of manufacturers, 1967 statistics, 15578
- census of transportation, 1967, commodity transportation survey, 8071
- climatological data, 2409
- county business patterns, 199, 12028
- electric rate book, 7103
- historic buildings, Historic American Buildings Survey, records, 12873
- landings, fish and shellfish, 2874, 3699, 13232
- mineral industry, minerals yearbook chapter, 860
- pollution of Potomac River, Washington, D.C. metropolitan area, conference proceedings, 1866, 16517
- Potomac River and tributaries, pollution control progress evaluation meeting, 8672
- Potomac Valley Conservancy District, compact, amendments, consent of Congress
 - hearing, 1598
 - law, 17606
 - report, 13487
- precipitation data, hourly, 2718
- real property acquisition for highway purposes, law, 299
- small watershed projects, program, hearing, 12382
- suburbs, crime spillover from Washington, D.C., regional aspects, hearings, 5264
- water resources, 16635
- Maryland tobacco, *see* Tobacco.
- Marysville, Wash., railroad accident, report, 14383
- Marzolf, Joseph M.:
 - simplified DC-to-DC converter with constant average output voltage, 1031
 - switching inverter with sine-wave output, 15088
- Mascitti, Vincent R., approximate solution of additive-drag coefficient and mass-flow ratio for inlets utilizing right circular cones at zero angle of attack, 2092
- Masers, hydrogen spin exchange frequency shifts, 10436
- Mason, A. Hughlett, relief, 15833
- Mason, Brian, minor and trace elements in meteoritic minerals, 17271
- Mason, Charles M., effect of sodium nitrate on incendiarity of explosives in coal-dust-gas-air mixtures, 876
- Mason, Johnny, Jr., relief, 13622, 17598
- Mason, Kenneth A., design of breadboard remote oculometer, 7506
- Mason, Richard R., pyrethrins against western hemlock looper, 16570
- Mason County, Wash., community profile, 6938
- Masonry:
 - cement, asphalt, and composition trade, apprenticeship standards, 68
 - special trade contractors, census of construction industry, 1967, statistics, 13127
 - training guide and reference text, Army technical manual, 13055
 - see also* Mortar.
- Masons:
 - employment outlook—
 - cement masons, 14697
 - stonemasons, 14696
 - job grading standard, civil service, 6479
 - cement finisher, 8126
- Mass (physics):
 - apparent mass and moment of inertia of large disk suspended as pendulum at different air densities, experimental determination, 12819
 - Jupiter's mass determined from motion of 65 Cybele, 17170

Mass (physics)—Continued

- mass distributions and unaccelerated velocity of photographic meteors, empirical analysis, 10388
- mass spectrometric investigation of vaporization thermodynamics of yttrium dicarbide carbon system and dissociation energy of yttrium dicarbide and tetracarbide, 8937
- method of weighing object in gaseous atmosphere to obtain its true mass and volume, 12745
- slowly rotating point-mass vehicles connected by massless tether and in circular orbit, dynamics, 4514
- spinning slender cone with slight aerodynamic and mass asymmetries (reentry F), angle of attack analysis, 16972
- variable-mass flexible rocket with internal flow, general motion, 5904
- Mass marketing of property and liability insurance, 11915
- Mass media, *see* Communications.
- Mass spectra, *see* Spectra.
- Mass spectrometers, *see* Spectrometers.
- Mass spectrometry, *see* Spectroscopy.
- Mass spectroscopy, *see* Spectroscopy.
- Massachusetts:
 - Agricultural Stabilization and Conservation Service, annual report and statistical summary, 12967
 - census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 3058
 - retail trade, merchandise line sales, 13107
 - selected services, area statistics, 1293
 - wholesale trade, area statistics, 178
 - census of construction industries, 1967, statistics, 17490
 - census of governments, 1967, State report, 3571
 - census of transportation, 1967, commodity transportation survey, 9437
 - county business patterns, 200, 12029
 - electric rate book, 12528
 - landings, fish and shellfish, 2875
 - mineral industry, minerals yearbook chapter, 861, 18157
 - minority construction contractors located in selected cities, list, 8791
 - postal map, 6122
 - small watershed projects, program, hearings, 17718
 - western, Russell Mountain formation, new stratigraphic unit, 16610
- Massapequa, N.Y., dispersal of plating wastes and sewage contaminants in ground water and surface water, 18052
- Mastenbrook, H. J., concurrent measurements of water vapor and ozone over Washington, D.C., 9058
- Master cross reference list, 4016, 12396, 13802, 16144
- Masters, Edgar Lee, 6 cent commemorative postage stamp (poster), 15108
- Masticator, results of field trials of Tree Eater, tree and brush masticator, 8687
- Mastitis, bovine, most costly problem of dairy industry, 9281
- Mastralin, Anthony S., relief, 6580
- Matanuska-Susitna Borough, Alaska, development of new lands, 7971, 10727
- Materials:
 - atomic, program, AEC authorizing legislation, 1971, hearings, 13348
 - behavior in multi-stage flash distillation plants, survey, 5625
 - carbonation cell, materials compatibility, 2071
 - elastic symmetry, ultrasonic method for determining, 2057
 - evaluation program, continuation, MERF-MERS evaluation system of desalination materials, 11441

Materials—Continued

- high temperature chemistry and physics, bibliography, 958, 7573, 10430
 - high temperature materials, ARPA-NBS program of research, 7576
 - low-density heat-shield, effects of heat sterilization and vacuum exposure, 7538
 - metallic materials and elements for aerospace vehicle structures, military handbook, change, 11179
 - metallurgy and materials research program, 6396, 13086
 - National Bureau of Standards standard reference materials—
 - announcements, 2950
 - catalog, 12842
 - catalog and price list, supplements, 6001, 14921
 - news for users of, 2963
 - National materials policy act of 1969, hearings, 1745, 5280, 11145
 - nine, under hypervelocity impact, dimple, spall, and perforation characteristics of thin plates, 4524
 - plastic, defense engineering, Government specifications and standards, 565
 - preservation, packaging, packing, Federal test method standard, change, 10092
 - reactors—
 - physical and mechanical properties, progress report, 9376
 - quarterly technical progress review, 3128
 - relating to Rumania in National Archives, 17030
 - research materials developed under NBS inorganic materials program, 17037
 - science—
 - East European abstracts, 2522
 - USSR abstracts, 3322
 - screened at Kerrville, Tex., as animal systemic insecticides, 9322
 - space materials handbook, 5916
 - status report on use of chemicals and other materials to treat oil spilled on water, chemical treatment of oil slicks, 7170
 - surface-active material in marine atmosphere, detection and characterization, 12898
 - telephone system construction contract. REA, 17257
 - see also Composite materials—Granular materials—also names of materials.
- Materials handling:
- Army technical manual, 105, 6365, 17470
 - equipment, Federal item identification guides for supply cataloging, supplements, 2590
 - industrial plant equipment, preparation and handling for shipment and storage, military standard, 9959
 - miscellaneous equipment, Federal item identification guide, 6862
- Materials Research, Institute for, see Institute for Materials Research.
- Matériel, see Military supplies.
- Maternal and Child Health Service, publications, list, 7450
- Maternal welfare, see Mothers.
- Maternity leave, see Leave of absence.
- Mathematical analysis, see Mathematics.
- Mathematical models, see Mathematics.
- Mathematical prognosis of outcomes in hemorrhagic insults for possible surgical intervention, USSR study, 16797
- Mathematicians, and related occupations, employment outlook, 14678
- Mathematics:
- abstract analysis, introduction, 4502
- algorithms—
- adaptive random-search, for implementation of maximum principle, 5947

Mathematics—Continued

- algorithms—continued
 - finely converging, for solution of denumerable systems of inequalities and their application in problems of adaptive system synthesis, USSR study, 5729
- psychometric calculations (skeleton tables for thermodynamic properties of moist air), 5998
- self-training, for diagnosis of diseases, USSR study, 5769
- analytical model of flash stage, development, 5619
- analytical vibration study of ring-stiffened conical shell and comparison with experiment, 8940, 16956
- applied, future discussed, USSR study, 7386
- applied mathematics series, 4547
- axial distribution function in magnetically confined plasma effect of aperture on measurement, 10394
- continuing math revolution, 5347
- course and curriculum improvement projects, 12878
- East European abstracts, 2523
- exponential integrals, high-precision Chebyshev series approximation, 14885
- FORTTRAN program for machine computations of group tables of finite groups, errata, 10378
- function of concentration of anomalous component in modified water, water-vapor pressure, USSR study, 12626
- Gauss quadrature rules involving some nonclassical weight functions, 11649
- Ghazala's method, extension to incompletely specified multiple-output functions, 10497
- hand-printed mathematical expressions, on-line parsing, programming, report, 2061
- interdependent electric analog decomposition patterns developed, 835
- math and your career, facts about training, 16862
- mathematical analysis of solid waste collection, 18340
- mathematical evaluation of SO₂ sorption regeneration reactions with alkalinized alumina, 14793
- mathematical models—
 - economic availability of Mesabi Range taconite iron ores, 14777
 - effect of ground crash fire on aircraft fuselage integrity, 14360
 - planetary atmospheres, fundamentals, USSR study, 4326
 - sewage sludge fluidized bed incinerator capacities and costs, 14408
 - solid waste collection policies, 11874
 - spread of droplet infections in closed collective, USSR study, 5746
 - tropical cyclone development, some effects of radial resolution, experiments, 1824
- mathematical sciences—
 - journal of research, National Bureau of Standards, 2786
 - trainees in vacation work-study programs, examination announcement, amendment, 4963
- meromorphic functions and derivatives, one class, 15068
- methods in epidemiology, empirical and theoretical distributions, USSR study, 16801
- Navy training course, 1027
- new tables of percentage points of Pearson type III distribution, 9167
- on periodic left factors of meromorphic functions, 2182
- p-p and p-t final state interaction in reaction ³He(d,tp), 14870

INDEX 1970

- Mathematics—Continued
 piecewise ergodic problem for gas systems, 12892
 principle of conditional error, applications, 14479
 quantitative models for automobile accidents and insurance, 17382
 recursion formula for logarithmic functions of spherical Bessel function in complex plane, 12513
 relativistic equations of motion of artificial earth satellite, integration, 14894
 research, Ukrainian SSR Academy of Sciences, past 50 years, 5773
 science and mathematics books for elementary and secondary schools, 11241
 scientific tests, standards, publications, price list, 18306
 secondary school teachers, NSF programs, summer institutes, in-service institutes etc., 18273
 semiclassical elastic scattering cross sections for central field potential function, 4504
 separation of variables for linear partial differential equations of 2d order in 2 independent variables, theory, 11650
 spatial turning maneuver, analytical solution of problem of controlling, USSR study, 16776
 stagnation-point solutions for inviscid radiating shock layers, 12791
 tables—
 component reliability for binomial redundancy, 2097
 range of samples from normal population, 9340-41
 UTM grid tables for latitudes 0°-80°, transformation of coordinates from grid to geographic—
 Australian national spheroid (meters), 10741
 Clarke 1880 spheroid (meters), 10740
 time series analysis, theory and practice, 11779
 USSR abstracts, 3323
 see also Arithmetic—Equations—Iteration (mathematics)—Markov processes.
 Matheny, William D., pulsars, bibliography, 10766
 Mathews, Charles W., address, Feb. 4-6, 1970, 5890
 Matrices (mathematics):
 reduced matrix elements of single-particle operators, systematic method of calculating, 12811
 scattering of polarized light by polydisperse systems of irregular particles, measurements, 2083
 Matrix theory:
 stiffness matrix method, systematic analysis of pit slope structures by, 5877
 structural instability of beam columns, frames and arches by finite element method, 10406
 Mats:
 landing, preliminary tests in conjunction with expedient reinforcement for concrete for use in Southeast Asia, 11255
 used airfield landing mat, criteria for inspection, evaluation, classification, and reuse, 11254
 Matthews, Earle D., soil survey, Carroll County, Md., 4692
 Mattresses, current industrial reports, 2475, 15634
 Matz, R.:
 hydrocasting reverse osmosis membranes, 11443
 hydrodynamic aspects of desalination by reverse osmosis, 11444
 Matzenauer, J. O.:
 lunar escape systems (LESS) feasibility study, 11623, 16935
 Maughan, Paul M., feasibility of monitoring West African oceanic front from satellites, 3709
 Maui:
 glimpses of soil and water conservation, 9188
 plantation timber on island, 5519
 principal electric facilities, map, 8629
 Maui County, Hawaii, community profile, 6939
 Maurer Maurer, combat squadrons of Air Force, World War II, 1209
 Mauritania:
 Algeria boundary, study, 15296
 Islamic Republic of, background notes, 6214
 Mauritius:
 aviation, distance measuring equipment system at Plaisance Airfield, agreement, 7830
 background notes, 15286
 investment guarantees, agreement, 15309
 Maury County, Tenn., Little Bigby Creek watershed work plan, 9171
 Maxfield, Galen H., laboratory test of electrical barrier for controlling predation of northern squawfish, 15749
 Maxilla, maxillofacial prosthetics, interprofessional conference, proceedings, 6148
 Maximum principle, see Principle of the maximum.
 Maxwell, Arthur E., covering leg 3 of cruises of drilling vessel Glomar Challenger, Dakar, Senegal to Rio de Janeiro, Brazil, 9033
 Maxwell equations, see Equations.
 May, Alexander, method of weighing object in gaseous atmospheres to obtain its true mass and volume, 12745
 Mayer, Ralph G., U.S. statutes of general interest to security officers in atomic energy program, 15538
 Mayeska, George W., study of our Nation's schools, 4064
 Maynard, Eileen, that these people may live, 4295
 Mayo, Alton P., method for determination of accuracy of closed distant stationary orbits determined from range rate, 12818
 Mayo, Clyde C.:
 construction and administration of 10 Air Force Job Inventories, 7952
 method for determining job types for low aptitude airmen, 7954
 three studies of job inventory procedures, selecting duty categories, interviewing, and sampling, 7953
 Mazan, Walter L., nomination, hearing, 494
 MDTA (manpower development and training act), see Manpower.
 Meade County, S. Dak., community profile, 14094
 Meador, Willard E.:
 critical analysis of Grad approximation for closing out magnetohydrodynamic equations for plasmas, 2128
 first-order effects of plane surfaces on kinetic behavior of gases, 14864
 induced pressure and temperature gradients in plasma as result of weak electric fields, 7550
 long-range atomic interaction potentials for nitrogen, 11694
 modifications to Fourier's law of heat conduction through use of simple collision model, 12814
 third-order contributions to electrical conduction in plasmas, 4509
 Meads, J., data display and analysis, 14830
 Meal:
 compositional studies, publications and patents, 1962-69 list, 17419
 processing—
 engineering studies, publications and patents, 1962-69 list, 17420
 publications and patents, list, 7903

Meals, *see* Food.

Measles:

rubella—

general information, 10313

surveillance, Center for Disease Control, 15669

vaccine, 983

Measurements:

bone measurement conference, proceedings, 15511

English and metric systems of measurement, brief history and use, 17035

innovation in measurement (address), 10870

interpretation of microwave spectral-absorption intensity measurements on partially saturated lines, 7551

methods, for semiconductor materials, process control, and devices, 7579, 8996, 11736, 17042

micrometer measures of 463 double stars, 1008

normal ionospheric absorption measurements obtained from radio and pulse reflections, survey and analysis, 16453

oscilloscopic measurements in high-speed experiments, improvements, 17039

users bulletin, 955, 6000, 8981, 14920

see also subject of measurements.

Measures, *see* Metric systems.

Measuring instruments:

Federal item identification guides for supply cataloging, supplements, 2591

instruments for measuring pore pressure in concrete investigation, instruments installed at Hartwell Dam, Ga., 10018

see also Electric measuring instruments.

Measuring tools, *see* Measuring instruments.

Meat:

and meat products, USDA's acceptance service, 12988

bargain freezer meats, there may be a catch to it, 4164

care tips for you, the consumer, 4815

clean for you, 3405

commercial production, 9211

cooked freeze-dried combination meat items, response to oxygen, 13047

Denmark's livestock and meat industry, 666

Federal meat inspection act, amend—

hearings, 9887, 13490

law, 13317

reports, 11086, 12209

for your freezer, how to buy, 3404

foreign agriculture circulars, 2657

foreign inspection program, fact sheet, 17720

fresh, radiation pasteurization, 10755

freezing in the home, 9291

growth in world demand for feed grains related to meat and livestock products, 12496

home canning, 9293

home cured, protecting from insects, 15423

household consumption patterns, 1965, spring, 5337

imports, agreement with—

Australia, 7824

Costa Rica, 10620, 17358

Dominican Republic, 17340

Guatemala, 17346, 18359

Honduras, 15314

Ireland, 7828

Mexico, 10623, 17359

New Zealand, 7827

Nicaragua, 17352

Panama, 10619

industry, New Zealand, 18005

inspection—

Federal statistical summary, 8442

imports, provide, hearings, 13707

United States, brief history, 16088

inspection procedures manual, 2866, 5290, 8446, 13707, 16092

Meat—Continued

inspection regulations of USDA, 3136

institutional purchase specifications, approved by USDA, portion-cut products, 5289

livestock and meat situation, 2844

market news service, 7923

market news weekly summary and statistics, 2845

plants, weak enforcement of Federal sanitation standards, GAO report, 11383

processing plants, chemical compounds authorized for use under USDA inspection programs, list, 528, 11154

products—

census of manufactures, 1967, industry report, 17512

census of transportation, 1967, commodity transportation survey, shipper group, 1309

purchase specification, requirements, approved by USDA, 1748, 6829, 12386

standards for you, the consumer, 20

State inspection services—

hearings, 9887, 13490

law, 13317

reports, 11086, 12209

statistics, 1969 supplement, 10704

see also Packing industry.

Meat animals, *see* Livestock.

Meat cutters:

employment outlook, 14711

job grading standard, civil service, 8127

Meat Inspection Act, Federal, Joint Committee on Administration of, *see* Federal

Meat Inspection Act, Joint Committee on Administration of.

Meat packing plants, *see* Packing industry.

Meats, *see* Meat.

Mech (periodical), 2876

Mechanical and physical hazards series, 812

Mechanical designs, *see* Designs (Industrial).

Mechanical equipment, *see* Machinery.

Mechanical fans, current industrial reports, 3633

Mechanical instrument makers, *see* Instrument makers.

Mechanical power transmission, *see* Power transmission.

Mechanical properties:

advanced gravity gradient booms, 16994

behavior, in neutron irradiated 12N1-5Cr-3Mo maraging steel plate and companion weld metals, 6103

flexural properties of glued-laminated southern pine beams with laminations positioned by visual-stiffness criteria, 8701

near-minimum property values of wood, tables for developing nonparametric estimates, 14466

polar snow, some variations, 5364

reactor materials, progress report, 9376

Mechanical samplers, *see* Samplers.

Mechanics (persons):

aircraft mechanic, journeyman and junior levels, examination announcement, amendment, 3661

apprentice, mechanical trades, examination announcement, 9464

automotive, examination announcement, amendment, 12047

aviation structural mechanic—

E 1 & C, rate training manual, 9050

S 1 & C, rate training manual, 10493

career information, your job as a repairman or mechanic, 16569

construction mechanic 1 & C, rate training manual, 6094

employment outlook—

air-conditioning, refrigeration, and heating mechanics, 18115

aircraft mechanics, 14723

appliance servicemen, 18116

automobile, truck, and bus mechanics, 14704

INDEX 1970

- Mechanics (persons)—Continued
 - employment outlook—continued
 - bowling-pin-machine mechanics, 18117
 - diesel and farm equipment mechanics, 14705
 - elevator constructors, 14700
 - industrial machinery repairmen, 14706
 - optical mechanics, 14708
 - vending machine mechanics, 16883
 - heavy construction equipment mechanic, suggested guide for training course, 1791
 - mechanical repair trades, apprenticeship schedules, 4844
 - mechanics in civil aviation, 1967-77, study of manpower requirements, 12707
 - organizational mechanic/repairman course—
 - aircraft helicopter, 4857
 - tactical and support vehicles, amphibian resupply (LARC V), 17463
- Mechanics (science):
 - characterization and design mechanics for fiber-reinforced metals, 10407
 - fluo-solids systems, phase 2, bench-scale research on CSG process, 6487
 - freezing process and mechanics of frozen ground, 599
 - mechanical effects of underground nuclear explosions, USSR study, 4874
 - mechanics of aquifer systems (series), 8741
 - thermal-mechanical treatments, effect on tensile strength of 19-901 and 12R72 HV austenitic stainless steels, 10757
- Mechanism for formation of skinned type membrane, 1956
- Mechanization, office, and computer technology, yearbook for Hungary, 11490
- Mechtly, E. A., international system of units, physical constants and conversion factors, 4606
- Mecklenburg County, N.C., community profile, 12450
- Medak, Herman, atlas of oral cytology, 15148
- Medal of Honor:
 - recipient, furnish headstone for unmarked grave at Government expense—
 - hearing, 405
 - law, 15785
 - report, 1490
- Medals:
 - commemorative—
 - Jose Antonio Navarro, honor of—
 - law, 9608
 - reports, 1528, 8355
 - 100th anniversary of founding of Ohio Northern University—
 - law, 15772
 - reports, 12222, 13675
 - Stone Mountain, Ga., carvings depicting heroes of Confederacy—
 - law, 10915
 - reports, 8354, 9658
 - see also Medal of Honor.
- Medeckl, Hector, light-modulated accelerometer for pantograph measurements, 17988
- Media services & captioned films program of Bureau of Education for Handicapped, 8520
- Medicaid, see Medical assistance.
- Medical administrators, medical advisory boards, driver licensing guidelines relating functional ability to class vehicle, 1053
- Medical assistance:
 - financed under public assistance titles of Social Security act, 8999, 11756
 - medicaid and other medical care financed from public assistance funds, 6019, 12851
 - medicaid—
 - improvement needed in administration of Iowa and Kansas programs by fiscal agents, Social and Rehabilitation Service, GAO report, 18038
 - long term-care trends, hearings, 6783
 - mental health benefits, 9020
- Medical assistance—Continued
 - medicaid—continued
 - nursing home care in California, problems in approving and paying, GAO report, 12583
 - problems, issues, and alternatives, 3972
 - questionable claims under program for care of persons in State institutions for mentally retarded in California, GAO report, 10151
 - medicaid, medicare, which is which? 11566
 - medicaid programs—
 - amendments, summary of decisions, press release, 15951
 - California, continuing problems in providing nursing home care and prescribed drugs under Social and Rehabilitation Service, GAO report, 14497
 - improve, hearings, 6797, 16050, 17700
 - publications, price list, 6132
 - Task Force on Medicaid and Related Programs, report, 12596
- Medical botany, medicinal plants of Appalachia, guide, 10130
- Medical care:
 - abstracts of contributed papers. Medical Care Section, American Public Health Association, 98th annual meeting, 17569
 - Armed Forces health benefit programs, subcommittee report, 12263
 - Armed Forces surviving dependents, health care cost-sharing arrangements—
 - hearings, 3853, 6697
 - reports, 5115, 18694
 - civilian medical program for Vietnam, followup investigation, report, 15881
 - community health services, organized primary care, conceptual model, 9567
 - comprehensive health services program, bibliography, 5329
 - costs for the disabled, 6167
 - current medicare survey report—
 - CMS series, 6168, 7749
 - medical insurance sample, report, 7749
 - directory of providers of services under health insurance for the aged, hospitals, extended care facilities, etc., 4669
 - emergency care of sick and injured, training of ambulance personnel and others responsible at scene and during transport, 8775
 - facility projects approved for Federal aid under Hill-Burton program, register, 1919
 - financed from public assistance funds, 6019, 12851
 - guidelines for dietitians and public health nutritionists in home health services, 15757
 - health care for rural areas, 17905
 - home health benefits under medicare, 11887
 - human needs, provide for the poor, national nutrition survey, hearings, 521, 3984, 5278
 - lack of assistance, study, authorization, report, 5239
 - long-term care facilities, activities supervisor's guide, 5016
 - medicaid, medicare, which is which? 11566
 - medical planning for disaster preparedness, medical service, Air Force manual, 18018
 - medical service—
 - Air Force pamphlet, 15459
 - medical airman's manual, Air Force manual, 4835
 - medicare—
 - comparison of expenditures with estimates, 1st 3 years of operation, 1100
 - distribution of benefit disbursements by type, 10551
 - health insurance for the aged, participating health facilities, 11857
 - health insurance for people 65 and over, brief explanation, 6176, 12924

Medical care—Continued
 medicare—continued
 health insurance for railroad retirement beneficiaries, handbook, 10529
 health insurance under social security, handbook, 2224, 9120, 17283
 hospital insurance benefits in extended care facility, 4676
 hospital, when you enter, how does medicare help? 1102
 how to claim benefits, 11865
 impact, bibliography, 6169
 medical insurance benefits, important facts, 11862
 medical insurance under social security, handbook, 12925
 mental health benefits, 9020
 number using services, 1968 estimate, 6168
 persons enrolled in health insurance program, 9109
 problems, issues, and alternatives, 3972
 reimbursement by State and county, 4670
 your health insurance, 6174, 7753
 medicare programs—
 administration of Federal health benefit programs, hearings, 15904
 amendments, summary of decisions, press release, 15951
 costly problems, hearings, 13728
 hearings, 6797, 16050, 17700
 mortality of aged before and after medicare, 15164
 outlays for aged and nonaged persons, 1966-69 fiscal years, 11860
 prices, fact sheet, 6171
 public assistance, vendor payments by type of service, 12852, 14938
 regional medical programs—
 extend—
 hearings, 8428, 12279
 reports, 12248, 15980, 17627
 heart disease, cancer, stroke, etc., progress report, 1068
 size and shape of medical care dollar, chart book, 6172
 standards of medical fitness, Army regulation, 7900-1
 tax deduction for medical and dental expenses, 5640
 Veterans Administration hospitals and medical programs, funding and personnel needs, hearings, 13547
 veterans outpatient care, amend U.S. Code, law, 318
 veterans scarce medical services, 1969-70—
 additional material, 13546
 information, etc., 8325
 veterans with service since Jan. 31, 1955, medical, dental and hospital benefits, 11932
 veterans wounded in Vietnam, problems and oversight, hearings, 6812, 12379
 your social security, 9117, 11864
 see also Health—Health insurance.
 Medical certificates:
 aviation medical examiners, directory, 8042
 reviewing and acting on, FPM manual supplement, 2607
 see also Death certificates.
 Medical Corps, Army, your future, 6368
 Medical Department, Army:
 AMEDD officers, commanders' guide to retention, 15483
 early commissioning program for medical, osteopathic, dental, and veterinary students, fact sheet, 8002
 Medical Department, Navy:
 manual, changes, 833, 4397, 8887, 10314, 14759-760, 16881, 18140
 orientation, 11815
 Medical economics, size and shape of medical care dollar, chart book, 6172

Medical education, see Education.
 Medical examinations, see Physical examinations.
 Medical examiners, aviation, directory, 10781
 Medical facilities, see Health centers—Hospitals.
 Medical institutes, see Medical schools.
 Medical institutions, see Hospitals.
 Medical instruments and apparatus:
 ambulance design and equipment requirements, 8774
 Federal item identification guides for supply cataloging, supplements, 2595
 Medical insurance, see Health insurance.
 Medical Insurance Trust Fund, Federal Supplementary, see Board of Trustees of Federal Supplementary Medical Insurance Trust Fund.
 Medical laboratories:
 bacteriological diagnosis of cholera, USSR study, 18100
 directory of medicare providers of services under health insurance for aged, 4669
 independent, participating under health insurance for aged, 11857
 Medical laboratory technicians:
 medical laboratory workers, employment outlook, 14668
 Veterans Administration, career opportunities, 17398.
 Medical libraries, see Libraries.
 Medical literature:
 bibliography of medical reviews, 2732, 2899
 cumulated, index medicus, 10464
 Medical literature analysis and retrieval systems:
 MEDLARS, principles, handbook, 7629
 MEDLARS services, guide, 4572, 7627, 15023
 Medical malpractice, patient versus the physician, 5266
 Medical Nutrition Laboratory, Fitzsimons General Hospital, see Army Medical Research and Nutrition Laboratory.
 Medical officers:
 AMEDD officers, commanders' guide to retention, 15483
 Medical, osteopathic, dental, and veterinary medical students, Army Medical Department early commissioning program, 8002
 see also Physicians.
 Medical Radiation Exposure Division, DMRE series, 1052
 Medical radiation information for litigation, proceedings of conference, 1052
 Medical record librarians, employment outlook, 14670
 Medical records, automated systems of medical data processing, USSR study, 18098
 Medical research, Soviet medical institutes, USSR study, 7356
 see also Medicine.
 Medical schools:
 Health training improvement act of 1970—
 hearings, 9924
 report, 13651
 special departments and programs in field of family practice, grants to establish—
 hearings, 12375
 report, 13679
 work of Orenburg Medical Institute, USSR, 5745
 Medical service, see Medical care.
 Medical Specialist Corps, Army, four educational opportunities for occupational therapy students, 6367
 Medical specialists, naval enlistees serving as medical specialists, military effectiveness, 14764
 Medical statistics, automated system of medical data processing, USSR study, 18098
 Medical supplies:
 Federal item identification guides for supply cataloging, supplements, 2595

INDEX 1970

Medical supplies—Continued

medical materiel, procurement quality assurance handbook, supplement, 11185
stored for national emergencies, transfer to another Federal agency before shelf life expires—
law, 15808
report, 16851

Medical technicians:

emergency ambulance, basic training program—
concepts and recommendations, 7602
instructor's lesson plans, 14958
medical technical assistant, examination announcement, 1356
see also X-ray technicians.

Medical technologists:

frontier of clinical pathology, 6 interviews conducted at National Institutes of Health, 11780
Veterans Administration, career opportunities, 17398

Medical zoology, *see* Zoology.

Medicare, *see* Health insurance—Medical care.

Medicinal plants, *see* Medical botany.

Medicine:

Academy of Medical Sciences, USSR, work reviewed, 7361

advanced abstracts of scientific and technical papers submitted for publication and presentation, 9368

aeromedical research, the new generation aircraft (address), 9412

aerospace medicine—

Air Force pamphlet, 7958

bibliography, 2300

physiology of flight, 10720

associate training programs, medical and biological sciences, NIH, 6052

automated system of medical data processing, USSR study, 18098

aviation medical report AM series, 1283, 3516-18, 6402-5, 8035-41, 10780, 11976-981, 13088-89, 17476-478

computer technology, USSR study, 5726

Conduction Development Conference, proceedings, 17072

cybernetics in medicine, USSR study, 4345

family practice, personnel training, encouragement and promote—

hearings, 12375

report, 13679

FDA clinical experience abstracts, 2568

general research support grant programs, its objectives and how they are being met, 16656

group medical practice facilities, 12602

HUD aids for financing, 7286

history, bibliography, 10463

how medical students finance their education, 1967-68 survey, 18267

index medicus, 2732

abridged, 4571

cumulated, 10464

medical education, new ideas proposed, USSR study, 5772

medical malpractice, patient versus the physician, study, 5266

medical problems in rural areas, 14265

medical radionuclides radiation dose and effects, 13068

medical research—

support, Army Medical Research and Development Command, 13063

Veterans Administration, annual report, 9258

medical science, today and tomorrow, USSR study, 8846

medical standards and certification, Federal aviation regulations, 17959

medical subject headings, 2732, 10464

medically trained servicemen, where do you go from here? Operation MEDHIC, 12595

Medicine—Continued

medicine and psychiatry, biological rhythms, impact research, 17137

military field therapy, teaching in Soviet medical institutes, 16810

National Library of Medicine, services, etc., 6056

Navy—

medical newsletter, 2946

statistics, quarterly, 3231

notes for medical catalogers (periodical), 2971

notes on biometry in medical research, 6277, 15377

nutrition and predictive medicine, hearing, 15916

predictive program (statement), hearing, 15916

program, AEC authorizing legislation, 1971, hearings, 8190

regional medical programs—

coordinators and chairmen of regional advisory groups, conference, 6149

guidelines, addendum, 10198

selected bibliography, 15149

School of Aerospace Medicine, technical reports, 55-57

space, medicine and aviation, psychophysiological and engineering-psychological aspects, USSR study, 10259

technical assistant, examination announcement, 15699

United States naval medical research unit, establish, agreement with Indonesia, 7820

USSR, Academy of Medical Sciences, vestnik (periodical), 3328

see also Drugs—Healing art—Nuclear medicine.

Medicine men, Cherokee shaman, notebook, 9025

Medicines, medicinal chemicals, synthetic organic, production and sales, 4769

see also Drugs.

Medina Canal, Bexar-Medina-Atascosa Counties, Tex., seepage investigation, Water Improvement District No. 1 Canal System, 10184

Medina County, Ohio, community profile, 14095

Medina County, Tex., seepage investigation on Medina Canal, Water Improvement District No. 1 Canal System, 10184

Mediterranean countries, contributions to hydrology of Africa and Mediterranean region (series), 8758

Mediterranean Sea:

lights and fog signals, list, change, 10488

nautical charts and publications, catalog, 7670

radio navigational aids, changes, 1019

sailing directions, changes, 6083, 7673, 17180

sardines, experimental production of fish protein concentrate, 3710

tide tables, 10653

MEDLARS, *see* Medical literature analysis and retrieval systems.

Medlock, Beverly, relief, 9592, 9812

Medlock, Ruth L., relief, 9592, 9812

Medvin, Norman, forecasting occupational job requirements, 14653

Meehan, William R.:

effects of clearcutting on salmon habitat of 2 southeast Alaska streams, 4206

some effects of shade cover on stream temperature in southeast Alaska, 8695

Meeting critical shortages of classroom personnel, 4056

Meetings, *see* Conferences, congresses, etc.

Meeves, Henry C., silver potential and economic aspects of Leadville district, Lake County, Colo., 11576

Meier, Lewis, information requirements for supersonic transport operations, 12764

Meigs County, Ohio, community profile, 14096
 Meigs County, Tenn.:
 appraisal of potentials for outdoor recreational development, 7761
 forest inventory statistics, 17379
 Melrovitch, Leonard, general motion of variable-mass flexible rocket with internal flow, 5904
 Meisinger, Arthur C., mineral industry of Nevada, 4446
 Melssner, William A., tumors of thyroid gland, 8456
 Melssner, William A., Jr., address, Sept. 25, 1970, 17748
 Mejia, R., time series analysis, theory and practice, 11779
 Mekong River and Valley:
 basin, probable maximum precipitation, 17411
 lower basin Pa Mong project, stage 1 feasibility report, 9085-86, 15143, 17242, 18316-317
 Melamine dinnerware, alpha-cellulose-filled, for household use, product standard, 14928
 Melanesis, wasps of genus *Cerceris* Latreille (Hymenoptera, Sphecidae), revision, 2218
 Melanson, Roger M., footnote, journal of MEW Audit Agency, 12594
 Melasyntites, *see* Rocks.
 Melfi, Samuel H., airborne laser-radar studies of lower atmosphere, 2104
 Mellette County, S. Dak., community profile, 14097
 Mellor, Malcolm:
 foundations and subsurface structures in snow, 4073
 utilities on permanent snowfields, 4074
 Melons, acreage marketing guides, 525, 5285
 Melsheimer, Edwin S., spillway and outlet works, Tocks Island Dam, Delaware River, Pa., N.J., and N.Y., 16451
 Melson, William G., volcanic eruption at Metis Shoal, Tonga, 1967-68 description and petrology, 17172
 Melting point:
 and phase transformation of beryllium oxide, 9383
 melt-layer thickness and regression rates for hybrid or tribrid rocket motor, analytical method for determining, 10387
 pure zirconia, 9382
 solidus and liquidus temperatures of UO₂ and ThO₂ systems, 9381
 Melton, C. E., use of tranquilizer chlordiazepoxide in flight training, 11976
 Melville, Herman, 6-cent Moby Dick commemorative stamped envelope (poster), 6119
 Melvin, Raymond C., relief, 5088
 Member banks, *see* Federal reserve member banks.
 Membranes:
 anionic, improved for electrodialysis, 776
 biological aspects of saline water problem, 7305
 cellulose ester, research and development, 14595
 improved cellulose acetate membranes, development for reserve osmosis, report, 7307
 improved membranes for reserve osmosis, 770
 modified Loeb, synthesis by grafting, 10232
 modified whirling-membrane solar-energy concentrator, geometric properties, 11683
 natural and synthetic membranes, conference proceedings, 980
 newly developed ion-exchange, evaluation for electrodialysis and/or transport depletion, 775

Membranes—Continued
 oriented cellulose, for reverse osmosis and relationship between morphology and salt rejection, study, 5622
 polymer, determination of surface and colloidal conditions which can lead to high salt rejection, reverse osmosis, 5614
 porous glass, membranes research for reverse osmosis, 5621
 reverse osmosis—
 containing graphitic oxide, final report, 10231
 direct casting on porous supports, 7308
 desalination development, 10223
 development, 10226
 hydrocasting, 11443
 improved research, 1951, 16701
 new synthetic, for desalination, 10225
 polyolefin, development, 10222
 sulfonated polyphenylene oxide, development for, 11448
 pyrrones as membranes, evaluation, 16940
 skinned type, mechanism for formation, 1956
 tubular cellulose acetate, improvement by feed additives, 10224
 Memorandums, *see* names of departments, etc., issuing memorandums.
 Memorial services:
 Bates, William H., 8172
 Dirksen, Everett McKinley, 6531
 Eisenhower, Dwight David, 6556
 Lipscomb, Glenard P., 15761
 Ronan, Daniel J., 6530
 St. Onge, William L., 17573
 Utt, James B., 15762
 Memorials, *see* National monuments and memorials—also names of persons to whom memorials are erected.
 Memory:
 analyzed in terms of molecular physiology, USSR study, 12628
 mechanism—
 emotional memory, involvement of cholinergic structures of brain, USSR study, 7392
 USSR, 6th Gagra meeting, 7397
 Memory devices:
 hybrid memory systems, USSR study, 16771
 limited memory estimators, application to spacecraft attitude determination, analysis, 14835
 memory subsystem with MOS transistor of single type, calculating parameters, USSR study, 11493
 see also Magnetic memory.
 Memphis, Tenn.:
 area wage survey, 7430
 Internal Revenue Service automatic data processing center, consider amended lease prospectuses to authorized annual rental, hearing, 9940
 interstate air quality control region, report for consultation, 8968
 Mississippi River and tributaries in district, stages and discharges, 10014
 principal electric facilities, map, 8628
 Men:
 annual mean income, lifetime income, and educational attainment, 1956-68, 17538
 comprehensive MMPI code book for males, 9257
 Mendel, Joseph J., rate of value increase for yellow-poplar and beech, 5511
 Mendeleev, Dmitri I., Mendeleev Centennial (remarks), 1274
 Mendenhall, Michael R.:
 computer program for prediction of ducted fan performance, 5895
 theoretical study of ducted fan performance, 4496
 Mendenhall River, Juneau, Alaska, flood plain information, 16422

Mendola, Ladia, relief, 1877
 Menhaden, Atlantic, synopsis of biological data, 3704
 Meningitis, meningococcal, general information, 15129
 Meningococcus, meningococcal meningitis, general information, 15129
 Menis, O., Analytical Coordination Chemistry Section, summary of activities, 17040
 Men's residence halls, University of Dubuque, Dubuque, Iowa, buildings with fallout protection, design case study, 13187
 Mental defectives, *see* Mentally handicapped.
 Mental diseases, *see* Mental disorders—Psychiatry.
 Mental disorders:
 epidemiology, 1966-68, bibliography, 12857
 psychological distress, selected symptoms, United States, 17050
 Mental health:
 benefits, medicare and medicaid, 9020
 community centers, bold new approach, 11774
 consultation in mental health and related fields, reference guide, 1051
 directories, 7613, 11416
 film guide, listings, distributors, etc., 7625
 mental health digest (periodical), 2879
 occupational mental health notes, 2979
 outpatient psychiatric services, 1063
 private funds, annotated list of foundations, etc., 1066
 program reports, 7614
 programs—
 non-professional personnel, summary report, 7616
 statistics, selected papers from annual meetings of National Conference on Mental Health Statistics, 9021
 psychiatric-mental health nursing institutions offering stipends, list, 9017
 psychologists, 1966 survey, 1069
 Public Health Service's mental health career development program in psychiatry, 15012
 State salary ranges of positions, 743, 11405
 statistics—
 analytical and special studies report, 15017
 conference and committee report, 9021
 current facility report, 6046
 mental health facilities reports, 1063, 4564
 methodology report, 4565
 support programs of NIMH, 6047
 systems, operations research to management of, administrator's handbook, 7607
 voluntary agency and community mental health services, 17138
 see also Health.
 Mental health centers, *see* Mental institutions.
 Mental hospitals, *see* Mental institutions.
 Mental illness, lithium in treatment of mood disorders, 9018
 see also Mental disorders.
 Mental institutions:
 CMHC comprehensive community mental health center, grants for construction and staffing, 11777
 community mental health centers—
 bold new approach, 11774
 data systems, description of existing programs, 4565
 essential services—
 inpatient services, 1055
 outpatient services, 1056

Mental institutions—Continued
 Community mental health centers act, amend—
 hearings, 3875
 law, 6543
 reports, 1535, 6583
 current facility report, 17249
 mental health facilities reports, statistics, 1063, 4564
 provisional patient movement and administrative data, residents in public institutions for mentally retarded, 17249
 residential services for mentally retarded, action policy proposal, 9069
 rural mental health centers, general information, 6050
 staffing patterns in mental health facilities, 15017
 State and county mental hospitals, provisional patient movement and administrative data, 6046
 State, for mentally retarded in California, questionable claims under medicaid program for care of persons in, GAO report, 10151
 Mental retardation:
 abstracts (periodical), 2880
 biological factors, hope through research, 17228
 casefinding, developmental approach, 8885
 Developmental disabilities services and facilities construction act—
 hearings, 3983, 11046
 reports, 6774, 12243, 13411
 Facilities construction act, amend—
 hearings, 3983, 11046
 reports, 6774, 12243, 13411
 grants awarded by HEW, list, 7259
 Health, Education, and Welfare Department activities, 5572
 manpower and mental retardation, exploration of issues, conference proceedings, 12903
 mental retardation and other developmental disabilities—
 hearings, 3983, 11046
 reports, 6774, 12243
 PCMR message, 3010
 problem, general information, 739
 publications, Health, Education, and Welfare Department list, 11404
 speech, hearing, and language in relation to bibliography, 7449
 State and local resources, directory, 4266
 Mental tests:
 computer-simulated conventional and branching tests, comparison, 15494
 human intelligence, bibliography, 6041
 Mentally handicapped:
 action against mental disability, report of President's Committee Task Force on Mentally Handicapped, 17214
 fresh views on employment, special report (periodical), 3216
 Mentally ill:
 employment of mentally restored, involvement for community organizations (periodical), 2772
 mentally restored, selective placement in Federal civil service employment, handbook, 15689
 psychiatric services, general hospital inpatient, 4564
 services of community mental health centers—
 inpatient services, 1055
 outpatient services, 1956
 see also Mentally handicapped.
 Mentally retarded:
 children—
 clinical programs, listing, 10312
 of members of Armed Forces, health care cost-sharing arrangements, prescribe, amend U.S. Code, hearing, 8858

Mentally retarded—Continued
 children—continued
 selected reading suggestions for parents, 18185
 mental retardation, its biological factors, hope through research, 17228
 persons filing tort actions, extend time, amend U.S. Code, report, 1457
 residential services, action policy proposal, 9069
 residents in public institutions, provisional patient movement and administrative data, 17249
 selective placement in Federal civil service employment, handbook, 15689
 six-hour retarded child, conference report, 9071
 State and local resources, directory, 14563
 State institutions in California, questionable claims under Medicaid program for care of persons, Social and Rehabilitation Service, GAO report, 10151
 these, too, must be equal, America's needs in habitation and employment, 2202
 voluntary admission to Forest Haven institution to provide care, education, and treatment, report, 16014
 Menus, money-saving main dishes, 1196, 15418
 Mercer, Charles E., effect of plug base contour on performance of fully truncated plug nozzle with translating shroud, 5950
 Mercer, Jerry W.:
 geophysical study of alluvial valleys in western Mora County, N.M., 10168
 hydrology of Project Gasbuggy site, Rio Arriba County, N. Mex., 8023
 Mercer County, Mo., community profile, 17822
 Mercer County, N. Dak., community profile, 14098
 Mercer County, Ohio, community profile, 14099
 Mercer County, Pa., community profile, 16312
 Merchandise, *see* Commercial products.
 Merchandising your job talents, 4365
 Merchant marine:
 act of 1936, amend—
 hearings, 3966, 3967, 8312, 12362, 13535
 law, 10911
 reports, 360, 8262, 9711, 13688
 act of 1970, program (remarks), 8881
 administration program to update our maritime industry (remarks), 16878
 administration programs to encourage growth (remarks), 7097
 American—
 adjunct of seapower (remarks), 16493
 public relations improvement (remarks), 641
 cross-eyed stepchild no longer? (remarks), 10056
 enlarge (address), 10242
 future role (address), 9497
 Government determination to improve American foreign trade and merchant marine (remarks), 4142
 Great Lakes' industry to receive assistance (remarks), 11563
 importance of trade and commerce (remarks), 5429
 improving conditions of labor, noise control on seagoing ships, USSR study, 4327
 industry, FMC role (remarks), 10053
 journey ahead (remarks), 4396
 legislation, hearings, 13535
 long range replacement program (address), 9493
 maritime industry—
 challenge and opportunity (remarks), 8884
 problems and advances (remarks), 10057
 maritime program to rebuild, revitalize, etc., American sea power, hearings, 12362

Merchant marine—Continued
 maritime safety digest (periodical)—
 longshoring, 2870
 shipyards, 2871
 maritime's role, commission and industry (remarks), 7094
 merchant fleet pictures, 16880
 merchant marine and seapower (remarks), 10308
 modernization (remarks), 832
 national policy to revitalize (remarks), 14373
 new growth under the President's program (remarks), 11560
 new shipbuilding program, recommendations—
 hearings, 3882, 8312
 message from the President, 1438
 occupations, employment outlook, 16840
 oceanic education, dynamic key to maritime progress (remarks), 5425
 officers' training (remarks), 11562
 our maritime status, today and tomorrow (remarks), 7445
 overcoming Russian rivalry (remarks), 1854
 President Nixon's plan for rebuilding (address), 15710
 problems of maritime industry (remarks), 17980
 program, reports, 8262, 9711, 13688
 proposals for improvement (remarks), 14374
 rationale of new maritime program (address), 831
 role of Federal Maritime Commission in stimulating growth and equal competition with other countries (remarks), 17983
 serving American business, 10311
 ship designs for U.S. flag merchant fleet, 12730
 stepchild of economy (remarks), 8621
 supporting President Nixon's program for advancement of American shipping interests (remarks), 4143
 training changes (remarks), 10309
 United States flag merchant fleet ocean-going vessels 1,000 gross tons and over, employment, report, 2535
see also Ships.
 Merchant Marine Academy, change of command ceremonies (remarks), 10310
 Merchant Marine and Fisheries Committee, House:
 calendar, 2808
 hearings, 430, 1593-95, 3880-83, 5169-73, 8312-13, 9762, 12280, 13534-535, 15925-927
 investigations and studies, expenses, report, 8240
 reports, 360, 1524, 1536-37, 3819, 3842, 6581, 6591, 6605, 8262, 10994-995, 12235-236, 12250, 13456, 13466, 13468, 13487, 17630
 Merchant Marine Council, proceedings, 3099
 Merchant ships, *see* Ships.
 Merchant vessels, *see* Ships.
 Mercur, Utah, leaching gold-bearing mill tailings, 10333
 Mercury:
 boiler, X-ray observations of flow patterns, 11631
 cesium-mercury system, liquid metal solutions in thermodynamic properties, 2112
 contamination in natural environment, bibliography, 14604
 electrochemical coulometer as battery state-of-charge indicator, 12789
 mercury-transformer and semiconductor substations, USSR study, 11507
 mineral industry survey, quarterly, 2881
 minerals yearbook chapter, 16900
 poisoning, effects on man and the environment, hearings, 17693

- Mercury—Continued
 recovery derived from electrolytic oxidation of cinnabar ores, 12750
 transformer and semiconductor substations, USSR study, 16741
- Mercury (planet):
 direct and Venus swingby trajectories, planetary flight handbook, 10371
 thermal contraction, 11688
- MERF—MERS (Materials evaluation report form/system), *see* Desalination.
- Mergers, *see* Business consolidations.
- Merging control systems, 18313
- Merida, Mexico, despatches from U.S. consuls, 1843-97, pamphlet to accompany microcopy, 4536
- Meriden, Conn., census of transportation, 1967, commodity transportation survey, production, area series, 6418
- Meridian, Idaho, ground-water infiltration reduced in sewers by zone pumping, 14417
- Meridian circle, *see* Transit circle.
- Meristems, apical, and embryonic shoots of *Picea abies*, culture, approach and techniques, 9326
- Merit systems:
 State and local systems, extend to additional programs financed by Federal funds—
 hearings, 17639
 report, 1608
- Merlin division, *see* Rogue River basin project.
- Mero (U.S.S.):
 loan extension, agreement with Turkey, 17357
- Merrick, Vernon K., instability of slender thin-walled booms due to thermally induced bending moments, 11646
- Merrick County, Nebr., community profile, 17823
- Merrimack County, N.H., Sugar River watershed, work plans, 15253
- Mertins, Paul F.:
 commentary on endowment, financial statistics, institutions of higher education, 14285
 financial statistics of institutions of higher education—
 current funds, revenues, and expenditures, etc., 16393
 Federal funds, 9986
 selected financial statistics of institutions of higher education, 12504
- Mesa Verde National Park, Big Juniper House, Wetherill Mesa excavations, 7630
- Mesabi Range, taconite iron ores, evaluating their economic availability with computerized models, 14777
- Mesavage, Clement:
 converting dendrometer estimates of outside-bark stem diameters to wood diameters on major southern pines, 691
 modification of Zeiss telemeter telepot for precision dendrometry, 4196
- Mesometeorological systems, *see* Meteorology.
- Mesosphere:
 equatorial, circulation in winter, 15460
 temperature, pressure, density, and wind measurements, 14893
 winds over Ascension Island in January, 15474
see also Atmosphere.
- Mesozoic era:
 batholithic complexes in California and western Nevada, chronology of emplacement, 7245
 stratigraphy in southeastern Arizona (series), 16018
 stratigraphy of Mule and Huschucha Mountains, Ariz., 4252
- Messes, need for construction mess halls in Defense Department, basis for determining, GAO review, 722
- Messina, Carla G. edit-insertion programs for automatic typesetting of computer printout, 8992
- Metabolism:
 energy utilization in even-aged northern hardwoods, estimates, 12557
 trapping agents of $^{14}\text{CO}_2$ used in vitro metabolic studies, comparative study, 15502
- Metal bars, *see* Bars (metal, etc.).
- Metal coating, services, census of manufactures, 1967, industry statistics, 17526
- Metal cutting, tool industry 1965-69, shipments, 15539
- Metal finishing, waste treatment, state-of-the-art, review, 16523
- Metal foils, foil gas-bearing test rig design, fabrication and testing, 10353
- Metal industries, *see* Metal trades.
- Metal oxides, systems of heavy ions in energy range 60 to 400 Kev, range, 12746
- Metal powders, *see* Powders.
- Metal shapes, *see* Shapes (metal).
- Metal sheeting, *see* Sheet metal.
- Metal stamping, census of manufactures, 1967, industry statistics, 17526
- Metal straightening, *see* Straightening.
- Metal trades, mineral industries, 1965, injury experience, 851
- Metal work, *see* Metalwork.
- Metal working, *see* Metalworking.
- Metallizing, *see* Metal coating.
- Metallic surfaces, *see* Surfaces.
- Metallization systems for integrated circuits, 11687
- Metallography metallographic group meeting, 21st gathering, technical papers, 3489
- Metallurgy:
 and materials programs, 13086
 and materials research program, 6396
 East European scientific abstracts, 2522
 iron-copper-carbon powder metallurgy alloy, use of cement copper in, 7479
 nonferrous, research, USSR study, 11489
 proposed processes for making rutile substitutes, 7460
 recovery process, capital and operating costs computer program for calculating, 840
 USSR scientific abstracts, 3322
- Metals:
 cans and miscellaneous fabricated metal products, census of transportation 1967 commodity transportation survey, shipper group, 1314
 ceramic-metal bore seal development, 14816
 dielectric-semiconductor integrated logic circuit for automation and telemechanics systems, USSR study, 16780
 diffusion in metals, USSR study, 16764
 fabricated products, except cans, census of transportation, 1967 commodity transportation survey, shipper group 1313
 fabricated structural products, census of manufactures, 1967, industry statistics, 17525
 fiber-reinforced, characterization and design mechanics, 10407
 galvanomagnetic effects in metals, theory, 2119
 high-purity, study of cavitation damage in water, 17002
 industries, technologic trends, minerals yearbook chapter, 885
 irradiated dislocation channeling, 17188
 light elements in metals, determination, bibliography of activation analysis papers, 8995
 liquid-drop-impact erosion, basic research, 12762
 liquid-metal systems high-temperature transient pressure transducer for use in, 2120
 liquid solutions in cesium-mercury system, thermodynamic properties, 2112

Metals—Continued

- metal-cutting tool industry, 1965-69, shipments, 15539
- metallic materials and elements for aerospace vehicle structures, military handbook, change, 11179
- metals and metal products, trade and tariff information summaries, 6262
- miscellaneous metal products, census of manufactures, 1967, industry statistics, 15608
- miscellaneous primary metal products, census of manufactures, 1967, industry statistics, 15606
- molten, improved maximum-bubble-pressure system for measuring surface tension, 4480
- multiple liquid impact erosion, experimental and analytical investigation, 16937
- nonferrous—
 - metallurgy research, USSR study, 11489
 - smelting and refining, census of manufacturers 1967, industry statistics, 15605
- primary nonferrous metal products, census of transportation, 1967, commodity transportation survey, shipper group, 3606
- procedures for analysis of metals, alloys, and other materials of research, 4625, 15061
- pure metals in temperature range 0 to 273 K, electrical resistivity measurements survey, 18236
- quality scrap, dismantling typical junk automobile to produce, 2059
- radiation induced preparation from aqueous salt solutions, 12812
- range of heavy ions in energy range 60 to 400 KEV, 12746
- recovery from electroplating wastes by waste-plus-waste method, 14799
- refractory—
 - contamination by oxygen, water vapor, and carbon monoxide, 11607
 - fuel elements research, final report, 9387
 - high-strength tantalum composites by thermomechanical working, 4530
 - substructural hardening and gas extrusion, USSR study, 18104
 - superalloy scrap, chemical reclaiming, 874
 - transmission and backscatter coefficients of 1.0- to 3.0-MeV electrons incident on some metals and alloys, 8942
 - water metals, report of study, 8566
 - welding in space, experiment, USSR study, 16765
- yearbook, 1968—
 - departmental edition, 7475
 - document edition, 6553
- see also* Containers—Creep of metals—
 - Fracture of metals—Misch metal—also names of metals—also names of articles manufactured from metals.
- Metalwork, ornamental, special trade contractors, census of construction industry, 1967, statistics, 13136
- Metalworking:
 - technology, selected advances, 9102
 - trades, apprenticeship, schedules, 13035
- Metalworking machinery:
 - current industrial reports, 2476, 8086
 - Federal item identification guides for supply cataloging, supplements, 2591
 - metalworking machines safeguarding, 12660
- Metamorphic rocks, *see* Rocks.
- Metcalf, Henry B., automated fault diagnostics for frequency dependent circuits by correlation and variance techniques, 5978
- Meteorites:
 - meteoritic minerals, minor and trace elements, 17271

Meteorites—Continued

- penetration flux for multiwall structure on Lunar Orbiter spacecraft, calculation, 905
- proton irradiation of micrococcus radiodurans and sarcina flava microorganisms placed in meteorite, USSR study, 4333
- Meteoroid bumpers, *see* Bumpers.
- Meteoroids, *see* Meteorites—Meters.
- Meteorological apparatus and instruments:
 - Federal item identification guide, 8467
 - Museum of History and Technology catalog, 4667
- NSSL-WKY meteorological tower, Oklahoma City, Okla., roughness lengths evaluation, 17948
- see also* Anemometers.
- Meteorological balloons, *see* Balloons.
- Meteorological Rocket Network, Experimental InterAmerican, *see* Experimental InterAmerican Meteorological Rocket Network.
- Meteorological rockets, *see* Rockets.
- Meteorological satellites, *see* Satellites.
- Meteorologists, employment outlook, 14673
- Meteorology:
 - American Meteorological Society abstracts, 2969
 - Army aviation applicable to, technical manual, change, 9357
 - Caribbean and adjacent regions, bibliography, 18283
 - cloud growth associated with development of secondary cyclones, meteorological satellite views, 12771
 - data report, meteorological rocket network firings (periodical), 2488
 - Federal meteorological handbook, 272
 - Federal plan for meteorological services and supporting research, 1971 fiscal year, 5395
 - major storms in western Colorado and eastern Utah, 1827
 - mesometeorological systems, measurement of divergence, 10022
 - meteorological flight path—
 - plotter subroutine, 4089
 - plotter subroutine COMBI and 4 parameters, 8571
 - meteorological objects, identification from reflected laser signals, USSR study, 7378
 - meteorological satellite data applied in analysis and forecasting, 14348
 - meteorology from space altitudes, USSR study, 11521
 - records documentation, 4095, 10030-31, 11277, 17954
 - satellite, 12827
 - television cloud photography, catalog, 4095
 - sea level meteorological properties and heat exchange processes, trade wind zone oceanography pilot study, 15750
 - statistical aspects of power law profiles, 15473
 - straight line flight data derived from SLENDER, plotter subroutine, 5387
 - surface observations, handbook, 272
- synoptic—
 - weather patterns, station descriptions of local effects, 1837
 - weekly analyses, 5-, 2-, and 0.4-millibar surfaces, 11276
 - temperature, pressure, density, and wind measurements in stratosphere and mesosphere, 14893
- see also* Hydrometeorology—Tornadoes—Weather—Winds.
- Meteorology and hydrology (USSR periodical):
 - translations, 2682
- Meteors:
 - bumper-hull structures, discussions of modes of failure with application of meteoroid hazard, 17007

Meteors—Continued

- hyperboloid cavity in thin plate caused by meteoroid impact, stress concentration, 14887
- ions produced by simulated micrometeoroid impact, time-of-flight mass spectrometer for studies, 8950
- meteoroid penetration data including effects of cutoff statistical analysis, 5959
- nature and origin, 10417
- photographic meteors, unaccelerated velocity and mass distributions, empirical analysis, 10388
- randomly oriented armor thickness for meteoroid protection, 10400
- simulation of meteoroid-velocity impact by use of dense projectiles, 10390
- sporadic meteors photographed in New Mexico, spatial bias correction, 16958
- Meters, *see* names and types of meters, or substances and types measured.
- Methacrylates, improved membranes for reverse osmosis, 770
- Methanes:
 - emission rate studies from northern West Virginia mine, 14800
 - interaction of methane, ethane, ethylene, and acetylene with iron (001) surface and their influence on adhesion studies with LEED and auger, 11666
 - liquid, insulated wing tanks for supersonic cruise aircraft, analytical heat transfer investigation, 4531
 - methane fuel used in turbines of turbojet powered Mach 3 transport, turbine aerodynamic and cooling requirement, 14871
 - methane or hydrogen fuel, thermal feasibility of using for direct cooling of 1st-stage turbine stator, 18219
 - n-pentane and methane-n-pentane, phase behavior in binary and multicomponent systems, at elevated pressures, 11732
- Methanol, Ti6Al-4V alloy in methanol, some factors affecting stress-corrosion cracking, 2103
- Methodology, infant mortality from linked records, methods of study and registration aspects of study, 6017
 - see also* subjects.
- Methoxychlor, chronic effects on bluegills and aquatic invertebrates, 11892
- Methyl methacrylate, *see* Methacrylates.
- Metis Shoal, Tonga, volcanic eruption, 1967-68, description and petrology, 17272
- Metric system:
 - English and metric systems of measurement, with chart brief history and use modernized metric system, 17035
 - NASA study, 5907
- Metroka, Robert R., fabrication of uranium mononitride compacts, 11692
- Metropolitan areas, *see* Cities and towns.
- Metsker, Howard E., fish versus culverts, considerations for resource managers, 14431
- Mexican-American Affairs, Inter-Agency Committee on, *see* Inter-Agency Committee on Mexican-American Affairs.
- Mexican Americans:
 - and administration of justice in Southwest, 6468
 - children, Malabar reading program, Los Angeles, Calif., elementary program in compensatory education, 4053
 - problems, Civil Rights Commission hearing, 3659
 - stranger in one's land, Civil Rights Commission report, 9462
 - urban problems (address), 4271
 - we, the Mexican Americans, 6460
- Mexican border to Point Conception, Calif., marine weather services chart, 15388

Mexico:

- air transport services, agreement, 17351
- archeological, historical, and cultural properties, recovery of stolen objects, treaty, message from President or United States, 15972
- economic trends and their implications for United States, 11466
- education in changing Mexico, 580
- establishing business in, 15725
- market factors, 8150
- meat imported into U.S., agreement, 10623, 17359
- radio broadcasting, agreement, withdrawal of obsolete protocol, 6733
- United States-Mexico boundary, 1849-55 survey, background study, 4586
- weather stations, cooperative meteorological program, agreement, 7833, 15331
- west coast, sailing directions, 2171
- Mexico, Gulf of:
 - cidaroid echinoids, field guide, 6161
 - coast pilot, supplement, 8133
 - Continental Oil rig 43-A explosion and fire with no loss of life, marine casualty report, 7656
 - Gulf Coast shrimp data, annual summary, 289
 - north central, sun-dried-shrimp industry, survey, 9521
 - SS Gulfstag fire with loss of life, Gulf of Mexico, marine casualty report, etc., 7661
 - surface water quality of—
 - eastern basins, 8761
 - western basins, 14554
 - Lavaca River to Rio Grande, 10193
 - Mermentau River to Colorado River, 7254
- Mexico-United States Interparliamentary Group:
 - House delegation report—
 - 9th conference, 9735
 - 10th Conference, 17645
 - 10th meeting, Senate delegation report, 16054
- Meyer, Fred P., parasites of freshwater fishes, protozoa, *Ichthyophthirius multifiliis*, 6203
- Meyer, Jon K., bibliography on urban crabs, 6042
- Meyer, Roger E., adverse reactions to hal-lucinogenic drugs, 1048
- Meyer, Walter R., geohydrology of Finney County, southwestern Kansas, 12591
- Meyers, Samuel M., welfare policy and its consequences for recipient population—study of AFDC program, 7743
- Meyjes, F.E.P., epilepsy abstracts, 2543
- MHD, *see* Magnetohydrodynamics.
- Miami, Fla.:
 - area wage survey, 7431
 - geomorphology and sediments of near-shore Continental Shelf, 4066
 - International Airport, climatological summaries, 2261
 - metropolitan intrastate air quality control region, report for consultation, 8969
- Miami County, Ohio, community profile, 14100
- Mica, North Carolina mica tailing, selective flotation of minerals, 877
- Mice, early stages of embryos cultivated in vitro, effect of serotonin and antiserotonin preparations on development, USSR study, 5730
- Michaels, Stella, equilibrium critical phenomena in fluids and mixtures comprehensive bibliography with keyword descriptors, 12844
- Michalski, Bernadette:
 - mineral industry of—
 - Bulgaria, 16902
 - Greece, 4428
 - Poland, 4457

Michaud Flats project, construction, maintenance, and operation, report, 6609
 Michel, Bernard, ice pressure on engineering structures, 14306
 Michelson, Ronald W., evaluating economic availability of Mesabi Range taconite iron ores with computerized models, 14777
Michigan:
 Bedford shale, Berea sandstone, and Sunbury shale age, 5541
 career directory, college level, 9466
 census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 6415
 retail trade, merchandise line sales, 13108
 selected services, area statistics, 1294
 wholesale trade, area statistics, 179
 census of governments, 1967, State report, 3572
 census of transportation, 1967, commodity transportation survey, 9438
 climatological data, 2409
 county business patterns, 1321, 13163
 electric rate book, 16501
 Federal careers projected vacancies, college level, 9469
 flood of Aug. 1942 in Ontonagan River basin, 8733
 Great Lakes area, fishery products, wholesale dealers, list, 9546
 ground water hydrologic data, summary, 14540
 growing timber resource, 14482
 Lake Huron basin, water-oriented outdoor recreation, 7695
 lakes, compilation of data, 16612
 landings—
 fish and fishery products, 8157
 fishery products, 2883
 mineral industry, minerals yearbook chapter, 5864
 northern, height growth and foliage color in Scotch pine provenance study, 675
 pollution of interstate waters, conference proceedings, 7164
 pollution of Lake Superior and its tributary basin, conference proceedings, 10095, 17996
 postal map, 2196
 minority construction contractors located in selected cities, list, 8794
 planning for change, 9148
 precipitation data, hourly, 2718
 small watershed projects, program, hearings, 17718
 soil and water conservation progress, 9154
 streamflow data—
 proposal, 16623
 statistical summaries, duration hydrographs and summaries of flow, and monthly mean discharge, 16626
 water pollution on Lake Erie and its tributaries, etc., conference proceedings, 5469-70
 water resources data, 14544
 Michigan Basin, Bedford shale, Berea sandstone and Sunbury shale age, 5541
Michigan, Lake:
 alewife, 1968 State-Federal die-off control investigation, 15753
 bottom trawl explorations in northern Lake Michigan, 3703
 east coast, squalls, vessels and lives, damaged and lost, marine casualty report, etc., 6073
 environmental effects of energy generation, hearing, 12361
 pollution, Lake Michigan and its tributary basin, conference proceedings, 17997
 pollution of interstate waters, Ind.-Ill., conference proceedings, 7163
 Micro model of labor supply, 14664

Micro-organisms:
 microbial conversion of hydrous calcium sulfate to hydrogen sulfide, 7480
 pathogens and chemicals tested against caterpillars on cabbage, 13002
 pesticide producers, USSR study, 16783
 plague, action of semisynthetic penicillins, USSR study, 5783
 proton irradiation of micrococcus radiodurans and sardina flava microorganisms placed in meteorite, USSR study, 4333
 regulating shipment of pathogens, 10697
 saprophytic microbes in etiology of experimental neuromuscular diseases, role of toxins, USSR study, 12622
 toxic, mycotoxins, botulism, United States-Japan conference, proceedings, 18065
 Microanalysis, *see* Electron probe microanalysis.
 Microbes, *see* Micro-organisms.
Microbiology:
 aspects of radiopasteurized chicken, quarterly reports, 1255-60
 Czechoslovak Microbiological Society, selections from bulletin, 16795
 microbial flora surviving irradiation pasteurization of seafoods, effect of irradiation on, 131
 radiopasteurized chicken, aspects, report, 3491-92
 Microelectronic circuits, *see* Circuits.
 Microelectronics, *see* Electronics.
 Microfilming, *see* Microphotography.
Microfilms:
 duplicate microfilm copies, selective roll-to-roll printer for producing, 6009
 National Archives publications pamphlet accompanying, 4536-46, 5995, 7567-68, 8976, 11719-729, 14909-913, 17023-29
 Microfossils, plant microfossils, illustrations from Yazoo Clay, Jackson Group, Upper Eocene, Mississippi, 8745
 Microlepidoptera, neotropical, revision of genus Peleopoda, Lepidoptera, Oecophoridae, 10548
 Micromanometers, *see* Manometers.
 Micrometers, micrometer measures of 463 double stars, 1008
 Microphotography, microfilming maps of abandoned anthracite mines, Lackawanna Basin, northern anthracite field, 7462
 Micropulsations, pulse of earth's magnetosphere, USSR study, 5780
 Microscopes, infrared radiometric, used in nondestructive determination of effects of flexible package seal defects, 13041
 Microscopy, *see* Electron microscopy.
 Microsporidia, fish disease, 6205
 Microstructure, radar for microstructural studies of clouds and precipitation, USSR, study, 10274
 Microwave communications systems, USSR study, 16778
Microwave equipment:
 low-down microwave electron generators, USSR study, 4350
 microwave oven radiation, facts about, 18313A
 Microwave ovens and the public, 5382
 Microwave spectroscopy, *see* Spectroscopy.
Microwaves:
 antenna array for spacecraft applications, 934
 atmospheric attenuation at 15, 31, and 53 GHz, 10027
 azimuthal surface wave, launching on cylindrical impedance boundary, 7951
 dielectric constants and loss tangents at E-band, measurement using Fabry-Perot interferometer, 2117
 frequencies, tabulation of data on semiconductor amplifiers and oscillators, 7577
 hazardous fields, quantifying, analysis, 8989

- Microwaves—Continued**
 interpretation of microwave spectral-absorption intensity measurements on partially saturated lines, 7551
 irradiation effects, USSR study, 16782
 pulsed microwave therapy, USSR study, 18108
 radiation and azimuthal current of theta-pinch plasma, growth, investigation, 8003
 switching schemes and variable power-division networks using phase shifters, review, 15083
 systems using terminal invariant parameters, description and evaluation, errata, 4548
 time and frequency transfer via microwave link, 15096
 Mid-Atlantic States, *see* Atlantic States.
 Mid-continent memo, 11823
 Middle East, *see* East (Middle East).
 Middle Snake River:
 hydroelectric projects, licensing, prohibit—
 hearings, 9917
 report, 9856
 moratorium, hearings, 9917
 Middlesex County, Conn., community profile, 6940
 Middlesex County, N.J., census of transportation, 1967, commodity transportation survey, 8066
 Middleton, John T.:
 remarks—
 Dec. 6, 1969, 7558
 Feb. 18, 1970, 10418
 Middleton, W. E. Knowles, catalog of meteorological instruments in Museum of History and Technology, 4667
 Middleton, Conn., motor carrier accident, 14803
 Middleton, Ohio, census of transportation, 1967, commodity transportation survey production, area series, 6425
 Midland, Tex., area wage survey, 10294
 Midway Atoll:
 deep drilling, 5561
 larger foraminifera from deep drill holes, 732
 Midway Islands:
 geology of Midway area (series), 16621
 smaller Foraminifera from Midway drill holes, 16621
 Midwest (U.S.):
 crime in America, mid-America view, hearings, 1577
 upper, floods, description, etc., 14528
 Midwestern States, *see* Central States.
 Mie scattering, *see* Scattering.
 Mieremet, Marian:
 national patterns of R & D resources, funds and manpower in United States, 4589
 research and development in industry, 1967, funds, 1967, scientists and engineers, Jan. 1968 report, 4590
 Miers, B. T.:
 circulation in equatorial mesosphere in winter, 15469
 mesospheric winds over Ascension Islands in January, 15474
 Milfin County, Pa., community profile, 16313
 Migrant health services, hearings, 519
 Migrant labor:
 agricultural workers, housing, regulations and standards, 12978
 education—
 advanced level, 6984
 intermediate level, 6983
 health services, amend act—
 hearings, 519
 law, 6541
 reports, 1522, 1686, 5137
 migrant and seasonal farmworkers powerlessness, hearings, 9925, 11139, 12378, 16074
 Migrant labor—Continued
 problem in U.S., print additional copies, report, 1672
 problems of migrant workers, hearing, 16081
 Migrants:
 efforts to organize, hearings, 12378
 migrant subculture, hearings, 11139
 who are they? hearings, 9925
 Migration:
 interstate, of aged beneficiaries, 7750
 sand ridge, Apalachicola River, Fla., report, 7668
 see also, Immigration and emigration.
 Migration of workers, *see* Migrant labor.
 Migratory birds, *see* Water birds.
 Migratory sheep ranches, 1969, costs and returns, 14270
 Migratory workers, *see* Migrant labor.
 Mihm, John J., repeatability, accuracy, portability, and errors of portable alignment gyrocompass system, 14846
 Mihok, Edward A.:
 mine water research—
 catalytic oxidation of ferrous iron in acid mine water by activated carbon, 2058
 plant design and cost estimates for limestone treatment, 7491
 Mikhail, S. Z., implications of substitution of strontium oxide for strontium titanate in terrestrial/marine redifluoropic power units, 8027
 Miklausic, Drago, relief, 17618
 Mild steel, *see* Steel.
 Mileage, *see* Pay, allowances, etc.—Travel.
 Miles, B. M., bibliography on atomic transition probabilities, 6005
 Milham, R. C., iodine retention studies, progress report, 15512
 Military Academy Preparatory School, description, programs, etc., 11971
 Military Academy, West Point:
 administration of training, uniform policy, create, report, 10965
 annual reports—
 Commandant of cadets, 837, 14767
 Dean of Academic Board, 888, 14768
 management and administration, 836
 resource management, 14769
 superintendent, 839, 14770
 Military Affiliate Radio System, excess property, transferred to, opportunities for improving management, Defense Dept., GAO report, 5533
 Military aid:
 agreement with—
 Luxembourg, 17355
 Norway, 1163
 appropriations, 1971, reports, 10962, 13400
 Foreign assistance act of 1969—
 law, 1425
 reports, 480, 1472, 1553
 section-by-section analysis, 8295
 Foreign assistance act of 1970, background material, 8289
 foreign assistance appropriations, 1970—
 law, 5053
 reports, 3818, 3926
 foreign assistance appropriations, 1971, hearings, 9728
 foreign assistance programs, background material, 13509
 Foreign military sales act, amend—
 hearings, 5158, 9908
 reports, 6595, 6627, 9863
 military assistance and foreign military sales facts, 8481
 military assistance program address directory, 562, 1781-82, 4035, 6882-83, 8488, 11182-184, 13812-813, 16155
 military assistance to commercial film projects, subcommittee staff memorandum, 9743
 U.S. military assistance to Latin America, reports of special study mission, 9788

Military aid—Continued

U.S. security agreements and commitments abroad—
 China, hearings, 11125
 Ethiopia, hearings, 17701
 Greece and Turkey, hearings, 16056
 Japan and Okinawa, hearings, 13735
 Korea, hearings, 16056
 Laos, hearings, 8406
 Philippines, hearings, 1729
 Thailand, hearings, 9912
 world military expenditures, 1969, and related data for 120 countries, 10730
 Military aircraft, *see* Aircraft.
 Military airfields, *see* Airports.
 Military Airlift Command:
 MAC flyer (periodical), 2858
 military airlift—
 hearings, 9731
 subcommittee report, 11024
 Military Appeals Court, *see* Court of Military Appeals.
 Military art and science:
 advanced naval base defense, Fleet Marine Force manual, 7440
 air-ground operations system, Army field manual, 4856
 counter guerrilla operations, Army field manual, 9349
 design criteria to research, development and test facilities, Naval Facilities Engineering Command, design manual, changes, 7664
 environmental test methods, military standard, 4025-26
 jungle operations, field manual, 84
 military cybernetics, USSR study, 7393
 military operations of Civil War, official records of Union and Confederate Armies, guide-index, main eastern section theater, comprehensive index of recognized operations, 14907
 National Guard training on-site air defense units, 6023
 special military operations handbook, changes, 3453, 10726, 11965
 strategic areas, briefs, 1211
 strategy and science, toward a national security policy for 1970's, hearings, 343
 symbols, field manual, 83
 tactical operations, weather support for field army, Army field manual, 3488
 transportation and traffic management, Defense Supply Agency handbook, 8461
 U.S. military actions in Cambodia, questions of international law, 11895
 USSR military affairs, translations, 3283
 Military assistance, *see* Military aid.
 Military band, field manual, 8465
 Military bases, physical geography and military environment in transect of Utah and Colorado Rockies, 13042
 Military budget, *see* Defense Department.
 Military ceremonies, honors, and salutes:
 Army field manual, 3486
 conduct of ceremonies handbook, Army pamphlet, 3477
 Military claims, *see* Claims.
 Military communications:
 communication system, technical standards military standard, 4019
 tactical communications doctrine, field manual, 3467
 Military construction, *see* Building—Installations (military).
 Military courts, *see* Courts martial and courts of inquiry.
 Military departments, *see* Defense Department.
 Military depots:
 commissary and subsistence, depot operating manual, 15457
 organizational, DS, GS, and depot maintenance manual, 17469

Military discipline, prediction of disciplinary offense early in Army service, 108
 Military drill, field manual, change, 3466
 Military education:
 Army correspondence courses, announcements, 3472, 4859
 evaluation of professional military educational requirements, and survey of Air Force officer management activities, 9330
 graduate education requirements for military officers positions, improvements needed in determining, GAO report, 14501
 operator training course, tactical and support vehicles, LARC 5, 4858
see also Officer candidate schools.
 Military effectiveness of:
 naval enlistees serving as medical specialists, 14764
 Navy airmen enlistees, 14763
 Military engineering:
 facilities engineering—
 grounds maintenance and land management training conferences, Army pamphlet, 1231
 work performance standards for post engineering, Army pamphlet change, 10737
 Military equipment, *see* Military supplies.
 Military establishments, *see* Armed Forces.
 Military facilities:
 Air Force design manual, design policy and procedures, facility design and planning, 4832
 human engineering design criteria for military systems, equipment, and facilities, military standard, 13810
 replacement or relocation, creation of defense facilities fund, draft of bill to authorize, hearings, 12261
 Military fields, United States, instrument approach procedure charts, dates of latest editions, 2884
 Military handbook, 11179
 Military history:
 Army historical series, 4399
 Fort Stanwix, construction and history, 12864
 Harmon memorial lectures (series), 13009
 Marine Corps—
 historical bibliographies series, 12726
 historical reference pamphlets, 12727, 18138
 Old Guard, 3d infantry regiment, 9350
 Military History, Office of Chief of publications, list, 14771
 Military housing, *see* Housing.
 Military index:
 Defense Department specifications and standards—
 alphabetical listing, 16145
 supplements, 2498
 Military information:
 military affairs, Eastern Europe, translations, 3272
 system, transform operation in TOS, assessment of human component, 9360
 Military installations, *see* Installations (military)—Roads and highways
 Military justice, *see* Military law.
 Military law:
 fiscal law, Air Force manual, 15456
 military judges guide, Army pamphlet, change, 86
 military justice, courts of military review, rules of practice and procedure, 6327
 military justice handbook—
 guide for summary court-martial trial procedure, change, 6350
 trial counsel and defense counsel, Army pamphlet, 1228
 review, Army Department pamphlet, 2885
 Military leadership, field manual, 15479
 Military medicine, *see* Medicine.

INDEX 1970

- Military mines, *see* Mines (ordnance).
- Military missions, agreement with Iran, 6224, 15319
- Military occupational specialties, data bank questionnaire administration, personnel selection and classification, 1237
- Military operations, *see* Military art and sciences.
- Military pay, *see* Pay, allowances, etc.
- Military personnel, *see* Air Force Reserve—Armed Forces—Army.
- Military policy:
 - moral and military aspects of war in South-east Asia, hearings, 11124
 - scope of U.S. involvement in Laos (statement), 9191
- Military posts, facilities engineering, work performance standards for post engineering, Army pamphlet, change, 10737
- Military posture, hearings, 8275
- Military prisoners, *see* Prisoners of war.
- Military production, *see* Production.
- Military psychology, *see* Psychology.
- Military publications, index of AMC publications and blank forms, 4846, 7977, 10731, 16467
- Military records, compiled military service records in National Archives, 18230
- Military research:
 - Air Force research facilities, illegal expenditure of funds for construction, GAO report, 5530
 - Army research and development—
 - appropriations, 1971, authorize, report, 9657, 9662
 - newsmagazine, 2349
 - Defense Department, research, development, test, and evaluation, appropriations, 1970, authorization—
 - law, 1386
 - report, 1450
 - Defense Department, research, development, test, and evaluation, 1971, authorization—
 - hearings, 11107
 - report, 12352
 - independent research and development—
 - products, contractor effort not sponsored by Government contract, grant, or arrangements, hearings, 13494
 - program management review, report of subcommittee, 15890
 - major research and development projects, high turnover of managers, Army Dept., GAO report, 14499
 - research in progress, list, 15489
 - Military review (periodical), 2886
 - Military Review Courts, *see* Courts of Military Review.
 - Military roads, *see* Roads and highways.
 - Military Sea Transportation Service, seallift magazine, 3178
 - Military security:
 - defense facilities and industrial security act of 1970, reports, 1548, 3838
 - physical security, Defense Supply Agency manual, 16112
- Military service:
 - Armed Forces Day activities, 1970 report, 6843
 - Military selective service act of 1967, amend, message from the President, 8224
 - pathways for college men and women, 564
 - President's Commission on All-Volunteer Armed Force, report, 6127
 - Project One Hundred Thousand, GAO report, 1894
 - standards of medical fitness, Army regulation, 7980-81
 - see also* Armed Forces—Conscription.
- Military standards, *see* Standards and standardization.
- Military supplies:
 - Air Force procurement instruction, revisions, 2316
- Military supplies—Continued
 - airdrop of remote area refueling system, technical manual, 4867
 - airdrop of supplies and equipment—
 - Army technical manuals, rigging—
 - ¼-ton cargo trailer, 102
 - 1½-ton trailers, 103
 - 5 KW generator set with portable flood-light set, 13058
 - trucks, 6362
 - from C-7A (Caribou) aircraft, Army technical manual, 101
 - in theater of operations, Army field manual, 3464
 - Armed Services procurement regulations, 2345, 5315-17, 6870-74, 8479, 9956-57
 - supplements, 8453-54
 - Army procurement procedure, 1214, 4852, 6345, 9348, 15477
 - cataloging system, standardization, etc., semiannual report, 5148
 - commander's supply and maintenance handbook, change, 10739
 - contractor procurement system reviews, Defense Dept., and NASA, improving effectiveness, GAO report, 14507
 - Defense Department specifications and standards, index, 2498, 16145
 - Defense Department standardization documents, classification listing, 2632, 13803
 - defense disposal manual, changes, 1760, 4004, 8460, 16110
 - defense industrial plant equipment center operations, DSA manual, changes, 6853, 11163, 13779
 - defense procurement circular, 2496
 - defense procurement policies on competition and concentration, hearing, 5270
 - Defense Supply Agency, potential for reducing inventory investments through improved computation of stock needs, GAO report, 11379
 - defense supply procurement regulation, 405, 8462
 - DSA responsibilities, 6875
 - experimental statistics, basic concepts and analysis of measurement data, engineering design handbook, 4848
 - Federal buying directory, 11384
 - Federal manual for supply cataloging, FSC classes assigned for integrated material management, special procedures, change, 6844
 - Federal supply classification handbook—
 - alphabetic index, 16107
 - numeric index, 16106
 - Foreign military sales act, amend—
 - hearings, 5158, 9908
 - reports, 6595, 6627, 9863
 - foreign military sales, logistics, Air Force manual, 4837
 - human engineering design criteria for military systems, equipment, and facilities, military standard, 13810
 - importation of implements of war, 11458
 - industrial mobilization production planning manual, 11161
 - input and output codes, supply cataloging manual, 1757, 6845
 - integrated logistics support (ILS)—
 - maintenance engineering analysis data system, 10746
 - management guide, 10743
 - procedural guide, 10745
 - support integration, 10744
 - life cycle costing procurement guide (interim), 16146
 - lubrication of military equipment, military standard, 546
 - maintenance of supplies and equipment, operating guide for TDA support maintenance activities, Army pamphlet, 7992
 - military assistance and foreign military sales facts, 8481

Military supplies—Continued

- military standard requisitioning and issue procedures, changes, 563, 5320
- military supplies and equipment, marking, packing and shipment packaging and handling deficiencies, quarterly summary, AMC pamphlet, 3460
- MILSTEP, military supply and transportation evaluation procedures, changes, 561, 9966
- MILSTRIP—
 - military standard requisitioning and issue procedures, supplements, 562, 1781-82, 4035, 6882-83, 8488, 11183-184, 13812-813, 16155
 - routing, identifier codes, 11181
- need for improving program for use and redistribution of excess materiel in Pacific area, by Defense Dept., GAO report, 14506
- need to improve military supply systems in Far East, GAO review, 8724
- operating forms, cataloging manual, change, 13776
- packing and car loading, instructor's guide, Army Dept. pamphlet, 6357
- procurement—
 - aircraft rocket launchers—
 - hearings, 3867
 - report, 1558
 - independent research and development of products cost sharing by Government contractor, hearings, 13494
 - independent research and development program management review, report of subcommittee, 15890
 - law statutes, compilation, 3469
 - legal service, Army pamphlet, 7991
 - preproduction evaluation (PPE) contracts, Army Materiel Command pamphlet, 10732
 - reliability of equipment in service, effect of value engineering changes on, 5301
 - small purchase manual, armed services procurement regulation, 5298
 - standardization policies, procedures, and instructions, manual, 3220
 - supply operations manual, distribution system procedures, changes, 6852, 17733
 - survey of procurement statistics, 15056
 - systems, management concepts, methods, and operations, hearings, 3866, 15907
 - world military expenditures, 1969, and related data for 120 countries, 10730
 - zero defects seminar, national contractors, Defense Supply Agency, proceedings, 6884
- Military Traffic Management and Terminal Service:
 - pamphlets, 15482
 - transportation proceedings (periodical), 3259
- Military training, *see* Military education.
- Military Weather Warning Center, severe-storm forecasting procedures, analysis, notes, change, 9337
- Militia, *see* National Guard.
- Milk:
 - dry whole milk—
 - household consumers' acceptance, 9306
 - market test, 9 supermarkets, Lansdale, Pa. area, 4046
 - evaporated, condensed, and dry, 2549
 - Federal orders—
 - market statistics—
 - annual summary, 9824
 - monthly summary, 2600
 - marketing class 1 base plan, extend, report, 16007
 - markets, variation among producers in value of milk marketed, 6826
 - summary of major provisions, 11155
 - fluid—
 - industry, sanitary regulations, inspection, cost, and barriers to market expansion, 12990

Milk—Continued

- fluid—continued
 - milk and cream report, 2651
 - processing line, automating equipment and procedures, 4801
 - interstate shippers, certification under State-PHS cooperative program, 5473
 - milkhouse, farm building plan, 7930
 - production, distribution, and income, 9212
 - production, monthly report, 2388
 - special program for children, extend—
 - law, 12121
 - report, 9844
- Milk plants, *see* Milk.
- Milkhouses, *see* Milk.
- Milking Shorthorn cattle, *see* Cattle.
- Mill Creek Watershed, North Branch, Lapeer, St. Clair, and Sanilac Counties, Mich., water conservation, 4686
- Millard County, Utah community profile, 6941
- Miller, Alex G. W., relief, 3915
- Miller, Anthony P., Inc., *see* Anthony P. Miller, Inc.
- Miller, Banner I., experiment in forecasting hurricane development with real data, 1825
- Miller, C. D.:
 - empirical analysis of unaccelerated velocity and mass distributions of photographic meteors, 10388
 - necessary thickness of randomly oriented armor for meteoroid protection, 10400
- Miller, David K., density of eigenvalues in thin circular conical shells, 7510
- Miller, David S., study of application of heat or force fields to sonic-boom minimization problem, 2116
- Miller, Don, horse sense on backcountry pack trips, 7197
- Miller, Edward B.:
 - nomination, hearings, 9927
 - remarks—
 - Oct. 8, 1970, 18269
 - Oct. 27, 1970, 18270
- Miller, Francis C., *see* Feldmeier, Franz C.
- Miller, G. Kimball, Jr., fixed-base visual simulation of obstacle avoidance during terminal descent of advanced Apollo spacecraft with all-flexible parawing, 14879
- Miller, Herman P., occupation and earnings of family heads in 1969, 1965, and 1959, 15652
- Miller, J. B., compilation of data for Michigan lakes, 16612
- Miller, James E., relief, 13577
- Miller, John R., extension of Ghazala's method to incompletely specified multiple-output functions, 10497
- Miller, Kenneth J., electrophoretic-specific gravity separation of pyrite from coal, laboratory studies, 16924
- Miller, Robert C., notes on analysis and severe-storm forecasting procedures of Military Weather Warning Center, 9337
- Miller, Robert E., development and standardization of Air Force officer qualifying test form K, 13014
- Miller, Robert L., tree and sawyer effects on costs of felling large alligator junipers, 14478
- Miller, W. B., some statistical aspects of power law profiles, 15473
- Miller, Wayne H., magnetometer respirometer for laboratory and diving studies, 884
- Miller, William E.:
 - nomination, report, 11068
 - transmission and backscatter coefficients of 1.0- to 3.0-MeV electrons incident on some metals and alloys, 8942
- Miller act, *see* Government contracts.
- Miller County, Mo., community profile, 17824
- Millers Ferry Lock and Dam, Alabama River, change name to William "Bill" Dannelly Reservoir, report, 9878

INDEX 1970

- Milligan, Donald B., oceanographic survey results, Kara Sea, 1966, summer and fall, 7681
- Milliken, J. Gordon, recreational impact of reclamation reservoirs, summary report, 17247
- Mills, George F., relief, 12168
- Mills County, Iowa, community profile, 14101
- Mills, see types of mills.
- Millwork :
 census of manufactures, 1967, industry statistics, 10796
 Federal item identification guides for supply cataloging, supplements, 2593
- Millwrights, employment outlook, 14706
- Milly, George H., computer simulation model for evaluation of health care delivery system, 17046
- MILSCAP (Military standard contract administration procedures), see Government contracts.
- MILSTAMP (military standard transportation and movement procedures), see Transportation.
- MILSTEP, military supply and transportation evaluation procedures, changes, 561, 9966
- MILSTRIP (Military standard requisitioning and issue procedures), see Military supplies.
- Milwaukee, Wis. :
 area wage survey, 16944
 census of transportation, 1967, commodity transportation survey, production, area series, 6426
 elementary program in compensatory education—
 elementary reading centers, 11214
 speech and language development program, 11219
 General Mitchell Field, climatological summaries, 4764
 liaison teacher program, 14287
 principal electric facilities, map, 8623
- Milwaukee County, Wis., land use for civic and recreational purposes, authorize, report, 10987
- Milwaukie, Oreg. :
 floods, how to avoid damage, 17984
- Willamette River, Johnson, Kellogg, and Mt. Scott Creeks, flood plain information, 16485
- Minas Gerais, Brazil :
 physiographic, stratigraphic and structural development of Quadrilátero Ferrífero, 5556
 Quadrilátero Ferrífero, gneissic and igneous rocks, 14537
 regional geology of Quadrilátero Ferrífero (series), 5556, 14537
- Minatitlán, Mexico, despatches from U.S. consuls, 1853-81, pamphlet accompanying microscopy, 4537
- Minckler, Leon S. :
 relation of crown width to tree diameter in some upland hardwood stands in southern Illinois, 16566
 spacing, thinning, and pruning practices for young cottonwood plantations, 16562
- Mind, see Intellect.
- Mine accidents, coal-mine injuries and work-time, monthly report, 2412
- Mine cars, coal mine shuttle-car runways, control of dust explosion hazard, 18173
- Mine drainage :
 acid mine drainage—
 Appalachia, message from the President, 5068, 15820-321
 limestone treatment, optimization and development of improved chemical techniques, 10105
 sulfide treatment, 10102
 treatment by reverse osmosis, 14411
- Mine drainage—Continued
 acid mine drainage—continued
 water pollution control, demonstration projects, law, 8138
 mine acids control for better water for America, 7165
 mine water research—
 catalytic oxidation of ferrous iron in acid mine water by activated carbon, 2058
 plant design and cost estimates for limestone treatment, 7491
 sulfide to sulfate reaction mechanism, 11336
- Mine explosions :
 dust explosion hazard, control on coal mine shuttle-car runways, 18173
 mine roof vibrations from underground blasts, 5872
 see also Coal mines and mining.
- Mine fires, extinguishing and removing burning coal refuse banks, method, 16894
- Mine gases, diffusion studies of light hydrocarbon gases through coal, 16925
- Mine pillars, three-dimensional room-and-pillar mining systems, plates with rows of holes considered as soft-inclusion models, 18165
- Mine props, bearing capacity of roof and floor in selected bituminous coal mines, progress report of in situ tests, longwall mining, 11591
- Mine safety, see Safety of life.
- Mine water, see Mine drainage.
- Miner County, S. Dak., community profile, 14102
- Mineral additives, see Additives.
- Mineral County Airlines, accident report, 7654
- Mineral industries, see Minerals.
- Mineral Industry Week :
 designate—
 law, 5054
 report, 3935
- Mineral lands :
 conveyance of mineral rights of U.S.—
 California to Elisabeth B. Borgnino, 12292
 Pike County, Ga., 8348, 9581
 Wagoner County, Okla., to I. Earl Nutter, report, 15862
 leasing act, amend—
 hearing, 17704
 law, 9609
 report, 6691
 patenting mining claim on Federal lands, basic procedure, 8876
 staking mining claim on Federal lands, questions and answers, 10302
- Mineralogy, see Meteorites—Minerals.
- Minerals :
 and primary products, Federal item identification guides for supply cataloging, supplements, 2596
 Arkansas, resources and industries, 2047
 associated authigenic geochemistry and paleolimnology Green River formation of Wyoming, 727
 bone, method of measurement, progress, conference proceedings, 15007
 census publications, price list, 11836
 chemical manufacturing, supply and demand by chemical industry in Ohio River basin, 8897
 commodities, transportation on inland waterways of South-Central States, 849
 deposits, Serpentine Hot Springs area, Seward Peninsula, Alaska, 14522
 Fort Belknap Reservation, grant full ownership of minerals to Fort Belknap Indians, report, 9858
 gamma and beta distribution functions applied to size distribution, 869
 geology and mineral deposits of Poncha Springs NE quadrangle, Chaffee County, Colo., 5552

Minerals—Continued
geology and mineral resources of Libya, reconnaissance, 8747
heavy—
recovery from Alabama sand and gravel operations, 12749
southern Nova Scotia to northern New Jersey, Atlantic Continental Shelf and slope of U.S., 10175
industries—
area reports, annual, 2343
census 1963, indexes of production, 15614
enterprise statistics 1967, preliminary reports, 2541
injury experience and worktime in mineral industries, safety in mineral industries, annual, 16399
review, minerals yearbook chapter, 4483
States, injury experience and worktime, minerals yearbook chapter, 4411
industry, minerals yearbook chapters—
Africa, 7468
Alabama, 855
Algeria, 18149
Angola, Mozambique, and Portuguese Guinea, 5858, 18150
Argentina, 5859
Arizona, 4416
Arkansas, 4417
Australia, 7464
Austria, 4418
Belgium and Luxembourg, 4419
Bolivia, 18151
British Honduras, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama, 16901
Bulgaria, 16902
Burma, 14782
California, 4420
Canada, 5860
Caribbean Islands, 5863
Chile, 4421
China, mainland, 14785
Colombia, 18152
Colorado, 4422
Congo (Kinshasa), 857
Connecticut, 856
Cyprus, 14783
Ecuador, French Guiana, Guyana, Paraguay, Surinam, and Uruguay, 4423
European countries, 7469
Florida, 4425
France, 7465
Gabon, 4426
Georgia, 4427
Germany, Federal Republic, 4424
Ghana, 16903
Greece, 4420
Hawaii, 4429, 18153
Hungary, 14784
Idaho, 4430
India, 7466-67
Indonesia, 16904
Iowa, 858, 18154
Iran, 5861
Iraq, 8904
Ireland, 5862
Italy, 4433
Japan, 4434
Kansas, 4435
Kenya, Tanzania, and Uganda, 4437
Korea, 18161
Kuwait, Kuwait-Saudi Arabia Neutral Zone and Saudi Arabia, 18155
Liberia, 4438
Libya, 16905
Louisiana, 4439
Malta, 18156
Malaysia, 859
Maryland, 860
Massachusetts, 861, 18157
Michigan, 5864
Mississippi, 4441
Montana, 4444

Minerals—Continued
industry, minerals yearbook chapters—
continued
Morocco, 4443, 14786
Near East, 4454
Nebraska, 4445
Nevada, 4446
New Hampshire, 18158
New Jersey, 4447
New Mexico, 4448
New York State, 5865
New Zealand, 4449
Nigeria, 5866
North Carolina, 862
North Dakota, 4450
Ohio, 4451
Oklahoma, 4452
Oregon, 4453
Pakistan, 14787
Pennsylvania, 4455
Peru, 4456
Philippines, 14788
Poland, 4457
Portugal, 4458
Puerto Rico, Panama Canal Zone, Virgin Islands, Pacific Island Possessions, and Trust Territory of Pacific Islands, 4459, 18159
Rumania, 14789
Sierra Leone, 16906
South Africa, 7470
South Carolina, 18160
South Dakota, 4460
South Pacific Islands, 5867
South West Africa, 4462
Spain, 7471
Sweden, 7472
Taiwan, 16907
Texas, 4463
Thailand, 16908
Tunisia, 16909
United Arab Republic, 4464, 18162
USSR, 7473
Venezuela, 5868
Vermont, 4466
Virginia, 4467
Washington State, 4468
West Virginia, 4469
Wisconsin, 4470
Wyoming, 4471
Yugoslavia, 863, 16910
metallic mineral industries, 1965, injury experience, 861
meteoritic minerals, minor and trace elements, 17271
mineral-based insulating materials, economic potential in combating noise problem in residences, 10322
mineral quality problem in Colorado River Basin, physical and economic impacts, 14404
mineral separation in vacuum, factors related, 11586
mineral trade notes, monthly inventory, 2890
mineralogical composition of fines, effect on frost susceptibility of soils, 598
minerals from North Carolina mica tailing, selective flotation, 877
minerals in oil shale, use of centrifugal separation to investigate how kerogen is bound to them, 7499
minerals in world economy, minerals yearbook chapter, 7474
Mining and minerals policy act—
hearings, 11038
report, 15865
national mining and minerals policy, establish—
hearings, 11038
report, 15865
nonmetallic mineral industries, 1964-65
injury experience, 14778
nonmetallic, miscellaneous, mineral products, census of manufactures, 1967, industry statistics, 15604

Minerals—Continued

processing, possible applications of plasma technology, 852
production, statistical summary, minerals yearbook chapter, 884
rare-element mineral deposits in mainland China, 11388
resources—
 Agua Tibia Primitive Area, Calif., 12588
 Black Range Primitive Area, Grant, Sierra, and Catron Counties, N. Mex., 16607
 code of Federal regulations, 10072
 Emigrant Basin Primitive area, Calif., 12587
 Gore Range-Eagles Nest primitive area and vicinity, Summit and Eagle Counties, Colo., 14524
 Jack Creek basin, Madison County, Mont., 10163
 Permian rocks of southwest Montana, 10170
 Sawtooth Primitive Area, Idaho, 14525
yearbook, 1968—
 area reports—
 domestic—
 departmental edition, 7476
 document edition, 6554
 international—
 departmental edition, 10323
 document edition, 9614
 metals, minerals, and fuels—
 departmental edition, 7475
 document edition, 6553
 see also names of minerals.
 Miners, *see* Coal mines and mining—Mines and mining.
 Mines (ordnance):
 offensive mine laying campaign against Japanese, U.S. Strategic Bombing Survey, 2186
 Mines and mining:
 equipment, permissible, 8900
 extraction of ore by modified block-caving method and fracturing hard rock with nuclear explosives, 10329
 gasfield and mine survey, Gasbuggy project, 130
 lead-zinc mining operation, relative effects of grouped physical variables on revenue cost system, 871
 machinery, trade and tariff information summaries, 8262
 marine mining environment, preliminary engineering studies, 8905
 mine acids control for better water for America, 7165
 mine roof vibrations from underground blasts, 5872
 miners in Big Bend, 7647
 Mining and minerals policy act—
 hearings, 11038
 report, 15865
 mining laws of world, summary, 16893
 mining systems, structural models for design, encasement of strain gages networks in epoxy, 18169
 national mining and minerals policy, establish—
 hearings, 11038
 report, 15865
 northern West Virginia mine, methane emission rate studies, 14800
 slope stability analysis by finite element stress analysis and limiting equilibrium method, 5876
 socioeconomic aspects, in selected cities, urbanization and surface mining, Atlanta, Ga., 12741
 surface mine reclamation, Moraine State Park, Pa., 8896
 uranium mine atmospheres, investigation of radiological characteristics, 9690
 see also Coal mines and mining—*also* names of metals and minerals mined.

Mines Bureau:

AEC Colorado core hole 3, Rio Blanco County, Colo., hydraulic sampling and testing for oil shale, 7239
apparatus for thermal analysis, simultaneous DTA-TG-EGA for oil shale and solid fuels, 16917
appropriations, 1970, law, 314
appropriations, 1971, hearings, 8263
area report, annual, 2343
bulletins, 2047, 5848, 7454, 10319-320, 12739
coal program, review, 11582
Education and Behavioral Science Office, new services, 5869
information circulars, 846-852, 2048-51, 4406-10, 5849-56, 7457-63, 8896-8903, 10321-322, 11574-582, 12740-742, 14774-779, 16893-898, 18146-147
oil shale and shale oil publications 1917-68, list, 848
permissible mine equipment approved, 8900
press releases, 3070
publications, monthly list, 2954
report of investigations, 866-883, 2054-59, 4473-82, 5871-86, 7473-99, 8705-13, 10324-336, 11583-596, 12743-748, 14792-796, 16912-925, 18165-174
research and accomplishments in utilization of solid wastes, 5856
research, 1967-68, petroleum and oil-shale, 5853
respiratory protective devices approved, 4407
technical progress reports, 4485, 7500, 10337-338, 12749-750, 14708-800
Ming, Chang, *see* Chang, Ming.
Mingo Creek, Tulsa, Okla., flood plain information, 16423
Miniaturization, miniature electromechanical tunnel diode transducer, theory, fabrication, etc., 2082
Minidoka project, Idaho-Wyo., 9084
Minigardens for vegetables, 8296
Minimum-energy mission plan for manned exploration of Mars, 912
Minimum wage, *see* Wages.
Mining, *see* Mines and mining.
Mining claims, *see* Mineral lands.
Mining engineering:
 fracturing hard rock with nuclear explosives and extraction of ore by modified block-caving method, 10329
 mining systems, structural models for design, encasement of strain gage networks in epoxy, 18169
 three-dimensional room-and-pillar mining systems, plates with rows of holes considered as anisotropic soft-inclusion models, 18165
Mining machinery:
 equipment, Federal item identification guides for supply cataloging, supplements, 2590
Mines Bureau apparatus for thermal analysis, simultaneous DTA-TG-EGA for oil shale and solid fuels, 16917
permissible mine equipment, 8900
Ministers (diplomatic agents), *see* Ambassadors.
Ministers of religion, *see* Clergy.
Minitrack, intercomparison of minitrack and optical tracking networks using GEOS I long-arc orbital solutions, 5919
Minks, farmers, FHA emergency loans, authorize hearing, 16035
Minneapolis, Minn.:
 aeroradioactivity and areal geology of area, 8011
 area wage survey, 10295
 census of transportation, 1967, commodity transportation survey, production, area series, 6427
 Minneapolis-St. Paul International Airport, climatological summaries, 4764
 principal electric facilities, map, 8624

Minnesota:

census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 8059
 retail trade, merchandise line sales, 18109
 selected services, area statistics, 1295
 census of governments, 1967, State report, 8573
 census of manufactures, 1967 statistics, 15579
 census of transportation, 1967, commodity transportation survey, 8072
 climatological data, 2409
 county business patterns, 3619, 10802
 electric rate book, 17986
 Great Lakes area, fishery products, wholesale dealers, list, 10893
 interstate and intrastate waters of upper Mississippi River and its tributaries conference, proceedings, 7166
 manganiferous iron ore, magnetic roasting and leaching for upgrading, 11595
 mineral industry, minerals yearbook chapter, 4440
 Mississippi River and tributaries, fishery products, wholesale dealers, list, 9549
 pollution of interstate waters, conference proceedings, 7164
 pollution of Lake Superior and its tributary basin, conference proceedings, 10095, 17996
 precipitation data, hourly, 2718
 small-stream flood investigations, 4253
 water resources data, 14545
 Minnesota multiphasic personality inventory, *see* Personality tests.
 Minnesota River, Granite Falls, Minn., flood plain information, 16424
 Minor elements, *see* Chemical elements.
 Minore, Don:
 effects of high soil density on seedling root growth of 7 northwestern tree species, 4187
 seedling growth of eight northwestern tree species over three water tables, 8697
 Minorities:
 building minority enterprise, 6500
 business enterprise, Federal assistance programs, catalog, 5335
 business enterprise opportunities (addresses), 3687, 10862
 business opportunities, manual for small and minority group businessmen and professionals in HUD programs, 16676
 directory for reaching minority groups, 17457
 education of national minorities in Communist China, 14279
 Federal minority enterprise program, hearings, 8378
 GSA and minority businessman, partners in progress, 11385
 higher education aid for minority business, directory, 9503
 job patterns in private industry, 14353
 manpower services to minority groups, desk reference for ES personnel, 11525
 Minority Business Enterprise Office—
 directory of private programs, 13217
 general information, 8144
 OMBE outlook, news, 12058
 minority business expansion (address), 15711
 minority construction contractors, registry
 minority construction contractors located in selected cities, list, 8791-96
 minority groups—
 employment in Federal Government, preliminary reports, 13203, 17554
 opportunities (remarks), 5004
 suburban housing opportunities (speech), 4289
 Thailand ethnographic study, series, 6355

Minorities—Continued

new migration, waystop or end of line? (address), 4281
 new minority enterprises, community development, etc., 1871
 utilization of workers in major industries, Equal Employment Opportunity Commission hearings, 1841
 Minority Business Enterprise Office:
 create (remarks), 5004
 directory of private programs, 13217
 general information, 8144
 OMBE outlook (periodical), 12058
 press releases, 3071
 Minors, persons filing tort actions, extend time, amend U.S. Code, report, 1457
see also Children.
 Minot extension, *see* Missouri River Basin project.
 Mint Bureau:
 annual report, 10339
 financial management of operations needs improvement, GAO report, 4220
 Minute Man National Historical Park:
 Captain Brown's House, historic data, 4577
 farming and land uses, general study, 12868
 revise boundaries and complete land acquisition, authorize, report, 13461
 Miocene period:
 gastropods and biostratigraphy of Kern River area, Calif., 18615
 late Miocene nonmarine diatoms from Kilgore area, Cherry County, Nebr., 18622
 pollen and spore flora of Eniwetok Atoll, Marshall Islands, 4242
see also Calvert formation.
 Mirengoff, William, breakthrough for disadvantaged youth, 2015
 Mirrors:
 space mirrors, proton-induced effects on reflective surfaces, 5905
 thin, deformable, used in development of active optics concept, 14818
see also Magnetic mirrors.
 MIRV (multiple independently targeted re-entry vehicles), *see* Missiles.
 Misbehavior in presence of Congress, hearings, 8310
 Miscellaneous papers, *see* names of departments, etc., issuing papers.
 Miscellaneous publications, *see* names of departments, etc., issuing publications.
 Misch metal, electrowinning, from treated bastnaesite concentrate, 11585
 Miseria, poster, 15018
 Misses' clothing, *see* names or types of clothing.
 Misslaen, Edmond, trends in Canada's agricultural trade and production, 1959-69, statistical look at Canadian-U.S. competition, 16383
 Misslaen, Margaret, Algeria's agricultural economy in brief, 16382
 Missiles:
 ABM, MIRV, SALT, and nuclear arms race, hearings, 11122
 antiballistic missile system, SAFEGUARD, construction appropriations, 1971, 11020
 diplomatic and strategic impact of MIRV, multiple warhead missiles, report, 8290
 guided, Federal Item Identification guides for supply cataloging, supplements, 2598
 guided, preferred items list—
 electronic and electromechanical, military standard, 4033
 mechanical and materials, military standard, 4034
 launcher, and guided missile components, Federal item identification guide, 17737
 manufacturing industry, employment outlook, 14717

INDEX 1970

- Missiles—Continued
 - military procurement appropriations, 1970, authorization—law, 1386
 - report, 1450
 - military procurement appropriations, 1971—
 - hearings, 8275, 11107
 - reports, 9657, 9662, 12352
 - missile propulsion system parts fabricated from critical high temperature alloys and stainless steels, military standard, 547
 - Nike-X antiballistic missile development program, survey indicates need for management improvements, GAO report, 1905
 - propulsion, elements, AMC engineering design handbook, 80
 - rivets and screws, preparation for and installation in, military standard, notice, 4021
 - SAFEGUARD antiballistic missile system, appropriations, 1970, hearings, 3849
 - Soviet Union, in Cuba and Caribbean region, U.S. security posture, hearings, 13510
- Mission Mountains Wilderness, Flathead National Forest, Mont., proposal, 16553
- Missions, Government, *see* Government missions.
- Mississippi:
 - census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 8060
 - retail trade, merchandise line sales, 13110
 - selected services, area statistics, 1296
 - wholesale trade, area statistics, 180
 - census of construction industries, 1967 statistics, 15558
 - census of governments, 1967, State report, 3574
 - census of manufactures, 1967 statistics, 15580
 - climatological data, 2409
 - Cockfield formation, geohydrologic significance of lithofacies, 18044
 - county business patterns, 201, 13164
 - forest resources, 4213
 - forests, growth components, 11360
 - Gulf Coast, water-level and water-quality trends in aquifers, 16627
 - landings, fish and shellfish, 286, 2891
 - mineral industry, minerals, yearbook chapter, 4441
 - north Mississippi uplands, unmanaged growth, 689
 - northern, hydrologic effects of prescribed burning—
 - abandoned field, 704
 - deadening upland hardwoods, 11366
 - northwest, appraisal of potentials for outdoor recreation development, 7762
 - plant microfossils from Yazoo clay, Jackson Group, Upper Eocene, illustrations, 8745
 - precipitation data, hourly, 2718
 - small watershed projects, program, hearings, 17718
 - southern coastal plain and coastal flatwoods, soil survey interpretations for woodlands, 9158
 - timber damaged by Hurricane Camille, 4197
- Mississippi County, Mo., community profile, 17825
- Mississippi River and Valley:
 - availability of water in Mississippi embayment, 18041
 - basin, interstate waters, State of Iowa conference to consider establishment of water quality standards, proceedings, 1867
 - Cape Girardeau, Mo., flood plain information, 14314-315
- Mississippi River and Valley—Continued
 - Delta, rural poverty, 6991
 - fisheries, annual summary, 3701
 - flood plain information—
 - Cassville, Wis., 1808
 - LaCrosse, Wis., 16425
 - Natchez, Miss., 1807, 1809
 - floods, how to avoid damage, 1813
 - light list and other marine aids, 6498
 - lower basin, surface water quality, 14554
 - lower, sycamore variation, 690
 - Mississippi Delta, rural poor, propensity for change, study, 11192
 - Mississippi River and tributaries—
 - fishery products, wholesale dealers, list, 9561
 - stages and discharges—
 - Memphis district, 10014
 - New Orleans district, 12511
 - Vicksburg District, 8551
 - Missouri-Mississippi River summary and forecasts, 2892
 - rural Delta, human resources, with emphasis on poor, 1785
 - surface water supply of lower basin, 736 except Arkansas River basin, 1916
 - upper, and its tributaries, interstate and intrastate waters, conference, proceedings, 7166
 - upper basin—
 - clean water for mid-America, 14400
 - floods of Mar.-May 1965, 10188
 - quality of surface waters, 14553
 - water resources of Mississippi embayment (series), 18041
- Mississippian period:
 - pseudoleperidita Schneider, 1956 (Ostracoda, Crustacea) early Mississippian genus from southwestern Nevada, 730
 - rugose corals, Peratrovich formation, Prince of Wales Island, Alaska, 16614
 - Shenango formation (Mississippian), in northwestern Pennsylvania, 10158
 - stratigraphic sections and chemicals analyses of phosphatic rocks in Weber County, Utah, 18040
- Missouri:
 - census of business, 1967—
 - major retail centers, metropolitan statistical areas, 8061
 - retail trade, merchandise line sales, 10789, 17481
 - selected services, area statistics, 160
 - wholesale trade, area statistics, 181
 - census of construction industries, 1967, statistics, 15559
 - census of governments, 1967, State report, 3575
 - census of manufactures, 1967, statistics, 15581
 - census of transportation, 1967, commodity transportation survey, 9439
 - climatological data, 2409
 - county business patterns, 3620, 13165
 - electric rate book, 17987
 - geochemical survey, plans and progress in implementing environmental geochemistry for 1st six-month period, 7235
 - mineral industry, minerals yearbook chapter, 4442
 - minority construction contractors located in selected cities, list, 8795
 - Mississippi River and tributaries, fishery products, wholesale dealers, list, 10895
 - precipitation data, hourly, 2718
 - resource conservation, progress, 10566
 - southwest—
- Missouri Basin Inter-Agency Committee:
 - survival and growth of eastern redcedar seed sources, 5494
 - upawing, resource development and conservation program, 4699
 - annual programming report, 1970-72 fiscal years, 14801
 - annual progress report, 1969 fiscal year, 11597

Missouri Basin Inter-Agency Committee—
Continued
directory, 1971 fiscal year, 12751
minutes—
158th meeting, 11598
159th meeting, 11599
Missouri River and Valley :
basin—
interstate waters, State of Iowa, conference to consider establishment of water quality standards, proceedings, 661
progress report, 5612, 18064
measurement of mixing characteristics, between Sioux City, Iowa, and Plattsmouth, Nebr., 10191
Missouri-Mississippi River summary and forecasts, 2892
upper basin, quality of surface waters, 14553
Missouri River Basin project :
appropriations, authorization, increase—
law, 8177
reports, 5253, 6584
Corn Creek, Front Range, Armel, and Sioux Falls units, water resource development proposals, Interior Dept. to investigate feasibility, law, 297
development program, designate Pick-Sloan Missouri River Basin program, report, 9880
Garrison Diversion unit—
general information, 9083
Minot extension, construct, operate, and maintain—
hearing, 13742
law, 15800
reports, 12350, 13435, 13473
Narrows unit, Colo., construct, operate, and maintain—
hearings, 9747, 16061
law, 15779
reports, 10961, 12211, 13477, 13646
North loop division, development, recommended plan, hearing, 17647
O'Neill unit, development, recommended plan, hearing, 15914
Riverton extension unit, reauthorize and include Riverton reclamation project—
hearing, 11040
law, 15794
reports, 8367, 13431, 13469
Mistletoe, seed viability, germination and radicle growth of dwarf mistletoe in California, 18028
Mitchell, George W. :
addresses, etc.—
Dec. 8, 1969, 654
Mar. 19, 1970, 7153
Apr. 10, 1970, 11326
Aug. 12, 1970, 14391
Oct. 13, 1970, 17991
Mitchell, Lloyd V., variability of monthly mean zonal wind, 36-60 km, 13022
Mitchell, Mary T., business holdings of demand deposits in insured commercial banks, 16485
Mitchell, Ora G., State labor legislation enacted, 7419
Mitchell, R. G., balsam woolly aphid, 16543
Mitchell, William B., area handbook for Guyana, 4862
Mitchell County, Iowa, community profile, 14103
Mitchell County, N.C., community profile, 14104
Mitko, Francis C., mineral industry of California, 4420
Mittens, current industrial reports, 15633
Mixing, turbulent mixing in initial region of heterogeneous axisymmetric coaxial confined jets, 11620
Miyachi, David, application of radiation-pasteurization processes to Pacific Coast fishery products, annual report, 3503

MMPI (Minnesota multiphasic personality inventory), *see* Personality tests.
Mo, William Y., quantitative economic analysis and long-run projections of demand for steel mill products, 7461
Mobile, Ala. :
harbor, engineers report—
departmental edition, 11253
document edition, 10947
principal electric facilities, map, 8628
Mobile Bay, Ala., pollution of navigable waters, conference proceedings, 14402
Mobile County, Ala., community profile, 14105
Mobile home courts, *see* Trailer parks.
Mobile homes, *see* Trailers.
Mobile shops, *see* Repair shops.
Mobile trade fairs, hearings, 13535
Mobility :
disabled, encountering environmental and transportation barriers, 7741
persons and families, Mar. 1970, selected characteristics, 10817
population of U.S., 1326
prolonged limitation and influence on human organism, problems of space biology, 18227
social, roots, study, 11192
upward for lower level employees, suggested goals and actions, 15700
Mobilization, *see* Industry—National defense—Production.
Mobilizing to use the seas, 12904
Mobley, Thomas C. :
building trades, union wages and hours, 12718
union wages and hours, printing industry, 816
Moby Dick, 6-cent Herman Melville commemorative stamped envelope (poster), 6119
Model density estimates for sandwich panels, theory and experiment, 16960
Model cities, *see* Cities and towns.
Model Reporting Area for Blindness Statistics :
conference proceedings, 14953
statistical report, 12855
Model Secondary School for the Deaf, appropriations, 1971, hearings, 17687
Model State housing societies law, 5376
Modeling :
model for medium-range economic planning, USSR study, 16793
neuron structures, methodological problems, 2007
tropical cyclone development, experiments with numerical model, 1824
Modeling of the psyche, 5740
Models (clothing) :
employment outlook, 14679
Models (mathematical), *see* Mathematics.
Models (structural) :
collective motions of one-dimensional self-gravitating system, 935
complex airplane model, sonic-boom characteristics in extreme near field, at Mach numbers of 1.5, 1.8, and 2.5, 11644
design of mining systems, encasement of strain gage networks in epoxy, 18169
rain models for landing guidance systems, 52
steel tunnel supports, model tests, 16446
V/STOL transport model with 6 wing-mounted lift fans, wind-tunnel investigation, 14848, 16957
Modena, Pa., floods and flood plain management information, 17916
Modular forms, lectures, 4547
Modulation theory :
modulated phase velocity, wave channel type antenna with, USSR study, 18105
modulation studies for IGOS, 16458
phase modulation of visual signal in laser interferometer as means of extending range of measurement of plasma density, 4869

- Modulators, *see* Pulse modulators.
- Modules, single swirl-can combustor modules using ASTM-A1 liquid fuel, combustion stability, 903
- see also* Electronic modules—Nuclear instrument modules—Spacecraft modules.
- Modulus of elasticity, *see* Elasticity.
- Moeba, Noel M., air sealing coal mines to reduce water pollution, 5885
- Moede, Herbert H., marketing margins for selected dairy products, 11196
- Mohair, production, price and value, 12945
- Mohave County, Ariz.:
community profile, 6942
uranium, reconnaissance, preliminary, 15524
- Mohawk Airlines, Inc., accident report, 15038
- Mohler, Stanley R.:
address, June 17, 1969, 9412
physiologically tolerable decompression profiles for supersonic transport type certification, 17478
- Moisture:
atmospheric, effect on shock cushioning properties of corrugated fiberboard pads, 16572
cause of blistering, peeling and cracking of house paint, wood finishing, 14458
contents of brushland fuels desiccated for burning, 18015
fine-fuel moisture content tables for national fire-danger rating system, Alaskan adaptation, 4184
follar moisture content of chaparral in Arizona, accounting for variation and relating to prescribed fires, 11348
horizontal moisture convergence and convective cloud formation relationships, 11267
seed cotton conditioning in ginning as related to fiber quality and spinning performance, 4821
stored tobacco, moisture, temperature and relative humidity, 10678
wood moisture—
content, measurement, military standard, 17745
variation of white pine, 5496
- Mojave River and Valley, ground water recharge of basin, Jan. and Feb. 1969 California floods, 7241
- Molasses:
market news—
annual summary, 5286
weekly, 2893
- Moldavian Soviet Socialist Republic:
Academy of Sciences, general information, 8837
computer development, USSR study, 16744
Congress of Rural Physicians, first meets in Kishinev, 18101
- Molders, 3 & 2, rate training manual, 12887
- Molding plastics, *see* Plastics.
- Molds (forms):
injection molding processing parameters, literature search, 8489
soft molded pulp products, industrial opportunity in Tennessee Valley, 9227
- Molecular genetics, 8029
- Molecular physiology, *see* Biological physics.
- Molecular weight, estimating molecular weight of anomalous component of modified water by cryoscopic method, USSR study, 5794
- Molecules:
diatomic, calculation of rotational energy levels and rotational line intensities, 11731
gas phase unimolecular reactions, kinetic data, 8985
infectious multiple drug resistance, molecular nature of R factors, symposium, 16529
ion-polar-molecule collisions, computer-made motion pictures and time history plots, 14849
- Molecules—Continued
semiclassical elastic scattering cross sections for central field potential function, 4504
simple, bond dissociation energies, 4550
errata, 10428
- Moline, Ill., area wage survey, 5825
- Mollusks, Tertiary, of Canal Zone and adjoining Panama, 14534
see also Gastropods.
- Molokai, glimpses of soil and water conservation, 9139
- Molten salts, *see* Fused salts.
- Molybdenum:
demand and supply in U.S., 7458
disposal from national stockpile—
law, 13308
reports, 6638, 6746, 12204
hafnium-carbon alloys, thermomechanical processing, 8936
minerals yearbook chapter, 18163
report, monthly, 2894
thermionic converter with chloride vapor deposited tungsten emitter (110) and collector of molybdenum deposited on niobium, characteristics, 18192
- Moments:
and reactions of rectangular plates, 15142
flapwise bending moments on helicopter rotor blades, simplified procedures for estimating, 890
Grad approximation for closing out magnetohydrodynamic equations for plasmas, critical analysis, 2128
instability due to thermally induced bending moments of slender thin-walled booms, 11646
large bending deformations of filamentary tubular shell typical for pressure constraint components of space suits, analysis, 2075
midship wave bending moments in model of cargo ship Wolverine State running at oblique headings in regular waves, 1086
- Monahan, H. H., gust factor variations with height and atmospheric stability, 15476
- Le Monde (periodical):
index, 2735
- Mondre, E., correlation analysis and scintillation for 15-GHz line-of-sight propagation channels, 10382
- Monetary management, *see* Money.
- Monetary policy, *see* Money.
- Monetary problems, *see* Money.
- Money:
banking and monetary statistics, 16504
banking structure and monetary management (remarks), 12530
code of Federal regulations, 7128
counterfeiting and forgery, 6151
currency and coin, outstanding and in circulation, monthly statement, 3224
currency outstanding, adjustment, report, 11095
demand deposits, currency, etc., 2895
Euro-dollar market and U.S. balance of payments (paper), 652
Federal Reserve monetary policy (remarks), 10078
Federal Reserve policy and liquidity squeeze (remarks), 17991
flow of funds accounts, 1945-68, annual total flows and year-end assets and liabilities, 11325
foreign currencies—
acquired by United States without payment of dollars, 1969 fiscal year, 7901
custody of United States, report, 12955
purchased with dollars, 9272
foreign exchange rates—
monthly, 2658
Treasury reporting rates of exchange, 15393
weekly, 2659

Money—Continued

- illegal currency manipulations affecting South Vietnam, investigation, hearings, 1730, 3975
- inequitable monetary rate of exchange in Vietnam, review, 15840
- international monetary system (addresses), 2277, 9250, 18506
- liquidity demands, fiscal policy, and tasks of monetary management (remarks), 10080
- monetary policy—
 - remarks, 1860, 5464, 12533
 - U.S. position in international markets (remarks), 11922
- monetary system, consolidated conditions, statement, 2354
- money worries? credit union can help, general information, 7081
- needle in paper stack (remarks), 7153
- new standards for credit and monetary policy (address), 654
- open market rates and bond prices, monthly, 2989
- public assistance money payments to persons aged 65 or over, concurrent receipt, 14937
- socialist monetary circulation, principles, USSR study, 5724
- special foreign currency science information program, 1970 list of translations in process, 17167
- supply and the deposits, 2895
- Vietnam Republic, need for increased control over local currency made available for support of its military and civil budgets, Defense Dept. and International Development Agency, GAO report, 12578
- see also* Gold (money—Inflation (finance)).
- Money orders, nonpostal, to pay postal charges, permit, report, 5255
- Money-saving main dishes, 1196, 15418
- Mongolia :
 - area handbook, 10738
 - translations, 3275
- Mongolian People's Republic, *see* Outer Mongolia.
- Mongolism :
 - Down's syndrome, reference bibliography, 4569
 - hope through research, health information, 7716
- Moniteau County, Mo., community profile, 17826
- Monitoring :
 - animal, fish, and poultry byproducts for presence of salmonella, 6289
 - cardiac monitoring and electrocardiography aboard nuclear powered submarine on patrol, 16884
 - computerized onboard expedition monitor and maintenance analyst (EMMA) for spacecraft systems, 11634
 - digital wide range neutron detection and measurement channel, 1261
 - dynamic process, effects of signal rate in assessment of complex human performance, 3516
 - static process, effects of signal rate in assessment of complex performance, 8037
- Monkeys, platyrrhine, some behavior patterns, *saguinus geoffroyi* and other tamarins, 7735
- Monochrometers, gamma monochrometer, 60
- Co source used evaluation of high energy specific activity, 3493
- Monographs, *see* names of departments, etc., issuing monographs—*also* subjects.
- Monomoy National Wildlife Refuge, birds, list, 11885
- Monona County, Iowa, community profile, 14106

Monopolies :

- antitrust laws—
 - administration, investigation, expenses, reports, 457, 5219
 - antitrust and monopoly activities, 1969, report, 9843
 - newspapers, exempt certain combinations and arrangements necessary for survival—
 - hearings, 1592, 3981
 - law, 13328
 - reports, 1630, 12200, 12231
 - automotive repair industry, hearings, 3979
 - Clayton act, interlocking bank relationships, regulations, 4159
 - economic concentration, economic report on corporate mergers, staff report of Federal Trade Commission, hearings, 513
 - nuclear powerplants, preclicensing antitrust review, hearings, 5063, 9610
 - see also* Competition.
- Monoterpenes, *see* Terpenes.
- Monroe, Watson H., glossary of Karst terminology, 10192
- Monroe, La., Ouachita River, Bayou Lafourche and tributaries, flood plain information 16428, 17925
- Monroe County, Ala., community profile, 14107
- Monroe County, Iowa, community profile, 14108
- Monroe County, Miss., community profile, 16314
- Monroe County, Mo., community profile, 17827
- Monroe County, N.Y. :
 - community profile, 14109
 - Rochester-Monroe County Airport, climatological summaries, 7849
- Monroe County, Ohio, community profile, 14110
- Monroe County, Pa., community profile, 16315
- Monroe County, Tenn. :
 - appraisal of potentials for outdoor recreational development, 15187
 - Sweetwater Creek watershed work plan, 4703
- Monson, Daryl J., shock-wave shapes and surface pressures on hemisphere and cone-cylinders in low-density hypersonic flow including ablation, 11633
- Montana :
 - agricultural stabilization and conservation service, annual report, 12971
 - census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 3584
 - retail trade, merchandise line sales, 15542
 - census of governments, 1967, State reports, 3576
 - climatological data, 2409
 - county business patterns, 9449
 - electric power contract oversight, hearing, 11130
 - electric rate book, 648
 - land exchanges, remove Federal restrictions, report, 15847
 - mineral industry, minerals yearbook chapter, 4444
 - non-game birds, ways to attract, 15248
 - Pend Oreille area, geologic implications of aeromagnetic data, 18046
 - precipitation data, hourly, 2718
 - small watershed projects, program, hearings, 17718
 - snow survey measurements, 1922-69, summary, 10558
 - solid waste disposal from coal mining, 2048
 - southwest, mineral resources in Permian rocks, 10170
 - temperature of surface waters, 4256
 - water quality standards for interstate waters, summary, 7168

INDEX 1970

Montana—Continued

- water resources development program by Engineers Corps, status report, hearings, 1599
- water supply outlook and snow surveys, 1113, 3340, 18336
- Montauk Point, N.Y. to Manasquan, N.J., marine weather services chart, 18404
- Monte Carlo method:
 - Monte Carlo and discrete ordinate methods used in analysis of EBR-II neutron spectra, 9388
 - multiple scattering corrections for associated-particle neutron time-of-flight technique, 963
 - trimmed mean detector for noncoherent distributions, 15069
- Monte Vista National Wildlife Refuge, birds, list, 15274
- Monterey County, Calif., geology of Sycamore Flat and Paraiso Springs quadrangles, 14520
- Monterey pine, *see* Pine.
- Montero, Amalia P., relief, 13265, 13598
- Montezuma National Wildlife Refuge, general information, 1117
- Montgomery, Marvin L., preliminary evaluation of hazards of 2, 4, 5-T in forest environment, 8693
- Montgomery County, Ala., community profile, 14111
- Montgomery County, Iowa, community profile, 14112
- Montgomery County, Md.:
 - Hunting Hill quarry, serpentinite and rodingite, description, 8728
 - utilization review in extended care facilities, report of program, 16758
- Montgomery County, Miss., community profile, 16316
- Montgomery County, Mo., community profile, 17828
- Montgomery County, N.C., community profile, 14113
- Montgomery County, N.Y., community profile, 14114
- Montgomery County, Ohio, community profile, 14115
- Montgomery County, Pa., community profile, 16317
- Montgomery County, Tenn., appraisal of potentials for outdoor recreational development, 15183
- Month-end storage in major reservoirs in Pacific Northwest, 2896
- Monthly:
 - NOTE.—For all publications which begin with the word "Monthly", *see* subject, or name of department, etc., issuing publication.
- Monthly benefit statistics, 2897-98
- Months, *see* names of special months.
- Montour County, Pa., community profile, 16318
- Montoya, Jose G. E., *see* Esparza-Montoya, Jose G.
- Montreal, Canada, tributary waters west, notice to mariners, 2973
- Mood disorders, *see* Mental illness.
- Moody, Alton B., civil aviation background material for national plan for navigation, 18367
- Moody, R. C.:
 - flexural properties of glued-laminated southern pine beams with laminations positioned by visual-stiffness criteria, 8701
 - tensile strength of finger joints of pith-associated and non-pith-associated southern pine 2 by 6's, 14469
- Moody, W. T., moments and reactions for rectangular plates, 15142
- Moody County, S. Dak., community profile, 14116

Moon:

- Apollo 12, pinpoint landing on moon, picture set, 7523
- circumlunar flights of automatic stations Zond 5 and Zond 6, chromosome mutations induced by spaceflight factors in barley seeds, USSR study, 5792
- earth-moon field, $X_r=1.00$, 2d class of orbits, survey, 2089
- landing July 20, 1969, 1st anniversary, background material, 12832
- lunar beacons used in lunar orbit estimation, 14865
- lunar midcourse navigation system, hardware simulation using statistical filter theory and hand-held sextant observations, 927
- lunar self-locomotive tasks, reduced-gravity simulators to be used for studying, comments, 8951
- lunar stratigraphy, telescopic observations, summary, 18045
- moon and man and mail, 1st man on moon, 10¢ air mail envelope with die, general information, 15111
- moon viewed by Lunar orbiter, 10372
- perturbation theory based on Lie transformations and its application to stability of motion near sun-perturbed earth-moon triangular libration points, 14825
- photoelectric-photographic study of normal albedo, 11396
- photometric properties of lunar features, 889
- simulated ocean radar impulse responses from lunar radar measurements, 12894
- Washington meridian observations, 1925-68, 6-inch transit circle results, 11809
- Moore, C. A., natural fibers in nonwoven manufacture, 8499
- Moore, Charlotte E., ionization potentials and ionization limits derived from analyses of optical spectra, 17084
- Moore, Elbert C., relief, 13263, 13592
- Moore, Geoffrey H.:
 - address, May 19, 1970, 11548
 - anatomy of inflation, 815
- Moore, Johnnie A.:
 - equal opportunity in Federal employment, newsletter, 2544
 - Federal news clip sheet, 2802
- Moore, Raymond T., grants activities supported by Environmental Control Administration of Environmental Health Service, 12512
- Moore, Royce D.:
 - effect of blade leading edge thickness on cavitation performance of 86.6° helical inducer in hydrogen, 14853
 - thermodynamic effects of cavitation of 80.6° helical inducer operated in hydrogen, 5933
- Moore, Thomas J., solid-state welding of TD-nickel bar, 14867
- Moore, W. H., reverse osmosis plant for maple sap concentration, 10680
- Moore County, N.C., community profile, 12451
- Moore County, Tenn., appraisal of potentials for outdoor recreational development, 15189
- Moore House, Colonial National Historical Park, general information, 6064
- Moorefield, Story, Morgan follows through, 4057
- Moorer, Thomas H., nomination, hearing, 31109
- Moorhead, Paul E., survey of properties of T-111 (tantalum-8 tungsten-2 hafnium), 12810
- Moorman, Bernard J., water pesticides, 11262
- Moosehorn National Wildlife Refuge, birds, list, 15272
- Mora County, N. Mex., western, alluvial valleys, geophysical study, 10168

- Moraine State Park, Pa., surface mine reclamation, 8896
- Moral education, our moral heritage, character guidance discussion topics, 1230, 9352
- Morality, *see* Ethics.
- Moran, F. J., fabrication of smooth tubes for large multistage flash evaporator desalination plants, 10230
- Moran, Francis J., analysis and verification of spacecraft wide-angle attitude-control system, 7546
- Morbidity, morbidity and mortality weekly report, 2914
- see also* Diseases of animals.
- Moreland, Joe A., evaluation of water-quality monitoring in Orange County water District, Calif., 7236
- Morey Peak, inventory of springs in area of central Nevada, 7240
- Morgan, Eleanor D., relief, 9645
- Morgan, Harry L., jr., performance and deployment characteristics of twin-keel parawing with various amounts and permeabilities of porous material in outer lobes, 11651
- Morgan, N. O., biodegrading poultry excreta with house fly larvae, concept and equipment, 4797
- Morgan, Q. Martin:
Denmark's livestock and meat industry, 666
livestock and meat industry, 18005
- Morgan, Reese R., agricultural chemicals, 15600
- Morgan County, Ala., community profile, 14117
- Morgan County, Ky., fresh water occurrence in Lee formation, 8759
- Morgan County, Mo., community profile, 17829
- Morgan County, Ohio, community profile, 14118
- Morgan County, Tenn., mountain strip mine, water control, key to reclaiming, 226
- Morgan County, Utah, community profile, 6543
- Morgan Creek, Chapel Hill, N.C., flood plain information, 16420
- Morgan follows through, 4057
- Morganton, N.C., Catawba River, Silver Creek and Bailey Fork, flood plain information, 7037
- Morgenthau WHEC-722 (Coast Guard cutter):
welcome aboard! General information, 8138
- Morin, Donald A., address, Dec. 20, 1969, 7718
- Morison, Elting E., war of ideas, United States Navy 1870-90, 13009
- Morning, John L.:
chromium, 18142
iron ore, 4413
molybdenum, 18163
technologic trends in mineral industries (metals and nonmetals except fuels), 885
- Morning, William H., relief, 13579
- Morocco:
agricultural commodities, agreement, 4754
air transport services, agreement, 15311
background notes, 7799
economic trends and their implications for United States, 7322, 16721
establishing business in, 15732
gazetteer, official standard names, 16603
mineral industry, minerals yearbook chapter, 4443, 14786
- Morphology:
and length correlated in terminal flushes of longleaf pine saplings, 11365
fusulinids from lower Permian of West Pakistan, studies, 10178
- Morphology—Continued
relationship between morphology and salt rejection and oriented cellulose membranes for reverse osmosis, study, 5622
- Soviet cetacean morphology research outlined, 8843
- Morrell, Frederick R., investigation of fine-pointing control system of soft-gimbaled orbiting telescope, 11671
- Morrell, Lester G.:
mineral industry of—
Australia, 7464
Canada, 5860
- Morrell, Roger J., tunnel boring technology, disk cutter experiments in sedimentary and metamorphic rocks, 12743
- Morrice, Edward, preparation of rare earth and yttrium metals by electrodeposition and vacuum distillation of alloys, 868
- Morrill County, Nebr., community profile, 17830
- Morris, Garland J.:
response of several turbojet airplanes to runway roughness, 11640
three-track runway elevation profiles measured at 2 U.S. Government installations, 938
- Morris, Odell A., sonic-boom characteristics in extreme near field of complex airplane model at Mach numbers of 1.5, 1.8, and 2.5, 11644
- Morris, T. F., flowmeter for space, 2087
- Morrison, Robert H., simulation of meteoroid-velocity impact by use of dense projectiles, 10390
- Morrison, S. R., predicting summer production losses for swine, 10703
- Morrison, W. R., pond linings for desalting plant effluents, 17246
- Morrison formation, *see* Jurassic period.
- Morriss, E. Frances, supplement for 1969 to statistics on cotton and related data, 6316
- Morristown, N.J., quartering, disciplining and supplying Army, 1779-80, winter encampment, 18272
- Morristown National Historical Park, Gen. Washington's Headquarters, 1779-80 (poster), 6065
- Morrow County, Ohio, community profile, 14119
- Morrow Point Dam and Powerplant, rock movement and subsequent stabilization of underground powerplant (paper), 7728
- Morse, Norman, systems analysis of regional solid waste handling, 17311
- Morse, Virginia, monaural comparison of 2 circumaural earphones with standard audiometric earphone, 2045
- Morsh, Joseph E., survey of Air Force officer management activities and evaluation of professional military education requirements, 9330
- Mort, Kenneth W., full-scale wind-tunnel investigation of aerodynamic characteristics of X-24A lifting body aircraft, 14874
- Mortality, *see* Death.
- Mortar, Portland cement, early strength development, exploratory studies, 14914
- Mortgage insurance:
cooperative housing communities, questions regarding loan ceilings and land appraisals, Housing and Urban Development Dept., GAO report, 5536
dealers and individuals subject to certain sections of title 1, National housing act, list, 7090
- FHA—
group medical practice facilities, 7286
nursing home mortgage insurance, 7287
project, FHA regulations, 4140, 5422, 11307, 12525, 14369, 16492
technically suitable manufactured housing, 7092, 17975

Mortgage insurance—Continued

- FHA homes—
 - area trends, 4138, 11304
 - regulations, amendments, 4139, 5421, 8615, 11305-306, 16491
 - State trends, 4141, 11308
- FHA program, extend—
 - law, 3737
 - report, 3821
- HUD housing programs, technically suitable manufactured housing, 17976
- mortgagees guide—
 - administration of insured mortgages, 11419
 - application through commitment, HUD guide, 10203
 - home mortgage insurance fiscal instructions, 10204
 - mortgagees' handbook, home programs, FHA manual, revisions, 1853, 8618
- Mortgage Interest Rate Commission, report, hearings, 491
- Mortgagees' guide, home mortgage insurance fiscal instructions, 10204
- Mortgages:
 - amortization—
 - and insurance premium and outstanding principal balance tables, 12523-524
 - tax information, 5641
 - tax reform hearings, summary of recommendations, 8393
 - Credit act of 1970, hearings, 6793
 - Emergency home financing act of 1970—
 - hearings, 11026
 - law, 13326
 - reports, 8351, 10960, 12251, 13407
 - expand market—
 - law, 1410
 - reports, 1546, 1555, 1816, 3829
 - farm, mortgage debt, 9976
 - farm-mortgage loans, Federal land bank, statistical study of loans outstanding, 12492
 - FHA and VA, exempt from interest and usury laws of District of Columbia—
 - hearings, 6796
 - reports, 6769, 9720
 - FHA extend program, report, 15878, 16026
 - FHA home mortgage, insurance, general information, 10201
 - FHA monthly report of operations, project mortgage programs, home mortgage programs, etc., 2642
 - financing housing by mortgage-backed bonds (speech), 17974
 - Government National Mortgage Association (address), 4272
 - home, FHA trends, 2643
 - home mortgage debt, estimated, quarterly, 2547
 - Middle income mortgage credit act, hearings, 6793
 - mortgage backed securities, new easy way to invest in housing, 10213
 - mortgagees guide—
 - administration of insured mortgages, 11419
 - application through commitment, HUD guide, 10203
 - assistance and interest reduction payments, 18060, 18061
 - nonprofit hospital mortgage insurance program, 16678
 - real estate foreclosure report, 3129
 - savings and mortgage lending activity, selected balance sheet items, FSLIC insured savings and loan associations, 2681
 - secondary mortgage market and credit, hearings, 6793
 - tightening mortgage money and solutions to problem (address), 748
 - see also Loans.
- Morton, Herbert, monthly labor review, 2906

- Morton, Roy J., land burial of solid radioactive wastes, study of commercial operations and facilities, 3511
- Morton County, N. Dak., community profile, 14120
- MOS, see Military occupational specialties.
- Mosaic (periodical), 6070
- Mosaics:
 - mosaic parquet hardwood slat flooring, voluntary product standard, 14930
 - mosaic work, special trade contractors, census of construction industry, 1967, statistics, 13129
- Moscow, Russian SFSR, television programs listed, 4343
- Moseley, William C., jr.:
 - wind-tunnel investigation of aerodynamic pressures on—
 - Apollo command module configuration, 917
 - Apollo launch escape vehicle configurations, 10385
- Moses Lake, Wash., aircraft accident, 15037
- Moskewitz, Ronald, leaving drug world behind, 5353, 14276
- Moskowitz, Saul, guidance and control payload support requirements for planetary cartographic probe, 11680
- Mosquitoes, problems associated with Crooked River Irrigation Project, development, Central Oregon, 1960-66, report on study, 1035
- Moss, George J., jr., correlation signal processing for depth sounding, 17172
- Mossbauer effect, spectrometry for analysis of iron compounds, 10760
- Motels, see Motor courts.
- Mothers:
 - child care arrangements of AFDC recipients under work incentive program, 7586
 - health services, social security benefits, 5840
 - maternal and child health care programs, improve, hearings, 16050, 17700
 - maternal nutrition—
 - and course of pregnancy, summary report, 18139
 - annotated bibliography, 11564
 - who are working mothers? 9270, 18405
- Mothproofing, candidate mothproofers, toxicity to fabric insects and persistence through washing and drycleaning, 17443
- Moths, see Gypsy moths—Tussock moths.
- Motion:
 - artificial satellites in eccentric gravitation field, 11697
 - collective motions of one-dimensional self-gravitating system, 935
 - control systems for moving-base simulators, quasi-optimum design, 18181
 - general, of variable-mass flexible rocket with internal flow, 5904
 - ground—
 - and close-in physical effects, Gasbuggy event, 6385
 - Cabriole Project, analysis, 3496
 - Project Buggy, analysis, 3494
 - Investigation of small-scale motions and forecasting of wind profiles over short periods of time at Cape Kennedy, Fla., 12758
 - interaction of moving plasma with oblique magnetic fields, 6371
 - motion drive signals for piloted flight simulators, 11617
 - motion of low-thrust spacecraft, calculation, 2130
 - object motion effect in Fraunhofer holography with application to velocity measurements, 918
 - surface-motion and vented-gas temperature measurements, Cabriole Project, 8021
 - surface, photographic and accelerometer measurements on Buggy cratering experiment, 6384

Motion—Continued

- unstable bubble motion under low gravitational conditions, 12195
- vertical neutral-gas motions in producing ion convergence at E-region heights, study of role, 16460
- see also* Movement (psychology)—Vortex motion.
- Motion picture cameras, *see* Cameras.
- Motion picture projectionists, employment outlook, 16835
- Motion pictures:
 - Agriculture Department, bimonthly list, 2369
 - catalog of copyright entries, 1754, 11156, 17727
 - civil defense catalog, 12045
 - civil defense in time of emergency, 13190
 - computer-made motion pictures and time history plots of ion-polar-molecule collisions, 14849
 - conservation, 1970-71 listings of conservation films and related natural resource film subjects, 16692
 - distant drummer, drug abuse, film series, announcement and order form, 6043
 - drug abuse, films, list, 7611
 - Education for Handicapped Bureau, media services & captioned films program, research and demonstration projects, 8520
 - FAA film catalog, 1970 list, etc., 8591
 - FHWA motion pictures, 7085
 - for all the people, Harry S. Truman Library, films, etc., 14905
 - Forest Service films available for educational purposes, list, 7195
 - free films on air pollution on loan for group showing, 1058
 - Library of Congress catalog, 2833
 - mental health film guide, listings, distributors, etc., 7628
 - military assistance to commercial film projects, subcommittee staff memorandum, 9743
 - NASA film list, 16951
 - Project Nassau, CBS network news documentary practices, report, 12252
 - selected drug abuse education films, 11763
 - 16 mm. movies for TV, Soil Conservation Service, list, 7772
 - soil and water conservation, 6190
 - films for Northeast, list, 10569
 - Youth Development and Delinquency Prevention Administration, 17417
- Motivation (psychology):
 - upward bound project, general information, 594
- Motive power, *see* Power.
- Motor ability, *see* Ability.
- Motor boats, *see* Boating.
- Motor buses, *see* Motorbuses.
- Motor carrier decisions, *see* Interstate Commerce Commission.
- Motor Carrier Safety Bureau, bulletin, on guard (periodical), 2988
- Motor carriers:
 - class 1 and 2, cost of transporting freight—Central region, 11482
 - Eastern-central territory, 11483
 - general commodities by regions or territories, 4319
 - New England region, 10251-252
 - freight commodity statistics, motor carriers of property operating in intercity service—common and contract, 1967, in United States, 7348
 - passengers, safety bus checks, 8918
 - property, selected safety road checks, 4488, 16929
 - revenues, expenses, other income, etc.—
 - class 1 carriers of passengers, quarterly, 3156
 - class 1 carriers of property, quarterly, 3154

Motor carriers—Continued

- safeguarding classified information, industrial security manual, carrier supplement, 8467
- transport statistics, 802-803, 8828
- transportation of explosives and other dangerous articles, revoke operating authority for failure to comply with regulations, report, 1678
- see also* Motor vehicle accidents.
- Motor courts:
 - District of Columbia—
 - liability to guests, revise laws, hearings, 9904
 - offenses against motels, hearings, 9904
 - Motor cycles, *see* Motorcycles.
 - Motor effects from visually induced disorientation in man, 11978
- Motor fuel:
 - aircraft and automotive fuels, storage, distribution, and dispensing, technical, manual, 13057
 - aviation fuel, taxation, user charges, increase summary of recommendations, 9906
 - taxation, airway user charges, increase—
 - law, 10918
 - reports, 339, 1449, 5250
 - summary of Senate amendments, 13554
 - see also* Gasoline.
- Motor psychology, *see* Movement (psychology).
- Motor skills, *see* Ability.
- Motor trucks, *see* Motortrucks.
- Motor vehicle accidents:
 - accident bibliography, 17076
 - accident investigation and reporting activities of Federal Highway Administration, annual report, 8611
 - analysis and summary of accident investigations, 8917
 - automobile accidents, quantitative models, 17382
 - automobile personal injury claims, 15355-356
 - causation, culpability and deterrence in highway crashes, 12949
 - class 1 motor carriers of passengers, 1846
 - compensation, comparative foreign studies 9232
 - compensation reform, constitutional problems, 9233
 - compensation system study, review progress, hearing, 497
 - crash/injury ejection study, commercial vehicle accidents, 7501
 - driver behavior and accident involvement, implications for tort liability, 18384
 - fatal accidents on interstate system, 15132
 - fatal and injury accident rates, 1968, on Federal-aid and other highway systems, 2209
 - highway accident reports, 7655, 9040
 - adopted Dec. 18, 1968, interstate bus-automobile collision, Mar. 7, 1968, interstate route 15, Baker, Calif., 7655
 - investigations—
 - auto/auto, 15001
 - auto/auto/auto/auto-rear-end, 14993.
 - auto/auto-front end/leftside, 15000
 - car and pole, rollover, 18260
 - car/car-front/side, 14995-996, 14998
 - car/car head-on, 17126
 - car/car intersection collision, vehicle submersion, 17105
 - car/car offset head-on, 17125
 - car/car-2 fixed object-front/side, 14997
 - car/horse fatality, 15004
 - car left road, 17097
 - car, left side to wooden power pole, 17128
 - car off road, 17095-96, 14968, 17086, 17088-89, 17092, 17123, 17132

Motor vehicle accidents—Continued

investigations—continued
 car/parked car-rear end/front end collision, 14986
 car, slide and rollover, 18261
 car to car head-on collision, 17108
 car-train collision, 14973
 car/truck collision, fire 14989
 car-turnover, 14994
 car/tree, 15002, 14987, 171024, 17124
 Doepp Crockett Hauling, 14804
 5 cars, rear-end and headon, 18259
 fixed object impact, 14983, 15003, 15005, 17083, 17121-122, 17127, 18254
 four cases of automobile engine fires—17133
 head-on collisions, 14965, 14980, 17080, 17120, 18246
 highway crash summaries, 18248
 intersection collisions, 14976, 14985, 17081-82, 17084, 17103, 17106, 17112
 interstate bus and car, sideswipe and rollover, 18257
 median crossover, multivehicle collision, 14981
 multiple vehicle intersection collision, 17101
 MV-MV head-on impact, 17117
 MV-MV head-on sideswipe, 17118
 MV-MV-MV rear-end impact fire, 17119
 MV-MV rear-end impact rollover, 17116
 MV-MV rollover, 17111
 MV-MV-truck-intersection collision, 17114
 MV ran off roadway, 17130-131
 pickup truck, 14967
 rear-end collision, 14977, 14984, 14990, 17085, 17094, 17099
 semi-trailer tank truck ran off roadway, rollover, 17115
 sideswipe collision, 17134
 single car-fixed object, 14999, 17129
 single car high-speed off road, 17110
 single vehicle impact with fixed object, 17100, 17102
 single vehicle penetration of guardrail, 14991
 single vehicle rollover, 14975
 single vehicle striking fixed object, rollover, 18247
 Tamiami Trail Tours, Inc., 14802
 three car rear-end collision, 14962
 three cars, rear-end and sideswipe at intersection, 18258
 three vehicle intersection collision, 14961, 14974
 three vehicle rear-end collision, 17091
 tire explosion, 14978
 train to car collision, 14982, 17107
 train versus automobile collision at intersection/railroad crossing, 14969
 truck-car intersection collision, 14963
 truck roll over, 18253
 two car collisions, 14964, 14992, 17113, 18250-252
 two car intersection rollover, 14988
 two car right angle collision, 18255
 two truck headon side swipe, 18256
 two vehicle intersection collision, 14966, 14979, 17082, 17090, 17109
 two vehicle side impact collision, 17098
 vehicle impact with fixed object, 14970-972, 17087, 17093, 18249
 vehicle submersion/unauthorized area, 17104
 large motor carriers of property, 1968 summary, 5887
 litigation, report of Federal Judicial Center, 9231
 motor carrier accident investigation report, 887, 7502-3, 14802-804, 18176
 multidisciplinary accident investigations—DOT HS series, 14961-15006, 17080-134, 18243-261
 summary, 7605

Motor vehicle accidents—Continued

rehabilitation of auto accident victims, 15360
 seat belt injuries in impact, 1283
 skid control training, fixed base simulator versus skid pan practice, 5378
 Trans-American Van Service, Inc., accident investigation, 7502
 Motor vehicle operators:
 alcohol safety countermeasures program, 14957
 driver licensing guidelines for medical advisory boards relating functional ability to class of vehicle, 1053
 driver, traffic safety magazine of Air Force, 2515
 driving occupations, trucks, bus and taxi drivers, routemen, employment outlook, 14709
 Motor vehicles:
 and equipment—
 census of manufactures, 1967, industry statistics, 12099
 census of transportation, 1967, commodity transportation survey, shipper group, 1318
 and parts manufacturing, earnings of production workers, 14742
 annual motor vehicle report, Government owned, General Service Administration, 9229
 automotive repair industry, hearings, 3979
 combat vehicles and equipment, inspection, care and preservation during storage, military standard, 8482
 crash/injury ejection study, commercial vehicle accidents, 7501
 cross-chest safety belt systems, comparison of attitudes toward, after operational experience, 5379
 District of Columbia, commercial facilities for parking or storage, improve, report, 386
 economic consequences of accident injuries, 9234-35
 experimental safety cars study, condensation of, report, 4562
 Federal item identification guides for supply cataloging, supplements, 2690
 Federal low-emission vehicle procurement act of 1970—
 hearings, 8386
 report, 8349
 Federal motor vehicle safety standards, automobiles imported into United States, 636
 Federal safety standards and regulations, with amendments and interpretations, supplement, 14939
 junked and abandoned, disposal and recycling, hearing, 17714
 low-emission, stimulate development, etc.—
 hearings, 8386
 reports, 8349, 16020
 maintenance and repair shop specialized equipment, industrial plant equipment handbook, 11160
 motor vehicle assigned risk plans, report, 15359
 motor vehicles and equipment manufacturing, employment outlook, 14721
 National traffic and motor vehicle safety act of 1966, amend—
 law, 10925
 report on activities, under act, 18262
 reports, 1647, 8253
 passenger, systems and equipment, purchase over statutory price limitation, allow—
 law, 15806
 reports, 11078, 13448
 pollution of air, proposed program for reduction, message from the President, 5082

Motor vehicles—Continued

- road user and property taxes on selected motor vehicle, 7720
 - safety defect recall campaigns reported to National Highway Safety Bureau, 2916
 - safety literature—
 - announcement of recent acquisitions, 2713
 - index, 2714
 - safety standards, 6033
 - and regulations, Federal, with amendments and interpretations, 968, 2601
 - roles of General Services Administration and Transportation Department, special study, 15043
 - skid pan practice versus fixed base simulator in skid control training, 5378
 - tracked combat vehicles—
 - military procurement appropriations, 1970, authorization—
 - law, 1386
 - reports, 1450
 - military procurement appropriations, 1971, authorization—
 - hearings, 8275, 11107
 - reports, 9657, 9662, 12352
 - world production and registration, 10782
- see also* Motorbuses—Motorcycles.

Motorboats:

- Coast Guard Auxiliary examination program, courtesy examiners handbook, 13214
- Federal requirements, 12055

Motorbus drivers, intercity and local bus drivers, employment outlook, 14709

Motorbuses:

- accident investigation, interstate bus and car, sideswipe and rollover, 18257
- bus and motor coach travel in U.S., 11927
- bus travel, opportunity for savings by reducing paper work in Defense Department, GAO report, 12581
- District of Columbia mass transit system, public ownership, report, 8350
- FHA bus public transit project (address), 7718
- interstate bus-automobile collision, Mar. 7, 1968, interstate route 15, Baker, Calif., highway accident report, 7655
- interstate chartered bus crash, Dec. 26, 1968, interstate route 1-80S, highway accident report, 9040
- replacing foreign-made buses with American-made buses abroad, cost and balance-of-payments advantages, GAO report, 6523
- safety bus checks, motor carriers of passengers, 8918
- Tamiami Trail Tours, Inc., accident, Jan. 6, 1970, Sasser, Ga., investigation, 14802

Motorcycles:

- Federal item identification guides for supply cataloging, supplements, 2590
- mini-bikes, interpretation, Federal motor vehicle safety standards and regulations, supplement, 6033
- safety performance data, consumer information, 4561

Motorists, motorist wants to know, information centers and rest areas for tourists, 10528

Motors:

- induction, service, engineering and operations manual, 4656
 - linear induction motor test vehicle, stability and dynamic response, study, 14384
 - solid rocket, application of requirement vs. capability analysis to estimating design reliability, 7511
- see also* Electric motors.

Motortruck drivers:

- local truck drivers and helpers, union wages and hours, 12717
- errata, 14739
- over-the-road and local truckdrivers, employment outlook, 14709

Motortrucks:

- accident investigations—
 - truck roll over, 18253
 - two truck head-on side swipe, 18256
- inventory and use survey, 1967 census of transportation, 15617
- semitrailer tank truck ran off roadway, rollover, multidisciplinary accident investigation, 17116

Moulds, Donald E.:

- lead, 854
- zinc, 4487

Mound City Group National Monument, general information, 10468

Mount Baker National Forest, annual report, 7198

Mount Baldy Wilderness, designate as wilderness area, proposal, report, 12322

Mount Mitchell (coastal survey ship): welcome aboard! general information about the ship and her activities, 616

Mount Rainier National Park: general information, 10469

- Nisqually Glacier, analysis of 24-year photographic record, 5554
- surficial geology, 5540

Mt. Scott Creek, Milwaukie, Oak Grove, Oreg., flood plain information, 16435

Mountain climbing, *see* Mountaineering.

Mountain Creek, Trinity River basin, Tex., 1967 hydrologic data, compilation, 7230

Mountain pine beetles, *see* Beetles.

Mountain States, *see* Rocky Mountain States.

Mountaineering, mountain adventures, guide to daylong hikes in Trinity Alps, Shasta-Trinity National Forests, 16554

Mounting bases, flat grinding wheel mounting, student reference, 7420

Mountings, *see* Mounting bases.

Mountrail County, N. Dak., community profile, 14121

Mourning doves:

- habitat management, 1109, 17294
 - hunting, possession, transportation, importation, 1970-71, Federal regulations governing, 15276
 - status report, 7791, 17321
- Mouth, oral cytology, atlas, 15148**

Movement (psychology):

- human motor activity in sealed chambers and during space flight, USSR study, 10273
- recovery of motor performance following startle, 8041
- spiral aftereffect, some influences of visual angle and retinal speed on duration and intensity of illusory motion, 8036

Moving, *see* Transportation.

Moving ahead together, 570

Moving pictures, *see* Motion pictures.

Moyer, Carl B., coupled computer code for transient thermal response and ablation of non-charring heat shields and nose tips, 18183

Moyer, Forrest T.:

- injury experience—
 - and worktime in mineral industries by States, 4411
 - in metallic mineral industries, 851
 - in nonmetallic mineral industries, 14778
- Moynihan, M., some behavior patterns of platyrrhine monkeys, *saguinus geoffroyi* and other tamarins, 7735
- Mozambique, *see* Portuguese East Africa.
- MP series, 4280
- MPDI (marine products development irradiator), *see* Irradiators.
- MRA, *see* Model Reporting Area for Blindness Statistics.
- MS series, 1041

INDEX 1970

- MSAS, *see* Marine Science Affairs Staff.
 MSI series, 2336, 3185
 MTMTS, *see* Military Traffic Management
 and Terminal Service.
 MTS series, 2872
 Mud Mountain Dam, White River, Wash.,
 constructed by Seattle District, U.S.
 Army Corps of Engineers, general infor-
 mation, 5371
 Mueller, Robert F., hydration, oxidation, and
 origin of calc-alkali series, 901
 Muesebeck, Carl F. W., Nearctic species of
 Orgilus Haliday (Hymenoptera, Braconi-
 dae), 6157
 Mubich, Anton J.:
 1968 national survey of community solid
 waste practices, region 2—
 Delaware, New Jersey, New York, 17308
 Pennsylvania, 17309
 Muir (U.S.S.):
 loan to Korea, extension, agreement, 9205
 Mukewater Creek, Colorado River Basin,
 Tex., 1968, compilation of hydrologic data,
 8732
 Mulch farming, *see* Mulching—Stubble-
 mulch farming.
 Mulching:
 mulch tillage in Corn Belt, 15220
 mulching for erosion control on newly
 shaped slopes, 15221
 stabilization of newly constructed road
 backslopes by mulch and grass-legume
 treatments, 18013
 Mule deer, *see* Deer.
 Mule Mountain, mesozoic stratigraphy, 4252
 Mullan, James W.:
 food habits of 5 centrachids during filling
 of Beaver Reservoir, 11891
 thermal, oxygen, and conductance charac-
 teristics of new and old Ozark reservoir,
 11891
 Mullane, Paul, naval aviation news, 2937
 Mullen, Omer W., on-site radiological safety
 report, 13081
 Mullin, Sylvia R., progressive fish-culturist,
 3102
 Mullineaux, Donal R., geology of Renton,
 Auburn, and Black Diamond Quadrangles,
 King County, Wash., 18620
 Multer, R. H., measuring directional velocity
 in water waves with acoustic flowmeter,
 11249
 Multichannel analyzers, *see* Pulse height
 analyzers.
 Multidisciplinary accident investigations,
 DOT HS series, 14961-15005, 17080-134,
 18246-261
 Multiple independently targeted reentry ve-
 hicles, *see* Missiles.
 Multiple jobholders in May 1969, 12721,
 18134
 Multiple phase ejector pilot plant, 18070
 Multiple sclerosis, talking books and multiple
 sclerosis, 18137
 Multiplication, Markov chains to analyze
 asynchronous methods of computer mul-
 tiplication, USSR study, 12629
 Multipliers:
 sector income and employment multipliers,
 their interactions on national economy,
 13008
 varactors, quasi-optical circuit techniques
 study, 2080
 Multiprocessing, task scheduling for real
 time multiprocessor, 12790
 Multistage flash distillation *see* Flash dis-
 tillation.
 Multnomah County, Oreg., McKay-Rock
 Creek Watershed, watershed work plan,
 15244
 Mulvihill, Donald F., inventory management,
 small business bibliography, 7732
 Mulvihill, Donald J., crimes of violence,
 15119-120, 17216
 Municipalities, *see* Cities and towns.
 Munitions:
 ABM, MIRV, SALT, and nuclear arms
 race, hearings, 11122
 unserviceable chemical munitions, disposal
 by dumping into Atlantic Ocean, insure
 precautions, hearings, 15927
 Munson, Frederick P., area handbook for
 Argentina, 1233
 Murane, William E., speech, Sept. 25, 1970,
 15735
 Murdock, James N., NORSAR microseisms,
 16456
 Murphy, Lorena J., relief, 1446
 Murphy, Louis J., market factors in Colom-
 bia, 6505
 Murphy, Mary K., success in early counsel-
 ing, 14276
 Murphy, Robert T.:
 addresses, etc.—
 Dec. 19, 1969, 1343
 Aug. 25, 1970, 13186
 Murphy, William J., Rhode Island landings,
 10887
 Murray, John J., safety for commercial fish-
 ing vessel and crew, 9525
 Murray, John R., cantilever scales for mea-
 suring weight changes, 18018
 Murray, S. F., selection and evaluation of
 gas bearing materials in argon at 900 F
 and 1400 F, 4492
 Murrmann, R. P., determination of cation
 exchange capacity of earth materials using
 radiotracer technique, 7033
 Muscat and Oman, background notes, 10599
 Muscatine County, Iowa, community profile,
 14122
 Muscles:
 biceps muscle, electromyographic analysis
 following standard air dives using fre-
 quency analysis feasibility study, 18141
 skeletal tension and paced tracing task,
 effects of sonic booms and subsonic jet
 flyover noise on performance, 5902
 Musen, Peter, discussion of Hill's method of
 secular perturbations and its application to
 determination of zero-rank effects in non-
 singular vectorial elements of planetary
 motion, 11632
 Muses, revisited (address), 11236
 Museums:
 aerospace museum, feasibility study, hear-
 ings, 13542
 related institutions, basic program sur-
 vey, 7016
 Music:
 catalog of copyright entries, 530
 Library of Congress catalog, 12724, 16873
 retail music store, starting and managing,
 15159
 Musical instruments:
 parts, census of manufacturers, 1967,
 industry statistics, 12012
 Federal item identification guides for sup-
 ply cataloging, supplements, 2597
see also names of instruments.
 Musicians, employment outlook, 12687
 Muskegon, Mich., area wage survey, 16851
 Muskegon Heights, Mich., area wage survey,
 16851
 Muskingum County, Ohio, community pro-
 file, 14123
 Muskogee, Okla., Arkansas River basin, com-
 prehensive development plan, hearings,
 433
 Mutton:
 fresh, USDA institutional purchase speci-
 fications, 12386
 trade agreement with Honduras, 6239
 Mutual assistance, *see* Military aid.
 Mutual defense, *see* Military aid.
 Mutual defense assistance act of 1951, *see*
 Exports.
 Mutual funds, *see* Investment companies.
 My Lai, Vietnam, incident, investigation,
 report of subcommittee, 12260

- Mycobacteria, isolation and identification procedures, 7593**
Mycoplasma, gallisepticum infection in chickens and turkeys control and eradication, guidelines, 3377
Mycotoxins, United States-Japan conference on toxic micro-organisms, proceedings, 18065
Myeloproliferative disorders in man and animals, 13066
Myers, Clifford A., board-foot volumes to 6 inch top for lodgepole pines in Colorado and Wyoming, 5505
Myers, Gary C., measuring shrinkage in handsheds during drying, 14465
Myers, Kenneth H., facts for prospective farmers, 7917, 9287
Myers, Robert J.:
 actuarial cost estimates for hospital insurance program, 15167
 analysis of experience under supplementary medical insurance program according to payment-record data, 7745
 comparison of actual experience under OASDHI system with short-range cost estimates, 15166
 comparison of medicare expenditures with estimates, etc., 1100
 distribution of medicare benefit disbursements by type, 10551
 estimated amount of life insurance in force as survivor benefits under social security program, 11855
 hospital utilization and average daily costs as indicated by data from hospital insurance program and American Hospital Association, 15165
 long-range cost estimates for old-age, survivors, and disability insurance system, 7744
 mortality of aged before and after medicare, 15164
Myers, Sumner, successful industrial innovations, study of factors underlying innovations in selected firms, 1005
Myers, Vance A.:
 high level cloud photography, BOMEX 4, period, 16454
 joint probability method of tide frequency analysis applied to Atlantic City and Long Beach Island, N.J., 11269
Myklebust, Helmer R., minimal brain damage in children, 10536
Myodocopina, see Crustaceans.
Myung Joo Lee, see Lee, Myung Joo.
- N**
- N.A.S.A., see National Aeronautics and Space Administration.**
N.A.T.O., see North Atlantic Treaty Organization.
N.B.S., see National Bureau of Standards.
N.L.R.B., see National Labor Relations Board.
Naab, Ronald C., role of international agreements in Alaskan fisheries, 9526
Nacelles:
 aerodynamic effects on fan-jet transport model, flutter studies to determine for 2 mount systems and 2 wind tunnels, 16998
 NASA acoustically treated nacelle program, conference, papers, 2079
 twin-turbobfan subsonic transport with nacelles mounted under wings, longitudinal aerodynamic characteristics, 16980
Naches River, Yakima-Union Gap, Wash., flood plain information, 16436
Naeseth, Rodger L.:
 low-speed wind-tunnel investigation of series of twin-keel all-flexible parawings, 18198
 model wind-tunnel and flight investigation of parawing-lifting-body landing system, 18196
Nagel, Lester, L.:
 air pollution report, Federal facilities, intrastate air quality control region—metropolitan Baltimore, 12834
 metropolitan Pittsburgh, 12836
 Niagara frontier, 10423
Nagel, William:
 foreign trade regulations—France, 13230
 Sweden, 4996
Nagy, Fred R., industry wage survey, laundry and cleaning services, 2025
Nagy, John, control of dust explosion hazard in coal mine shuttle car runways, 18173
Nahai, L.:
 mineral industry of—Federal Republic of Germany, 4424
 France, 7465
Nahcolite, analyses of Green River formation oil-shale sections, Piceance Creek basin, Colo., 18172
Naitai, sailing directions, 10487
Nails and spikes, short spikes, conical flow field at Mach number 9.6, investigation, 11643
Nakano, Yoshisuke:
 numerical computation of shock wave diffraction by circular cylindrical cavity in elastic-plastic media, 8535
 stability of difference approximation to shock wave propagation in inhomogeneous elastic-plastic media, 5366
Nakaya, Ukichiro, physical properties and internal structure of Greenland snow, 7032
Nakhon Phanom, Thailand, resources atlas, 16442
Nakhon Sakon, Thailand, agricultural production trends, preliminary analysis, 16412
Nalty, Bernard C., United States Marine Corps ranks and grades, 18138
Nam Yang Project, northeastern Thailand, water resources, 4654
Names (personal):
 given, English, foreign versions, variations, and diminutives, etc., 4298
 Spanish surnamed American—college graduates, list, 8051
 employment in Southwest, 10037
Nance County, Nebr., community profile, 17831
Nantasket Beach, Mass.:
 erosion control study, engineers report—departmental edition, 5374
 document edition, 5076
Napa, Calif., census of transportation, 1967, commodity transportation survey, production, area series, 6434
NAPCA, see National Air Pollution Control Administration.
Naples, Italy, U.S. Naval Support Activity, improved procedures needed for obtaining facilities, by lease-construction method, GAO report, 4221
Narcotic addicts:
 Kentucky, National Institute of Mental Health study, 1064
 narcotic addiction treatment agencies, in U.S., directory, 11776
Narcotic habit:
 combating drug abuse, proposals—hearings, 515
 message from the President, 327
 comprehensive narcotic addiction and drug abuse care and control act of 1969, hearings, 9424
 distant drummer, drug abuse, film series, announcement and order form, 6043
 drug abuse education, resource book, 1073
 leaving drug world behind, 5353
 narcotic addiction and drug abuse, examination of problems, hearings, 1741
 correction, 5276
 narcotic addiction treatment agencies, in U.S., directory, 11776
 neonatal narcotic addiction, 11565

INDEX 1970

- Narcotics :**
and drug education, grades K-12, Flagstaff Public Schools, Flagstaff, Ariz., 14945
convention on narcotic drugs, 1961, amendments of schedules, notification by United Nations, 8234
fact sheets, 888
laws, amend—
 comparison of bills to regulate, 15948
 hearings, 13550
 materials, 15949
 statements, 15950
 summary of bill, 15953
legislation, hearings, 1736
narcotic drug laws, amend, report, 1684
problem, hearings, 5275, 6810, 11135
see also Drugs.
- Narcotics and Dangerous Drugs Bureau :**
BNDD bulletin, 2372
BNDD special agent, 5888
career in chemistry, 10340
fact sheets, 888
narcotic and drug abuse laws, reorganize and coordinate control, hearings, 1736
- Narrow gauge Denver and Rio Grande Western, 17157**
- Narrowband, *see* Bandwidth.**
- Narrows unit, *see* Missouri River Basin project.**
- NAS (national airspace system), *see* Air traffic.**
- NASA, *see* National Aeronautics and Space Administration.**
- NASA EP series, 5909, 9331-32**
- NASA tech briefs, 2921**
- Nash, Peter G., nomination, hearing, 13754**
- Nash County, N.C., community profile, 12452**
- Nashville, Tenn., Metropolitan Airport, climatological summaries, 4764**
- Nassau County, N.Y. :**
community profile, 13124
East Meadow Brook, effects of urban development on direct runoff, 5553
South Farmingdale-Massapequa area, dispersal of plating wastes and sewage contaminants in ground water and surface water, 18052
- Nassau Project, *see* Columbia Broadcasting System.**
- Nassif, Helen G. :**
Court of Customs and Patent Appeals—
 customs cases adjudged, etc., 9947
 patents cases adjudged, etc., 9948
- Nassikas, John N. :**
nomination, hearing, 494
reappointment, hearing, 13719
- Natality, *see* Birth.**
- Natchez, Miss. :**
District Court, southern district, terms to be held, report, 15986
flood plain information, 1807
Mississippi River, flood plain information, 1809
- Natick Laboratories, Natick, Mass. :**
technical publications and papers, July 1967-June 1968, bibliography, 1217
technical reports, 85, 1216-26, 6348-49, 7986, 13041-47
- Natioh, Paul, sleep requirements of man-in-the-sea, 4898**
- National Academy of Engineering, technology assessment, hearings, 5181, 15936**
- National Academy of Public Administration, technology assessment system for Executive Branch, report, 13543**
- National Academy of Sciences, technology assessment, hearings, 5181, 15936**
- National Advisory Cancer Council, report, 18268**
- National Advisory Commission on Technology and Environment, establish, hearings, 12374**
- National Advisory Committee for Oceans and Atmosphere, establish, hearings, 1115**
- National Advisory Committee on Adult Basic Education, annual report, 340**
- National Advisory Committee on Aeronautics, light aircraft design, published information, studies, 7507-8**
- National Advisory Committee on Dyslexia and Related Reading Disorders, report, 9023**
- National Advisory Committee on Handicapped Children, annual report, 16389**
- National Advisory Council on Child Nutrition :**
establish—
 law, 10909
 report, 5200
- National Advisory Council on International Monetary and Financial Policies, annual report, 8197**
- National Advisory Council on Services and Facilities for Developmentally Disabled :**
establish—
 hearings, 3983, 11046
 report, 13411
- National Advisory Council on Vocational Education :**
annual report, 11246
cooperative day of planning report on joint meeting of State and national level, 14806
- National Aeronautics and Space Administration :**
AEC-NASA tech brief, 2921
aerospace museum, feasibility study, hearings, 13542
allowances for independent research and development costs in negotiated contracts, issues and alternatives, GAO report, 5522
appropriations, 1970, authorization—
 law, 1385
 report, 1452
appropriations, 1971—
 authorization—
 hearings, 6724, 6780, 8375, 9769
 index, 11058
 law, 13305
 reports, 6642, 6650, 8373, 10993
 hearings, 8271, 11105
automatic data processing equipment management procedures, 7505
contractor procurement system reviews, improving effectiveness, GAO report, 14507
contractor report CR (series), 889-895, 2060-75, 4489-99, 5891-5907, 7506-22, 8921-29, 10343-364, 11601-625, 12752-767, 14807-835, 16932-930, 18177-192
Deputy Administrator, nomination of George M. Low, hearing, 481
EP series, 5909, 9331-32, 10368-370, 14836, 18193
facilities design and construction, engineering management, report, 8321
film list, 16951
for benefit of all mankind, practical returns from space investment, survey, report, 15869
future of bioscience program, report, 9767
headquarters telephone directory, 2919
improved accounting control over equipment at Kennedy Space Center, GAO report, 14500
Inventions and Contributions Board, petitions for patent waiver, findings of fact, etc., 3020, 7557
light aircraft design, published information, studies, 7507-8
management issuances, master list, 8920
management of magnetic tapes by Goddard Space Flight Center, further improvement needed, GAO report, 8723

National Aeronautics and Space Administration—Continued
 metric system study, 5907
 NASA acoustically treated nacelle program, conference, papers, 2079
 NASA awards for new technology, 16931
 NASA bioscience program, future, hearings, 3894
 NASA bits, brief ideas, thoughts, suggestions, 10342
 NASA contractors trim cost, 19365
 NASA data requirement description index of technical and management information for use on NASA programs, 10366
 NASA data requirement descriptions (DRD) for acquisition of in-house and contractor technical and management data, 8930
 NASA grant handbook, 4500
 NASA operating plan, 1970, hearing, 5257
 NASA picture sets, 7523
 NASA procurement regulations, 7524
 NASA projects, supplemental review, hearings, 437
 NASA-University Conference on Manual Control, proceedings, 2076, 14838
 positions in zerspace technology, amdt., 8114
 press releases, 3072
 procurement regulation, 2923
 directive, 2920
 publications, educational, list, 5908, 10367
 reliability and quality assurance publication, NHB series, 8966
 report of Apollo 13 Review Board to Administrator, 11711
 Saturn V
 incentive provisions of stage contracts, 6532
 launch vehicle, 1st stage, overstatement of contract target cost, GAO report, 18035
 scientific and technical reports and publications for 1969, selected listing, 14843
 semiannual report—
 departmental editions, 2132, 14900
 document editions, 1433, 13357
 significant NASA inventions available for licensing in foreign countries, 17011
 SP series, 896-898, 2076-79, 2300, 4501-6, 5910-16, 7525-29, 10371-375, 11626-627, 12768, 14837-844, 16952-955, 18194
 space flight investigations, opportunities for participation, handbook, 2994, 11709-710, 18228
 spacecraft, America in space, 1st decade, 8931
 sustaining university program research, 1969 list of tasks, 4533
 tech brief, 2921
 technical memorandums, 18195
 technical notes, 899-945, 2080-2127, 4507-31, 8933-62, 5917-75, 7530-48, 7550-53, 10376-412, 11628-695, 12770-825, 14845-891, 16956-17007, 18196-222
 technical reports, 946-948, 2128, 5976-79, 7554-55, 8953-54, 10413-414, 11696, 12826, 14892-895, 17006-10, 18223-224
 technical translations, 949-950, 2129-31, 4532, 5980, 8955, 10415-417, 11697-708, 12827-831, 14896-898, 18225-227
 university program, active grants and research contracts, quarterly reports, 2922, 7556
 National Aeronautics and Space Council:
 appropriations, 1971, hearings, 8271
 Secretary of Transportation, to serve as member—
 law, 15792
 reports, 13417, 16012
 National Agricultural Library:
 appropriations, 1970—
 law, 1392
 report, 1482
 appropriations, 1971, hearings, 8266

National Agricultural Library—Continued
 library list (series), 951, 5983
 Pesticides Information Center, DDT (1, 1-dichloro-2, 2-bis (P-chlorophenyl) ethylene), list of references, 5983
 National Air Pollution Control Administration:
 abstracts bulletin (periodical), 5985
 publication AP series, 2134, 5986-91, 7560-64, 8966, 14902, 17014-18
 publication APTD series, 5992, 7565, 11716, 14903, 17019, 18229
 transfer functions to Environmental Protection Agency—
 hearings, 15911, 16057
 report, 15874
 National Air Surveillance Networks, air quality data, 5992
 National Airport, see Washington National Airport
 National Airspace System, development, Oct. 1961-Aug. 1969, hearing, 8298
 National Airspace System Program Office, report FAA-NS series, 17965
 National Archives:
 compiled military service records, 18230
 genealogy records from outside sources, 12840
 general information, 17021
 inventory series, 11718, 14908
 materials relating to Rumania, 17030
 microfilm publications, pamphlet accompanying, 4536-46, 5995, 7567-68, 8976, 11719-729, 14909-913, 17023-29
 prologue, journal of National Archives, 3103
 records of—
 Headquarters of Army, 11718
 Marine Corps, 14908
 reference information papers, 17030
 slides, list, 14906
 see also Records
 National Archives and Records Service, general information leaflets, 962, 12840, 14906, 17021-22, 18230-231
 National Arbor Day:
 designate—
 law, 9601
 report, 9919
 National Arboretum:
 contributions, 9282
 general information, 9314
 National Aviation Facilities Experiment Center Atlantic City, N.J.:
 report NA series, 4112-19, 7068, 8602, 14360-361, 17962-963
 1967-69 index, 17963
 National aviation system planning review conference, Apr. 14-17, 1970, summary report, 14362
 National banks:
 State and local taxes, clarify liability—
 hearing, 492
 law, 1412
 reports, 1531, 1626
 National Blood Donor Month:
 proclaim January of each year—
 law, 3745
 report, 1662
 National Brucellosis Committee, proceedings of annual meeting, 17427
 National Bureau of Standards:
 accounting improvements, need for, inequitable charges for calibration services, GAO report, 12576
 Activation Analysis Section, summary of activities, 12846
 Analytical Coordination Chemistry Section, summary of activities, 17040
 Analytical Mass Spectrometry Section, summary of activities, 8993
 applied mathematics series, 4547
 ARPA-NBS program of research on high temperature materials and laser materials, 7576, 11737
 building research, 18232

INDEX 1970

- National Bureau of Standards—Continued
 Director, nomination of Lewis M. Branscomb, hearings, 494
 frequency and time broadcast services, radio stations WWV, WWVH, WWVB, and WWVL, 11735
 handbooks, 8980, 10425
 journal of research, 2785-87
 monographs, 4548, 8982-84, 10427, 11730-731, 12841, 17092, 18233
 national standard reference data series, 956, 4549-50, 8985, 10428-429, 11732, 17034
 postdoctoral research associateships, 1971, general information, 18234
 press releases, TRG (series), 3073
 publication announcements, 3112
 publications newsletter, 2949
 semiconductor device industry, measurement methods, 965
 Separation and Purification Section, summary of activities, 6007
 simplified practice recommendation R series, 4552
 special publications, 957-959, 2137, 6001-5, 7573, 10430-431, 11735, 12842-844, 14921-923, 17035-37, 18235
 Standard Reference Data Office, annotated accessions list of data compilations, 17041
 standard reference data system appropriations, 1970 and 1971, authorization—law, 1396
 report, 1631
 standard reference materials—
 analysis of interlaboratory measurements of vapor pressure of gold, 6003
 announcement, 2950
 boric acid, isotopic, and assay, 6002
 calibration of secondary standard magnetic tape (computer amplitude reference) using reference tape measurement process A, 957
 catalog and price list, 6001, 12842, 14921
 news for users of, 2963
 technical highlights, annual report, 6006
 technical news—
 bulletin, 3254
 press release, 3255
 technical notes, 960-965, 2138-39, 4553-55, 6007-10, 7574-81, 8986, 10436-438, 11736-741, 12845-847, 14924-927, 17038-43, 18236-239
 technical publications, 6011
 National Cancer Institute:
 general information, 17045
 journal, 2783
 research and related programs including roster of staff, etc., 11761
 research opportunities, 11750
 research reports, 14932
 National Capital, *see* Capitol of United States—District of Columbia.
 National Capital Housing Authority, annual report, 10443
 National Capital Planning Commission:
 appropriations, 1970, law, 314
 appropriations, 1971—
 hearings, 8268
 law, 13385
 reports, 9702, 12254, 13645
 capital improvements for District of Columbia, 6 year program, 10444
 National Capital region, *see* District of Columbia.
 National Center for Health Services Research and Development, research development program, policies and guidelines for applicants, 10445
 National cemeteries:
 adjacent to Manassas Battlefield Park, Va., establish, hearing, 440
 expenses, appropriations, 1971—
 hearings, 8272, 11106
 reports, 12207, 13697
 National cemeteries—Continued
 Soldiers' Home National Cemetery, general information, 7993
 National Center for Educational Research and Development, progress in American education, 8527
 National Center for Health Services Research and Development—
 extend and improve authority, report, 15980
 new careers in health service research and administration, 11763
 report NCHS-RD (series), 11752, 14933, 17046-47
 reprint series, 17048-49
 research development program, policies and guidelines for applicants, 1072
 research fellowships program, 7582
 National Center for Health Statistics:
 extend and improve authority, report, 15980
 public health conference on records and statistics, proceedings, 12th annual meeting, 7583
 National Center for Population and Family Planning, establish, hearings, 8426
 National Center on Educational Media and Materials for the Handicapped, policies and procedures, 16397
 National Citizens Conference on Rehabilitation of Disabled and Disadvantaged:
 legal rights of the disabled and disadvantaged, 6164
 people power report, 7742
 National Clearinghouse for Drug Abuse information, report series, publications, and reproduces, list, 17058
 National Clearinghouse for Mental Health information, occupational mental health notes, 2979
 National Clearinghouse for Poison Control Centers, bulletins, 2924
 National Clown Week, designate, report, 13698
 National Commission on Banking, establish, hearings, 11111
 National Commission on Causes and Prevention of Violence, final report, 2203
 National Commission on Consumer Finance:
 appropriations, 1971, hearings, 8279, 11105
 final report, extend reporting date—
 law, 13319
 report, 12221, 12325
 National Commission on Fire Prevention and Control, appropriations, 1970, report, 472
 National Commission on Libraries and Information Science:
 establish—
 law, 13320
 report, 12214
 National Commission on Materials Policy:
 establish, hearings, 1745, 11145
 hearings, 5280
 National Commission on Product Safety:
 appropriations, 1970—
 hearings, 1700
 law, 6536
 reports, 1683, 5254
 final report, 11768
 National Commission on Reform of Federal Criminal Laws:
 appropriations, 1970—
 law, 3738
 reports, 472, 5104
 appropriations, 1971—
 hearings, 8270
 reports, 9686, 15990
 waive points of order, report, 9688
 new Federal criminal code, study draft and working papers, 14949
 National Commission on Transplantation and Artificial Organs:
 establish—
 hearings, 5277, 8428
 reports, 12248, 17627

- National Commission on Urban Problems, press releases, 3074
- National Committee on Vital and Health Statistics, *see* United States National Committee on Vital and Health Statistics.
- National Communicable Disease Center: CDC veterinary public health notes, 2394 surveillance—
neurotropic viral diseases, encephalitis, annual summary, 1065
salmonella report, 2925
shigella reports, 2926
- National Computerized Job Bank Program, establish, hearings, 17642
- National Conference on Law Enforcement Education, 1970 selected presentations, 11523
- National Conference on Mental Health Statistics, mental health programs, proceedings, 9021
- National Conference on Weights and Measures:
annual report, 959
model state packaging & labeling regulation, adopted at conference, 10426, 17031
- National Consumer Information Foundation, establish, hearings, 6715
- National contractor zero defects seminar proceedings, 6884
- National Corporation for Housing Partnerships, annual report, 17692
- National Council on the Arts:
annual report, 11769
programs, Oct. 1965-Apr. 1970, lists, 10452
- National Council on Drug Abuse Control, establish, hearings, 8424
- National Council on Health Policy, establish, report, 15980
- National Council on Indian Opportunity:
appropriations, 1970, expenses, authorization—
law, 1390
report, 1459
appropriations, 1971—
hearings, 8268
law, 13336
reports, 9702, 13645
appropriations for expenses, authorize, report, 3920
- National Council on Marine Resources and Engineering Development:
act of 1966, amend, hearings, 11115, 16043
annual report—
departmental edition, 9001
document edition, 8212
appropriations, 1970, law, 314
appropriations, 1971, report, 9702
expiration date, change, law, 15799
extend, reports, 13456, 13656
pamphlets, 9002
- National Credit Union Administration:
Administrator, nomination of Herman Nickerson, Jr., hearing, 16040
appropriations, 1971—
hearings, 12259, 17687
reports, 13426, 16031
waiving points of order, report, 13429
- establish—
law, 6538
reports, 1618, 5125
NCUA bulletin, 10451
- National Credit Union Board, establish, law, 6538
- National Credit Union Share Insurance Fund:
create—
hearings, 12358, 15892
report, 13703
- National Day of Prayer:
designate—
law, 3725
report, 1613
- National debt, *see* Public debt.
- National defense:
agreement with—
Argentina, 15315
Spain, hearing, 16055
air defense—
continued operations of radar stations and exchange of aircraft, agreement with Canada, 17348
southeastern United States, report of subcommittee, 5143
civilian aids to Secretary of Army, 16th national conference, 7998
code of Federal regulations, 4151-52, 7129-33, 8649, 10073-74
current status of military defense, summary, 6843
defense demilitarization manual, 17732
defense indicators, 2493
defense industry bulletin (periodical), 2494
defense manpower policy no. 4, procurement contracts and worker surpluses, questions and answers, 11913
defense-related workers, skills and location, 12720
economic basis of Russian military challenge to United States, hearings, 323
education act of 1958—
awards for modern foreign language and area study, 5345
graduate fellowships, 1970-71 graduate programs, 9991
NDEA fellow's handbook, graduate fellowship program, 1969-71 fellowship years, 567, 16398
emergencies, railroad planning for, 11485
emergency procedures for control of civil transportation, 11916
GAO audit of defense expenditures and capability to analyze, hearings, 508
inventions relating to, patents, safeguarding secrecy, agreement with other governments, revision, 6228
joint defense space communications station, agreement with Australia, 6230
military budget and national economic priorities—
hearings, 323
report, 3765
mobilization report, 5196
perspectives in defense management (periodical), 3017
program and budget 1971, statement, 5323
publications, price list, 4646
special military operations handbook, changes, 3453, 10726, 11965
see also Civilian defense—national security—War and emergency powers.
- National Defense Foreign Language (NDFL) fellowships, manual for participating institutions, 7017
- National development banks, establish, hearings, 17691
- National Development Financing Corporation, create, hearings, 17691
- National economy, *see* Economic conditions.
- National Education Commission, establish, hearings, 5156
- National electric rate book, 647-650, 1856-57, 2927, 4144-48, 5432-33, 11313-314, 12527-529, 14376-378
- National emergency labor disputes, 5093
- National emergency standby regulations and instructions, personnel and manpower, FPM supplement, 2615
- National Endowment for the Arts:
annual report, 11769
programs, lists, 966, 10452
- National Endowment for the Humanities:
annual report, 10458
historical studies support, survey, 4557
humanities report, 7594
1970-71 program, information for applicants, 17060
occasional papers, 4557

INDEX 1970

National Environmental Data Bank, establish, hearings, 15925
 National Environmental Satellite Center:
 ESSA technical reports—
 NESC series, 14346, 17948
 NESCTM series, 605
 National environmental study area, guide, 11791
 National Export Expansion Council:
 Action Committee on Export Financing, report, 281
 important role that will be well played (address), 9488
 Industry Committees on—
 Commercial Aircraft, report, 15718
 Electrical Generating Equipment and Switch Gear, report, 273
 Engineering and Construction Services, report, 15719
 international commercial problems are its vital concern (address), 9490
 National Family Health Week, designate, law, 803
 National Fertilizer Development Center:
 research and development program, abstracts relating to objectives, 2640
 TVA, annual report, 9225
 National Firearms Information Center, establish, hearings, 5271
 National Forest Reservation Commission, annual report, print as Senate document, report, 13627
 National forests:
 America's playgrounds, camping facilities, 15441
 code of Federal regulations, 5456
 commercial timberlands, development and improved management to establish high timber yield—
 hearing, 483
 reports, 1480, 3839
 fire report, 14452
 horse sense on backcountry pack trips, 7197
 Intermountain region, yearbook, national forests in profile, 10119
 managing public rangelands, effective livestock grazing practices and systems, 15
 national forest recreation sites and areas, regulations governing occupancy and use, 1201
 National forest timber conservation and management act of 1969, reports, 1480, 3839
 Oregon, discover, 871
 Pacific Northwest, 1969 report, 14453
 protection and management, contracts for procurement of aerial facilities and services, renewal reports, 13418, 16021
 regulations for livestock grazing, 16557
 resolutions adopted in 1969 by American National Cattlemen's Association, National Wool Growers Association, and State livestock associations, Forest Service comments, 5488
 Rocky Mountains region, recreational directory, 7200
 search for solitude, our wilderness heritage, 10698
 southern, endangered rare and uncommon wildflowers, 18539
 State and privately owned land protection within area, 11370
 stumpage prices for sawtimber sold (periodical), 3235
 system—
 areas, 1879
 resolutions, adopted 1969, Forest Service comments, 1877
 timber sale accomplishments, 1969 fiscal year, 14451
 see also Timber—Names of forests.

National Foundation on the Arts and the Humanities:
 act of 1965, amend—
 hearings, 8285
 joint hearings, 8286
 law, 13321
 reports, 8231, 9875, 12219, 12245
 appropriations, 1970, law, 314
 appropriations, 1971—
 hearings, 8268
 increase, proposal, 5071
 law, 13335
 reports, 9702, 12254, 13645
 general information, 2141
 National Gallery of Art:
 appropriations, 1970, law, 314
 appropriations, 1971, hearings, 8268
 National General Corporation, conglomerate corporation investigation, hearings, 13532
 National Goals Research Staff, toward balanced growth, quantity with quality, report, 12905
 National Guard:
 Air—
 appropriations, 1970, military construction—
 hearings, 400
 law, 3743
 appropriations, 1971, military construction, hearings, 9729
 officers, to act as property inspecting officers—
 hearings, 402
 report, 1489
 your opportunities and rewards, 11964
 air reservist (periodical), 2317
 Army—
 appropriations, 1970, military construction—
 hearings, 400
 law, 3743
 appropriations, 1971, military construction, hearings, 9729
 lands within Army National Guard Facility, Ethan Allen, Vt., adjust legislative jurisdiction—
 law, 1420
 report, 3824
 management structure, financial administration, pamphlet, 9005
 officers, to act as property inspecting officers—
 hearings, 402
 report, 1489
 on-site air defense units, training, 8023
 reemployment rights briefing session and program, 3471
 registers, 4560, 14956
 technicians, performance data, 17063
 U.S. property and fiscal officer, duties and responsibilities, NGB pamphlet, 7595, 11770
 ARNG technicians, financial administration, report on man-year and personnel costs, pamphlet, 2144
 District of Columbia—
 commanding general of militia, compensation for, report, 9648
 commanding general, salary, increase, hearings, 8274
 financial administration, quarterly review of State operating budget, change, 4559
 members—
 claims, contributory negligence, local law, apply, amend U.S. Code, report, 1456
 claims for erroneous payments of pay and allowances, waiver, amend U.S. Code, report, 5116
 personnel, erroneous payments of pay or allowances, waiver of claims, hearings, 6721
 State operating budget, financial administration, pamphlet—
 formulation, 9004, 17062
 quarterly review, 9003, 17061

National Guard—Continued
technician incentive awards plan, 17064
technician time and attendance procedures, 17065

trophies—

Eisenhower trophy to outstanding unit of company size, announcement of winners, pamphlet, 14955
National Guard Association trophy, Pershing trophy, National Guard (State) trophy, announcement of winners, 7597

National Guard Association, trophy, announcement of winners, 7597

National Guard Bureau:

annual report, 14954

Chief, grade of lieutenant general, provide—

hearings, 6697

report, 5120

pamphlets, 2142-45, 4558-59, 6023, 7595-97, 9003-5, 11770, 14955, 17061-65

publications, index, 4558

trophies, indoor rifle and pistol matches, postal, announcement of winners, 2143

National Health Corps Advisory Council, establish, hearing, 16075

National health insurance, comparison of 5 proposals, 15170

National Health Service Corps:

establish—

hearing, 16075

report, 16019

National health survey, vital and health statistics, 6013-16, 7584-85, 10446, 10448, 11755, 14934-936, 17050

National Heart and Lung Institute:

artificial heart program—

annual report, 17066

conference, proceedings, 6024

authorization and mission, organization and programs, etc., 6031

cardiovascular training grant program directors, conference, 7601

immune mechanisms in health and disease, research grants, 1949-69, review, 7600

pulmonary program directors meeting, report, 17074

renin-angiotensin mechanisms, research grants, 1949-70, review, 17073

National Heart Institute, *see* National Heart and Lung Institute.

National Highway Accident and Injury Analysis Center, summary of 1968-69 multidisciplinary accident investigations, 7605

National Highway Safety Bureau:

appropriations, 1971, hearings, 9726

contract research reports, 18245

corporate author authority list, supplement to highway safety literature, 7603

Director, nomination of Douglas W. Toms, hearings, 3965

1969 report on activities under National traffic and motor vehicle safety act, 18262

priorities seminar, expectations and limitations, background and summary, 6034

National housing act, *see* Housing.

National Hurricane Research Laboratory, ESSA technical memorandums, ERLTM-NHRL series, 1820-24, 8570

National income, *see* Income.

National Industrial Hygiene Week, designate, law, 308

National Institute for Population Research, establish, hearing, 15918

National Institute for Prevention and Control of Alcohol Abuse and Alcoholism, establish, report, 13677

National Institute for Prevention and Control of Alcoholism, establish, hearings, 12372

National Institute of Arthritis and Metabolic Diseases, artificial kidney program, 3d annual contractors conference, proceedings, 15008

National Institute of Child Health and Human Development:

general information, 7606

population research, 17136

research and training programs, 9012

National Institute of Dental Research:

directory of U.S. facilities providing cleft lip and cleft palate services, supplement, 6039

grants and awards, 1968 funds, 6036

National Institute of Education, create, message from the President, 5094

National Institute of General Medical Sciences, training programs, effects on graduate education in biomedical sciences, evaluated study, 6040

National Institute of Law Enforcement and Criminal Justice:

need to know, general information, 14651
regional divisions, establish, hearings, 16068

National Institute of Mental Health:

drug abuse information-education materials available, 9016

posters, 15011, 15014-16, 15018-20

programs, description, 7615

study, narcotic addicts in Kentucky, 1064

support programs, 6047

workshop series of Pharmacology Section, 1080

National Institute of Neurological Diseases and Stroke:

general information, 978

monographs, 7619

National Institutes of Health:

almanac, 7621

appropriations, 1970—

hearings, 1700

reports, 1563, 1683, 3834

appropriations, 1971, hearings, 11021

associate training programs, medical and biological science, 6052

Clinical Center, patient admission procedures, 18266

frontier of clinical pathology for medical technologists, 6 interviews, 11780

general research support grant programs, 16656

grant and award programs, 12859

nursing research grants supported by Nursing Division, list, 11411

primate research centers opportunities to improve management, GAO report, 1900

public advisory groups, authority, structure, functions, 9022, 17143

publications list, 7622, 12860

quarterly, 2963

resources of biomedical research and education, report, 7625

scientific directory and annual bibliography, 10460

National Institutes of Research and Advanced Studies, recommendation for centralization of Federal science responsibilities, subcommittee report, 13540

National Key Deer Refuge, birds, list, 15273

National labor relations act, *see* Industrial relations.

National Labor Relations Board:

appropriations, 1970—

hearings, 1700

law, 6536

reports, 1683, 5254

appropriations, 1971—

hearings, 12259, 17687

reports, 13426, 16031

waiving points of order, report, 13429

career in labor-management relations as field examiner, 17146

case developments, quarterly report, 3122

congressional oversight, report, 13745

current issue, facing NLRB (address), 987

INDEX 1970

- National Labor Relations Board—Continued
 decisions—
 and orders, bound volume, 988, 6055,
 7626, 11783, 17147
 digest, 12862
 CS-series, 2507
 supplement, 15022
 election reports, 2917
 field manual, 2929, 10461, 17148
 first impressions (remarks), 18269
 Member, nomination of Edward B. Miller,
 hearings, 9927
 press releases, 3075
 rules and regulations relative to Labor
 management relations act, revised
 pages, 2149
 statistical summary, quarterly, 2918
 weekly summary of cases, 3353
 National Liberation Front, American pris-
 oners of war held, humane treatment and
 release, reports, 3820, 5249
 National Library of Medicine :
 annual report, 17149
 bibliography of medical reviews, 2899
 cumulated, 10464
 catalog, cumulative listing, 2931
 classification, 989, 2150
 current catalog, biweekly listing, 2930
 grant programs, 17151
 literature search series, 17150
 MEDLARS—
 principles, handbook, 7629
 services, guides, 4572, 7627, 15023
 notes for medical catalogers (periodical),
 2971
 services, etc., 6056
 National Machine Tool Week, designate, law,
 15784
 National Manpower Advisory Committee, ap-
 point, hearings, 17642
 National Mediation Board :
 appropriations, 1970—
 hearings, 1700
 law, 6536
 reports, 1683, 5254
 appropriations, 1971—
 hearings, 12259, 17687
 reports, 13426, 16031
 waiving points of order, report, 13429
 report, 4573
 mediation functions, transfer to Federal
 Mediation and Conciliation Service,
 proposal, 5093
 National Medical Audiovisual Center, mental
 health film guide, listings, distributors,
 etc., 7628
 National Meteorological Center, ESSA tech-
 nical memorandum, WBTM NMC series,
 1826
 National monuments and memorials :
 American memorials and overseas mili-
 tary cemeteries, general information,
 17456
 keep it alive! tips on living history, dem-
 onstrations, 11795
 code of Federal regulations, 5456
 see also names of monuments or mem-
 orials.
 National Museum :
 act, amendment, hearing, 11147
 act of 1966, amend, reports, 1527, 6626,
 13680
 bulletins, 990, 2151-52, 6057, 10465,
 11784-785
 publications, price list, 15127
 National Oceanic and Atmospheric Adminis-
 tration :
 establish—
 hearings, 11115, 15912, 16057
 message from the President, 12163,
 13371
 report, 15875
 National Oceanographic Data Center :
 newsletter, 2932
 quarterly accessions, computer produced
 indexes, 2969
 National Oceanographic Data Center—Con.
 NODC computer archive ocean station
 format, 1015
 publication series, 17178-181
 transfer from Navy Dept. to National
 Oceanic and Atmospheric Adminis-
 tration—
 hearings, 15912, 16057
 report, 15875
 National Oceanographic Instrumentation
 Center :
 instrument fact sheets, index, 15047
 technical bulletins, 17175-176
 transfer from Navy Dept. to National
 Oceanic and Atmospheric Adminis-
 tration—
 hearings, 15912, 16057
 report, 15875
 National Park Service :
 administration policies for management—
 law, 17601
 reports, 13409, 13660
 appropriations, 1970, law, 314
 appropriations, 1971, hearings,
 archeological research service, 7630
 areas administered by, and related prop-
 erties, 17153
 historical handbook series, 997
 Lincoln, Lee, and American Civil War,
 publications list, 6130
 National Capital parks for all seasons,
 7642
 press releases, 3076
 problems in land acquisitions for national
 recreation areas, GAO report, 8725
 travel in United States, encourage, reports,
 6674, 9651
 visitor services training series, 11795
 volunteers in park program, establish—
 law, 13332
 reports, 10955, 13659
 Volunteers in parks act of 1969, law, 13332
 National parks :
 administrative policies—
 law, 17601
 reports, 13409, 13660
 areas administered by National Park
 Service, 17153
 boating in national park system, 2154
 camping, fees, facilities, etc., 11787
 code of Federal regulations, 5456
 Federal surplus property, disposal for park
 and recreational uses, report, 15841
 let's talk about wealth, general informa-
 tion, 999
 living history in national park system,
 15033
 national park system, legislative land-
 marks, general information, 10470
 public use, monthly, 3111
 see also names of parks.
 National Parks Centennial Commission :
 establish—
 law, 13307
 reports, 8258, 12332
 National Parks Centennial Year :
 designate 1972—
 law, 13307
 reports, 8258, 12332
 National Poison Prevention Week, program
 guide, 664
 National Policy Toward Gambling, Commis-
 sion to Review, establish, hearings, 17650
 National poultry improvement plan, see
 Poultry.
 National Railroad Adjustment Board :
 abolish, proposal, 5093
 appropriations, 1970—
 hearings, 1700
 report, 1683
 appropriations, 1971, hearings, 17687
 1st Division, organizational structure,
 revise—
 hearing, 6718
 law, 9599
 report, 6618

National Railroad Adjustment Board—Con.
report, 4573
National reference list of water quality sta-
tions, 1970 water year, 14532
National Railway Labor Conference:
emergency board report, 1797
railway labor-management dispute, tem-
porary strike prohibition—
law, 5062
reports, 6594, 6613, 8740
National register of historic places, 2164
National Register of Scientific and Technical
Personnel, American science manpower,
1968 report, 7649
National resources:
one third of Nation's land, report to Presi-
dent and to Congress by Public Land
Law Review Commission for its use,
etc., 11837
Resource recovery act of 1969, hearings,
1745, 5280, 11145
resources and conservation development
projects, cost-sharing grants, law, 13318
secondary impacts of public investment
proceedings of symposium, 12997
see also Natural resources.
National Rifle Association, indoor rifle tour-
nament, announcement of winners, 2142
National Science Board, NBS series, 6071
National Science Foundation:
act of 1950, amend—
hearings, 12283
report, 15860
appropriations, 1970 authorization, law,
3732
appropriations, 1971—
authorization—
hearings, 8323, 9926
law, 13331
reports, 9664, 12249, 12339
hearings, 8271, 11105
Assistant Director designees, nominations
of Edward C. Creutz, Lloyd G. Humph-
reys, Louis Levin, and Thomas B. Owen,
hearing, 9928
Deputy Director, nomination of Raymond
L. Bisplinghoff, hearing, 16080
grants and awards, 6068
guide to programs, 12880
moslac (periodical), 6070
need for improved administration of Fed-
eral support of shore facilities and ves-
sels for research activities at oceano-
graphic institutions, National Science
Foundation, GAO report, 16592
psychologists register, 1966 analysis, 1069
report, 1969—
departmental edition, 9034
document edition, 8200
reviews of data on science resources, 4591
Sea grant college and program act of 1966,
amend—
hearings, 8435
law, 13324
reports, 10994, 11079, 13655
Sea Grant Program, transfer to National
Oceanic and Atmospheric Adminis-
tration—
hearings, 15912, 16057
report, 15875
secondary school teachers of science and
mathematics, programs, 18273
National search and rescue manual, 10856
National securities exchanges:
registered brokers and dealers and mem-
bers, insure to protect customers—
hearings, 13715
report, 16028
National security:
act of 1947, as amended, text, 3953
air traffic control, Federal aviation regula-
tions, 2573
arms control and national security, 17458
China, Republic, U.S. security agreements
and commitments abroad, hearings,
11125

National security—Continued
Cuba and Caribbean region, U.S. security
posture, hearings, 13510
Defense facilities and industrial security
act of 1970, reports, 1548, 3838
diplomatic and strategic impact of multiple
warhead missiles, report, 8290
Ethiopia, U.S. security agreements and
commitments abroad, hearings, 17701
Government operations, study, expenses,
report, 5215
Greece and Turkey, U.S. security agree-
ments and commitments abroad, hear-
ings, 16056
Industrial security manual for safeguard-
ing classified information, 8480
carrier supplement, 8457
Industrial, vessel, and port security, amend
Internal security act, hearings, 1586
Internal security act of 1950—
amend—
hearings, 1586, 3870
reports, 1548, 3838, 15861
title 2, repeal—
hearings, 17648
report, 1695
Internal security laws, etc.—
administration, study and investigation,
expenses, report, 440
investigation, expenses, report, 5226
Japan and Okinawa, U.S. security agree-
ments and commitments abroad, hear-
ings, 13735
Korea, Republic of, U.S. security agree-
ments and commitments abroad, hear-
ings, 16056
Laos, U.S. security agreements and com-
mitments abroad, hearings, 8406
management—
correspondence courses, Industrial Col-
lege of Armed Forces, information
booklet, 5721
integrated logistic support, from con-
cept to reality, monograph, 4323
role of Department of Defense in civil
disturbances, Industrial College of
Armed Forces, monograph, 10254
oil import question, relationship to, 6125
Philippines, U.S. security agreements and
commitments abroad, hearings, 1729
policy of United States, Sputnik decade,
Student Conference on United States
Affairs, proceedings, 2046
program to explore and evaluate potential
applications of radiolotope excited X-
ray fluorescence techniques in criminal-
istics and national security, final report,
9395
statutes of general interest to security
officers in atomic energy program, 15538
strategy and science, toward a national
security policy for 1970's, hearings, 343
Thailand, U.S. security agreements and
commitments abroad, hearings, 9912
threat to U.S. security posed by stepped-
up Sino-Soviet hostilities, hearings,
11134
threatened by aggressions of Communist
powers, groups, and organizations,
amend Internal security act, hearings,
3870
see also National defense.
National Security Agency, additional super-
grade positions, establish, recommenda-
tions, 8315
National Security Council, use in presiden-
tial decision-making, comment by Henry
A. Kissinger, 6804
National Security Seminars:
background readings, 11487
information guide for conduct, 11486
presentation outlines, 16735
prospectus, 12620
National service life insurance, *see* Life in-
surance.

INDEX 1970

- National Severe Storms Laboratory, ESSA technical memorandum ERLTM-NSSL series, 1825, 11267-268, 17946-947
- National Shipping Authority, current regulations, index, 5837
- National Society of Daughters of American Revolution, annual report, 5185
- National Space Science Data Center, NSSDC series, 5981
- National Special Industries Commission, establish, proposal, 5093
- National standard reference data series, 956, 4549-50, 8985, 10428-429, 11732, 17034
- National standard reference data system: publications, list, 11733-734
- status report, 14927
- National Student Loan Association, establish (statement), 11925
- National supplier change index, 2627
- National System of Interstate and Defense Highways: cost estimate, due date, revise—
- hearings, 15932
- report, 1470, 1484
- cost, revised estimate, apportioning funds, 8221
- National Technical Institute for the Deaf, appropriations, 1971, hearings, 17687
- National Tourism Resources Review Commission, establish, reports, 6673, 6764, 9650, 13419
- National Transportation Safety Board: annual reports, 10482
- correction sheet, 6076
- appropriations, 1970—
- hearings, 1701
- law, 3742
- reports, 1468, 1556
- appropriations, 1971—
- hearings, 8269
- report, 9719
- member, nomination of Isabel A. Burgess, hearings, 495
- press releases, 3077
- publications, list, 12883
- role in promoting public safety (remarks), 12884
- safety investigation regulations rules pertaining to aircraft accidents, etc., 12882
- safety is our business (remarks), 1006
- safety trends for the seventies (address), 15042
- National turkey improvement plan, see Turkeys.
- National Union Catalog: Library of Congress, 2935
- register of additional locations, 10306
- symbols used for American Libraries, 4393
- National Visitor Center: status, 11792
- study commission report, 6078
- National Visitor Center Study Commission, report, 6078
- National Wage Policy Committee, establish, hearings, 431
- National Water Commission: annual report, 7663
- appropriations, 1970—
- hearings, 486
- law, 3734
- appropriations, 1971—
- hearings, 11022, 13709
- report, 13697
- interim reports, 7663
- National Wool Growers Association: resolutions adopted in 1969 relating to National Forest System, Forest Service, comments, 1877, 5488
- Nationality: Code of Federal regulations, 7116
- Immigration and nationality act, amend—
- laws, 1401, 12136
- reports, 1494, 1629, 12329
- laws, administrative decisions, indexes, 14585-587
- Nations, see Foreign countries.
- NATO, see North Atlantic Treaty Organization.
- Natrella, Mary G.: engineering design handbook, experimental statistics, tables, 3458
- experimental statistics, special topics, 3457
- Natural and Synthetic Membranes Conference proceedings, 980
- Natural fibers, see Fibers.
- Natural gas, see Gas.
- Natural history, 6-cent commemorative postage stamp (poster), 9066
- Natural History Museum: annual report, 6058
- illustrated Paleozoic plant specimens, catalog, 15160
- Natural resources: Alaska resources development studies, Matanuska-Susitna Borough, possibilities of new land development, 7971, 10727
- An Giang Province, Vietnam, resources inventory, 14301
- Appalachia, special districts, review of enabling laws, 14271
- balance, discussion of conversation issues (periodical), 11821
- California's resources, tomorrow's challenge, what's ahead for our land and people, 15193
- Changwat Nakhon Phanom, Thailand, resources atlas, 16442
- conservation—
- agronomy technical notes, 17286
- conservation and land use, glossary of terms used in ASCS and related programs, 13
- conservation and water cycle, how hydrologic processes affect earth and its inhabitants (poster), 17287
- conservation, 1970-71 listings, conservation films and related natural resource film subjects, 16692
- education in curricula of 50 States, 7181
- highlights, 1969 digest of progress report of Soil Conservation Service, 7763
- information series, 9131, 15196
- irrigation guide for design of sprinkler irrigation systems for South Georgia Coastal Plain, 15197, 17288
- nature, international organization discuss, USSR study, 16764
- practices, national handbook, 11869
- progress in Missouri, 10566
- research, 1969 report, 9132
- study area, outdoor laboratory brings textbooks to life, 2225
- teaching in high schools, outline, 3417
- tools for educators, 7182
- vs. pollution, 15201
- yearbook, 16690
- development, upswing in southwest Missouri, 4699
- earth resources, remote sensing, literature survey with indexes, 16955
- fish versus culverts, considerations for resource managers, 14431
- Florida's 1970 conservation needs inventory, summary, 17292
- Great Lakes Basin water and related resources, institutions concerned survey, 5570
- Great Plains conservation program—
- expanded for 1970's, 15443
- extend, law, 3731
- Land and water conservation fund act, amend
- hearings, 8304
- law, 12131
- reports, 6688, 9663
- land resource inventory and engineering surveys using photogrammetry, 8685

Natural resources—Continued

Louisiana's conservation needs inventory, 15219
 lower Willamette resource area application, 9147
 Marine resources preservation act of 1969, hearings, 16043
 Oklahoma, 767
 percentage depletion rates, tax reform recommendations, summary, 8397
 planning for change in Michigan, 9148
 population growth effects, hearings, 417
 potentials for outdoor recreational development appraisal—
 Blount County, Tenn., 15177
 Bradley County, Tenn., 1578
 Carroll County, Tenn., 4678
 Carter County, Okla., 15176
 Claiborne County, Tenn., 15179
 Coffee County, Tenn., 15180
 Crockett County, Tenn., 15181
 Decatur County, Tenn., 15182
 Gibson County, Tenn., 15183
 Greenville, Oconee, and Pickens Counties, S.C., 1105
 Hancock County, Tenn., 9124
 Hardin County, Tenn., 15184
 Henderson County, Tenn., 4679
 Houston, County, Tenn., 9125
 Illinois, northeastern, 9127
 Jefferson County, Tenn., 15185
 Johnson County, Tenn., 9126
 Kaskaskia River basin, Ill., 4680
 Lake County, Tenn., 15186
 Melges County, Tenn., 7761
 Mississippi, northwest, 7762
 Monroe County, Tenn., 15187
 Montgomery County, Tenn., 15188
 Perry County, Tenn., 4681
 Polk County, Tenn., 15190
 Roane County, Tenn., 9128
 Rutherford County, Tenn., 9129
 Stewart County, Tenn., 9130
 Talladega County, Ala., 15240
 Unicoi County, Tenn., 15191
 Weakley County, Tenn., 4682
 problems facing oil industry (remarks), 768
 putting conservation to work series, 7182
 resource and conservation development projects, cost sharing grants—
 hearing, 11018
 reports, 6772, 12224
 resource conservation and development in Colorado, improved environment, 10559
 resource bulletins, 706-707, 4212-14, 5517-19, 8716, 10137-39, 11367-368, 12567-568, 14482-485, 16583
 resource data on soils for land use planning and community development of Creswell area, Oreg., 15228
 resource publications (series), 4713, 6208, 9182, 10589, 11889-890, 12934, 17318-320, 18341
 Resource recovery act of 1969, hearings, 1745, 5280, 11145
 rural-urban resource planning and development, 2228
 selected land and water resource projects, summary analysis of 19 tests of proposed evaluation procedures, report, 17410
 teaching conservation through outdoor education areas, 9318
 Teton County, Wyo., 10573
 theology of the earth (lecture), 11854
 United States-Japan cooperative program, 5-year report, 8808
 USSR resources, translations, 3285
 vanadium, bibliography on geology and resources, 10162
 water and related land resources, 15448
 water, land, and related resources, 15449
 windbreaks for conservation, 3397
see also Land.

Naturalization:

becoming a citizen series—
 our American way of life, 10216
 our Government, 16684
 our United States, 764
 teacher's guide, 1945
 candidates—
 English and Federal Government Federal textbook on citizenship, 1946
 English and State Government, Federal textbook on citizenship, 765, 16686
 English, home and community life, community life, Federal textbook on citizenship, home study course, for helper, 16685
 our Constitution and Government, Federal textbook on citizenship, 4291-92, 16687
 immigration and naturalization act, amend hearings, 3878
 investigation—
 expenses, report, 5224
 report on findings, etc., reports, 1614, 9834
 publications, price list, 18307
 requirements and general information, 16688
 residence requirements, etc., for aliens from Bonin Islands, 12100
 reports, 1495, 12302
see also Citizenship.
 Nature:
 conservation, international organizations discuss, USSR study, 16764
 downtown, guide for urban beautification, 17317
 echolocation in nature, USSR study, 16811
 Nautical almanacs, *see* Almanacs.
 Nautical charts, *see* Maps and charts.
 Navaho Indians, *see* Navajo Indians.
 Navajo County, Ariz., community profile, 6944
 Navajo Indian irrigation project:
 act of June 13, 1962, amend reports, 12276, 15845
 additional lands, acquire—
 law, 15801
 report, 13472
 Navajo Indians:
 political process, 10465A
 sandpaintings of Navaho Shootingway and Walcott Collection, 10467
 vital statistics, 1968, 8801
 Naval Academy, Annapolis:
 administration of training, uniform policy, create, report, 10965
 register, 11806
 Naval Air Rework Facility, career, engineering, imagine what you could do, 4595
 Naval Air Systems Command, career, engineering, imagine what you could do, 4595
 Naval art and science:
 basic military requirements, 7686
 naval research logistics quarterly, 2938
 riverine warfare, Navy's operations on inland waters, 1023
 Naval aviation, *see* Aeronautics.
 Naval aviation news, 2937
 Naval bases, advanced defense, Fleet Marine Force manual, 7440
 Naval education:
 basic military requirements, 7686
 evaluation as a teaching aid, training program, 4617
 failure of enlisted submarine school graduates to qualify, related factors, 2043
 functional individual training system DC 3 & 2, supervisor's guide, 18290
 naval training bulletin, 2942
 programmed instructional material, catalog, 11812

INDEX 1970

- Naval education—Continued
rate training manuals, 1026-29, 4612-14, 4616, 6089-91, 7684-86, 7688-89, 12885-887, 12827-288
- Naval establishments, *see* Armed Forces.
- Naval Facilities Engineering Command, design manuals, 2170, 7684, 11807
- Naval history:
American ships of the line, 4611
chiefs of naval operations and Admiral's House, 2172
United States Navy, 1870-90, war of ideas, 13009
- Naval installations, *see* Installations (military).
- Naval Medical Field Research Laboratory, report, 74551, 8888, 14761-762, 16882
- Naval Observatory, publications (series), 1008, 7666-67, 11809
- Naval Oceanographic Instrumentation Center, instrument fact sheet IFS series, 15047-50
- Naval Oceanographic Office:
annual report, 17177
catalog of nautical charts and publications, introduction, 4599-4600
deep ocean survey project, 1013
informal report IR series, 1010-14, 4598, 7668, 9043-46, 15044-46, 17171-174
live atlas, data base for computer management, etc., 9045
monthly summary, the Gulf Stream (periodical), 2910
press releases, 3078
publications series, 1016-20, 2171, 4599-4610, 9049 6081-87, 7669-75, 9047, 10486-490, 15051-55, 18284-286
special publication SP series, 1021, 7677-79, 9048, 11810
technical reports, 7680-82, 9049
- Naval officers, *see* Navy.
- Naval Operations Office, Chief, nomination of Elmo R. Zumwalt, jr., hearing, 9894
- Naval orientation, 9054
- Naval Personnel Bureau:
career publication, 2329
manuals, 1024, 2378, 4615, 7687, 11811, 17183
training manuals and correspondence courses, lists, 9053
- Naval Research Laboratory:
annual report, 1817
IFF identity readout using confidence evaluation, 4827
iodine filter tests at NRL nuclear reactor, 15078
- Microwave Space Research Facility—
computer system hardware for data acquisition and control of 60-ft. X-band microwave antenna, 15090
operating procedures of computer control system for 60-ft. X-band antenna, 15092
progress, report, monthly, 3144
receiving system, design of digital control unit, 6095
report series, 1030-33, 2178-83, 4620-32, 6093-6110, 9057-61, 10495-497, 11818-820, 12888-898, 15060-96, 17187-197, 18292-297
- Naval research logistics quarterly, 2938
- Naval research reviews (periodical), 2939
- Naval Reserve:
functional individual training system DC 8 & 2, supervisor's guide, 18290
officers—
register, 4619
serving on selection boards, increase, number—
law, 5058
reports, 873, 3942
- Naval Reserve Officers Training Corps, regulations, 2176
- Naval reservist (periodical), 2940
- Naval Safety Center, fathom (periodical), 6079
- Naval Scientific and Technical Intelligence Center, career opportunities, general information, 9062
- Naval service, *see* Navy.
- Naval Ship Research and Development Center, reports, 15097
- Naval stores:
annual report, 10633
report, monthly, 2941
- Naval Submarine Medical Center:
memorandum reports, 834, 2042, 10315
reports, 835, 2043-45, 5843-46, 7452-53, 8889-94, 10316-318, 11567-571, 12731-737, 14765-768, 16883-885, 18141
- Naval supplies, *see* Military supplies.
- Naval training, *see* Naval education.
- Naval Training Device Center:
publications, index, 18291
training device developments (periodical), 3267
- Naval vessels, *see* Ships—Warships.
- Navarro, Jose A.:
commemorative medal—
law, 9608
reports, 15828, 8355
- Navarro, Richard, Gasbuggy, seismic measurements, 3497
- Navier-Stokes equations, *see* Equations of motion.
- Navigable waters, *see* Navigation.
- Navigation:
aeronautical equipment, USSR study, 16784
aids, Coast Guard list—
Great Lakes, 6497
Mississippi River system, 6498
Arkansas River—
lock and dam no. 13, hydraulic model investigation, 18449
navigation and comprehensive development project report, hearings, 433
closed distant stationary orbits determined from range rate, method for determination of accuracy, 12818
differential Omega technique, accuracy studies, 18292
display, multicolor microchart/map transparencies, military standard, 4031
global navigation and traffic control using satellites, 14895
interference predictions for VHF/UHF air navigation aids, 4093
lunar midcourse navigation system hardware simulation using statistical filter theory and hand-held sextant observations, 927
marine navigation, sight reduction tables, latitudes 75°-90°, inclusive, 10489
navigable waters—
Boston Harbor and its tributaries, conference proceedings, 1866
code of Federal regulations, 7134-35
Pearl Harbor, pollution, report, 16518
Navy satellite system, computing aids, TRACAL and SNAP, 7677
notice to mariners—
coastal and ocean regions of world, 2972
Great Lakes and tributary waters west of Montreal, 2973
novel inertial navigation system, analysis and evaluation, 906
Omega aircraft receivers, precipitation effects, 12896
optimum forms of space triangulation figures, USSR study, 2010
radio aids—
Atlantic and Mediterranean area, 1019
Pacific and Indian Oceans area, 7675
river basin plans, additional authorizations, hearing, 3991
Saturn launch vehicle's system, description and performance, 12809
strapdown inertial, new concept, 7654

Navigation—Continued

survey of general coverage nav aids for V/
STOL aircraft, a VOR/DME error
model, 10359

Transportation Department, national plan,
15383

see also Air navigation—Commerce.

Navigator (periodical), 2943

Navigators, F-4 2d-seat crewmembers,
proficiency differences between pilot and
navigator, southeast Asia evaluation,
13011

see also Aviators.

NAVSTIC, *see* Naval Scientific and Tech-
nical Intelligence Center.

NAVTRADEVEN, *see* Naval Training De-
vice Center.

Navy:

Antarctic personnel, dental calculus for-
mation rate indices, evaluation, 10316

battleship in U.S. Navy, 6088

chaplains bulletin, 15059

civil engineer (periodical), 2944

civilians, supervision, fundamentals, home
study course, 4595

quiz booklet, 4596

CVAN-70 aircraft carrier study—

hearings, 9893

study, subcommittee report, 13713

diving manual, 7692

drafting and editing naval letters, 11813

enlisted personnel classification manuals,
4618, 11814

financial management, 2173

journal, civilian manpower management
(periodical), 2784

lay leader in lead program, 2174

management review (periodical), 2945

manpower and personnel management in-
formation system, improvement needed
in reliability, GAO report, 11375

medical newsletter, 2946

medical statistics, 5842

medicine, statistics, quarterly, 3231

military supply system, concepts, methods
and operations, hearings, 3366, 15907

Naval and Marine Corps air stations,
pavement evaluation data, 18280

naval aviation in World War I, 1022

naval diver training, decrease in perceived
distortion with repeated exposure, ap-
plication, 11568

naval enlistees serving as medical special-
ists, military effectiveness, 14764

naval flight officers, to be eligible to com-
mand certain naval aviation activ-
ities, amend, U.S. Code—

law, 5057

reports, 376, 3944

naval service members, round trip trans-
portation provide, amend U.S. Code—

law, 6542

report, 3946

navigation satellite system, computing
aids, TRACAL and SNAP, 7677

Navy airmen enlistees, military effective-
ness, 14763

ocean frontiers, U.S. Navy and oceanog-
raphy, 17201

officers—

professional reading guide, 15057

register—

departmental edition, 11816

document edition, 10941

retired to command U.S.S. Constitution
(IX-21), authorize—

law, 15783

report, 18691

overcoming Russian rivalry (remarks),
1854

personnel, sensory behavior, monaural/
binaural minimum audible angle of
auditory response, 12731

prime contractors, selling to, 2185

procurement directives, 2947

Navy—Continued

public affairs regulations, change, 7693

rate training manuals, 1026-29, 4612-14,
4616, 6089-91, 7684-86, 7688-89,
12385-887, 18287-288

retired naval personnel and their families,
guide, 9065

riverine warfare, Navy's operations on in-
land waters, 1023

safety precautions for shore activities,
change, 15100

seapower, guardian of freedom, 2172

special enlisted tours, guidebook, 15098

special fuel oil effect on charging tendency
of jet fuel, 4626

submarine line officer, characteristics, fac-
tor, analytical study, 11569

survey of procurement statistics, 15056

travel regulations, 2781, 4017

United States, 1870-90, war of ideas,
13009

zero hearing level of speech, determina-
tion, 2042

see also Uniforms—Warships.

Navy Department:

aircraft maintenance, potential for sav-
ings, GAO report, 11380

annual report, 8463

appropriations, 1970—

hearings, 3950

military construction—

hearings, 400

reports, 1461, 1650, 3832

appropriations, 1971, military construc-
tion, hearings, 9729

automated procurement system for small
purchases, opportunities for more effec-
tive use, GAO report, 1899

bomb bodies urgently needed, questionable
pricing of contracts negotiated, GAO re-
port, 1904

configuration management, policy and
guidance manual, 17199

contractor's manual, 7691

Data Buoy Project, transfer to National
Oceanic and Atmospheric Administra-
tion, hearings, 15912

industrial facilities construction at Gov-
ernment-owned plants without dis-
closure to Congress, GAO report, 5527

land conveyance to Portsmouth, Va.,
reports, 15848, 17633

lease easements and release land, Culebra
Island—

hearing, 13497

subcommittee report, 15885

naval nuclear propulsion program, 1970,
hearings, 12155

need for improved administration of Fed-
eral support of shore facilities and ves-
sels for research activities at oceanog-
raphic institutions, GAO report, 16592

public affairs, direction for commanding
officers, etc. (periodical), 2511

safety review (periodical), 3169

submergence rescue vehicles, evaluation
needed of cost-effectiveness of 4 more
before purchase, GAO report, 5529

U.S. Naval Support Activity, Naples,
Italy, improved procedures needed for
obtaining facilities by lease-construc-
tion method, GAO report, 4221

weaknesses in award and pricing of ship
overhaul contracts, GAO report, 7218

Navy Medical Neuropsychiatric Research
Unit, San Diego, Calif., reports, 4398,
14763-764

Navy Supply Corps:

former line officers, payment of severance
pay, correct inequity, report, 10966

newsletter, 2948

NBS, *see* National Bureau of Standards.

NCERD, *see* National Center for Educa-
tional Research and Development.

NCHS, *see* National Center for Health Ser-
vices Research and Development.

INDEX 1970

- NCUA, *see* National Credit Union Administration.
- NDEA, *see* Education.
- Near East, *see* East (Near East).
- Nearctic region:
- Ogillus Haliday (Hymenoptera, Braconidae), 6157
 - sawflies (Blennocampinae, adults and larvae, Hymenoptera, Tenthredinidae), 45
- Nebraska:
- census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 4910
 - retail trade, merchandise line sales, 13111
 - selected services, area statistics, 161
 - wholesale trade, area statistics, 182
 - census of construction industry, 1967, statistics, 17491
 - census of governments, 1967, State report, 3577
 - census of manufactures, 1967, statistics, 17502
 - climatological data, 2409
 - county business patterns, 202, 12030
 - electric rate book, 649
 - irrigation council, annual meeting, proceedings, 9087
 - mineral industry, minerals yearbook chapter, 4445
 - minority construction contractors, located in selected cities, list, 8794
 - Mississippi River and tributaries, fishery products, wholesale dealers, list, 9560
 - native grass, 9131
 - precipitation data, hourly, 2718
 - water resources, 16636, 18049
- Nectarines, eastern-grown, controlled atmosphere storage, 1199
- NECTP, *see* Northeast Corridor Transportation Project.
- Need boat insurance? make seal of safety your policy, 4978
- Needle cast, *see* Leaf cast.
- Needle Mountains, southwestern Colorado, Precambrian geology, 4248
- Needles (surgical), *see* Surgical needles.
- Neely, D. Morrison, legal phases of farmer cooperatives, 14354
- Neetz, Roger E., Eastern Europe's agricultural development and trade, 14273
- Negligence, *see* Damages.
- Negotiated contracts, *see* Government contracts.
- Negotiation:
- Cambodia concluded, now it's time to negotiate, report to Nation by President Nixon, 11896
 - impasse, grievance and arbitration in Federal agreements, 12715
 - international—
 - American shortcomings in negotiating with Communist powers, 13738
 - Communist doctrine and Soviet diplomacy, observations, 5265
 - when academic door to Peking opens, memorandum, 11126
 - with Soviet Union, process and problems, hearings, 3976, 12365
 - Paris peace talks, Vietnam information series, 4725
 - Peking's approach, selected writings, print additional copies, report, 9826
 - Soviet approach, selected writings, print additional copies, report, 9827
 - U.S.-Soviet relations in era of negotiation (address), 4726
- Negroes:
- Afro-American historical, cultural, and social studies, fellowships, 967
 - Afro-Americans in Far West, handbook for educators, 11200
 - black capitalism, economic potential (paper), 4154
 - Negroes—Continued
 - black colleges and Federal agencies, 14371
 - black news digest, 16821
 - Detroit, poverty, broad outline, 8875
 - do your thing, let's get it together, 1970 census is what's happening, be counted, 8096
 - economic agenda for black Americans (remarks), 17990
 - economic progress in United States, deepening schism (remarks), 8660
 - education, income, and wealth accumulation in Negro community (address), 12531
 - income distributions of white and Negro families in U.S. measures of overlap, 8101
 - inner-city youth, in job training project, 4364
 - Negro art from Harmon Foundation, select picture list, 18231
 - Negro in United States, selected bibliography, 12725
 - Negro market, information sources, 4901
 - Philadelphia plan, questions and answers, 7410
 - population, changing characteristics, 6437
 - social and economic status in United States, 1969, current population report, 4372
 - Nehmer, Stanley:
 - remarks—
 - Feb. 4, 1970, 9888
 - Apr. 30, 1970, 9511
 - May 21, 1970, 9514
 - Sept. 29, 1970, 15739
 - Neighborhood Youth Corps:
 - Chicago, Ill., program, effectiveness and administrative efficiency, GAO report, 714
 - review of research, 4363
 - St. Louis and St. Louis County, Mo., effectiveness and administrative efficiency, GAO report, 715
 - Neighborhoods:
 - center programs in rural community, action agencies, study, 5336
 - conservation and property rehabilitation, bibliography, 4280
 - conservation and rehabilitation in urban renewal areas, 11434
 - health centers, healthbright programs, open door to health, 6987
 - Neither snow, nor rain . . . story of U.S. mails, 17270
 - Nejelski, Leo, selected research abstracts of published and unpublished reports pertaining to food service industry, 1187
 - Nelson, Alice F., foreign agriculture, 2656
 - Nelson, Donald M., Jr., U.S. import duties on agricultural products, 3393
 - Nelson, Morlan W., water supply outlook and Federal-State-private cooperative snow surveys for Idaho, 3339
 - Nelson, Paul E., farm machinery and equipment industry, changing structure, performance, 12991
 - Nelson, Thomas F., investigation of effects of surrounding structure on sonic fatigue, 11606
 - Nelson, William J., interstate migration of aged beneficiaries, 7750
 - Nelson County, N. Dak., community profile, 14125
 - Nelson County, Va., Roseland district, rutile and ilmenite placer deposits of area, 5544
 - Nemaha County, Nebr., community profile, 17832
 - Nematoid worms, golden nematode of potatoes and tomatoes, description, control, etc., 9316
 - Nemeth, Zoltan N., dynamic behavior of air lubricated pivoted-pad journal bearing-rotor system, 5972
 - Neodiprion eduliculus, *see* Flies.
 - Neodiprion taedae linearis, *see* Flies.

- Neon:
space qualified He-Ne laser, research directed toward perfecting of design, 16946
space qualified laser, design, 18186
Neonatal, *see* Infants.
- Neotropical region:
neotropical microlepidoptera 18, revision of genus *Pelecopoda*, Lepidoptera, Oedophoridae, 10548
Neotropical squamata, catalogue, 6057
- Nepal:
accessions list, Library of Congress American Libraries Book Procurement Center, New Delhi, 2291
economic trends and their implications for United States, 7332
Nephritis, *see* Pyelonephritis.
- Nerve gasses, disposal by dumping into Atlantic Ocean, insure precautions, hearings, 15927
- Nerves:
neuron structures, methodological problems of modeling, USSR study, 2007
psychotropic drugs and dysfunctions of basal ganglia, multidisciplinary workshop, proceedings, 1080
- Nervous system:
nerve mechanism of vestibular reactions, problems of space biology, 18225
neurological and sensory disabilities, estimated numbers and cost, 15021
tumors of peripheral nervous system, 8455
NESC, *see* National Environmental Satellite Center.
- Nesenbergs, M., two-signal primer for Fourier analysis of random access communication system, 16461
- Neshoba County, Miss., community profile, 16319
- Nests, nesting mortality in birds, analysis, 2217
- Netherlands:
air transport services, agreement, 7819
background notes, 7800
economic trends and their implications for United States, 8322
economy, basic data, 9507
mixed feed industry, impact on use of grain for feed, 9974
pocket guide to Low Countries, 10219
records of Dept. of State, pamphlet to accompany microscopy, political relations with U.S. and other States, 11725
whole dried eggs, determination of injury to U.S. industry from imports, 15349
- Netherlands American Cemetery and Memorial, general information, 15465
- Netherlands Antilles:
economic trends and their implications for United States, 792
economy, basic data, 4995
foreign trade regulations, 8146
- Nets, new "live car" improves catfish harvesting and handling, 5006
see also Fish nets.
- Networks:
interstate effects surveillance network, 1969 data, air pollution particles, statistics, 1716
meteorological rocket network firings, data report (periodical), 2488
microwave switching schemes and variable power-division networks using phase shifters, review, 15083
modern network theory application to analysis of manned systems, 18213
radiation surveillance networks, 6391
see also Electric networks.
- Netzeband, F. F., mineral industry of Texas, 4463
- Neumann, Charles J., frequency and duration of thunderstorms at Cape Kennedy, application to forecasting, 11271
- Neumeier, L. A., influence of rolling temperature and copper content on creep and other properties of zinc-copper and zinc-titanium-copper alloys, 7487
- Neurobionics, *see* Bionics.
- Neurochemistry, in Soviet Union, report, 17141
- Neurocybernetics, 4th all-Union conference, USSR study, 16769
- Neurological diseases, *see* Nervous system.
- Neurons, *see* Nerves.
- Neuroparalysis, experimental neuroparalytic diseases, role of toxins of certain saprophytic microbes in etiology of, USSR study, 12622
- Neurophysiology, visual and auditory, comparisons between, 8889
- Neuschel, Herman K., aeroradioactivity survey and areal geology of Minneapolis-Saint Paul area, Wis.-Minn., 8011
- Neutrinos, elusive neutrino, description, etc., 1280
- Neutron activation analysis, *see* Radioactivation analysis.
- Neutron capture cross sections, multiple scattering corrections for associated-particle neutron time-of-flight technique, 963
- Neutron detectors, *see* Detectors.
- Neutron spectrum, *see* Spectra.
- Neutrons:
activation techniques for precious metal explorations, 133
associated-particle neutron time-of-flight technique, multiple scattering corrections, 963
broad neutron beams normally incident upon slabs of concrete, shielding calculations, 9391
DAISY, efficient program for production of neutron pseudo resonance parameter chains in unresolved energy region, 12802
EBR-II neutron spectra, analysis by Monte Carlo method and discrete ordinate methods, 9388
digital wide range neutron detection and measurement channel, 1261
effective resonance integrals of tantalum, 4527
14-MeV neutron generators in activation analysis bibliography, 11739
irradiated ^{12}Ni - ^{5}Cr -3Mo irradiated maraging steel plate and companion weld metals, behavior of mechanical properties, 6103
neutron-embrittled pressure vessel steels, Charpy-V shelf energy degradation and yield strength increase, trends, 6110
neutron-embrittlement and flux-density considerations of Army SM-1 reactor pressure vessel, analysis, 17191
neutron-energy and spectrum effects upon radiation embrittlement of steels, damage-function analysis, 6099
neutron-irradiated A537-B and A350-LF2 steel weldments charpy-V notch ductility characteristics, 11819
neutron scattering study of water and ionic solutions, 1952
neutron spectrometry, development for critical facilities, quarterly report, 6380
neutron transmutation doping used in fabrication of silicon microcircuits, final report, 9397
Neutron Transport Theory Conference, proceedings, 129
neutrons in radiobiology, symposium, proceedings, 15510
regeneration method of producing targets, within an accelerator, by ion sputtering techniques, 4513
 $\text{Si}(n,p)$ and $\text{Si}(n,\alpha)$ reaction cross sections at 14.5 MeV neutron energy, 18200

INDEX 1970

- Neutrons—Continued
spectrometry, Operation Henre (program 6), 3488
time-of-flight measurements, use of on-line computer, 4555
- Nevada :
ASCS farm programs, 3385
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 3535
retail trade, merchandise line sales, 13112
census of governments, 1967, State report, 3578
census of manufactures, 1967, statistics, 17503
central—
inventory of springs in Moray Peak area, 7240
Salterella from Lower Cambrian, 10179
Central Lahontan basin, Truckee River subbasin soils, 15448
climatological data, 2409
county business patterns, 10803
highway U.S. 50, include in interstate system, hearings, 3988
Lake Tahoe basin, general information, 14556
Lake Tahoe national lakeshore, establish, study—
law, 15807
report, 13465
mineral industry, minerals yearbook chapter, 4446
precipitation data, hourly, 2718
probabilities of hot and cool days sequences and hot spells in Markov chain models, 14345
soil survey laboratory data and descriptions, 11873
soil surveys, cooperative, 4683
southwestern, pseudoleperditia Schneider, 1956 (Ostracoda, Crustacea), early Mississippian genus, 730
test site—
information and ideas regarding sinks and collapse, summary, 6381
near-surface sink structure, 6382
seismic activity, summary, 6383
water supply for nuclear rocket development station, 7253
upper Precambrian and lower Cambrian strata in southern Great Basin, 14535
Valley of Fire State Park land conveyance—
law, 1418
report, 1532
water resources, 1969 data, 16637
Water supply—
fall summary, 18337
outlook and snow surveys, 3341
western, Mesozoic batholithic complexes, chronology of emplacement, 7245
- Nevel, Donald E. :
concentrated loads on plates, 8533
vibrations of floating ice sheet, 16409
- New alchemy (remarks), 10775
- New Britain, Conn., census of transportation 1967, commodity transportation survey, production, area series, 6418
- New Brunswick Laboratory, research progress report, 9396
- New Brunswick Province, participation in Northeastern Interstate Forest Fire Protection Compact, agreement with Canada, 7828
- New Carlisle, Ind., railroad accident, report, 17234
- New Crops Research Branch, plant material introduced, 17426
- New England :
climatological data, 2409
cost study of general freight transportation, 10251-52
fisheries, annual summary, 15743
foreign trade, problems (remarks), 642
precipitation data, hourly, 2718
- New England Regional Commission :
background, projects, etc., 17200
economic development programs, evaluation, hearings, 3890
Federal cochairman, nomination of Chester M. Wiggin, jr., hearings, 17716
- New England River Basins Commission, annual report, 13359
- A new era, Spanish speaking people of United States, 17480
- New Federalism, *see* Intergovernmental relations.
- New Hampshire :
Androscoggin River water pollution, conference proceedings, 8668
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 3536
retail trade, merchandise line sales, 13113
census of governments, 1967, State report, 3579
census of manufactures, 1967, statistics, 17504
county business patterns, 10804
electric rate book, 4145
fishery products, wholesale dealers, list, 9541
lead zinc-silver deposits related to White Mountain plutonic series, 5543
mineral industry, minerals yearbook chapter, 18158
postal map, 15115
watershed progress report for Public Law 566 projects, 7769
- New Hanover County, N.C. :
Agricultural Stabilization and Conservation Service annual report, 11945
community profile, 12453
- New Haven, Conn. :
air quality control region, Federal facilities, air pollution report, 11712
area wage survey, 8869
census of transportation, 1967, commodity transportation survey, production, area series, 6418
community profile, 6945
- New Jersey :
air quality control region, Federal facilities, 8961
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 9423
retail trade merchandise line sales, 10790
selected services, area statistics, 3544
wholesale trade, area statistics, 1302
census of governments, 1967, State report, 3580
census of transportation, 1967, commodity transportation survey, 9440
community solid waste practices, 1968
national survey, 17308
climatological data, 2409
coastal inlets and beaches, Great Egg Harbor Inlet to Stone Harbor, engineers report—
departmental edition, 332
document edition, 600
county business patterns, 203, 13166
egg-producing farms, commercial, 1969, costs and returns, 9972
graduated work incentive experiment, preliminary results, 5334
landings, fish and shellfish, 2951, 12063
mineral industry, minerals yearbook chapter, 4447
pollution of interstate waters of Hudson River and tributaries, conference proceedings, 1864, 8669
precipitation data, hourly, 2718
water resources, 1969 data, 16638
- New Left, *see* Right and Left (political science).
- New London County, Conn., community profile, 6946

- New Madrid County, Mo., community profile, 17833
- New Mexico:
- apples, marketing order authority, extend—
 - law, 13316
 - report, 12223
 - census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 3537
 - retail trade, merchandise line sales, 15543
 - census of governments, 1967, State report, 3581
 - census of manufactures, 1967, statistics, 17505
 - climatological data, 2409
 - county business patterns, 9450
 - fire stimulated aspen sprouting in spruce-fir forest, 11349
 - land conveyance to Cuba Independent Schools and to village of Cuba—
 - law, 13339
 - reports, 8359, 13415
 - mineral industry, minerals yearbook chapter, 4448
 - northwestern, uranium resources, 728
 - pertinent portions of, snow survey measurements 1938-70, 18335
 - postal map, 6123
 - precipitation data, hourly, 2718
 - Tularosa Basin, saline ground water resources, 18067
 - water supply outlook and snow surveys, 3338
 - west-central, establishment and survival of several grasses in sagebrush type, 681
 - wilderness, designate, certain lands, hearings, 5268
- New Mobe, *see* New Mobilization Committee to End the War in Vietnam.
- New Mobilization Committee to End the War in Vietnam, subversive involvement in origin, leadership and activities, study, 12277
- New Orleans International Airport, aircraft accident report, 7652
- New Orleans, La.:
- area wage survey, 8871
 - Mississippi River and tributaries and other watersheds in district, stages and discharges, 12511
 - New Orleans International Airport, climatological summaries, 4764
 - Public Health Service hospital lands and buildings, exchange with Tulane University—
 - hearing, 1589
 - law, 8186
 - reports, 1530, 8765
- New River, Blue Ridge hydroelectric power project, near Galax, Va., construction proposal hearing, 9936
- New way to apply for public assistance, 109
- New South, 17540
- New York City:
- aid to families with dependent children, report of findings of special review, 8329
 - alcoholism and narcotics problem, hearings, 6810
 - area wage survey, 2021
- Bedford-Stuyvesant, Central Harlem, East Harlem, poverty area profiles, working age population, 7436
- census of transportation, 1967, commodity transportation survey, 8065
- Citrus Associates of Cotton Exchange, futures trading and open contracts in frozen concentrated orange juice, 2683
- Continental Congress in City Hall, 1785-88, background and study, 15025
- Cotton Exchange futures trading and open contracts in cotton and frozen concentrated orange juice, wool and wool tops, 2682
- Bedford-Stuyvesant—Continued
- early childhood project, preschool program in elementary education, 7020
 - East River, spur channel to Astoria waterfront engineers report—
 - departmental edition, 10002
 - document editions, 9778
 - elementary program in compensatory education—
 - after-school study centers, 11213
 - more effective schools, 11216
 - fresh fruit and vegetable prices, 10707
 - homework helper program, compensatory education, 5351
 - John F. Kennedy International Airport, climatological summaries, 4764
 - LaGuardia Airport, climatological summaries, 4764
 - large commercial banks, weekly condition report, 3350
 - Mercantile Exchange—
 - futures trading and open contracts in potatoes and hides, 2684
 - potato futures market, extent and price effects of floor trading, 13247
 - principal electric facilities, map, 8622
 - retail trade, facts, 7437
 - seawater desalting as emergency water supply, study, 11450
 - secondary program in compensatory education—
 - college bound program, 11242
 - junior high summer institutes, 11243
 - student health project, 5589
- New York County, N.Y., community profile, 14126
- New York Harbor, waste disposal in coastal waters, hearing, 8318
- New York State:
- air quality control region, Federal facilities, 8961
 - census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 9424
 - retail trade, merchandise line sales, 10791
 - selected services, area statistics, 3545
 - wholesale trade, area statistics, 1303
 - census of governments, 1967, State report, 3582
 - census of transportation, 1967, commodity transportation survey, 9441
 - climatological data, 2409
 - coastal area, fishery products, wholesale dealers, list, 9542
 - community solid waste practices, 1968 national survey, 17308
- Connecticut-New York railroad passenger transportation compact, consent of Congress—
- law, 1415
 - reports, 1451, 1628
 - county business patterns, 3621, 13167
 - eastern section, postal map, 10505
 - Great Lakes area, fishery products, wholesale dealers, list, 9548
 - landings, fish and shellfish, 2958
 - mineral industry, minerals yearbook chapter, 5865
 - minority construction contractors located in selected cities, list, 8791
 - pollution of interstate waters of Hudson River and tributaries, conference proceedings, 1864, 8669
 - postal map, 9068
 - precipitation data, hourly, 2718
 - primary wood products output, 10137
 - soil surveys aid land use planning, 9163
 - timber resources, 16583
 - upper, socio-economic characteristics, extent to which portions should be included in either New England or Appalachian region, study, with recommendations, message from the President, 18372

INDEX 1970

- New York State—Continued
water pollution on Lake Erie and its tributaries, etc., conference proceedings, 5469-70
- New York State Education Department, Albany, N.Y., sociological health problems, 14946
- New Zealand:
certificates of airworthiness for imported aircraft agreement, 10624
economic trends and their implications for United States, 7320, 16722
educational foundation and financing of exchange programs, agreement, 10612
extradition treaty, 11067
message from the President, 6730
livestock and meat industry, 18005
meat imports into U.S., trade agreement, 7827
mineral industry, minerals yearbook chapter, 4449
reciprocal advance of funds for temporary support of Armed Forces personnel, agreement, 1154
sailing directions, change, 9047
- New Zealand-United States Educational Foundation, establish, agreement with New Zealand, 10612
- Newark, N.J.:
area wage survey, 11532
census of transportation, 1967, commodity transportation survey, 8066
Newark Airport, climatological summaries, 4764
- Newberry Crater, central Oregon, general information, 8691
- Newborn, *see* Infants.
- Newcomb, John P., parametric design of interplanetary and orbital trajectories with examples for Mars 1973-77 opportunities, 14880
- Newkirk, William D., establishing business in Ghana, 5002
- Newman, Jerry O., house construction, how to reduce costs, 12982
- Newman, Roy, adaptation of slow-speed data acquisition system to record multiple time-related signals, 7496
- Newman, Morris, mathematical sciences, journal of research, 2786
- Newport News, Va., area wage survey, 11541
- News and clues for sheltered workshops, 2959
- News broadcasting, *see* Radio journalism.
- News digest:
Federal Power Commission, 2960
Securities and Exchange Commission, 2961
- News for farmer cooperatives, 2962
- News from the Center, 2964
- News letters:
American Revolution Bicentennial Commission, bicentennial era, 9347
Army Medical Department, 9369
consumer relations, 2448
equal opportunity in Federal employment, 2544
Federal Library Committee, 2649
Head Start Project, 2707
HEW consumer newsletter, 2711
Job Corps staff, 2779
LEAA [Law Enforcement Assistance Administration], 16818
LEEP [Law enforcement education program], 2795
Navy medical newsletter, 2946
Navy Supply Corps, 2948
NBS publications newsletter, 2949
President's Council on Physical Fitness and Sports, 2966
research in psychology, Veterans Administration Center, 10661, 17396
rural areas development, 3165
State Department, 2501
State Technical Services Office, 3223
USDA employee, 3316
- News releases, *see* names of departments, etc., issuing releases.
- News reporters, *see* Reporters and reporting.
- News summary, Federal Trade Commission, 2636
- Newsletters, *see* News letters.
- Newspapers:
combinations and arrangements necessary for survival, exempt from antitrust laws—
hearings, 1592, 3981
law, 13328
reports, 1630, 12200, 12231
Library of Congress, currently received and permanently retained, 11554
newspaper preservation act—
hearings, 1592, 3981
law, 13328
reports, 1630, 12200, 12231
see also Press.
- Newsom, William A., jr.:
wind-tunnel investigation of V/STOL transport model—
four pod-mounted lift fans, 14881
six wing-mounted lift fans, 14848
- Newt Graham Lock and Dam, Verdigris River, designate, report, 9881
- Newton, E. H., survey of materials behavior in multistage flash distillation plants, 5625
- Newton, George P., atmospheric densities measured by Explorer 17 density gauges, analysis of errors and their effects upon measurements, 904
- Newton, John R., report on differential thermal and thermogravimetric analysis, 8803
- Newton County, Miss., community profile, 16320
- Newton County, Mo., community profile, 17834
- Newton-Raphson-conjugate-gradient technique for calculation of axisymmetric buckling of shallow spherical shells with variable edge constraint, 5957
- Next decade in space, report, 7729
- NFS series, 2928
- Ng, Kwok Kwen, relief, 9809
- Nga, Nguyen Tan, *see* Baden, Margarita A. M.
- NGB, *see* National Guard Bureau.
- Nguyen Tan Nga, *see* Baden, Margarita A. M.
- NHRL, *see* National Hurricane Research Laboratory.
- NHSB, *see* National Highway Safety Bureau.
- Niagara, N.Y., frontier intrastate air quality control region, Federal facilities, 10423
- Niagar County, N.Y., community profile, 14127
- Nibbling, J. J. W., permissible stresses and their limitations, 17263
- Nicaragua:
area handbook, 15487
canal route, Bryan-Chamorro treaty of 1914, termination of convention, message from the President, 15973
economic trends and their implications for United States, 7329
mineral industry, minerals yearbook chapter, 16901
trade, meat imports, agreement, 17352
- Nice agreement, as revised, concerning international classification of goods and services to which trademarks are applied, 15973A
- NICHD, *see* National Institute of Child Health and Human Development.
- Nichols, Ivan L., leaching gold-bearing mill tailings from Mercur, Utah, 10333
- Nickel:
Co-Ni-V alloys, reaction with O₂ at 1,351°-1,429° K, 7494
gamma-prime strengthened cobalt-nickel base alloy, develop by statistical design and analysis of optimum seeking experiments, 2118
high purity, electrochemical recovery from crude nickel and ferromanganese, 11587
identification marking, nickel and alloys, Federal standard, amdt., 8663

- Nickel—Continued
 mineral industry survey, monthly, 2967
 nickel-base superalloy—
 cavitation damage in water, study, 17002
 estimation of gamma phase composition based on geometric analysis of four component phase diagram, 11648
 (IN-100), further observations on formation of sigma phase, 17003
 solvent extraction from waste phosphate solution, 5874
 supply and demand (address), 3523
 TD-nickel bar, solid-state welding, 3523
 tungsten alloy fiber-nickel-base alloy composites for turbojet engine applications, preliminary evaluation, 5928
 U.S. resources, availability, 11579
 Nickel isotopes, nickel-58 reaction, alpha-gamma angular correlations, 5928
 Nickelson, Robert L., membranes for reverse osmosis by direct casting on porous supports, 7308
 Nickerson, Herman Jr., nomination, hearing, 16040
 Nichols, Clyde, relief, 13266, 13600
 Nicolet, William E., advanced method for calculating radiation transport in ablation-product contaminated boundary layers, 16942
 Nicotine, tar and nicotine content of cigarettes by brand name, list, 7592
 NIDR, see National Institute of Dental Research.
 Nieberding, William C., comparative in-flight thrust measurements of SERT II ion thruster, 18208
 Niederfrank, E. J.:
 developing programs for rural handicapped, 15444
 keeping up with change in rural society, 5415
 Niedzwiecki, Richard W.:
 combustion stability of single swirl-can combustor modules using ASTM-A1 liquid fuel, 903
 performance of 48-module swirl-can turbojet combustor segment at high temperature using ASTM-A1 fuel, 2124
 preliminary tests of simplified modular turbojet combustor, 12773
 Nielson, Woodrow, Soil survey, Aneth area, Utah, special report, 10570
 Niger, economic trends and their implications for United States, 5711
 Nigeria:
 economic trends and their implications for United States, 7337
 mineral industry, minerals yearbook chapter, 5866
 Nigerian-Biafran relief problems, hearings, 1737, 8420
 postwar situation, hearing, 6708
 Night lighting for herring, old technique may have new possibilities, 10892
 Night vision, see Sight.
 Nightwear:
 knit, current industrial reports, 2476
 men's and boys', industry wage survey, 7426
 NIGMS, see National Institute of General Medical Sciences.
 NIH, see National Institutes of Health.
 Nike systems, see Missiles.
 Nikolitch, Radoje, our 31,000 largest farms, 6989
 NILE & CJ, see National Institute of Law Enforcement and Criminal Justice.
 Nimbus satellite, see Satellites.
 NIMH, see National Institute of Mental Health.
 NINDS, see National Institute of Neurological Disease and Stroke.
 Nineteenth century wage trends, 5820
 Niobium:
 alloy development with boron, hafnium, and tungsten, 10328
 collector with oxygen present and (112) to (114) oriented tungsten emitter used in operation of thermionic converter, 16945
 columbium base alloys, compatibility with lithium fluoride, 7515
 commercially pure and oxygen-doped, apparent solubilities in liquid potassium, 11691
 minerals yearbook chapter, 18144
 thermionic converter with chloride vapor deposited tungsten emitter (110) and collector of molybdenum deposited on niobium, characteristics, 18192
 Nishita, Hideo, ecological and environmental effects from local fallout from Schooner, soil thermoluminescence in relation to radiation exposure under field conditions, 8020
 Nisqually Glacier, Mount Rainier National Park, analysis of 24-year photographic record, 5554
 Nitrates, see Hydrazine nitrate.
 Nitrogen:
 CO₂-N₂-O₂-Ar gas mixtures for planetary entry applications, transport properties at high temperatures, 2085
 fertilizer, supply, 12970
 gas, physical adsorption on polished surface of 347 stainless steel at very low pressures, 8944
 helium-nitrogen system viscosity from 133° to 740° K for pressures between 1 and 240 atmospheres, 11590
 long range atomic interaction potentials, 11694
 Nitrogen isotopes, nitrogen 2 and carbon 2 measurement of resonance multiplet line shapes from plasma, 10495
 Nitrogen oxides:
 annotated bibliography, 17017
 concentration in diesel exhaust gas, effect of cetane improvers in fuel, 870
 control techniques, emissions from—
 mobile sources, 5989
 stationary sources, 5990
 hydrocarbon and nitrogen oxides, function in photochemical-smog formation, 16921
 N₂O₅ and aqueous and hot-salt environments, effect of composition, on mechanism of stress-corrosion cracking of titanium alloys in, 7514
 Nix, Harold L., identification of leaders, and their involvement in planning process, 7044
 Nixon, Richard M., see President of United States.
 NLM, see National Library of Medicine.
 NLRB, see National Labor Relations Board.
 NMB, see National Mediation Board.
 NMC, see National Meteorological Center.
 Noble County, Ohio, community profile, 14128
 Noble fir, see Fir.
 Noctilucent clouds, see Clouds.
 Nocturnal radiation loss estimates for forest canopy, 5503
 Nodaway County, Mo., community profile, 17835
 NODC, see National Oceanographic Data Center.
 Noddin, Ernest M., relationship of background variables to attrition in basic enlisted submarine school, 8891
 Nodvik, R. J., evaluation of fuel accountability methods applied to Yankee fuel, 6392
 Noe, Frank E., mineral industry of Bolivia, 18151
 Noecker, M., flood of Aug. 1942 in Ontonagon River basin, Mich., 8783

Noise:

- abatement, technology, public law & rules, FAA noise abatement programs, 8603
- acoustic and aerodynamic performance of 6-foot-diameter fan for turbofan engines, 14856
- aerodynamic, basic research, conference proceedings, 7526
- aircraft—
 - abatement plan, fy 1969-70, Federal programs, 9240
 - noise evaluation, technical report, 4120
 - noise in vicinity of aerodromes (remarks), 235
 - perceived noisiness, possible modifications to calculations, 14831
- ambient noise levels in Tongue of the Ocean Bahamas—
 - deep water, 9046
 - shallow water, 1014
- atmospheric and man-made radio noise, amplitude and time statistics, 10024
- atmospheric radio noise, simulator for HF band, 614
- axial compressor noise, application of theory to minimize, 12757
- biological noise propagation characteristics in shallow water regions of Black Sea, USSR study, 11500
- characteristics and amplitude stabilization of plasma lasers, investigation, 14826
- classical theory, problem of photon counting, 10413
- control for mechanical equipment, Army technical manual, 17466
- control on seagoing ships, improving labor conditions in merchant fleet, USSR study, 4327
- digital receiver decision techniques for certain fixed length binary block codes transmitted through Gaussian channel, 4632
- electrical, in GaAs diode lasers, 12838
- flyover noise from various aircraft, judgment tests, 16936
- from axial-flow compressors, effects of inlet-guide-vane configuration and rel-guide-vane configuration and relative blade velocity, 5922
- high levels, stress effects on lower body negative pressure experiments, 16978
- ionospheric channel and atmospheric noise simulators, recommended specifications, 613
- intense low frequency tones, effects of exposure on hearing and performance, 12733
- measurement, Soviet research, 11502
- NASA acoustically treated nacelle program, conference, papers, 2079
- noise and state statistics, simultaneous estimation in linear dynamical systems, 7555
- Noise pollution and abatement act of 1970—
 - hearings, 11143, 12380, 16084
 - report, 16020
- note on noise factor measurement, 1840
- physics of aerodynamic noise, 949
- problem in residences, economic potential of mineral-based insulating materials in combating, 10322
- rock noise source location techniques, 16920
- signal-to-noise ratios for HF communication systems, 1839
- simulated sonic booms and subsonic aircraft noise, awakening effects on 6 subjects, 7-12 yrs. of age, 10362
- Soviet specialists discuss control of noise, 16808
- standards, aircraft type certification, Federal aviation regulations, 11284
- STOL transport aircraft noise certification, conference proceedings, 4121

Noise—Continued

- subsonic jet flyover noise and sonic booms, effects on skeletal muscle tension and paced tracing task, 5902
- transportation noise—
 - control (paper), 7870
 - environments of traveler and spectator (address), 9242
 - see also Sonic boom.
- Noise Abatement Office, report FAA-NO series, 4120-21
- Noise suppressors, XB-70 compressor-noise reduction and propulsion-system performance for choked inlet flow, 7537
- Nome, Alaska, portable refraction seismography survey of gold placer areas, 10160
- Nomenclature, stratigraphic nomenclature, changes by Geological Survey, 7222
- see also subjects.
- Nominations, Senators, Federal and State laws, summary, 8343
- see also names of persons.
- Nomograms, see Nomography (mathematics).
- Nomography (mathematics):
 - nomographs for use in fabrication and testing of Ge(Li) detectors, 14925
- Noncitizens, see Aliens.
- Noncompulsory radio fixes, 3452
- Nondestructive testing techniques for aircraft, 625
- Nondiscrimination, see Race problems.
- Nonferrous alloys, see Alloys.
- Nonferrous castings, see Castings.
- Nonferrous metals, see Metals.
- Nonlinear equations, see Equations.
- Nonlinear theories, controllability of nonlinear systems with linearly occurring controls, 2064
- Nonmetallic materials, see Nonmetals.
- Nonmetallic minerals, see Minerals.
- Nonmetals:
 - industries, technologic trends, minerals, yearbook chapter, 885
 - nonmetallic crude materials, Federal item identification guides for supply cataloging, supplements, 2596
 - nonmetallic fabricated materials, Federal item identification guides for supply cataloging, supplements, 2596
- Non-professional personnel in mental health programs, 7616
- Nonprofit organizations:
 - Federal support of research and development, 1968 report to Congress and the President, 7650
 - HUD, programs for nonprofit groups, 756
 - research grants and contracts with Health, Education and Welfare Department, guide for establishing indirect cost rates, 16651
 - tax exempt organizations, tax reform, summary of recommendations, 8398
 - tax-sheltered annuity plans for employees, 5689
- Nonrubber footwear, 2262
- Noonan, W. E., acoustic tests of flexible spacecraft model, 11622
- Nor Kong Wan, see Kong Wan Nor.
- Norfolk, Va., area wage survey, 11541
- Norman, Carl E., geometric relationships between geologic structure and ground stresses near Atlanta, Ga., 7489
- Norman, Leland C., investigation of initial century series ringsail parachute, 14889
- Norman, Shirley, biphenyl residues, decay, and soilage in oranges, effect of carton ventings, barriers, and biphenyl dosages during storage, 28
- Norman, Okla., Canadian River, special flood hazard information, 7042
- Norris Reservoir, fish inventory data, 15351
- Norris Soldier Station, Yellowstone National Park, historic structures report, 4582

Norrod, Valmer:

- self-study course in FORTRAN programming, textbook, 12753
- self-study course in FORTRAN programming, workbook, 14808

NORSAR microseisms, 16456

North America:

- arctic and subarctic, ice thickness, 1964-65, 1965-66 observations, 4070
- Atlantic Coast, tidal current tables, 13208
- climate and regional variations in snow cover density, relationships, 5363
- correlation of graptolite sequences with early Silurian graptolites in southeastern Alaska, 10183
- east coast—
 - lights and fog signals, list, 7674
 - tide tables, 9482
- eastern, early Cambrian fossil *Salterella* conulata Clark, description, etc., 18047
- exotic fishes and other aquatic organisms, 17273
- geology—
 - abstracts, 2283
 - bibliography, 14518-59
 - Indians, folklore, bibliography, 825
 - neotropical caddisflies, *Leucotrichia* and related genera from North and Central America, 17274
- Pacific Coast, tidal current tables, 13209
- tide tables, high and low water predictions, 9483

North American fauna, 15269

North Atlantic Ocean, *see* Atlantic Ocean.

North Atlantic slope basins, *see* Atlantic States.

North Atlantic Treaty Organization:

- doing business with NATO, how U.S. companies can participate, etc., 4900

International Military Headquarters in Germany status of personnel, agreement with other Governments, 4753

making available by United Kingdom and United States armed forces of accommodation to International Military Headquarters in Germany, agreement, 6232

NATO and defense of Europe, United States foreign policy issues, 7816

nuclear weapons and NATO, analytical survey of literature, 9351

status of forces agreement, criminal jurisdiction operations—
hearing, 3953, 17690
report, 5205

North Carolina:

- census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 8062
 - retail trade, merchandise line sales, 10792
 - selected services, area statistics, 1297
 - wholesale trade, area statistics, 1304
- census of construction industries, 1967, statistics, 15560
- census of governments, 1967, State report, 3583
- census of manufactures, 1967, statistics, 15582
- census of transportation, 1967, commodity transportation survey, 10797
- climate, 11264
- climatological data, 2409
- coastal plain, tobacco farms, 1969, costs and returns, 14269
- counties, estimates of population, 8091
- county business patterns, 204, 12031
- fishery products, wholesale dealers, list, 12079
- hurricanes, descriptive listing of tropical cyclones, 10671
- landings, fish and shellfish, 2970
- mica tailing, selective flotation of minerals, 877
- mineral industry, minerals yearbook chapter, 862

North Carolina—Continued

- minority construction contractors located in selected cities, list, 8793
- Ports Authority, silver anniversary dinner (remarks), 7097
- potatoes, marketing summary, 3993
- precipitation data, hourly, 2718
- soil surveys for town and country, 4698
- Southern Coastal Plain and associated areas, soil survey interpretations for woodlands, 9159
- Southern Piedmont Area, soil survey interpretations for woodlands, 4696
- travel costs less than you think, please come, invitation from people of U.S., 7885
- Dutch edition, 7882
- German edition, 7880
- Japanese edition, 7886
- Portuguese edition, 7883
- Spanish edition, 7881

North Cascades National Park:

- general information, 10471
- North Cascades complex, description, proposals, etc., 17158

North Central Forest Experiment Station, publications, 1969 list, 16551

North Central States, *see* Central States.

North Creek, Trinity River basin, Tex., 1967, compilation of hydrologic data, 7231

North Dakota:

- census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 3538
 - retail trade, merchandise line sales, 13114
- census of construction industries, 1967, statistics, 17492
- census of governments, 1967, State reports, 4922
- census of manufactures, 1967, statistics, 15583
- Central Dakota Nursing Home, property conveyance, report, 13638
- climatological data, 2409
- county business patterns, 205, 10805
- electric rate book, 650
- land exchanges, remove Federal restrictions, report, 15847
- level bench systems for forage production, economic analysis, 6291
- lignite, slagging fixed-bed gasification at pressures to 400 psig, 11593
- mineral industry, minerals yearbook chapter, 4450
- Mississippi River and tributaries, fishery products, wholesale dealers, list, 9550
- postal map, 10506
- precipitation data, hourly, 2718
- small watershed projects, program, hearing, 12382
- water resources data, 14546, 16639

North Korea, *see* Korea.

North Korean Central Yearbook, excerpts, 12639

North Little Rock, Ark., area wage survey, 2027, 18124

North loop division, *see* Missouri River Basin project.

North Pacific Ocean, *see* Pacific Ocean.

North Raccoon River:

- floods, how to avoid damage, Sac City, Iowa, 17942
- Sac County, Iowa, flood plain information, 17924

North Sea, lights and fog signals, list, 6087

North Table Mountain, Golden, Colo., tabulations of propagation data over irregular terrain in 230- to 9200 MHz frequency range, 17951

North Vietnam, *see* Vietnam.

Northampton County, N.C., community profile, 14129

Northampton County, Pa., community profile, 16321

INDEX 1970

Northbrook, Pa., floods and flood plain management information, 17917
 Northeast Airlines, Inc., accident report, 10477
 Northeast (U.S.):
 Atlantic Continental Shelf and slope of United States, gravels of northeastern part, 18042
 conservation plantings, invite birds to your home, 3424
 dietary levels of households, 6306
 economic aspects of dairying, 11194
 erosion and sediment control in urban areas, guidelines, 9143
 furrow-seeder for Northeast, 10134
 ground water levels, 7255
 high speed ground transportation mode service in Northeast Corridor, 8631
 hydrologic effects from urbanization of forested watersheds, 10131
 Northeast Corridor—
 air traffic and high speed ground transportation, 8604
 evaluation of navigation, 14361
 Transportation Project NECTP (series), 8631-37, 10061, 14382
 principal electric facilities, map, S622
 pulpwood production, 4212
 rail passenger statistics in Northeast Corridor, 7865
 silvicultural guide for northern hardwoods, 5512
 soil and water conservation films, list, 10569
 veneer industry, 5-year data on veneer-log production, 14484
 Northeast Corridor Transportation Project: cost analyses, 8636-37
 impact studies, 8634
 models, access and demand data used in development and calibration, 8633
 NECTP series, 8631-37, 10061, 14382
 published reports, list, 7864
 reports, 7862, 14382
 transportation facts and statistics, 10061
 Northeastern Forest Experiment Station: publications, list, 2953
 report 1969, including list of publications, 10120
 Northeastern Interstate Forest Fire Protection Compact, New Brunswick and Quebec Provinces, participation, agreement with Canada, 7823
 Northedge, Robert L., economic studies and some test results from fog dissipation system in France, 15341
 Northern Great Plains, *see* Great Plains.
 Northern Hemisphere, *see* Hemisphere, Northern.
 Northern Regional Research Laboratory: publications and patents, 1962-69 lists—chemically modified oil products for industrial uses, 17423
 compositional studies on oilseeds, oils, and meals, 17419
 edible soybean oil and related studies, 17421-422
 engineering studies on processing of oils, 17420
 publications, oilseed crops research, 1962-69, list, 17424
 Northern Utilization Research and Development Division:
 fermentation research, publications and patents, 12961
 publications and patents, list, oilseeds, oil, and meal processing, 7903
 Northumberland County, Pa., community profile, 16322
 Northwest (U.S.):
 Columbia-North Pacific region, timber economy, projected developments, 698
 Douglas-fir region, 1966 timber flows and utilization patterns, 14474
 forest industries, production, prices, employment, and trade, 3100

Northwest (U.S.)—Continued
 national forests in Pacific Northwest, 1969 report, 14453
 Northwestern tree species, effects of high soil density on seedling root growth, 4187
 Pacific Northwest—
 chemical quality sampling and analysis by Federal Water pollution Control Administration at selected sites Sept. 1968-June 1969, results, 1914
 current discharge at selected stations, 2896
 forest pest conditions, 5486
 month-end storage in major reservoirs, 2896
 precipitation and temperature, monthly, 3004
 pulp and paper industry, 5489
 river temperatures, 3162-63
 single-span skyline timber volume survey, 14486
 water, reports by Geological Survey, 8737, 14533
 water resources—
 summary, 3005
 weekly runoff, report, 3006
 principal electrical facilities, map, S625
 ski Northwest, general information, 7202
 surface currents as determined by drift card releases on Continental Shelf, 11891
 Northwest Atlantic Fisheries, International Convention for, *see* International Convention for Northwest Atlantic Fisheries.
 Northwestern States, *see* Northwest (U.S.).
 Norton, Arthur J.: household and family characteristics, 8090
 marital status and family status, 6441
 Norwalk, Conn., census of transportation, 1967, commodity transportation survey, production, area series, 6418
 Norway:
 atomic energy, cooperation for civil uses, agreement, amended, 10618
 background notes, 1136
 economic trends and their implications for United States, 5710, 14631
 economy, basic data, 9504
 foreign trade regulations, 5001
 lights and fog signals, 15054
 mutual defense assistance, agreement, 1163
 northwest and north coasts, sailing directions, change, 1016
 plant quarantine import requirements, addition, 1194
 safeguarding of classified material, agreement, 9204
 Selsmic Array, NORSAR microseisms, 16456
 Norwegian Sea, summer oceanographic features, 7690
 Nose, nasal vs. throat carriage and persistence of nasal carriage, staphylococcal carriage in hospital population, 15503
 Noses (aircraft):
 pointed, effects on spin characteristics of fighter airplane model including correlation with theoretical calculations, 16967
 Noses (space vehicles):
 non-charring heat shields and nose tips, coupled computer code for transient thermal response and ablation, 18183
 Nosotros los México Americanos, 6460
 Noste, Nonan V., analysis and summary of forest fires in coastal Alaska, 8683
 Notes, Farmers Home insured notes, investor's opportunity, 1202, 11957
 see also Treasury notes.
 Notice (law):
 notices, Internal Revenue Service catalogue, 10233
 Notice to mariners:
 coastal and ocean regions of world, 2972
 Great Lakes and tributary waters west of Montreal, 2973

Notices to airmen, 2326
 graphic notices and supplemental data,
 airman's information manual, 4102
 international notams, 2763
 Notifiable diseases, *see* Contagion and con-
 tagious diseases.
 Notions, census of manufactures, 1967, in-
 dustry statistics, 15611
 Noturus Rafinesque, *see* Catfish.
 Nova Scotia, southern, ostracode zoogeog-
 raphy, 10174
 Novotny, Donald J., competition for world
 wheat markets and U.S. exports, 5477
 Noxubee County, Miss., community profile,
 16323
 Nozzles:
 fully truncated plug nozzle with translat-
 ing shroud, effect of plug base contour
 on performance, 5950
 heat transfer in 60° half-angle of con-
 vergence nozzle with various degrees of
 roughness, 12816
 inlet in test of single-tube-in-shell water
 boiler, 5948
 two-phase flow in turbines and reaction
 nozzles, 11706
 n-Pentane, n-pentane and methane-n-pentane,
 phase behavior in binary and multicom-
 ponent systems at elevated pressures,
 11732
 NPIP, *see* Poultry.
 NRAB, *see* National Railroad Adjustment
 Board.
 NRL, *see* Naval Research Laboratory.
 NSB, *see* National Science Board.
 NSC, *see* National Security Council.
 NSF, *see* National Science Foundation.
 NSLI, *see* Life Insurance.
 NSRDS, *see* National standard reference data
 system.
 NSSL, *see* National Severe Storms Labora-
 tory.
 Nuckolls County, Nebr., community profile,
 17836
 Nuclear chemistry, *see* Radiochemistry.
 Nuclear defense design for architects and
 engineers, 12044
 Nuclear energy, *see* Atomic energy.
 Nuclear engineering:
 new trends in nuclear engineering educa-
 tion (remarks), 1277
 properties of Cabriole crater, investiga-
 tions, 9400
 Nuclear explosions:
 close-in airblast from Schooner event,
 9399
 cratering and contained events, contribu-
 tion to analysis of seismic data, Project
 Schooner, 13078
 near-surface sink structure, Nevada test
 site, 6382
 nuclear cratering detonations, lidar ob-
 servations of debris clouds, Project
 Buggy, 13085
 nuclear detonations for peaceful purposes,
 approaches to calculation of limitation,
 papers, 5384
 nuclear explosion subdues underground gas
 fire, USSR study, 18093
 Palanquin Event, quantitative postshot
 distribution of close-in fallout, throw-
 out, and base surge, 4894
 peaceful application in national economy
 of Soviet Union, review, 6373
 Project Rullson, post-shot plans and eval-
 uation, 4888
 Project Tank Trap, field evaluation of nu-
 clear terrain barriers, 8018
 reviews to insure safety of nuclear oper-
 ations, 1254
 Rullson subsurface nuclear blast vibration
 effects on Vega Dam, 15147
 services for industrial applications, hear-
 ings, 1427

Nuclear explosions—Continued
 sinks and collapse, Nevada test site, sum-
 mary of information and ideas regard-
 ing, 6381
 suspected, underground, botanical tech-
 niques for on-site inspections, 16605
 underground—
 magnitude method for identifying, USSR
 study, 8847
 mechanical effect, USSR study, 4874
 radioactive contamination of environ-
 ment and methods of forecasting it,
 USSR study, 8004
 underground nuclear testing, report, 3505
 Nuclear explosives, *see* Atomic blasting.
 Nuclear fission, fission and fusion develop-
 ments and prospects (remarks), 141
 Nuclear fuel, *see* Fuel—Reactor fuel.
 Nuclear fusion:
 fission and fusion developments and pros-
 pects (remarks), 141
 fusion torch, closing cycle from use to re-
 use, 136
 Nuclear instrument modules:
 standard, specifications, 4891
 standard system, (NIM), development and
 current status, 17043
 Nuclear medicine, bibliography, 10764
 Nuclear ordnance, *see* Atomic ordnance.
 Nuclear particles, *see* Nucleons.
 Nuclear physics, computer systems in exper-
 imental nuclear physics. Skytop confer-
 ence proceedings, 1247
 Nuclear power, *see* Atomic energy.
 Nuclear power plants, *see* Nuclear reactor
 power plants.
 Nuclear powered ships, atomic powered ves-
 sels, introduction. Chinese study, 16799
 Nuclear propulsion, *see* Propulsion.
 Nuclear radiation, *see* Radiation.
 Nuclear reactions:
 controlled thermonuclear synthesis re-
 search, 1957-68, development in
 Ukraine, 5777
 1.4-eV flux in water, analysis for ameri-
 cium-beryllium source enclosed in beryll-
 ium spheres, tests of evaluated
 beryllium (n,2n) cross sections, 16993
 odd strontium isotopes with stripping and
 pickup reactions, study, 10401
 ORTC-III in-reactor experiment, 9388
 p-p and p-t final state interactions in re-
 action $^3\text{He}(d, tp)p$, 14870
 problems of controlled thermonuclear syn-
 thesis and plasma physics, high-fre-
 quency properties of plasma, 10754
 Si(n,p) and Si(n,a) reaction cross sec-
 tions at 14.5 MeV neutron energy,
 18200
 sodium line laser with Na^+ and H-recom-
 bination, USSR study, 18094
 see also Nuclei—Photonuclear reactions.
 Nuclear reactor powerplants:
 environmental effects of producing electric
 power, hearings, 3761, 15812
 light water reactor power plants for
 utilities, cost trends, 9406
 LMFBR liquid metal fast breeder
 reactor—
 1000 MWe, conceptual design report,
 description of plant design, 8010
 plant safety analyses, 4879
 nuclear power plants—
 description, location, etc., 1282
 safety on ships, USSR study, 5737
 nuclear reactors and public reaction (re-
 marks), 10776
 Phenix, prototypes, fast-neutron nuclear
 power station, 8006
 prelicensing antitrust review, hearings,
 5063, 9610
 present state and future outlook of nuclear
 power generation in United States (re-
 marks), 9409
 prospects for treating water with pul-
 verized ionites, USSR study, 4342

Nuclear reactor powerplants—Continued
 Tarapur Atomic Power project, India, dedication (remarks), 4899
 USSR Novo-Voronezhskaya atomic power station, 5 years of operation, 4351
 Nuclear reactors, *see* Reactors (atomic).
 Nuclear rockets, *see* Rockets.
 Nuclear safety, technical progress review, 2974
 Nuclear science:
 abstracts, 2975
 index, 2976
 cumulative report number, with publicity availability citations, 6397
 serial titles cited, list, 4890, 15528
 subject scope, 6387
 manpower availability from educator's viewpoint (remarks), 1276
 safeguards papers, ANS/AIF winter meeting, Nov. 1968, proceedings, 9405
 Nuclear spin, *see* Spin (atomic).
 Nuclear tests, *see* Nuclear explosions.
 Nuclear warfare, *see* Atomic warfare.
 Nuclear weapons, *see* Weapons.
 Nucleation, *see* Phase studies.
 Nuclei:
 cometary forms, structures near nucleus, atlas, 2077
 complex nuclei, radiative corrections to electron scattering, 17189
 condensation nuclei, numerical experiments in modifying kinetics of cloud spectrum formation by introducing, USSR study, 10269
 light nuclei, interaction with intermediate energy protons, 14888
 Nucleons, reduced matrix elements of single-particle operators, systematic method calculating, 12811
 Nucleus, *see* Nuclei.
 Nuclides, *see* Radionuclides.
 Nuka Bay, Alaska, geology and lode-gold deposits in area, 8743
 Numbers:
 position numbers of aircraft engines and engine cylinders, combustion chambers, flame tubes, inner liners, and other items, military standard, 16149
 pseudo-random, multiplicative generator of, evaluation, 15493
 Numerical analysis, *see* Numerical calculations.
 Numerical calculations:
 angular scattering functions for spherical water droplets, computational procedure, 15062
 calculating compensating reflector in two-reflector antenna with circular symmetry, USSR study, 5759
 calculation of rotational energy levels and rotational line intensities in diatomic molecules, 11731
 calculation procedure for heat transfer to gas-solid suspension from externally heated tube, 14775
 comparison of triangular, polygonal, and statistical method of computing grade and tonnage of ore for Silver Bell Oxide porphyry copper deposit, 5873
 computation—
 potential function of compressible fluid near Mach 1, 8941
 standards for engineering work, 4684, 15195
 state transition matrix, application of Brouwer's artificial satellite theory, 14875
 computational method for photopeak location and integration, 9394
 convergence of iterative methods applied to large overdetermined linear and nonlinear systems of equations using least squares, 17950
 differential equations using Obrechhoff corrector formulas, 2084

Numerical calculations—Continued
 FORTRAN program for machine computation of group tables of finite groups, errata, 10378
 inverse-method solution for radiating, non-adiabatic, equilibrium inviscid flow over blunt bodies, 14863
 method for computing extremal maximum-range thrust limited rocket trajectories with application to lunar transport, 16986
 methods for calculating and analyzing interrogation repetition, frequency sets, nonsynchronous for n interrogations, 15081
 numerical evaluation of preliminary orbit determination methods, 12770
 numerical model designed to simulate tropical cyclone development, survey of experimental results obtained, 8570
 perceived noisiness, possible modifications to calculation, 14831
 shock wave diffraction by circular cylindrical cavity in elastic-plastic media, 8535
 spin characteristics of fighter airplane model, effects of pointed nose on, including correlation with theoretical calculations, 16967
 systematic method of calculating reduced matrix elements of single-particle operators, 12811
 theoretical LF, VLF field calculations with spherical wave functions of integer order, 14348
 theoretical methods for computing characteristics of Wullenweber antennas, 8574
 viscous compressible fluid flow—
 around stationary cylinder, 5893
 over thin plate and step geometry, 4490
 see also Mathematics.
 Numerical control, *see* Machine tools.
 Numerical integration, *see* Integration (mathematics).
 Nurse Corps, Air Force, hospital nursing service, pamphlet, 15459
 Nurse Corps, Army:
 financial assistance and educational opportunities for student nurses and registered nurses, 11970
 what it's like to be a U.S. Army nurse, 9367
 Nurseries (horticulture):
 lath house for nursery plants, farm building plan, 1200
 see also Forest nurseries.
 Nurses and nursing:
 community planning for nursing in South Dakota, source book, 986
 diabetes guide for nurses, 6145
 Federal Health Programs Service, careers for nurses, 7084
 loan cancellation benefit, list of hospitals, handbook, 11412
 nurse training—
 special project grants for improvement, guidelines, 5586, 8768
 title 2, Health manpower act, 5579
 nurses, assistants, ward clerks, they're ready to work in your hospital, 5815
 nursing careers among American Indians, 7298
 nursing personnel in hospitals, 14570
 nursing research—
 grants supported by Nursing Division, list, 11411
 1955-68, overview, 17048
 nursing scholarship program, career information, 5581
 nursing scholarships and student loans, information for schools, 5582
 nursing schools awarded construction grants, lists, 1061, 5574, 16654

Nurses and nursing.—Continued
 nursing student loans, repayment, deferment, and cancellation, guide, 5575
 personnel, health manpower source book, 5576
 professional traineeships, 5583
 guidelines on grants for long term academic training, 8768
 short-term training courses, 5585, 11415
 progress report on nurse training, report to the President and Congress, 18057
 psychiatric-mental health nursing institutions offering stipends, list, 9017
 public health, number, educational preparation, etc., 5580
 registered—
 and licensed practical nurses employment outlook, 12671
 traineeships under Public health traineeship program, 12861
 research and research training grants, Nursing Division, 8769
 research in nursing, 1955-68, research grants, 11413
 schools
 institutional grants, 5578
 offering nurse traineeships for full-time academic study, list, 12597
 participating in nursing student assistance programs 1971 fiscal year, 12598
 student loan program, information, 7265
 training act of 1964, project grants, list, 1062
 Veterans Administration nurse, rewarding career, VA hospitals and clinics, nationwide, 17397
 Walter Reed Army Institute of Nursing Program, educational opportunity for students, 3486
see also Nurse Corps, Air Force—Nurse Corps, Army
 Nursing, *see* Nurses and nursing.
 Nursing assistants, *see* Hospital attendants.
 Nursing Division:
 National Institutes of Health, current research grants, supported, list, 11411
 research and research training grants, 8769
 Nursing homes:
 and related facilities, industry wage survey, 819
 extend, law, 317
 care for veterans—
 increase Federal payments, law, 3748
 care under medicaid program in California
 problems in approving and paying for Social and Rehabilitation Service, GAO report, 12583
 extended care facilities—
 cases, analysis of duration of prior hospital stays, 11856
 directory of medicare providers of services under health insurance for aged, 4669
 utilization review, report of program in Montgomery County, Md., 15758
 FHA—assisted nursing homes, survey, 5611
 long-term care—
 facility administration, case study manual, 6527
 under medicaid, trends, hearings, 6783
 mortgage insurance, FHA, 7287
 participating under health insurance for aged, 11857
 providing care and prescribed drugs under medicaid program in California, continuing problems, Social and Rehabilitation Service, GAO report, 14497
 publications, price list, 6132
 residential care enterprises under Fair labor standards act, 10669
 residents, arrangements for physician services, 7585
 veterans dying in VA nursing home care units and community contract nursing homes, duration of stay, analysis, 15945

Nutrias, *see* Coypou.

Nutrients, *see* Nutrition.

Nutrition:
 and dental health, research explores, 6037
 and private industry—
 Federal regulation, new and fortified foods, overseas experience, national nutrition survey, hearings, 521
 food from the sea, hearings, 1743
 Child nutrition act of 1966—
 amend—
 law, 6539, 10909
 report, 9666
 extend—
 law, 12121
 report, 9844
 meals for needy children, provide temporary emergency assistance, 5251
 strengthen and expand, report, 5200
 child nutrition programs, 6313
 handbook for volunteers, 10109
 dietetic-nutritious foods, hearing, 1584
 distribution of nutrients in Weddell Sea, 1968-1969, report, 10857
 dry cereals, nutritional content, hearings, 16045
 education for young children, guide for teachers and aides, 741
 food at work for you, 15440
 food stamps to end hunger, 11956
 foods, nutritive value, 11952
 how food affects you, 7083
 human, Eastern Experiment Station collaborators' conference, abstracts and summaries, 7905
 maternal—
 and course of pregnancy, summary report, 18139
 annotated bibliography, 11564
 National digestive diseases and nutrition acts, hearing, 17712
 nutrition and human needs, national survey, hearings, 521, 1743, 3984, 5278, 9932, 13756, 16082
 nutrition and predictive medicine, hearing, 15916
 nutrition and private industry, hearings, 521, 3984
 nutrition and the aged, hearings, 3984
 nutrition program news (periodical), 2977
 seasonal distribution of nutrients in plants of 7 browse species in Louisiana, 12566
 toward the new, better nutrition from agricultural research, report, 7913
 water nutrients, report of study, 7046
see also Food.
 Nutrition and Human Needs, Select Committee on, Senate:
 extend, report, 1671
 hearings, 521, 1743, 3984, 5278, 9932, 13756, 16082
 investigations and studies, lack of food, medical assistance, and other related necessities of life and health, authorization, report, 5239
 Nutrition, Child, National Advisory Council on, *see* National Advisory Council on Child Nutrition.
 Nutrition Laboratory, *see* Army Medical Research and Nutrition Laboratory.
 Nutritionists, public health, guidelines for home health services, 15757
 Nuts, in family meals, guide for consumers, 9297
 Nuts (machinery), *see* Bolts and nuts.
 Nuttall oak, *see* Oak.
 Nutter, I. Earl, conveying mineral interests in Wagoner County, Okla., to, report, 15862
 Nybakken, G. H., vertical and lateral stiffness characteristics of aircraft tires, 4494

Nye County, Nev., northern, Bates Mountain
Tuff, description, etc., 1910
Nyland, Ted W., high-temperature transient
pressure transducer for use in liquid-metal
systems, 2120
Nylong, phenolic-nylon pyrolysis products,
thermal cracking on passing through
heated char, 8952
Nyrop, Richard F., area handbook for
Rwanda, 4863
Nysmith, C. Robert, discussion of modes of
failure of bumper-hull structures with ap-
plication to meteoroid hazard, 17007
Nyssaceae, *see* Camptotheca acuminata.
Nystagmus, nystagmic responses to angular
acceleration, influence of specific and non-
specific gravi-receptors on, adaptation to
vestibular disorientation, 8040

O

O.A.S., *see* Organization of American States.
O.A.S.D.I., *see* Old age, survivors, and dis-
ability insurance.
O.C.S. *see* Officer candidate schools.
OAA *see* Old age assistance.
Oahe Reservoir, biology of northern pike,
1959-65, 7792
Oahu, Hawaii:
 glimpses of soil and water conservation,
 9141
 marine biofouling studies, oceanographic
 cruise summary, 9044
 principal electric facilities, map, 8629
Oak:
 black oak, California silvical character-
 istics of *Quercus kelloggii* Newb., 8711
 nutall acorns, field germination, 11361
 oak forests of Lake States and their man-
 agement, 5508
 red—
 distribution of diameter growth rates &
 clear stem lengths as basis for select-
 ing superior phenotypes, 16578
 lumber makes good shade-shelter for
 hogs, 16565
 presurfaced 1-inch northern, accelerated
 kiln drying, 4201
 silviculture of oaks and associated species,
 summary, 8703
Oak Grove, Oreg.:
 floods, how to avoid damage, 17934
 Williamette River, Kellogg, and Mt. Scott
 Creeks, flood plain information, 16435
Oak Ridge National Laboratory, case for
National environmental laboratories, re-
port by Ad Hoc Nel Committee, 9937
Oakland, Calif.:
 area wage survey, 7432
 census of transportation, 1967, commodity
 transportation survey production, area
 series, 6434
 Metropolitan Oakland International Air-
 port, climatological summaries, 4764
 preschool program in compensatory educa-
 tion, 7021
Oakland County, Mich., refuse disposal sys-
tem, proposals, final report, 10578
Oakridge, Oreg., flood protection project,
Lane County, 6186
OAR, *see* Aerospace Research Office.
OAS, *see* Organization of American States.
OASDHI, *see* Old-age, survivors, disabili-
ty, and health insurance.
OASDI, *see* Old-age, survivors, and disabili-
ty insurance.
Oates, William H., nuclear power reactors
and population, 8581
Oaths, administration by Defense Depart-
ment civilian employees, authorize, report
1467
Oats:
 futures—
 commitments of traders, 2428
 trading and open contracts, 2685

Oberlin, David W., nomination, hearing, 494
Obesity, calories and weight, pocket guide,
15429
Oblate spheroids, *see* Spheroids.
Obligations, *see* Contracts.
Oblique echoes from large scale horizontal
gradients observed by Alouette-2 topside
sounder, 4512
OER series, 274-278, 1365, 3690-94, 4989-
5002, 6505-15, 8145-50, 9504-9, 10872-
879, 12059-60, 13219-230, 15721-733,
17562-564
O'Brien, Keran:
 calculation of dose and dose-equivalent
 rates to man in atmosphere from galac-
 tic cosmic-rays, 13073
 shielding calculations for broad neutron
 beams, normally incident on slabs of
 concrete, 9391
O'Brien, Muriel J., bibliography of potato
diseases through 1945, with common and
scientific names, 12995
O'Brien County, Iowa, community profile,
14130
O'Brien Dieselectric Corp., relief, 17682
Obscene matter:
 antiobscenity legislation, hearings, 13530
 enforcement report of Postal Inspection
 Service, monthly, 2539
 Federal Communications Commission regu-
 lations (address), 4125
 material sold or offered for sale to minors,
 exclude from U.S. mails as nonmailable,
 hearings, 3884
 obscene or offensive mail matter, require
 designation by sender and provide for
 return of such matter at expense of
 sender—
 hearing, 16083
 report, 16027
 obscenity, hearing, 16083
 offensive intrusion into homes through
 postal service of sexually oriented mail
 matter, protection to public, hearings,
 3888
 pornography and postal service, 17211
 prohibit transportation by interstate facili-
 ties and including mails, report, 13439
 radio and television programming, hear-
 ings, 5258
Observation:
 ionospheric disturbances in Antarctica,
 11275
 littoral environment observation program
 in California, preliminary report, 10000
 observational study of agricultural aspect
 of Arkansas River multiple-purpose
 project, annual report, 10562
 visibility observation methods, analysis,
 1836
 what is an observation? Defense Supply
 Agency handbook, change, 6851
Observatories, *see* Astronomical observato-
ries.
Ocala, Fla., geohydrology of Cross-Florida
Barge Canal, 10167
O'Callaghan, Donal N., relief, 13582
Ocariza, Leonarda B., and daughter, relief,
17661
Occasional papers, National Endowment for
the Humanities, 4557
Occlusions (meteorology), *see* Meteorology.
Occupational classification, *see* Occupations.
Occupational health, *see* Health.
Occupational mental health notes, 2979
Occupational outlook handbook, 11530
Occupational safety aid, 11528
Occupational therapists, employment out-
look, 12675
Occupational therapy, students, for educa-
tional opportunities, 6367
Occupational training, *see* Training.
Occupational wage surveys, *see* Wages.

Occupations :

active airmen, study, 8035
Air Force—
 job inventories, construction and administration, 7952
 occupational handbook for airmen, manual for guidance counselors, 9342
 Army, recruiting & career counseling journal, 3135
 biology and your career, general information, 16827
 career development, Civil defense directors, coordinators, professional advancement program, 15681
 career development program, need for community involvement (address), 5605
 career directory, college level, Illinois, Indiana, Kentucky, Michigan, Ohio and Wisconsin, guide, 9466
 career information—
 health professions, student loan program, 5577
 nursing, scholarship program, 5581
 career information center, working model, 7007
 career opportunities—
 accountants and auditors with Civil Aeronautics Board, 15672
 air traffic control specialists, 9467
 aviation, where career opportunities are bright, student's handbook for film-strip, 7006
 biomedical sciences, Air Force, 9339
 career planning for United States Army Reserve officers, 1229
 Census Bureau, 9458
 Civil Aeronautics Board, economists and transportation industry analysts, 15673
 Coast Guard, 10858
 Commerce Department, 6501, 12057
 management internship for you, 6502
 computer specialists, 244
 dentists, Veterans Administration, 10664
 disadvantaged and handicapped, service to, HEW sponsored, 4050
 ESSA Commissioned Officer Corps, science and service, 10033
 FBI, 7076
 Federal Health Programs Service, 7084
 go Government, 3869
 Government Printing Office, 7257
 health careers, 1049
 health services, research and administration, professional levels, 11753
 Interior Department, directory for college students, 14592
 internal auditor, 14609
 internal revenue aide, 5634
 Internal Revenue Service—
 new dimension in taxation, 16708
 revenue agent, 14615
 tax law specialist, 787
 taxation, 12615
 Maritime Administration, 4394
 medical technology and related biological sciences, Veterans Administration, 17398
 National Labor Relations Board labor-management relations, field examiner, 17146
 Naval Air Systems Command, engineering, imagine what you could do, 4595
 Naval Scientific and Technical Intelligence Center, 9062
 nursing among American Indians, 7298
 past is prologue [qualifying you for IRS], 5657
 physicians, Air Force hospitals, 4839
 programmers, systems analysts, computer operators in Veterans Administration processing centers, 7895
 rehabilitation therapists in Veterans Administration, 1183
 repairman or mechanic, 16869

Occupations—Continued

career opportunities—continued
 VA hospitals and offices, technical clerical & trades careers, 18399
 Veterans Administration—
 career occupational series, 17397
 count your benefits as an employee, 7893
 veterans in Federal service, 13201
 VISTA lawyers, 5332
 women officers in Air Force, 6338
 career thresholds, educational and labor market experience of male youth, 5812
 careers for women, public relations worker, why not be one?, 7900
 conservation foresters, forestry, aids, range managers, employment outlook, 12682
 dairy products industry, trends, 10644
 English and your career, 16859
Federal—
 blue-collar workers, 13202
 careers, projected vacancies, college level, Illinois, Indiana, Kentucky, Michigan, Ohio, and Wisconsin, guide, 9469
 jobs in engineering, physical sciences, & related professions, 17549
 occupational groups and series of classes, handbook, 1350, 2704
 white-collar workers, list of occupations, 15695
 foreign languages and your career, 16860
 highway planner, in FHWA, steps toward career growth program, committee report, 15133
 information communication, suggested curriculum guide, 5352
 job finding techniques for mature women, 6284
 job grading standard, civil service—
 asphalt worker, 6477
 baker, 8125
 cement finisher, 8126
 die sinker, 6478
 leader, 13198
 mason, 6479
 meatcutter, 8127
 office appliance repairer, 6480
 packer, 8128
 painter, 6481
 plasterer, 6482
 roofer, 8129
 supervisors, 13199
 job grading system for trades and labor occupations, 2608, 6475, 8123-24, 15688
 job guide for young workers, 805
 job opportunities, program in business sector, background information, 12376
 job restructuring handbook, 4362
 jobs, jobs, jobs, which one for you? list of reprints from occupational outlook handbook, 12719
 local information, reports by State agencies, list, 1175
 mathematics and your career, facts about training, 16862
 occupational employment statistics, 14667
 occupational guides, 808
 occupational job requirements, forecasting, 14653
 occupational safety aid, OSA LS series, 813, 4370-71, 5819, 12658-659, 14658
 occupations and earnings of family heads in 1969, 1965, and 1959, current population reports, 15652
 oceanography, occupational guide, 808
outlook—
 handbook, 11530
 list of reprints, 12719
 publications, list, 16864
 quarterly, 2980
 science and your career, facts about training, 16865

Occupations—Continued

- skilled trade, train through apprenticeship, 11969
- social science and your career, 16866
- State safety code activity 1967-68, highlights, 16825
- supervisory and administrative management, suggested curriculum guide, 8530
- technician manpower, projected outlook, 1966-80, 8864
- trades and crafts equipment operation and repair examination announcement, amendment, 12047
- trades and labor, job qualification system for occupations, 15690
- see also Employment—Work—also names of occupations, industries, etc.

OCD, see Civil Defense Office.

Ocean:

- acoustic sea bed reflectivity from a submersible submarine, 15046
- atmospheric potential-gradient measurements at sea, 11820
- bioluminescence of sea, USSR study, 16779
- blue fertile field, USSR study, 4334
- dumping, national policy, report to the President—
 - departmental edition, 17729
 - document edition, 17617
- dumping of waste materials into oceans, control, message from the President, 8215
- electromagnetic phenomena in sea, USSR study, 7379
- Federal oceanic and atmospheric organization, program for research development, etc., hearings, 11115, 16043
- importance to Nation's future (remarks), 5838
- Kane 9, global ocean floor analysis and research data, 1009
- man-in-the-sea, sleep requirements, 4398
- man's challenging environment, the seas (remarks), 5427
- marine mining environment, preliminary engineering studies to characterize, 8905
- Naval Oceanographic Office's deep ocean survey project, 1013
- oceanic education, dynamic key to maritime progress (remarks), 5425
- periodic sea waves, use in analyzing theory of scatter of HF radio ground waves, 5392
- radar sea-echo, study of doppler spectra, 4022
- radio polarimetry at sea, USSR study, 1995
- resources, international jurisdiction, interim report, 3862
- science and the sea, 7676
- sea and swell forecasting, interim report, 600
- sea floor trafficability, preliminary study and its prediction, 16452
- sea-level meteorological properties and heat exchange process, trade wind zone oceanography pilot study, 15750
- sea level wind field and wind stress values, trade wind zone oceanographic pilot study, 15752
- sea return at normal and near-normal incidence, study, 12890
- sea roughness effect on bandwidth of radar backscatter, 12889
- sea surface and ocean current temperature observations from meteorological satellites, 4507, 10377
- sea surface, experiment on acoustic reflection, 17187
- simulated ocean radar impulse responses from lunar radar measurements, 12894
- solid-earth and ocean physics, terrestrial environment, 10354
- sovereignty of the sea, 2239

Ocean—Continued

- submarine escape—
 - and immersion equipment, open sea surface evaluation, 12734
 - experimental training for open seas, 12737
- suboceanic lands policy, United Nations special study, hearings, 13725
- territorial sea boundaries, hearings, 12264
- undersea features, standard names, 1906
- vessel at sea, probability density function for future position, 18294
- west African oceanic front, feasibility of monitoring from satellites for fisheries, 3709
- wind driven circulation in shallow sea or lake, equation for calculation, method for obtaining analytical solutions, 16988
- world ocean fisheries, problems, USSR study, 7362
- see also Benthos—Sea ice—Sea water.
- Ocean City, Md., clam survey, to Cape Charles, Va., 9522
- Ocean cruises, see Cruises.
- Ocean currents:
 - and sea surface temperature observations from meteorological satellites, 4507, 10377
 - flow in Gulf of Alaska, fishery oceanography, 17567
- Galveston Bay hurricane surge study, effects of—
 - plan 2 Alpha and plan 2 Gamma barriers on currents, etc., hydraulic model investigation, report, 16448
 - proposed barriers on currents, etc., report, 16447
- Ocean circulation and distribution of sock-eye salmon, 10890
- surface currents as determined by drift card releases on Continental Shelf off northwestern U.S., 11891
- tidal currents, description, etc., 3678
- see also Gulf Stream.
- Ocean Eagle (SS):
 - grounding and breaking up with no loss of life, San Juan, P.R., harbor, Mar. 3, 1968, marine casualty report, 7657
- Ocean Grove, N.J., older Americans, sources of community support for Federal programs, hearings, 17686
- Ocean stations, see Weather stations.
- Ocean temperature:
 - and distribution of Pacific salmon, fishery, oceanography, 3711
 - Gulf stream, anomalies, etc., for western North Atlantic, monthly summary, 2910
 - vertical sections in trade wind zone of Central North Pacific, Feb. 1964 to June 1965, 1369
- Ocean, Tongue of the, see Tongue of the Ocean.
- Ocean transportation, see Shipping.
- Oceania:
 - agricultural situation, 1969 review and 1970 outlook, 8505
 - contributions to hydrology of Asia and Oceania, 16641
- Oceanographer (ocean survey ship):
 - global expedition, 1967, cruise narrative and scientific program, 8575
- Oceanographers, employment outlook, 14673
- Oceanographic Data Center, National, see National Oceanographic Data Center.
- Oceanography:
 - aspects in Alaska, hearings, 17717
 - Atlantic-Pacific Oceanographic Laboratories, collected reprints, 802
 - bibliography of selected activation analysis literature, 11740
 - Caribbean and adjacent regions, bibliography, 18283
 - chemical, foam separation as tool, 4629
 - conquest of the depths, USSR study, 11517

Oceanography—Continued

Deep Sea Drilling Project, cruises of drilling vessel Glomar Challenger—
Dakar, Senegal to Rio de Janeiro, Brazil, 9033
Hoboken, N.J., to Dakar, Senegal, 6069
Orange, Tex., to Hoboken, N.J., 1004
East coast of United States, 1966 observations, 1359
EQUALANT surveys, tropical Atlantic tuna larvae collected, 5010
fishery oceanography, 3711, 5009, 9530, 10890, 17567
IGOSS ocean data HF transmission system, design considerations for development, 8573
Kane 9, global ocean floor analysis and research data, 1009
Kara Sea, oceanographic survey results, 1965, summer and fall, 7681
marine atmosphere detection and characterization of surface-active material, 12898
Marine resources and engineering development act of 1966, amend—
hearings, 1595, 8435
laws, 13324, 15799
reports, 13456, 13655-656
marine science—
affairs, selecting priority programs, report—
departmental edition, 9001
document edition, 8212
committed to the future (remarks), 10881
selected readings, list, 1021
mobilizing to use the seas, 12904
model GDR-1C-19-T Giff depth recorder, instrument fact sheet, 15050
model OSR-19T oceanographic survey recorder, instrument fact sheet, 15048
model RS7-B portable induction salinometer, instrument fact sheet, 15049
National Oceanographic Data Center—
publications, 17178-181
quarterly accessions, 2969
National Oceanographic Instrumentation Center, instrument fact sheets, index, 15047
national oceanographic program, 1969, hearings, 1595
Naval Oceanographic Office, annual report, 17177
North Atlantic Ocean, ice, atlas, 4610
North Pacific Ocean Station—
November, observations, 3684
Victor, observations, 262
Norwegian Sea, summer oceanographic features, 7680
observations, North Atlantic monitoring sections, 1964-66, 9486
occupational guide, 808
ocean frontiers, U.S. Navy & oceanography, 17201
oceanic education, dynamic key to maritime progress (remarks), 5425
oceanographic cruise summary—
marine biofouling studies off Oahu, Hawaii, 9044
Panama City, Fla., 15045
Ross Sea, Antarctica, 4598
oceanographic data—
instruction manual for obtaining, change, 10490
transmission system using HF radio, basis and application of simulation model, 14350
oceanographic institutions, need for improved administration of Federal support of shore facilities and vessels for research activities at National Science Foundation, GAO report, 16592
oceanographic investigation, Cay Sal Bank, Bahama Islands, 14347
oceanographic reports, 262, 1359, 3684, 6499, 9486, 10857, 13215

Oceanography—Continued

oceanographic research and survey ships, economies obtainable by increasing days at sea, Environmental Science Services Administration, GAO report, 4218
oceanographic ship operating schedules, 9002
RAPLOT, computer program for data processing and graphical display for radioisotopic sand tracer study, 16408
Sea grant college and program act, amend—
hearings, 8435
law, 13324
reports, 10994, 11079, 13655
seasonal variation of oceanographic conditions from Ocean Station Victor to coast of Japan along 34°N latitude, 262
seismic effects associated with underwater explosive research facility, 10327
ships, Nov. 1969-Apr. 1970 operating schedules, 2140
technical literature guide, annotated bibliography, 17173
tides, storm surges, waves, and breakers, oceanographic phenomena, summary of selected reference material, 14343
trade wind zone oceanography pilot study, 15750, 15752
Weddell Sea, Coast Guard report, 6499, 13215
Ochs, G. R., measurements of 0.63 μ m laser-beam scintillation in strong atmospheric turbulence, 8576
Oconee County, S.C., appraisal of potentials for outdoor recreational development, 1105
O'Connor, Charles M.:
cotton and man-made fiber textiles, industry wage survey, 818
industry wage survey, contract cleaning services, 4376
OCS, *see* Criteria and Standards Office—Officer candidate schools.
Oculometer, breadboard remote, design, 7506
Oden, Laurence L., phase relations, alkaline earth fluoride-yttria systems, 18166-167
Odessa, Tex., area wage survey, 10294
Odonata, *see* Flies.
O'Donnell, John A., narcotic addicts in Kentucky, 1064
O'Donnell, Patricia M., kinetic study of fluorination of silver, 10410
Odontoceti, *see* Cetacea.
Odors:
diesel exhaust, sensory evaluation, 7561
olfactory coding of noxious substances to assure aversive responses in young children, feasibility, 15755
Oecophoridae, *see* Microlepidoptera.
Oehmann, John C., explorative freeway cost earnings study, 18311
OEO, *see* Economic Opportunity Office.
Offenses, *see* Crime and criminals.
Office appliance repairers, *see* Office machine servicemen.
Office equipment, *see* Office furniture and equipment.
Office furniture and equipment:
business machines, Kennedy Round, special report, 8824A
census of manufactures, 1967, industry statistics, 15595, 17528
census of transportation, 1967, commodity transportation survey, shipper group, 3605
equipment for use in offices of members, officers, and committees of House of Representatives, provide—
law, 1404
reports, 380, 1693
Federal item identification guides for supply cataloging, supplements, 2597
House of Representatives, electrical and mechanical office equipment, regulations, 8303

INDEX 1970

Office furniture and equipment—Continued
 Library of Congress, authority to purchase, transfer from Architect of Capitol to Librarian of Congress—law, 12108
 reports, 6889, 11081
 office machines, need to determine most economical method for obtaining maintenance and repair services, Veterans Administration, GAO report, 16593
 shipments by manufacturers, current industrial reports, 3634
 Office machine operators, employment outlook, 14686
 Office machine servicemen :
 employment outlook, 12702
 job grading standard, civil service, 6480
 Office machines, *see* Office furniture and equipment.
 Office supplies :
 and devices, Federal item identification guides for supply cataloging, supplements, 2597
 census of manufactures, 1967, industry statistics, 15611
 Office workers, clerical, pay, national survey, 5822
 Officer candidate schools :
 education in leadership, U.S. Army OCS, 3462
 Marine Corps officer training, effects on serum uric acid levels, 14762
 Quantico, Va., value of circuit training, 16882
 Officers, *see* Armed forces.—also names of services to which officers belong.
 Officers' Reserve Corps, Army, career planning, 1229
 Offices, preventing office accidents, occupational safety aid, 12658
see also Government offices.
 Official gazette of Patent Office, 2982
 Ogallala formation, and Glorieta sandstone in Oklahoma Panhandle and adjoining areas as related to underground waste disposal, hydrogeologic information, 1912
 Ogata, Akio, theory of dispersion in granular medium, 10171
 Oglala Sioux Indians, Pine Ridge Reservation conditions, that these people may live, 4295
 OGO, *see* Orbiting Geophysical Observatory.
 Oh, Kyung Ae, relief, 12317, 17592
 OH, *see* Hydroxyl.
 O'Handley, Douglas A., determination of mass of Jupiter from motion of 65 Cybele, 17170
 O'Hara, Edward, communities in action (periodical), 2431
 Ohio :
 apples, marketing order authority, extend—
 law, 13316
 report, 12223
 Bedford shale, Berea sandstone, and Sunbury shale, age, 5541
 career directory, college level, 9466
 census of business, 1967—
 major retail centers standard metropolitan statistical areas, 9425
 retail trade, merchandise line sales, 13115
 selected services, area statistics, 3546
 wholesale trade, area statistics, 183
 census of construction industries, 1967, statistics, 17493
 census of governments, 1967 statistics, 3584
 census of transportation, 1967, commodity transportation survey, 9442
 climatological data, 2409
 comprehensive elementary teacher education program, feasibility, 11222
 county business patterns, 4932, 13168
 electric rate book, 14377
 Federal careers projected vacancies, college level, 9469

Ohio—Continued

fishery products, wholesale dealers, list—
 Great Lakes area, 10894
 Mississippi River and tributaries, 9565
 forest resource, preview, 676
 Hill Country, timber resources, 5518
 landings, fishery products, 2883, 8157
 mineral industry, minerals yearbook chapter, 4451
 mineral materials for chemical manufacturing, survey of supply and demand in Ohio River Basin, 8897
 minority construction contractors located in selected cities, list, 8794
 postal map, 2197
 precipitation data, hourly, 2718
 primary wood products output, 10138
 Public law 566, watershed progress report, 10563
 southeastern, pulpwood growing investment, opportunities, 11362
 State labor laws affecting womens, summaries, 4793
 storm damage inspection, hearings, 5175
 timber resources, 14483
 water pollution of Lake Erie and its tributaries, etc., conference proceedings, 5469-70
 water resources, 4261
 West Virginia-Ohio air pollution control compact, consent of Congress, report, 5203
 women—
 family and property law, summary, 4792
 labor laws, summary, 15390
 Ohio Northern University :
 100th anniversary—
 commemorative medals—
 law, 15772
 reports, 12222, 13675
 congratulations of Congress, report, 12334
 Ohio River and Valley :
 basin—
 general information, 16440
 mineral materials for chemical manufacturing supply and demand by industry, survey, 8897
 surface water quality, 10194
 Hamilton County, Ohio—
 flood plain information, 16427
 floods, 17944
 Clermont County, Ohio—
 flood plain information, 16426
 floods, 17943
 Ohio River summary and forecasts, 2986
 small boat harbors, landings, ramps, etc., 16439
 terminals, locations, etc., list, 16443
 Ohio River basin, *see* Ohio River and Valley.
 Ohio River Division Laboratories, technical reports, 4084
 Ohio State University, 100th anniversary, congratulations of Congress, reports, 12333
 Oil, *see* Fuel oil—Oils—Petroleum.
 Oil and Gas Office :
 appropriations, 1970, law, 314
 press releases, 3079
 Oil fields, *see* Petroleum.
 Oil Import Administration, press releases, 3080
 Oil Import Appeals Board, decisions, 2987
 Oil paint, *see* Paints
 Oil pipe lines, *see* Pipe lines.
 Oil pollution of rivers, harbors, etc., *see* Water pollution.
 Oil shale :
 solid fuels, simultaneous DTA-TG-EGA for, Mines Bureau apparatus for thermal analysis, 16917
 gas combustion retorting of, under Anvil
 Points lease agreement, 866

Oil shale—Continued

- Green River formation—
 - lithology and oil shale correlations in Piceance Creek basin, Colo., 11583
 - oil shale sections, dawsonite and nahcolite analyses, Piceance Creek basin, Colo., 18172
- hydraulic testing and sampling of USEM-AEC Colorado core hole 3, Rio Blanco County, Colo., 7239
- industry, potential applications for nuclear explosives, 4406
- minerals, use of centrifugal separation to investigate how kerogen is bound to them, 7499
- Mines Bureau publications, 1917-68, list, 848
- oil-shale fracturing tests near Rock Springs, Wyo., evaluation, 11584
- research, 1967-68, by Mines Bureau, 5953
- oil tagging system study, 14412
- Oil wells, *see* Petroleum.
- Oilfields, *see* Petroleum.

- Oils:**
 - fats, census of manufacturers, 1967, industry report, 17513
 - char energy development, interim report, 10851
 - chemically modified oil products for industrial uses, publications and patents, 1962-69 list, 17423
 - compositional studies, publications and patents, 1962-69, list, 17419
 - conversion of urban refuse to oil, 10338
 - cottonseed salad oil, storage temperature effects on quality, 10688
 - current industrial reports, 2475
 - fats and oils situation, 2567
 - Federal item identification guides for supply cataloging, supplements, 2495
 - foreign agriculture circulars, 2657
 - oil-producing formations, Appalachian area, lithologic descriptions, 11581
 - oil treatment of raisins, effect on numbers of insects infesting raisin packages, 10679
 - problem of birds contaminated by oil and their rehabilitation, 12934
 - processing, engineering studies, publications and patents, 1962-69 list, 17420
 - production, consumption and factory and warehouse stocks, current industrial reports, 4936
 - publications and patents, list, 7903
 - soybean salad oil, effects of storage temperatures on quality, 10689
 - thermal oil recovery, optimization of carbon deposition experiments by statistical analysis, 18170
 - vegetable oil crushers, current industrial reports, 4937
 - waste oil—waste water mixtures, treatment, 16524
 - see also* Fish oil—Fuel oil—Lubricants—*also* names of oils.

- Oilseeds:**
 - compositional studies, publications and patents, 1962-69 list, 17419
 - crops, research, Northern Regional Research Laboratory, reviews and general articles, publications, 1962-69, list, 17424
 - processing, publications and patents, list, processing, 7903
- Ok Yon Kirsch, *see* Kirsch, Ok Yon.
- Okaloosa County Board of Public Instruction:
 - real property conveyance to—
 - law, 13322
 - reports, 372, 13652
- Okamura, Arnold T., Hawaiian Volcano Observatory, summary, 2706
- Okanogan County, Wash., community profile, 6947
- Okanogan National Forest, 1969 environmental management, 8686

- O'Keefe, Daniel A., selection of anode materials and operating conditions for electrowinning beryllium, 5880

Okinawa:

- preparatory measures for transfer of administrative rights, agreement with Japan, 15301
- tracking station, agreement with Japan, 4748
- transporting military mail from Okinawa to points in southeast Asia, reductions achieved in cost, Defense Department, GAO report, 12586
- U.S. security agreements and commitments abroad, hearings, 13735

Oklahoma:

- census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 8063
 - retail trade, merchandise line sales, 11994
 - selected services, 1298
 - wholesale trade, 1305
- census of construction industries, 1967 statistics, 15561
- census of Governments, 1967 statistics, 3585
- census of manufactures, 1967 statistics, 15584
- central, behavior of winds in lowest 1500 feet, 17947
- Cherokee, Chickasaw, Choctaw, and Seminole Nations, estates of intestate members, disposition—
 - law, 9605
 - reports, 6606, 8368
- climate, 11265
- climatological data, 2409
- counties, population, estimates, 4947
- county business patterns, 206, 10806
- Federal laws relating to administration of affairs of Five Civilized Tribes and Osage Tribe, amend, report, 9832
- Indian vital statistics, 7296
- land conveyance to Five Civilized Tribes, report, 8370
- mineral industry, minerals yearbook chapter, 4452
- Mississippi River and tributaries, fishery products, wholesale dealers, list, 9556
- natural resources, 767
- NSSL-WKY meteorological tower, roughness lengths, evaluation, 17946
- Panhandle and adjoining areas, Glorieta sandstone and Ogallala formation, hydrogeologic information as related to underground waste disposal, 1912
- Picher Field, geology and ore deposits, 5549
- precipitation data, hourly, 2718
- production potential of copper deposits associated with permian red bed formations, 16912
- reducing cooperative cotton ginning costs, 3 suggested ways, 4100
- '69 gateway to the seventies, soil conservation, etc., 7773
- wilderness, designate certain lands, hearings, 13743
- Oklahoma City, Okla.:
 - area wage surveys, 5823, 18128
 - intrastate air quality control region, report for consultation, 8970
- Oktibbeha County, Miss., community profile, 16324
- Old age assistance:
 - cost standards for basic needs and percent of standards met, 6021
 - money payments to recipients, 17053
 - OAA recipients in 1965, health conditions and health services, 11757
- Old age benefits, *see* Old age, survivors, and disability insurance.

INDEX 1970

- Old age insurance, social security rulings, 3206, 10554
- benefits, tables for determining, 9118
- cash benefits to persons aged 65 or over, 1948-70 and Feb. 1970, concurrent receipt, 14937
- family benefits under 1969 amendments, 12919
- increase benefits, etc., social security amendments—
 - brief summary, 13549
 - law, 12129
 - reports, 1514, 3817, 8264, 9706
- long-range cost estimates for system, 7744
- system—
 - amendments, summary of decisions, press release, 15951
 - increase benefits, improve computation methods, and raise earnings base hearings, 16050, 17700
- Old-age, survivors, disability, and health insurance:
 - automatic adjustment of earnings base, 6166
 - benefit statistics, monthly, 2897, 18328
 - comparison of actual experience under OASDHI system with short-range cost estimates, 15166
 - interstate migration of aged beneficiaries, 7750
- Old Dominion Sugar Corp., SBA lease guarantee, hearings, 12285
- Old Guard, history of 3d Infantry regiment, 9350
- Old house borer, 9300
- Old River Lock, finite element analyses, 16445
- Older persons, *see* Aged.
- Olefins resins, polyolefin membranes for reverse osmosis, development, 10222
- Oleomargarine, serving, in public eating places, identification options, hearing, 15917
- Olfactory sense, *see* Smell.
- Olliger, Arthur J., relief, 12315, 13388, 13392
- Oliver County, N. Dak., community profile, 14131
- Olives, marketing orders to include advertising hearings, 15882
- Ollerhead, J. B., application of theory to axial compressor noise, 12757
- Olsen, D. E., objective minimum temperature forecasting for Helena, Mont., 1838
- Olsen, Robert, evaluation of inflatable falling sphere density data, 13039
- Olsen Creek, Prince William Sound, Alaska, biological characteristics of intertidal and fresh-water spawning pink salmon, 10897
- Olson, Douglas G.:
 - analysis of complaints in selected automobile insurance markets, advisory report, 15354
 - insolvencies among automobile insurers, advisory report, 15358
- Olson, Grant:
 - basic data on economy of Norway, 9504
 - foreign trade regulations of Norway, 5001
- Olson, James J., mine roof vibrations from underground blasts, 5872
- Olson, Keith S.:
 - bromine, 16888
 - mineral industry of Wisconsin, 4470
- Olson, Pauline T., summary of SIMPO-1 model development, 9365
- Olson, R. H., long-range forecast of geomagnetic activity, 1970-73, 10026
- Olson, Robert A., geologic hazards and public problems, conference proceedings, 5362
- Olson, Wayne L., extent and price effects of floor trading in New York Mercantile Exchange potato futures market, 13247
- Olstad, Walter B., stagnation-point solutions for inviscid radiating shock layers, 12791
- Olzewski, George J.:
 - construction history of Union Station, Washington, D.C., 12865
 - Franklin Park, Washington, D.C., 15026
- Olympic games:
 - hold 1976 summer and winter games in Los Angeles, Calif., and Denver, Colo., welcome athletes and delegations—law, 5050
 - report, 1622, 3843
- Olympic National Forest, 1969 report, 14454
- Olympic Peninsula, timber resources, 8715
- Omaha, Nebr.:
 - area wage survey, 4380
 - interstate air quality control region, report for consultation, 8971
- Oman, R. M., research and development program on cold cathode magnetron ultrahigh vacuum gage, 2070
- Oman, *see* Muscat.
- Omega navigation system, *see* Navigation.
- Omnidirectional antennas, *see* Antennas.
- Omniranges:
 - Doppler VOR installation drawings, 17960
 - interference predictions for VHF/UHF air navigation aids, 4093
 - V/STOL aircraft, a VOR/DME error model, survey of general coverage nav aids, 10359
- On being educated in 1991, (address), 16400
- On forecasting systems, 5748, 7351
- On guard, Motor Carrier Safety Bureau, bulletin, 2988
- On-line parsing of hand-printed mathematical expressions, 2061
- On-line programming system, 16939
- Oncogenic viruses, *see* Viruses.
- Oncorhynchus, *see* Salmon.
- Oncorhynchus nerka, *see* Salmon..
- One of sixteen million, 7269
- "One small step . . . one giant leap", 12832
- One-third of nation's land, 11837
- Oneida County, N.Y., community profile, 14132
- O'Neill unit, *see* Missouri River Basin project.
- Onondaga County, N.Y., community profile, 14133
- Onslow County, N.C., community profile, 14134
- Ontario, Calif., area wage survey, 8872
- Ontario County, N.Y., community profile, 14135
- Ontario, Lake:
 - south shore, Fort Niagara State Park, engineers report—departmental edition, 10013
 - document edition, 9624
- Ontiveros, Robert J., experimentation and evaluation of improved stall warning equipment, 8602
- Ontonagon River, and Valley, basin, flood of Aug. 1942, description, 8733
- Opacity probability distribution functions for carbon monoxide at elevated temperatures, 5977
- Operating engineers, construction, employment outlook, 14702
- Operation breakthrough, mass produced and industrialized housing, bibliography, 10214
- Operation breakthrough, questions and answers, 11435
- Operation Deep Freeze, *see* Antarctic regions.
- Operation Golden Eagle:
 - Golden Eagle Program, extend—hearings, 8304
 - law, 12131
 - report, 6688, 9663
- Operation Henne (high energy neutron reactions experiment):
 - neutron spectrometry, 3488
- Operation Prairie Flat:
 - Project LN314, dynamic response of model buried field shelter, 10020, 11258

- Operation Red Dog, study of fluid-bed combustion and potential uses of anthracite culm-bank material, 1358
- Operations (surgical), *see* Surgery.
- Operations Research, *see* Administrative management.
- Ophthalmic lops and lenses, 4013
- Ophthalmic products, census of manufactures, 1967, industry statistics, 17532
- Opinions, *see* names of courts, etc., rendering opinions.
- Oppenheim, Edward E., defense management journal, 2495
- Opportunities for research at National Cancer Institute, 11750
- Opportunities in Federal service for veterans, 13201
- Optical communications:
 photon counting, problem in classical noise theory, 10413
 space applications, workshop proceedings, 5912
- Optical couplings, *see* Couplings.
- Optical equipment, *see* Optical instruments and apparatus.
- Optical illusion, spiral aftereffect, some influences of visual angle and retinal speed on duration and intensity of illusory motion, 8036
- Optical instruments and apparatus:
 electro-optical aids to night vision, effect of vibration on performance, 2044
 industrial plant equipment handbook, 13778
 optical goods, trade and tariff information summaries, 10639
 optical telescope technology, workshop symposium, 14840
- Optical measurements:
 approach guidance method using single onboard measurement, 18202
 new optical test procedure for measuring smoke from various wood products, determining utility, 16573
 on board, simple method of using to predict orbit established after lunar-ascent-transfer orbit, 5937
 optical crossed-beam method, use for turbulence measurements in supersonic, shock-free jets, 5917
 optical study of sonic and supersonic jet penetration from flat plate into Mach 2 air-stream, 12778
- Optical mechanics, *see* Mechanics (person).
- Optical observations, preflight optical evaluation of right-hand windows of Gemini missions VII, VIII, IX, and XII, 909
- Optical radar, *see* Radar.
- Optical spectra, *see* Spectra.
- Optical systems:
 coherent, Fourier transform representation of ideal lens, 5976
 optical altimeter receiver systems study and design for spaceborne laser altimeter, 5901
 radio/optical/strapdown inertial guidance study for advanced kick stage applications, summary, 4497
- Opticians, dispensing, employment outlook, 14708
- Optics:
 active optics concept, development using thin deformable mirror, 14818
 atmospheric, problems, 11704
 nonlinear electrodynamics and optics II, wave equations approximating precise solutions for, USSR study, 8007
 optical analysis of photoemission, 4520
 optical correlation of laser schlieren signals, direct measurement of most probable preferred angular velocity of turbulent structures, 17006
 optical parametric up-conversion processes in nonlinear crystals, computer program to analyze, 2179
- Optics-Continued
 thermal defocusing of CO₂ laser beam in air doped with SF₆, 17193
- Optimal control:
 adaptive random-search algorithm for implementation of maximum principle, 5947
 linear time optimal control problem from a calculus of variations point of view, 11619
 singular extremals in optimal control theory and calculus of variations, 10356
- Optimal processes, in conflict situations, USSR study, 12625
- Optimal transfers between close elliptical orbits, 950
- Optimization:
 antennas, high-efficiency-low noise, basic electronic characteristics, USSR study, 18110
 carbon deposition experiments in thermal oil recovery by statistical analysis, 18170
 digital optimization techniques for automatic analog computer scaling, 10381
 multi-effect multi-stage flash distillation system, 12608
 optimizing electric-furnace smelting processes, methods, 11578
 reverse osmosis tubular modules, 1947
 self-acting thrust bearings for load capacity and stiffness, 14886
 TRANSOP model methodology, 8632
- Optometrists:
 Army Medical Department early commissioning program, 9370
 employment outlook, 18829
- Optometry:
 Health training improvement act of 1970—
 hearings, 9924
 report, 13651
- Oral contraceptives, *see* Contraceptives.
- Oral health, *see* Mouth.
- Orange, Tex.:
 area wage survey, 16850
 census of transportation, 1967, commodity transportation survey production, 6431
- Orange County, Calif.:
 San Juan drainage basin, sediment discharge preliminary determination, 8738
 water district, water quality monitoring, evaluation, 7236
- Orange County, Fla., Little Wekiva River, flood plain information, 16421
- Orange County, N.Y., community profile, 14137
- Orange County, N.C., community profile, 14136
- Orange juice, frozen concentrated, futures trading and open contracts, 2682-83
- Oranges:
 biphenyl residues, decay, and soilage in oranges, effect of carton ventings, barriers, and biphenyl dosages during storage, 28
 fresh, sold in selected markets, prices and spreads, 10891
- Orbiting Astronomical Observatory thermal test program, 18981
- Orbiting Geophysical Observatory, OGO program bibliography, supplement, 5981
- Orbitron gages, orbitron, ultrahigh vacuum gauge research and development program, 2069
- Orbits:
 Brouwer's artificial satellite theory application to computation of state transition matrix, 14875
 circular synchronous equatorial orbit for smaller-than-optimum apogee motors, optimum trajectories to, 16995
 close elliptical, optimal transfers between, 950
 closed distant stationary orbits determined from range rate, method for determination of accuracy, 12818

INDEX 1970

Orbits—Continued

- intercomparison of minitrack and optical tracking networks using GEOS I long-arc orbital solutions, 5919
- interplanetary and orbital trajectories parametric design, with examples for 1973-77 opportunities, 14880
- lunar-ascent-transfer orbit, simple method of using onboard optical measurements to predict orbit established, 5937
- lunar beacons used in lunar orbit estimation, 14865
- Newtonian-type integration coefficients and some applications to orbit calculations derivation, 18201
- numerical integration in multirevolution steps, 16965
- polar-orbit satellites, inclination perturbations, 1030
- preliminary orbit determination methods, numerical evaluation, 12770
- second class, earth-moon field, $X_r=1.00$, survey, 2089
- slowing rotating point-mass vehicles connected by massless tether and in circular orbit, dynamics, 4514
- zero-rank effects in non-singular vectorial elements of planetary motion, determination, discussion and potential application of Hill's method of secular perturbations, 11632
- Order statistics and their use in testing and estimation, 9340
- Order testing and their use in testing and estimation, 9341
- Orders, *see* names of departments, etc., issuing orders—*also* subjects.
- Ordillas, Anita, relief, 12306, 17589
- Ordinates, *see* Coordinates.
- Ordnance, and accessories, census of manufactures, 1967 industry statistics, 17511
- see also* Atomic ordnance—Cartridges—Fire control (gunnery).

Oregon :

- census of business, 1967—
 - major retail centers, standard metropolitan statistical areas, 8064
 - retail trade, merchandise line sales, 13116
 - wholesale trade, 184
- census of governments, 1967 statistics, 3586
- census of manufactures, 1967 statistics, 17506
- central—
 - Crooked River irrigation project, 1960-68, mosquito problems associated with development, report on study, 1035
 - forest land use and streamflow, 8708
 - Newberry Crater, Deschutes National Forest, 8091
 - climatological data, 2409
 - coast pilot, supplement, 6490
 - coastal dunes, stabilization, 9164
 - county business patterns, 207, 10807
 - discover national forests, 671
 - electric rate book, 1856
 - elementary teacher education, managing development, implementation and operation of model program, project report, 11226
 - fishery products, wholesale dealers, list, 3716
 - forest and range soils research, bibliography, 8706
 - landings, fish and shellfish, 12062
 - mineral industry, minerals yearbook chapter, 4453
 - precipitation data, hourly, 2718
 - Rogue River, wild life and scenic river plan, 1434
 - small watershed projects, program, hearing, 12382, 17718
 - snow survey measurements, 1928-67, summary, 2227
 - soil and water conservation districts law, 17299

Oregon—Continued

- solid waste disposal from coal mining, 2048
- southern, sediment yield and land treatment, 15449
- southwestern—
 - ammonites from Buchia zones, 10182
 - Jurassic (Tithonian) and Cretaceous Buchia zones (series), 4249, 10182
- Territory, 1849-1907, Interior Dept., appointment papers, microcopy, pamphlet to accompany, 11728
- water resources—
 - data, 1915
 - investigations, 8756
- water supply outlook and snow surveys, 3342, 18338
- western—
 - laminated root rot of Douglas-fir, 18025
 - porcupine, status, review, 7789
- western Cascades, 3 small watersheds, hydrologic properties of soils, 4186
- wilderness, designate certain lands, hearings, 5268
- Oregon Caves National Monument, general information, 11793
- Oregon County, Mo., community profile, 17837
- Orenstein, Glenn S., model tests of steel tunnel supports, 16446
- Ores :
 - and primary products, Federal item identification guides for supply cataloging, supplements, 2596
- deposits—
 - Bureka and adjoining districts, San Juan Mountains, Colo., 10176
 - Picher Field, Okla. and Kans., 5549
- extraction by modified block-caving method and fracturing of hard rock with nuclear explosives, 10329
- geology and ore deposits of central York Mountains, Western Seward Peninsula, Alaska, 4230
- principles of leaching valuable components from ores, USSR study, 5795
- see also* names of metals or minerals.
- Oresund, sailing directions, change, 6082
- Organ Pipe Cactus National Monument, Blankenship Ranch, Ariz., historic structures report, 12870
- Organic acids, technical grade, military standard, 1779
- Organic act of Virgin Islands, *see* Virgin Islands.
- Organic compounds :
 - organic chemical compounds—
 - liquid, technical grade, military standard, 8486
 - solid, technical grade, military standard, 8487
 - organic solvent, emissions from stationary sources, control techniques, 5991
 - synthetic organic chemicals, production and sales, 1171, 11909
 - crude products from petroleum and natural gas for chemical conversion, 4767
 - cyclic intermediates, 7855
 - dyes, 18381
 - elastometers, 18382
 - flavor and perfume materials, 4768
 - medicinal chemicals, 4769
 - miscellaneous chemicals, 10640
 - pesticides and related products, 1172, 15347
 - plasticizers, production preliminary report, 2264
 - plastics and resin materials, 7856
 - rubber-processing chemicals, 18383
 - surface active agents, 10641
 - tar and tar crudes, 11910
 - synthetic organic chemicals production preliminary report, 3034
- Organisms, human prolonged limitation of mobility and influence, problems of space biology, 18227

Organization:
and description of complex data through analysis in physiological psychology and cell biology, research, 2148
Assistant Secretary for Model Cities, HUD handbook, 16663
Consumer and Food Economics Research Division, 6292
see also Planning.

Organization analysis, *see* Job analysis.

Organization charts:
Air Force, 2318
Army Department, 2708

Organization in industry, *see* Administrative management.

Organization of American States:
charter, amendment, agreement, protocol, 10616
U.S. participation, review, hearings, 8291

Organization of Government of District of Columbia, *see* District of Columbia Commission on Organization of Government.

Organizational and DS maintenance manual for survival kits, Army aircraft, 6364

Organizations:
community, involvement with employment of mentally restored (periodical), 2772
contributions to which are deductible for income tax purposes, list, supplements, 2466
data interests of local agencies, census use study, 8076
national, drug abuse information programs supported by, 7610
Spanish speaking, in U.S., directory, 13095
statewide community organization for aged, project report, 12959
subversive, investigation, hearings, 8416, 9920, 13747, 17707
tax exemption, how to apply, 5645
voluntary, drug abuse information, education and rehabilitation programs supported by, 7609
women's, common goals and objectives for future, report of consultation, 10675
see also International organizations—Non-profit organizations

Organized crime, *see* Crime and criminals.

Organochlorines:
insecticides, economic consequences of restricting use on cotton, corn, peanuts and tobacco, 6993
organochlorine insecticides acute toxicities to estuarine fishes.

Organophosphorus compounds:
organophosphorus inhibitors, effect of structure on degree of reactivation of inhibited cholinesterase, USSR study, 16781
organophosphorus insecticides acute toxicities to estuarine fishes, 15277
organophosphorus pesticide, effects on reproduction in rat, 11980

Orgilus Haliday, *see* Wasps.

Oriel, Steven S., uppermost Cretaceous and Tertiary stratigraphy of Fossil basin, southwestern Wyoming, 11397

Oriental art, *see* Art.

Orientation:
birds—
certain problems in studying, USSR study, 11497
USSR study, 11512
counseling, and assessment in manpower programs, 807
naval, 9054
urban counties, focus for area development analysis, 9970, 11191
see also Echolocation (physiology).

Orifices (aircraft), *see* Jets.

Orleans County, N.Y., community profile, 14138

Ornamentation, *see* Decoration and ornament.

ORO, *see* Regional Operations Office.

Orofino, T. A., development of hollow filament technology for reverse osmosis desalination systems, 11447

Orogrande district, Idaho, low-grade gold deposit, investigations, 16915

Orphans, veterans children, increase dependency and indemnity compensation law, 312

ORTC—III in-reactor experiment, 9386

Orthopedics, societies of orthopedists, report on work, USSR study, 2011

Ortugilo, Carmen, coal carbonization studies, altering composition and yield of volatile products by increasing free space above charge, 10335

Osage County, Mo., community profile, 17838

Osage Indians, administration of affairs, amend Federal laws report, 9832

Osborn, Ben O., soil conservation, devoted to wise use of land and water resources, 3207

Osceola County, Iowa, community profile, 14139

Oscillations:
coupled thermally-induced transverse plus torsional vibrations of thin-walled cylinder of open section, 12826
liquid, damping of, in rectangular tanks, effect of wall roughness, 5973
nonlinear fluid, in partially filled axisymmetric container of general shape, 11657
nonlinear theory, perturbation method, 7520
nonuniform plasmas, solutions of Vlasov-Poisson equations, 1818
response of gas-purged manometers to oscillations in water level, 8760
stability of constant-gain systems with vector feedback, 12777
velocity fluctuations behind oscillating vanes, experimental investigations, 936
see also Vibration.

Oscillators:
NRL receiving system, design of digital control unit, 6098
semiconductor oscillators at microwave frequencies, tabulation of data, 7577

Oscilloscopes, oscilloscopic measurements in high-speed experiments, improvements, 17039

Osmosis:
reverse—
desalination systems, application of hollow filament technology, 11447
engineering and economic evaluation study, 7304
food processing, symposium held Jan. 23, 1969, Albany, Calif., report, 3374
hydrodynamic aspects of desalination, 11444
membranes—
by direct casting on porous supports, 7308
cellulose acetate, improved, development, report, 7307
containing graphitic oxide, final report, 10231
development, 10226
for desalination—
development, 10223
synthetic, 10225
hydrocasting, 11443
improved, research, 770, 1951, 18701
modified polyolefin membranes, development, 10222
oriented cellulose, and relationship between morphology and salt rejection, 5622
polymer, determination of surface and colloidal conditions which can lead to high salt rejection, 5614
porous glass, research, 5621
skinned type membrane, mechanism, for formation, 1956
sulfonated polyphenylene oxide, development, 11448

INDEX 1970

- Osmosis—Continued
reverse—continued
 plant for maple sap concentration, 10680
 reverse osmosis system, test cell for measuring concentration polarization boundary layer in, 8806
 treatment of acid, mine drainage, 14411
 tubular module optimization, 1947
- Ospreys, osprey management area plan, Crane Prairie Reservoir, Deschutes National Forest, Oreg., 10121
- OSSA, *see* Space Science and Applications Office, NASA.
- Osteopathic physicians:
 Army Medical Department early commissioning program for students, fact sheet, 8002
 employment outlook, 12668
- Osteopathy:
 Health training improvement act of 1970—hearings, 9924
 report, 13651
- Osteoporosis, facts about, 7717
- Ostmark, H. Eugene, chemical control of Arizona 5-spined ips., 5502
- Ostracoda, *see* Crustaceans.
- OSTS, *see* State Technical Services Office.
- O'Sullivan, Robert B., upper part of upper Triassic Chinle Formation and related rocks, southeastern Utah and adjacent areas, 10180
- Oswalt, Noel R., operating forces on sector gates under reverse heads, hydraulic model investigation, 10019
- Oswego, N.Y., principal electric facilities, map, 8622
- Oswego County, N.Y., community profile, 14140
- OTA, *see* Technology Assessment Office.
- Otero County, Colo., Crooked Arroyo Watershed work plan, 10575
- The other wire, 11278
- Otoe County, Nebr., community profile, 17839
- Otsego County, N.Y., community profile, 14141
- Otsu, Tami, albacore of Hawaiian waters, Thunnus alalunga, 12070
- Ott, Wayne, calculating future carbon monoxide emissions and concentrations from urban traffic data, 17016
- Ottawa County, Ohio, community profile, 14142
- Otter trawling, *see* Trawls and trawling.
- Otto, N. E., evaluation of soil-applied herbicides for vegetation control, 9094
- Ouachita region, Ark., forest statistics, 14485
- Ouachita River:
 Bayou Lafourche and tributaries, Monroe, La., flood plain information, 16428
 Monroe, La., flood plain information, 17926
 upper, watershed work plan for flood prevention, municipal and industrial water supply and recreation, Polk County, Ark., 9175
- Oudine, John A., all hands, Naval Personnel Bureau career, publication, 2329
- Ouellette, D. J., suspended sediment and water characteristics, 17171
- Our American way of life, 10216
- Our Federal tax system, 10239
- Our moral heritage, character guidance discussion topics, 1230, 9352
- Our nation and the sea, 1595
- Our United States, 764
- Outdoor recreation, *see* Recreation.
- Outdoor Recreation Bureau:
 appropriations, 1970, law, 814
 appropriations, 1971, hearings, 8268
 grants-in-aid manual, 4634, 7684, 17202
 press releases, 3081
 publication series, 17204
- Outer Continental Shelf lands act, *see* Continental Shelf.
- Outer Mongolia, Mongolian People's Republic, background notes, 1138
- Outer space:
 activities of Federal departments, etc., investigation, authorization, report, 5243
 aeronautics and space report, 1969—departmental edition, 4534
 document edition, 3774
 aerospace bibliography, 10368
 aerospace companies, backlog of orders, current industrial reports, 2476
 aerospace safety (periodical), 2301
 aerospace structural materials, conference proceedings, 5915
 aerospace, technology positions with NASA, amdt., 8114
 America in space—
 first decade, aeronautics, 14836
 spacecraft power, 18193
 code of Federal regulations, 7117-18, 10069
 ecological surveys from space, 10373
 electron beam injected into space, stability, 12803
 flowmeter for space, 2087
 geophysics and space data bulletin, 2692
 goals and means in conquest of space, 11700
 instrument bearing performance in space vacuum, 18214
 international cooperation, hearings, 8375
 long-range program in space astronomy, position paper of Astronomy Missions Board, 896
 meteorology from space altitudes, USSR study, 11521
 National aeronautics and space act of 1958, amend, report, 16012
 next decade in space, report, 7729
 OAR research review (periodical), 2978
 physiological measurements in space and their automation, USSR study, 12646
 planetary flight handbook, 10371
 post-Apollo space program, directions for the future, 1045
 practical returns from space investment, survey, report, 15369
 scientific and technical aerospace reports, 3177
 indexes, 3176
 semiannual indexes, 14899
 simulation of Fokker-Planck equation by random walks of test particles in velocity space with application to magnetic mirror systems, 5962
 Soviet-American space race described, 2005
 Soviet bloc research (periodical), 3210
 space geodesy altimetry, pulse compression radar study, 14822
 space nuclear program, AEC authorizing legislation, 1971, hearings, 8190
 space program benefits, hearing, 9884
 print additional copies, reports, 12191, 12321
 space research program, agreement with Australia, 15329
 space topics, Soviet studies, USSR study, 16751
 spatial bias correction for sporadic meteors photographed in New Mexico, 16958
 upper atmosphere and space, USSR research, 16796
 USSR studies, 8832
 welding methods tested in space, USSR study, 11494
 welding of metals in space, experiment, USSR study, 18765
 see also Life support systems—*also* headings beginning Space.
- Outerwear, women's and misses', census of manufactures, 1967, industry statistics, 17515

Outgassing characteristics, lunar soil simulant study, 4084
 Outlaw, R. A., physical adsorption of nitrogen gas on polished surface of 347 stainless steel at very low pressures, 8944
 Outlet works, *see* Reservoirs.
 Outlying possessions,
 Federal general data standard, representations and code, 14917
 U.S. trade, monthly report, 2667
 Outpatient services, *see* Hospitals.
 Output, *see* Production.
 Ovens:
 microwave oven radiation, facts about, 18313A
 microwave ovens and the public, radiation exposure overview, 5382
 Overcoats, *see* Coats.
 Overhead electric lines, *see* Electric lines.
 Oversea service:
 Defense Department's dependent schools, education opportunities, 4036
 Federal jobs overseas, 13200
 military-owned household furnishings overseas, management, opportunities for improvement, GAO report, 717
 oversea duty stations, instructions for Army sponsored return travel to, Army pamphlet, 6351
 overseas air passenger transportation by Defense Department, potential savings by centralized control, GAO report, 12582
 uniformed services personnel overseas cost of living allowances, affirming computation—
 hearings, 6698
 report, 5126
 Overseas business reports, 274-278, 1365, 3000, 3690-94, 4989-5002, 6505-15, 8145-50, 9504-9, 10872-879, 12059-60, 13219-230, 15721-733, 17562-564
 Oversea Private Investment Corporation: appropriations, 1970—
 hearings, 1702
 reports, 1521, 1561, 3840
 Overtime, *see* Hours of labor.
 Owen, Thomas B., nomination, hearing, 9928
 Owens, Hugh F., address, July 16, 1969, 9099
 Owens, James M.: addresses
 Jan. 28, 1970, 3523
 May 13, 1970, 9413
 Oct. 20, 1970, 17749
 Owens, M. E. B.: probability density function for future position of vessel at sea, 18294
 two-dimensional point resolution, 18293
 Owls:
 conservation—
 Arizona, 15199
 Wyoming, 15200
 Owston, Peyton W., further development of radiolotope techniques for measuring water movement in large trees, 15531
 Oxidation:
 electrolytic, of cinnabar ores for mercury recovery, 12750
 hydration, oxidation, and origin of calc-alkali series, 901
 pretreating steel scrap to speed, 4476
 radiation-initiated emulsion oxidation, 4893
 roasting of chalcocite concentrate, 5875
 thermal, high polymers, literature survey, 13814
 Oxides:
 low-temperature heat capacities and entropies at 298.15° K of goethite and pyrophyllite, 7492
 of rhenium, heats of formation, 881
 see also oxides by names, e.g. Carbon dioxide.
 Oxidizers, *see* Oxidizing agents.

Oxidizing agents:
 oxidant-fuel distribution, thermometric determination within rocket combustor, 4525
 photochemical oxidants, air quality criteria, 5987, 11714
 Oxygen:
 basic oxygen steelmaking, evaluation of variables, 5879
 commercially pure and oxygen-doped tantalum and niobium, apparent solubilities in liquid potassium, 11691
 concentration in silicon and germanium by infrared absorption, determination, 10438
 contamination of refractory metals, 11607
 displacement of dissociation curves and red cell cation exchange in chronic hypercapnia, 11567
 effect on adhesion of clean iron (001) and (011) surfaces, LEED and Auger studies of, 8943
 gas mixtures, CO₂-N₂-O₂-Ar, for planetary entry applications, transport properties at high temperatures, 2085
 headspace, effect on quality of freeze-dried raw beef patties, 1223
 helium-oxygen saturation and excursion dive to simulated depth of 1100 ft. performance effects of increased ambient pressure, 8890
 impact on cooked freeze-dried combination meats, items, 13047
 improved ppb oxygen analyser for sea water, assembly and evaluation, 18069
 liquid, analysis of rocket-powered ejectors for pumping, 18212
 long-term measurements of corrosion of mild steel in 580°F NaOH solutions, 17195
 MHD power system burning char with oxygen, study, research and development report, 9481
 niobium collector with oxygen present and (112) to (114) oriented tungsten emitter used in operation of thermionic converter, 16945
 operation of electrolytic installations for production, USSR study, 10277
 reaction with Co-Ni-V alloys, at 1,351°-1,429°K, 7494
 surface films, effect on adhesion of clean iron, 7535
 Oxygen cutters, employment outlook, 14714
 Oxygenates, oxygenation of ferrous iron, 18004
 Oxygenation of ferrous iron, 18004
 Oxytetracycline, and fish, 10 papers, 2232
 Oysters, culture in Long Island Sound, 12669
 Ozark County, Mo., community profile, 17840
 Ozark National Scenic Riverways, Dent, Shannon, and Carter Counties, Mo., history, basic data, 7840
 Ozarks region:
 human resources, with emphasis on the poor, 9969
 new and old Ozark reservoir, thermal, oxygen, and conductance characteristics, 11891
 rural poverty, 6991
 Ozarks Regional Commission:
 economic development programs, evaluation, hearings, 3890
 press releases, 3082
 Ozaukee County, Wis., soil survey report, 17306
 Ozette Reservation, make part of Makah Reservation, report, 12210
 Ozone, and water vapor, concurrent measurements over Washington, D.C., 1967-1968 report, 9058

P

P.L. concessional sales, 16386
 P.P.C. series, 3001

INDEX 1970

- P. T. Smith House, Herbert Hoover National Historic Site, historic structures report, historical data, 7643
- PA series, 33-42, 1201-2, 3417-25, 4823-24, 6309-13, 7931-35, 9313-21, 10695-10701, 11954-959, 12998-13000, 15441-445
- PACAF basic bibliographies, 13026-29, 15462-463
- PACE (Projects to Advance Creativity in Education), *see* Elementary education—Secondary education
- Pacesetter for safety, 4294
- Pacesetters in innovation, 4058
- Pacific area :
climatological data, 2409
East Asian and Pacific series, 1140, 2236, 4723-25, 7812-13, 9190-92, 10603-605, 11895-896, 17330
Hawaii and other Pacific areas, surface waters, quality, 16644
need for improving program for use and redistribution of excess materiel, Defense Dept., GAO report, 14506
PACAF basic bibliographies, 13026-29, 15462-463
Pacific chart supplement (periodical), 3003
- Pacific Coast :
California, Pacific Slope Basins from Tia Juana River to Santa Maria River, surface water supply, 18054
coast pilots—
Alaska, Cape Spencer to Beaufort Sea, supplement, 6493
Alaska, Dixon Entrance to Cape Spencer, 3679, 6489
California, Oregon, Washington, and Hawaii, supplement, 6490
fisheries, annual summary, 3700
fishery products, application of radiation-pasteurization processes, annual report, 3503
light list, 3682
marine weather services chart, Mexican border to Point Conception, Calif., 15388
nautical chart catalog, 9485
North America and Asia, tidal current tables, 13209
Pacific hake, description, etc., 9515
saury, *Cololabis saira*, annotated references, list, 13244
waterborne commerce, 1968 calendar year, 8554
see also Pacific States.
- Pacific County, Wash., community profile, 6948
- Pacific Crest National Scenic Trail, Oreg., general information, 14456
- Pacific Islands :
light list, 3662
mineral industry, minerals yearbook chapter, 4459, 18159
sailing directions, change, 15052
South, mineral industry, minerals yearbook chapter, 5867
- Pacific Islands Trust Territory, *see* Trust Territory of Pacific Islands.
- Pacific Northwest, *see* Northwest (U.S.).
- Pacific Northwest Forest and Range Experiment Station :
annual report, 10112
publications, lists, 2836, 14426
- Pacific Northwest-Pacific Southwest Inter-tile :
Cello-Mead Transmission Line project assurances needed that cost will be recovered, GAO report, 14493
Mead-Liberty transmission line, uplift resistance of straight auger and belled auger footings in sandy silt, 9088
- Pacific Northwest River Basins Commission, annual report, 13359
- Pacific Ocean :
adjacent to San Francisco Bay estuary, movement of seabed drifters, 11393
- Pacific Ocean—Continued
bathymetry and magnetics of region (POL-421-3) 29°-35°N and 155°-165°W, 18462
central and western—
Pacific tuna fishery development act, report, 11077
tide tables, 13210
central north vertical sections of temperature and salinity in trade wind zone, Feb. 1964 to June 1965, 1369
cloud cover over tropical area, satellite data, atlas, 10383
Cocos Ridge to central California, magnetic and bathymetric profile, 17949
eastern, sea otter, general information, 15269
equatorial eastern Pacific, surface tuna schools located & fished, 10891
marine fisheries compact, amendment, consent of Congress—
hearings, 1594
north—
Ocean station November, oceanographic observations, 3684
SS Panoeceanic Faith foundering with loss of life, marine casualty report, 6074
station Victor, oceanographic observations, 262
wave climatology aid to ship routing, 7682
Pacific marine fisheries compact, amendment, consent of Congress—
law, 12138
reports, 1524, 12336
Pacific salmon—
ocean salinity and distribution, fishery oceanography, 5009
ocean temperature and distribution, fishery oceanography, 3711
perch and hake studied off West Coast, 9534
radio navigation aids, 7675
tropical, crown of thorns starfish, control program—
hearing, 12366
law, 15809
reports, 8369, 13468
western, lights and fog signals, list, changes, 6088, 15053
- Pacific Oceanographic Laboratories :
collected reprints, 602
ESSA technical report, ERL-POL series, 16462
- Pacific slope basins, *see* Pacific States.
- Pacific Southwest Forest and Range Experiment Station :
1969 research progress, 10136
publications, lists, 2837, 12549
what's new in research, 7204
- Pacific States :
Colorado River basin to Pacific slope basins in California, surface water quality, 4264
home fruit garden, 7919
Pacific slope basins, surface waters, quality, 5567, 16644
- Packaged disaster hospitals, *see* Hospitals.
- Packages :
procurement data packages, military standard, 4029
salt, voluntary product standard, 10440
symbols for hazardous industrial chemicals and materials, military standard, 16152
- Packaging :
aeronautical and space systems, equipment and associated components, requirements, 5982
child resistant, to protect from injury, etc., or ingesting any hazardous substance—
hearings, 3962, 13527
report, 9847
converted flexible packaging products, current industrial reports, 2475

Packaging—Continued

- fair packaging and labeling act, operation, review, hearings, 418, 566, 8385
- Federal item identification guides for supply cataloging, supplements, 2592
- flexible package seal defects, infrared radiometric microscope used in nondestructive determination, 13041
- industry report, 2449
- information sources from Marketing Information guide, 3526
- insect-resistant, 1913-69, bibliography, 12960
- materials, Federal test method standard, change, 10092
- model state packaging & labeling regulation, 10426, 17031
- packaging and labeling matters, hearings, 418
- packaging and packing operations, packing and carloading, instructor's guide, Army Dept. pamphlet, 6357
- raisins, effect of oil treatment, numbers of insects infesting packages, 10679
- requirements code, military standard, 2887, 4023
- sources of information, 150
- steel products, recommendations of trade, amendment, 4552
- see also* Packing.
- Packers:
 - job grading standard, civil service, 8123
 - packers and stockyards resumé, 3007
- Packers and Stockyards Administration:
 - appropriations, 1970—
 - law, 1392
 - report, 1482
 - appropriations, 1971, hearings, 8266
- Packing:
 - carloading, instructor's guide, Army Dept. pamphlet, 6357
 - materials:
 - Federal item identification guide, change, 1767
 - Federal test method standard, change, 10092
 - packaging and packing operations, instructor's guide, Army Dept. pamphlet, 6357
 - supplies, Federal item identification guides for supply cataloging, 2592
 - supplies and equipment, packaging and handling deficiencies, quarterly summary, AMC pamphlet, 3460
 - wrapping and packaging machinery, Federal item identification guide, 13800
- see also* names of articles packed.
- Packing industry, meat plants, weak enforcement of Federal sanitation standards by Consumer and Marketing Service, GAO report, 11383
- see also* Meat.
- Packs, horse sense on back country pack trips, 7197
- Padre Island National Seashore, general information, 1001
- Padrick, Jack D., address, May 22, 1970, 10242
- Pads:
 - corrugated fiberboard pads, cushioning properties of 5-layer, 1882
 - multilayer corrugated fiberboard, cushioning performance, 14468
- Page, Ariz., development plan, prepared for people of community, 15141
- Page County, Iowa, community profile, 14143
- Pahute Mesa, Nevada, test site, seismic activity, summary, 6383
- Paidar Company, Emil J., barbers' chairs, Tariff Commission report, 9219
- Paige, Jack I., sorption of SO₂ and regeneration of alkali alumina in fluidized bed reactors, 14792
- PAIGH, *see* Pan American Institute of Geography and History.
- Pails, steel shipping, current industrial reports, 2475

Paint:

- and allied products, census of manufactures, 1967, industry statistics, 13150
- census of transportation, 1967, commodity transportation survey, shipper group, 4925
- cracking, peeling and blistering, from moisture, wood finishing, 14458
- current industrial reports, 218, 2475
- Federal item identification guides for supply cataloging, supplements, 2495
- Lead-based paint elimination act of 1970, hearings, 13502
- oil, Federal standard, 4161
- Paint Creek, watershed work plan, Harper County, Okla., 15250
- Painters:
 - automobile, employment outlook, 14704
 - employment outlook, 12700
 - job grading standard, civil service, 6481
 - production painters, employment outlook, 16834
- Painting:
 - administrative wheeled vehicles, military standard, 549
 - special trade contractors, census of construction industry, 1967, statistics, 13125
- Paintings:
 - Negro art from Harmon Foundation, select, picture list, 18231
 - sandpaintings of Navaho Shootingway and Walcott Collection, 10467
- Paints, *see* Paint.
- Pakistan:
 - accessions list, Library of Congress American Libraries Book Procurement Centers, Karachi and Dacca, 2292
 - agricultural commodities, agreement, 4737, 6245, 6252
 - cotton textiles, trade, agreement, 15316
- East—
 - 5 inland ports, review of feasibility, summary of findings, 6265
 - Port of Chittagong, economic analysis of proposed reconstruction of jetties 1 through 6, final report, 6264
 - economic trends and their implications for United States, 7336, 13080
 - economy, basic data, 13224
 - excess property program AID's administration, GAO observations, 1898
 - foreign trade regulations, 10873
 - mineral industry, minerals yearbook chapter, 14787
 - naval vessel loans, extend—
 - hearing, 16037
 - reports, 5123, 6617
- West—
 - Dera Ismail Khan District, water resources and related geology, with reference to availability of ground water for development, 10186
 - fusulinids from lower Permian, morphologic studies, 10178
- Pakulls, Eugenia, National Oceanographic Data Center newsletter, 2932
- Palanquin Project, *see* Project Palanquin (plowshare program).
- Paleobiology, Smithsonian contributions to paleobiology, 2216, 7733, 15160
- Paleobotany, *see* Plants.
- Paleocene period:
 - Paleocene mammals in Evanston Formation, southwestern, Wyoming, new occurrence, 2216
 - 2 new pollen genera with possible affinity to Illiciaceae, 7246
- Paleogeography, Cretaceous, southeastern Arizona and adjacent areas, 16618
- Paleolimnology, *see* Limnology.
- Paleontology, contributions to paleontology (series), 730, 4247, 5550, 5558, 7244, 7246, 8745, 10178-179, 16622, 18047
- see also* Fossils.

INDEX 1970

- Paleozoic era :
 illustrated plant specimens, in National Museum of Natural History, catalog, 15160
 stratigraphy in northwest coastal area of Prince of Wales Island, South-eastern Alaska, 11387
- Palingenesis of natural plague foci with reference to history of rodent fauna, USSR study, 10272
- Palladium dilute Pd-Ni alloys, electron-electron scattering effects in low-temperature Lorenz numbers, 1032
- Pallas (asteroid) :
 heliocentric coordinates, 1928-2000, list, 9042
- Pallets (materials handling) :
 disposable pallets for handling and transporting Florida citrus, evaluation of various types, interim report, 9280
 handling peaches in pallet boxes, 9304
 palletized and containerized unit loads, military standard, 13804
- Palm Beach, Fla., geomorphology and sediments of nearshore Continental Shelf, 4066
- Palm Beach County, Fla., tidal areas, flood plain information, 7038
- Palmby, Clarence D. :
 remarks—
 Nov. 10, 1969, 3407
 Jan. 21, 1970, 7945
 June 22, 1970, 13004
- Palmer, James A., nomination, hearing, 13719
- Palmer, Thomas Y., catalogue of Project Flambeau fires, 1964-67, Project Flambeau, final report, 10122
- Palmyra, N.J., Palmyra-Maple Shade area, N.J., floods and flood plain management for Pennsauken Creek and South Branch, 8537
- Palo Alto County, Iowa, community profile, 14144
- Palsy, cerebral, developmental approach to casefinding, 8885
- Pamlico County, N.C., community profile, 14145
- Pa Mong project :
 lower Mekong River basin, stage 1 feasibility report, 9085
 appendices, 9086, 15143, 17242, 18316-317
- Pamphlets, catalog of copyright entries, 3997
see also names of departments, etc., issuing pamphlets.
- Pan American Highway, Darien Gap, construction, U.S. cooperation, authorize, hearing, 5174
- Pan American Institute of Geography and History :
 participation of United States, appropriation, authorization—
 law, 13315
 reports, 9672, 12341
- Pan American Railways Congress Association, U.S. contributions, increase ceiling, hearing, 15900
- Pan American World Airways, Inc., accident report, 2167
- Pan Americanism, *see* American Republics.
- Panama :
 contribution to history of Panama land bridge (series), 14534
 economic trends and their implications for United States, 11467
 geology and paleontology, 14534
 labor laws and practice, 8861
 meat imported into U.S., agreement, 10619
 mineral industry, minerals yearbook chapter, 16901
 population, estimates and projections, 10826
 ships registered under Panamanian flag deemed by Navy Dept. under U.S. control, 3198
- Panama Canal :
 appropriations, 1971—
 hearings, 11022, 13709
 reports, 12207, 13697, 15873
 code of Federal regulations, 8650
 tonnage assessment system, impact of IMCO universal tonnage system, report, hearing, 9762
 traffic, capacity, and tolls projections, hearing, 9762
- Panama Canal Company :
 annual report, 9416
 appropriations, 1970—
 hearings, 486
 law, 3734
 financial statements, 1969 and 1968, GAO examination, 8203, 8721
 savings through greater use of Government-owned shipping capacity between New Orleans, La., and Panama Canal Zone, GAO report, 723
- Panama Canal review (periodical), 3008
- Panama Canal Zone, *see* Canal Zone.—
 Canal Zone Government—Panama Canal.
- Panama City, Fla. :
 loran tests, evaluation, 14349
 oceanographic cruise summary, 15045
 port, Engineers Corps port series, 10009
- Pancreas, infectious pancreatic necrosis (IPN) virus in certain fish and fish products, approved procedure for determining absence, 15260
- Panel boards, panels, Federal item identification guide, 16120
- Panel on International Transfer of Technology, report, 9502
- Panel on Science and Technology, 11th meeting, proceedings, 8322
- Panels and paneling :
 elastically supported corrugation-stiffened, natural vibration and flutter, experiment and theory, 16987
 flat, built-up panels, experimental and analytical investigation of flutter under streamwise inplane load, 8953
 panel flutter, influence of turbulent boundary layer, experimental results, 10409
 rotationally restrained panels, experimental investigation of flutter at Mach 3 and comparison with theory, 914
 sandwich panels, modal density estimates, theory and experiment, 16960
 simply supported, flat rectangular sandwich panels under biaxial compression, buckling coefficients, 14467
 stiffened-skin panels for hypersonic aircraft, flutter design, 2101
 titanium-alloy skin-stringer panels, influence of salt and elevated-temperature exposure on maximum compressive strength, 5961
 wake effect of panel tip-mounted fan-jet engine on lift-induced vortex, exploratory wind-tunnel investigation, 11636
 wood-base panel products, rail shear test for evaluating edgewise shear properties, 5506
- Pang, Tai Tai, relief, 13612
- Pankratz, Louis B. :
 high temperature enthalpies and entropies of chalcocypite and bornite, 16923
 thermodynamic data for silver chloride and silver bromide, 16918
- Panoceanic Faith SS, foundering with loss of life, Oct. 9, 1967, marine casualty report, 6074
- Panola County, Miss., community profile, 16325
- Pansies, growing, 15428
- Pantograph, light-modulated accelerometer for pantograph measurements, 17988

Papaw (Carcia papaya):
marketing orders to include paid advertising for papayas—
hearings, 15882
law, 15774
reports, 6773, 12247
Papaya, *see* Papaw (Carcia papaya).
Paper:
and allied products—
census of transportation, 1967, commodity transportation survey, shipper group, 4924
industries, employment outlook, 14722
butt swells of water tupelo for pulp and paper, 4199
converted paper and paperboard products except containers and boxes, census of manufacturers, 1967, industry statistics, 15596
current industrial reports, 2475, 9453
Government specification standards, 2695, 5183, 12288, 15958
industry—
Northwest, 5489
machinery, trade and tariff information summaries, 6262
report, 3115
stream pollution problems, studies on application of radiolotope techniques, 6386
kraft papers, effect of forming conditions of wet web on mechanical properties of, 10128
trade and tariff information, summaries, 7853
see also Papermaking and trade—Photographic paper.
Paper birch, *see* Birch.
Paper-making machinery, effect of forming conditions of wet web on mechanical properties of kraft papers, 10128
Paper mills:
census of manufactures, 1967, industry statistics, 17519
fiber and chip tagging and tracing technique, 6386
tissue paper mill in Pickens, Miss., case study, rural industrialization, 14266
Paperboard:
converted paper and paperboard products except containers and boxes, census of manufactures, 1967, industry statistics, 15596
current industrial reports, 2475
industry report, 3115
see also Pulpboard.
Paperboard boxes, *see* Boxes.
Paperboard containers, *see* Containers.
Paperboard mills, census of manufactures, 1967, industry statistics, 17519
Paperhangers, employment outlook, 12700
Paperhanging, paper hanging, special trade contractors, census of construction industry, 1967, statistics, 13125
Papermaking and trade:
joint municipal and semichemical pulping waste treatment, 663
shrinkage in handsheets during drying, measuring, 14465
Papers, *see* Records.
Paperwork, involved in Defense Dept. bus travel, reducing, opportunity for savings, GAO report, 12581
Parabolic dish antennas, *see* Antennas.
Parachute jumping, *see* Parachuting.
Parachutes:
aerial pickup, delivery, and recovery, Federal item identification guide, 5309
aldrop, remote area refueling system, Army technical manual, 4867
deployment systems, techniques for selection and analysis, 2127
40-foot-diameter (12.2 meter) ringsail parachute, high altitude flight test at deployment Mach number 2.95, 11652

Parachutes—Continued
Initial century series ringsail parachute, investigation, 14889
parachute lofts, Federal aviation regulations, 2572
survival uses, 1207
Parachuting, parachute jumping, Federal aviation regulations, 2573
Paraffin, antiwear and extreme-pressure additives in synthetic paraffinic lubricant on ball spinning torque, effects, 12797
Paraformaldehyde, effects on wood surrounding tapholes in sugare maple trees, 12565
Paraguay:
background notes, 10597
economic trends and their implications for United States, 7341
foreign trade regulations, 5000
mineral industry, minerals yearbook chapter, 4423
Paraiso Springs quadrangle, Calif., geology, 14520
Paralysis, *see* Neuroparalysis.
Paralyzed Veterans of America, legislative recommendations, 1970, hearings, 6726
Paramagnetism, *see* Magnetism.
Parameters:
alternator parametric design, potassium turboalternator (KTA), preliminary design study, 12754
component parametric data and initial integrated turboalternator analyses, 16934
extinction, of hot seeded hydrogen at 1 atmospheric pressure, measurements, 5896
four dimensional, in single plane, presentation of errors, 5386
generalized parameter fuel control for jet engines, computer and engine performance study, 11689
geophysical determining from thermal radio emissions obtained by Kosmos-243 artificial earth satellite, USSR study, 4328
injection molding, processing parameters, literature search, 8489
long-term operational of high frequency sky-wave telecommunications systems, predicting, errata, 7051, 17952
meteorological flight paths by plotter subroutine COMBI, 8571
microwave systems using terminal invariant parameters, description and evaluation, errata, 4548
neutron pseudo resonance parameter chains in unresolved energy region, DAISY, efficient program for production, 12802
of memory subsystem with MOS transistor of single type, calculating, USSR study, 11493
operating—
effect on net power output of 2- to 10-kilowatt Brayton rotating unit, 11661
of alumina columns for selective removal of phosphorus from wastewater, 14406
optical parametric up-conversion processes in nonlinear crystals, computer program to analyze, 2179
parametric design of interplanetary and orbital trajectories with examples for Mars 1973-77 opportunities, 14880
parametric economic and engineering evaluation study of electrodialysis process for water desalination, 1954
pump performance parameters, analysis of effect of design and measurement errors, 14863
to be controlled for specification of microcircuits, military standard, notice, 16151
Paramount, Calif., aircraft accident, 7653
Paraplegia, what you should know, 10538

INDEX 1970

- Paraplegics :
veterans—
direct loans to purchase specially adapted housing, report, 15871
housing program, direct loans, authorize, report, 15988
mortgage protection life insurance, provide, report, 17628
- Parasites :
freshwater fishes, 6203, 6205-6
internal and external, of deer in U.S. and Canada, checklist, 15406
internal parasites of hogs, preventing and controlling, 4811
of bluefish *Pomatomus saltatrix*, annotated list, 11893
- Parasitic diseases, freshwater fishes, control and treatment, 17315
- Parawings, *see* Wings (aircraft).
- Parents :
parents of mentally retarded children, selected reading suggestions, 13185
tax information for students and parents, 5672
welfare parents, potential for work, 2017
see also Families.
- Paris, France, Paris peace talks, 4725
- Paris Peace Conference :
foreign relations of U.S., documents—
departmental edition, 10608
document edition, 9613
proceedings, 10607
- Park, Chul, polynomial method for determining local emission intensity by Abel inversion, 5968
- Park, Stephen K., optimal control problems as equivalent Lagrange problems, 7518
- Park, Susan F., selling in Zambia, 6514
- Park Tong Op, relief, 17671
- Park, William G., mineral industry of Arkansas, 4417
- Parker, Clarence R., upper Williamette Resource Conservation & Development project land use planning assistance, 9169
- Parker, Dale E., soil survey, Ozaukee County, Wis., 17306
- Parker, Ed, our public lands (periodical), 2997
- Parker, James S., poverty studies in the sixties, annotated bibliography, 10552
- Parker, James W. :
experimental training for open-sea submarine escape, 12737
open sea, surface evaluation of submarine escape and immersion equipment, 12734
performance effects of increased ambient pressure, helium-oxygen saturation and excursion dive to simulated depth of 1100 feet, 8890
- Parker, John G. :
aluminum, 840
bauxite, 841
pumice, 18164
thorium, 16927
- Parker, Judy T. :
letters sent by Secretary of Treasury relating to—
public lands ("N" series), 1801-78, pamphlet accompanying microcopy, 11727
subtreasury system, U series, 1840-78, pamphlet accompanying microcopy, 17027
- Parker, Patricia E., maps, a MARC format, 14754
- Parker, Phillip S., clam survey, Ocean City, Md. to Cape Charles, Va., 9522
- Parker, Raymond L., mafic-ultramafic igneous rocks and associated carbonatites of Gem Park complex, Custer and Fremont Counties, Colo., 16617
- Parker, Walter L., relief, 357, 13280, 13603
- Parker Creek :
floods, how to avoid damage, Marshall, Tex., 17941
- Parker Creek—Continued
Marshall, Tex., flood plain information, 16429
- Parking of vehicles :
commercial facilities, improve report, 386
District of Columbia motor vehicle parking facilities act of 1942, amend, report, 386
- Parkinsonism :
Parkinson's disease—
& related disorders, citations from literature, 10457
hope through research, 17227
- Parkinson's disease, *see* Parkinsonism.
- Parks :
disposal of surplus Federal property for park and recreational purposes, hearing, 13520
land and water conservation fund act of 1965, amend, hearing, 13520
small urban, planning, etc., 16680
see also Industrial parks—National parks—*also* names of parks.
- Parnell, Calvin B., Jr., using fluorocarbon-resin film as coating for seed-roll boxes, effects on gin-stand capacity, seed-roll density, and rotational velocity, 3373
- Parole :
youthful offenders, Youth Correction Division to designate examiners to make recommendations—
hearing, 11051
law, 13314
reports, 9864, 12216
- Parolees :
residential community treatment centers, authorize admission of persons placed on probation, released on parole, or mandatorily released, hearings, 15920
under supervision of Federal probation system, 1186
- Parratt, Spencer, housing code administration and enforcement, 11259
- Parrotfish, taxonomic status of controversial genera and specie with descriptive list (family Scaridae), 1094
- Parsley, production, 7918
- Parsons, C. S., freezing injury of root crops, 15435
- Parsons, Richard P., frozen food locker co-operatives with and without slaughtering facilities, production and performance, 12514
- Participation gap between business and Government on national economic and social problems (address), 3695
- Particle accelerators, *see* Accelerators.
- Particles :
and fields near Jupiter, 18191
associated-particle neutron time-of-flight technique, multiple scattering corrections for, 963
characteristics of particulate patterns, 7562
danger in air, sulfur oxides and particulates, 17013
elementary particles and cosmic rays, 11699
hot seeded hydrogen at 1 atmosphere pressure, measurements of extinction parameters, 5896
hypervelocity microparticle-impact craters, and associated filamentary crystal growth, 11668
hypervelocity microparticles with selected kinematic properties, electrostatic acceleration system, 8946
magnetospherically trapped sources, losses, and transport, 16464
motion in Blue Creek, near Klamath, Calif., field measurement of initiation of large bed material, 4243

Particles—Continued

- nonlinear particle-wave interaction in plasma, introduction to statistical theory, 4877
- particle-seeded gases, theoretical calculation of radiant heat transfer properties, 5897
- polydisperse systems of irregular particles, scattering of polarized light, 2083
- simulation of Fokker-Planck equation by random walks of test particles in velocity space with application to magnetic mirror systems, 5962
- single particle behavior in axisymmetric magnetic field, experimental investigations, 18221
- single particle operators, reduced matrix elements, systematic system of calculating, 12811
- suspended, effect on breathing investigated, USSR study, 4341
- trapped at altitude of 900-km South Atlantic geomagnetic anomaly, distribution, 9061
- water-soluble, and micron-sized sulfate, new method for detecting and its usage, 15472
- see also* Alpha particles.
- Partners in progress, 11385
- Partnership for health news, 3009
- Partnerships, income and losses, tax information, 5684
- Partridges:
 - black francollins, general information, 17314
 - chukars habitat management, 15211
 - gray, habitat management, 15212
- Parts:
 - antennas, Federal item identification guide, 11166
 - contractors parts control and standardization program, military standard, 16150
 - electrical connector parts, Federal item identification guide, 9951
 - motor vehicle manufacturing, earnings of production workers, 14742
 - nonstandard, preparation and submission of data for approval, military standard, 544
 - see also* Repair parts.
- Pascagoula, Miss., port, Engineers Corps port series, 10009
- Paschke, John E., soil survey, Lake County, Ill., 18333
- Paso Robles quadrangle, Calif., complete Bouguer gravity and general geology, 10181
- Pasquotank County, N.C., community profile, 12454
- Passaic, N.J.:
 - area wage survey, 817
 - census of transportation, 1967, commodity transportation survey, 8066
 - quad-city solid wastes project, June 1, 1966-May 31, 1967, interim report, 9074
- Passall, N., development of low-cast, iron-base alloy to resist corrosion in hot sea water, 772
- Passenger cars, tire use survey, physical condition, use, and performance in United States, 10437
- see also* Automobiles.
- Passenger service, *see* Railroads.
- Passenger traffic:
 - air travel industry (remarks), 234
 - 1970 domestic and international facilitation programs, 10647
 - passenger demand and modal split models, 7862
 - travel between U.S. and foreign countries, 11436
 - U.S. and foreign countries, reports, 2725
 - see also* Railroads.
- Passenger trains, *see* Railroads.
- Passenger vessels, *see* Ships.

Passengers:

- accidents, motor carriers, class 1, 1846
- demand and modal split models, 7862
- passenger lists of vessels arriving at—
 - Baltimore—
 - 1820-69, quarterly abstracts, 11723
 - 1820-97, Federal lists, pamphlet to accompany microcopy, 17025
 - 1833-66, city lists, pamphlet to accompany microcopy, 14911
 - Boston, 1820-91, 11719
- services, joint agency study for procuring, paying auditing, etc., for civil agencies, recommendations, 16598
- travel between U.S. and foreign countries, reports, 2725, 11436
- Passer, Harold C.:
 - addresses, etc.—
 - Dec. 2, 1969, 279
 - Jan. 23, 1970, 3689
 - Jan. 28, 1970, 3696
 - Feb. 25, 1970, 5005
 - Feb. 26, 1970, 5003
 - Apr. 15, 1970, 8162
 - Apr. 30, 1970, 9501
 - May 7, 1970, 9499
 - May 18, 1970, 9494
 - May 26, 1970, 10868
 - Sept. 23, 1970, 15717
 - Oct. 6, 1970, 15740
 - Oct. 8, 1970, 15738
 - nomination, hearings, 495
- Passports:
 - information for applicants, 10610
 - issued by Trinidad and Tabago, extended validity, agreement, 18352
 - nonimmigrant visas, hearings, 3878
 - racial exclusion on granting visas, foreign policy implications, hearing, 6707
 - summary of statistics, 3245
 - United States—
 - applications, acceptance at selected post offices, test program, hearings, 13586
 - fees charged by foreign countries for visa, list, 6218
- Past is prologue [qualifying you for challenging position with IRS], 5667
- Pasteurization:
 - irradiated-pasteurized fishery products, maximum shelf life study, radiation chemistry, annual report, 10767
 - pasteurized food, 90-day subacute oral toxicity studies on radiation, 4892
 - radiation—
 - Gulf shellfish, annual report and final summary of total program, 15518
 - of fresh meats and poultry, 10755
 - radiation-pasteurization processes, application to Pacific Coast fishery products, annual report, 3503
 - radiation pasteurized clams, chronic animal feeding studies on chicken feeding experiments, final report, 8025, 9403-4
 - seafood, effect of irradiation on microbial flora surviving irradiation pasteurization, 131
- Pasture crops, *see* Forage plants.
- Pasture lands, managing public rangelands, effective livestock grazing practices and systems for national forests and national grasslands, 15
- see also* Grazing.
- Patch, R. W., semiempirical electric dipole moment and its derivative in H₂-H₂ and H₂-H collisions, 16992
- Patent examiners:
 - manual of procedure, 2867
 - change notices, 1037, 6116, 10500, 15103
- Patent Office:
 - administration, investigation, expenses, report, 5228
 - annual report, 6114
 - classification definition series, 6112-13
 - getting more mileage out of technology (address), 18300
 - official gazette, 2982
 - press releases, 3083

INDEX 1970

- Patent Office—Continued
rules of practice, 9064
trademarks, index, 15102
- Patents:
and publications, 1962-69 lists, Northern
Regional Research Laboratory—
chemically modified oil products for in-
dustrial uses, 17423
compositional studies on oilseeds, oils,
and meals, 17419
edible soybean oil and related studies,
17421-422
engineering studies on processing of oils
and meals, 17420
and publications on fermentation research,
Northern Utilization Research and De-
velopment Division, Peoria, Ill., 12961
appeals cases adjudged, 9948
cases, rules of practice, 9064
classification manual, 2865, 6115
replacement pages, 4635, 7697, 12899,
17205
code of Federal regulations, 8651
decisions, weekly, 2982
discussion of United States patent laws
(address), 7696
Eastern Utilization Research and De-
velopment Division, list, 10681
examining procedure, manual, 2867
change notices, 1037, 6116, 10500, 15103
general information, 1036
Government policy, annual report, 4130
international patent cooperation (ad-
dress), 10866
law revision (address), 8141
laws, investigation expenses report, 5228
official gazette of Patent Office, 2982
patent abstracts section from official ga-
zette, 2982
patent applied for stereoscopic perspecto-
graph, USSR study, 2003
patent cooperation treaty, funds for in-
ternational conference, organize and
hold in U.S., 1970—
law, 1416
report, 1516
patent ombudsman approach (address),
15104
patenting mining claim on Federal lands,
basic procedure, 8876
protection—
extend duration, report, 1619
industrial property, convention be-
tween U.S. and other Governments,
18347
questions and answers about patents, 4636
safeguarding of secrecy of inventions re-
lating to defense, agreement with other
governments, revision, 6228
Southern Utilization Research and De-
velopment Division, semiannual lists,
9, 11944
spur to American progress, 270
waiver petitions, findings of fact, etc., of
NASA Inventions and Contributions
Board, 3020, 7557
Western Utilization Research & Develop-
ment Division, semiannual lists, 3381,
15408
your stake in our patent system (address),
6117
see also names of departments, etc., is-
suing patents.
- Paterson, J. H., analysis of flight test data
on C-141A aircraft, 11611
- Paterson, N.J.:
area wage survey, 817
census of transportation, 1967, commodity
transportation survey, 8066
quad-city solid wastes project, June 1,
1966-May 31, 1967, interim report,
9074
- Pathogens, *see* Micro-organisms.
- Pathological physiology, *see* Physiology.
- Pathologists, forest and forest products,
examination announcement, discontinu-
ance notice, 8121
see also Speech pathologists.
- Pathology, frontier of clinical pathology,
medical technologists, 6 interviews con-
ducted at National Institutes of Health,
11780
- Pathways for profits (remarks), 7936
- Pathways to military service for college men
and women, 564
- Patients:
activities, supervisor's guide, long-term
care facilities, 5016
admission procedures, Clinical Center, Na-
tional Institutes of Health, 18266
air evacuation by military aircraft, sub-
sistence without charge, authorize—
hearing, 404
report, 1510
arrangements for physician services to
residents in nursing and personal care
homes, 7585
clinical center, NIH referral procedures,
6053, 12858
community mental health center—
inpatient services, 1055
outpatient services, 1056
dental, chairside psychology in educating,
self-instruction course for dentists, 7261
hospital population, staphylococcal car-
riage, throat vs. nasal carriage and per-
sistence of nasal carriage, 15503
isolation techniques for use in hospitals,
12854
lower-extremity amputations, surgery, im-
mediate postsurgical prosthetic fitting,
patient care, management, 4786
medical malpractice, patient versus the
physician, study, 5266
outpatient physical therapy, directory of
medicare providers of services under
health insurance for the aged, 4669
provisional movement and administrative
data, residents in public institutions for
mentally retarded, 17249
short stay hospital utilization by diagnosis,
1965 statistics, 14936
State and county mental hospitals, provis-
ional movement, 6046
- Patrols, police patrol areas, use of proba-
bility theory in assignment, 16820
- Pattee, H. E., flame and mechanical straight-
ening effect on material properties of
weldments, 17264
- Patten, Benjamin G., distribution and
abundance of fish in Yakima River, Wash.,
Apr. 1957-May 1958, 13241
- Pattern recognition, introduction to learn-
ing machines, 8949
- Patterns:
airport pavement groove patterns, environ-
mental effects on, final report, 7850
particulate patterns, characteristics, 7562
Patterns of industrial growth (series),
4903-4, 6408-9, 8052-64
Patterson, Daniel T., papers in Library of
Congress, register, 10305
Patterson, James C., turf soil modification
with sintered fly ash, 8909
Patterson, James C., Jr., exploratory wind-
tunnel investigation of wake effect of
panel tip-mounted fan-jet engine on lift-
induced vortex, 11636
- Patterson, Viola W.:
FAA air traffic activity—
1969 calendar year, 7060
1970 f. y., 16471
- Patterson, W. L., preliminary community
and regional water supply data in support
of desalting plant projections, 5628
- Patton, David R.:
fire stimulated aspen sprouting in spruce-
fire forest in New Mexico, 11349
transmitter for tracking wildlife, 14462
- Patton, R. Mark, applications of research on
human decisionmaking, symposium, 7527

Patton, William W., jr., preliminary geologic investigations in Kanuti River region, Alaska, 1911

Paul, Fred W., prevention of electrical breakdown in spacecraft, 5911

Paulding County, Ohio, community profile, 14146

Paule, Robert C., analysis of interlaboratory measurements of vapor pressure of gold, 6003

Pauli, Frank A., reaction attitude control system for jet VTOL research aircraft, 7545

Paullin, Robert L., paper, Jan. 12-16, 1970, 7870

Paulling, John R.:
new crop varieties, summer, 635
trends in forage crops varieties, 4133

Pautz, Maurice E., severe local storm occurrences, 606

Pavements:
airfields, evaluation of airfield pavements other than Army, flexible airfield pavement evaluation, Army technical manual, change, 100
airport, environmental effects on airport pavement groove patterns, final report, 7850
airport paving, 10041
concrete, standard practice, Army technical manual, 7996
deterioration on interstate highway system, resulting problems, Federal Highway Administration, GAO report, 11381
pavement, evaluation data for Naval and Marine Corps air stations, 18280
rigid—
for airfields other than Army, Army technical manual, 4866
for roads, streets, walks, and other storage areas, Army technical manual, change, 6361

Paving, see Pavements.

Pawlak, Thaddeus J., relief, 17624

Pawnee County, Nebr., community profile, 17841

Pawtucket, R. I.:
area wage survey, 12714
census of transportation, 1967, commodity transportation survey, production, area series, 6417

Pay, see Pay, allowances, etc.—Salaries—Wages.

Pay, allowances, etc.:
air evacuation patients, subsistence without charge, authorize—
hearing, 404
report, 1510
allowances, Federal agencies, principles and procedures, GAO guidance manual, 8720
Armed Forces—
allotments to savings for prisoner, of war, etc., during Vietnam conflict, waive \$10,000 limitation—
law, 5059
reports, 3810, 5209
members, erroneous payments, waiver of claims, hearing, 6721
Army personnel, overpayments resulting from weaknesses in payroll procedures, GAO report, 10150
ARNG technician, financial administration, report on man-year and personnel costs, NGB pamphlet, 2144
automobile allowances for certain disabled veterans, increase, report, 10986
class Q allotment for dependents of enlisted members of Army in pay grades E-4 corporal specialist 4 (4 years or less service), E-3 private 1st class, E-2 private, E-1 private, Army Dept. pamphlet, 99
House Members, mileage, transfer payment from contingent fund, report, 6660

Pay, allowances, etc.—Continued
incentive pay for members of submarine operational command staff, amend U.S. Code, report, 379
joint uniform military pay system, status of development, Defense Dept., GAO report, 14515
licensed vendor listing, Posting Office Dept., uniform allowance program, 6120
pay, and position classification, Federal Government, bibliography, 15696
reciprocal advance of funds for temporary support of Armed Forces personnel, agreement with New Zealand, 1154
sick pay adjustments to income, tax information, 5632
special cost-of-living allowance paid to certain civilian employees in Republic of Vietnam, questionable justification and loose administration by State Dept., GAO report, 10152
State Department living quarters allowances, 16868
Supply Corps and Civil Engineer Corps of Navy former line officers, payment of severance pay, correct inequity, report, 10966
travel allowances for HUD employees, procedures and policy, handbook, 16665
uniformed services—
and National Guard members, claims for erroneous payments, waiver, amend U.S. Code, report, 5116
assigned to Government quarters, family separation allowances, payment, report, 1487
compilation, 13496
enlisted men appointed officers, no pay reduction, report, 10969
members, family separation allowance—
payment to prisoner of war, missing in action or in detained status during Vietnam conflict, report, 1492
restore, report, 1486
overseas cost of living allowances, affirming computation—
hearings, 6698
report, 5126
per diem allowance increase—
law, 3753
reports, 3814-815, 3930
round trip transportation, provide, amend U.S. Code, law, 6542
transportation and various allowances, reimburse, report, 3809
travel, transportation, and education allowances for dependents' schooling, report, 3816
uniform allowances, payment, report, 3808
veterans, educational assistance allowances—
increase rates—
law, 8178
report, 6632
pay in advance, hearing, 13755

Pay rolls:
Federal agencies, principles and procedures, GAO guidance manual, 8720
State and local government, 3221

Payloads:
approximate analytical model for landing energy absorption, including effect of penetration by payload into crushable casing, 12801
guidance and control payload support requirements for planetary cartographic probe, 11680
roll-out clamshell ejection concept for spinning rocket vehicles, equations for study, 11658
spherical hard-landing payloads, effect of surface protuberances on impact limits, 10386

INDEX 1970

Payments:

- alimony, income tax deduction, 1959
- Federal-aid highway relocation assistance and payment statistics, 4649
- freight and passenger transportation services, accounts, joint agency transportation study, 16598
- livestock payment, guidelines for producers, 36
- payment-record data, under supplementary medical insurance program, analysis, 7745
- public assistance—
 - money payments to persons aged 65 or over, concurrent receipt, 14937
 - source of funds expended, 7588, 17057
- relocation, for persons, businesses, farmers, and nonprofit organizations displaced, result of construction financed under Higher education facilities act of 1963, hearings, 6705
- workmen's compensation payments and costs, 2221

Payne, J. N., geohydrologic significance of lithofacies of Cockfield formation of Louisiana and Mississippi and Yegua formation of Texas, 18044

Payne, Joseph E., Jr.:
basic data on economy of Bolovia, 4989
foreign trade regulations of Venezuela, 276

Payne, Lawrence F., relief, 9641, 13259, 13585

Payroll savings, *see* Savings bonds.

Payrolls, *see* Pay rolls.

PCAM (punched card accounting machine), *see* Electronic data processing systems.

PCMR message, 3010

Peabody, Malcolm E., Jr.:
address—

Nov. 8, 1969, 746
Feb. 10, 1970, 5592
Oct. 14, 1970, 18059

Peace:

- Asia, southeast and other areas, background information, 9907
- essentials for peace in Asia (remarks), 1141
- lasting peace in Middle East, American view (address), 4731
- new peace initiative for all Indochina (address), 17330
- new strategy, foreign policy of U.S., for 1970's—
 - departmental edition, 6129
 - document edition, 5089
- pacification program in Vietnam, progress report—
 - hearings, 6698
 - report, 3854
- Paris Peace Conference, proceedings, 10607
- Paris peace talks, 4725
- pursuit (address), 1140
- toward peace with justice in Vietnam, reports, 1469, 1485
- two aspects of search for peace (address), 9194
- world interest, generation of peace (address), 18345

Peace Corps:

- act, amend—
 - analyses and Ramseyer rule print, 13515
 - hearings, 6801, 8292
 - law, 315, 13327
 - reports, 8776, 9722, 12220
- act, amendments of 1970—
 - hearings, 6801
 - report, 6776
- appropriations, additional, authorize, analysis and Ramseyer rule print, 13515
- appropriations, 1970—
 - hearings, 1702
 - law, 5053
 - reports, 1521, 1561, 3818, 3840, 3926

Peace Corps—Continued

- appropriations, 1971—
 - additional, authorization—
 - hearing, 8292
 - reports, 9722, 12220
 - hearings, 9728
 - bi-annual statistical summary 15105, 17206
 - biographic register, 15292
 - field staff, Foreign Service list, 2662
 - Peace Corps volunteer (periodical), 3011
 - quarterly statistical summary, 3125
 - volunteers, agreement with Malta, 15332
- Peaches:
- canned clingstone, U.S. standards for grades, 16098
 - eastern-grown, controlled atmosphere storage, 1199
 - handled in pallet boxes, 9304
 - marketing orders to include paid advertising, hearings, 15882
- Peak, George W., water supply outlook and Federal-State-private cooperative snow surveys for Wyoming, 3346

Peanuts:

- acreage allotments, transfer—
 - hearings, 15883
 - law, 1387
 - report, 1624
 - economic consequences of restricting use of organochlorine insecticides, 6993
 - farmers' stock, cost of storing and handling in commercial facilities, 5340
 - market news, weekly report, 3012
 - stocks and processing, 3013, 7844, 18365
- Pearce, T. G., study of stability and dynamic response of linear induction test vehicle, 14384

Pearl Harbor:

- navigable waters, Pearl Harbor, pollution, report, 16518
- Utah (U.S.S.) memorial, erection and maintenance report, 13657

Pearl River County, Miss., community profile, 16326

Pears:

- aldicarb residues, performance, 9276
 - blight, 17440
 - canned, U.S. standards for grades, 16099
 - pasteurized, 90-day subacute oral toxicity studies on radiation, 4892
- Pearson, David W.:
- comparison of behavioral effects of various levels of chronic disulfoton poisoning, 8039
 - consistency of performance change and autonomic response consistency as function of expressed attitude toward specific stress situation, 3517
- Pearson, Henry A., starvation in antelope with stomachs full of feed, 680
- Pearson, O. L., manned operations for Apollo lunar module in simulated space environment, 10399
- Pearson, Peter J., aerospace maintenance safety, 2299
- Pearson, William E., Netherlands' mixed feed industry, impact on use of grain for feed, 9974

Pears:

- and carrots, canned, U.S. standards for grades, 12389
- freeze-dried, factors affecting quality, 85
- how to buy, 12983

PEC reactor, 114

Pecos County, Tex., Sanderson Canyon Watershed work plan for watershed protection and flood prevention, 15246

Pediatrics, *see* Children.

Pedigreed gold system, a good system, why spill it?, 1430

Peele, Ellwood L., lateral vibration characteristics of 1/10 scale, Apollo/Saturn V replica model, 8945

Peery, Kenneth B., oceanographic cruise summary, Panama City, Fla., 15045

- Pegmatite, pegmatitic trachyandesite plugs and associated volcanic rocks in Saline Range, Inyo Mountain Range, Calif., 8742
- Peins, Maryann, bibliography on speech hearing and language in relation to mental retardation, 7449
- Pelecypods, *see* Aucella.
- Peleopoda, *see* Microlepidoptera.
- Pellerin, C. J., miniature 2-axis fluxgate magnetometer, 4508
- Pellets, prerduced iron ore pellets, preparation, properties, utilization, 5848
- Pellicano, Vincenzo, relief, 12180, 13209
- Pellini, W. S., fracture-safe design of steel structures, evolution of engineering principles, 4628
- Pembina County, N. Dak., community profile, 14147
- "Pembroke" album of chiaroscuro woodcuts, 5835
- Pemiscot County, Mo., community profile, 17842
- Penaeld shrimps, *see* Shrimps.
- Penalties,
criminal, under Sherman antitrust act, increase—
hearings, 11133
report, 5109
drug law violations, eliminate mandatory minimum sentences, report, 1634
illegal fishing in U.S. fishery zone, strengthen, 13487
illegal use, transportation, or possession, etc., increase penalties—
hearings, 17706
report, 16025
persons using firearms to commit felony, increase punishment, report, 1634
- Pend Oreille area, Idaho and Montana, geologic implications of aeromagnetic data, 18046
- Pend Oreille County, Wash., community profile, 6949
- Pender County, N.C.:
Agricultural Stabilization and Conservation Service, annual report, 11945
community profile, 14148
- Pendleton, Oreg.:
Umatilla River in Mission-Riverside area—
flood plain information, 7036
floods, 7043
- Pendulum, large disk suspended as pendulum, apparent mass and moment of inertia at different air densities, experimental determination, 12819
- Penetration model explanation for turbulent forced-convection heat transfer observed in near-critical fluids, 921
- Penicillin, semisynthetic, action on plague microbe, USSR study, 5783
- Penitentiaries, national, investigation, expenses, report, 5229
- Penn Central Co.:
accident investigation reports, 11316, 17234
- Penn Central Transportation Co.:
diversification program, effects on railroads cash position, staff report, 17635
failure and role of financial institutions, staff report, 17635
- Pennants, *see* Flags.
- Pennell, Maryland Y., allied health manpower supply and requirements, 1950-80, 10197
- Penner, Samuel:
beam handling techniques for electron linear accelerators, 7550
experimental techniques for electron scattering, investigations, 8994
- Penney, Monte M., looking deep into reading process, 8519
- Pennington County, S. Dak.:
community profile, 14149
Hill City quadrangle, geology, preliminary report, 726
- Pennsauken Creek:
and South Branch—
Burlington and Camden Counties, N.J., flood plain information, 8543
floods and flood plain management for Palmyra-Maple Shade area, N.J., 8537
- Pennsylvania:
anthracite mines, Kidney seam, Northern Field anthracite, preparation characteristics, 7488
Bedford shale, Berea sandstone, and Sunbury shale, age, 5541
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 9426
selected services, area statistics, 3547
wholesale trade, area statistics, 3548
census of governments, 1967, State report, 3587
census of transportation, 1967, commodity transportation survey, 9443
climatological data, 2409
community solid waste practices, 1968 national survey, 17309
cooperative forest management, investment guide, 16576
county business patterns, 3622, 13169
electric rate book, 14378
experimental planting of 14 tree species on anthracite strip-mine spoils, 14472
Great Lakes area, fishery products, wholesale dealers, list, 9547
land, inventory of use, 9146
mineral industry, mineral yearbook chapter, 4455
mineral materials for chemical manufacturing, survey of supply and demand in Ohio River Basin, 8897
minority construction contractors located in selected cities, list, 8792
northwestern Shenango formation (Mississippian), 10158
postal maps—
eastern section, 2198
western section, 2199
Potomac Valley Conservancy District, compact, amendments—
hearings, 1598
law, 17606
report, 13467
precipitation data, hourly, 2718
soil and water conservation, 1969 year of progress, 9177
water pollution on Lake Erie and its tributaries, etc., conference proceedings, 5469-70
- Pennsylvanian period, Lee formation, occurrence of fresh water in parts of Elliott, Johnson, Lawrence, Magoffin, and Morgan Counties, eastern coal field region, Ky., 8759
- Penobscot County, Maine, Fish Stream watershed work plan, 12522
- Pens, improved pen mechanism for certain strip-chart recorders, 1189
- Pensacola, Fla.:
dedication of the port (remarks), 14373
port, Engineers Corps port series, 10009
- Pense, R. A.:
mineral industry of—
South Korea, 18161
Taiwan, 16907
- Pensing, Ethel J., relief, 3781, 3787, 5047
- Pensions:
administration of negotiated pension, health, and insurance plans, major collective bargaining agreements, 11529
code of Federal regulations, 8652
District of Columbia teachers' retirement amendments of 1970—
law, 10923
reports, 5133, 9841

INDEX 1970

Pensions—Continued

- military retired pay, provide retirees with improved formula for future cost of living adjustments—law, 3749
- reports, 1478, 1509, 1688
- military retired pay, recomputation, authorize—
 - hearings, 6697
 - report, 5121
- pension aspects for the aging, hearings, 16032
- pension funds, investment policies, hearings, 12157
- pensions for displaced defense workers, 4845
- publications, price list, 6132
- qualified plans, etc., tax reform, summary of recommendations, 1728
- retired serviceman's family protection plan, 3456
- self-employed individuals, retirement plans, tax information, 5663
- trusts, tax exemption, procedures and qualification under Internal revenue code, 11457
- UMWA's welfare and retirement fund, improper administration, investigation and study, report, 5252
- veterans—
 - compensation rates, increase, hearings, 9771
 - disability compensation program, hearings, 6798
 - disability compensation rates, increase—law, 13343
 - report, 10988
 - income limitations and rates, increase, hearings, 9771
 - non-service-connected program amendments, report, 364
 - provided for under obsolete laws, continue pensions, report, 10968
 - service connected death, increase dependency and indemnity compensation for widows and children, law, 312
 - service-connected disability, increase rates, report, 11070
 - welfare and pension plans disclosure act, administration, 1969, report of Secretary of Labor, 5808
 - welfare and pension plans, statistics, 14656
 - see also Civil service pensions—Employee benefit plans—Retirement.
- Penson, John B., jr., Federal land bank farm-mortgage loans, statistical study of loans outstanding, 12492
- Peonies, growing, planting, etc., 15426
- People power for children, 14292
- People power, report of National Citizens Conference on Rehabilitation of Disabled and Disadvantaged etc., 7742
- Peoria Tribe of Indians of Oklahoma:
 - members of Confederate Tribes of Weas, Piankashaws, Peorias, and Kaskaskias, judgment funds, disposal—law, 13338
 - report, 9867
- Pepper, Stephen V., optical analysis of photoemission, 4520
- Peptides, renin-angiotensin mechanisms, research grants supported by National Heart and Lung Institute, 1949-70 review, 17073
- Peratrovich formation, Mississippian rugose corals, Prince of Wales Island, Alaska, 16614
- Percentages, percentage points of Pearson type III distribution, new tables, 9167
- Perception:
 - perceived noisiness, possible modifications to calculation, 14831
 - speech signals, theory and methods of research, USSR study, 8848
 - spral aftereffect, some inducences of visual angle and retinal speed on duration and intensity of illusory motion, 8036

Perception—Continued

- visual illusion problems, 17962
- visual perception under water, effects of diving experience on, 10318
- visually induced disorientation in man, motor effects, 11978
- see also Information theory in psychology.
- Perceptual-motor performance, see Ability.
- Perch, Pacific Ocean perch and hake studied off West Coast, 9534
- Perchal, Rudolph J., Arctic ice observing and forecasting program, 1968 report, 9048
- Percussive drilling, see Drilling.
- Perdido Bay, pollution of interstate waters, conference proceedings, 16516
- Perdue, Robert E., jr., campitrothea acuminata Decaise (nyssaceae) source of campitrothein, antitukemic alkaloid, 6319
- Perelra, Maria de C. B., relief, 12179
- Perennials, dowering, growing, 4813
- Performance (periodical), 3015
- Performance (psychology):
 - aptitude test performance affected by demographic differences, 13012
 - comparative, of low-ability airmen, 9332
 - complex human performance assessment methodology on monitoring dynamic process, effects of signal rate, 3516
 - complex performance—
 - assessment of methodology on monitoring static process, effects of signal rate, 8037
 - during exposure to high temperatures, 6403
 - effects of alcohol, 6404
 - effects of 2 common medications, 6402
 - do teachers make a difference? 11207
 - exposure to intense low frequency tones, effects, 12733
 - increased ambient pressure effects on helium-oxygen saturation and excursion dive to simulated depth of 1100 ft., 8890
 - patterns of physiological activity accompanying performance on perceptual-motor task, 3518
 - performance change and autonomic response consistency as function of expressed attitude toward specific stress situation, 3517
 - recovery of motor performance following startle, 8041
- Performance ratings, see Efficiency ratings.
- Performance tests (engineering, mechanical, etc.):
 - aircraft system performance and pilot ratings, relationships, 14833
 - Apollo ablator thermal performance at superorbital entry velocities, 16979
 - buildings, performance of components, etc., concept and measurement, 5996
 - computer and engine performance study of generalized parameter fuel control for jet engines, 11689
 - deployment and performance characteristics of 5 foot diameter (1.5m) attached inflatable decelerators from Mach 2.2-4.4, 14850
 - design-point performance and geometry of axial flow turbines using specified meridional velocity gradients, analysis, 2062
 - improving performance of IVS-3 evaporators, USSR study, 12652
 - inflight performance differences of pilot and navigator F-4 2d-seat crewmembers, 7955
 - performance and deployment characteristics of twin-keel parawing with various amounts of and permeabilities of porous material in outer lobes, 11651
 - pulse-width-modulated 2.5 kVA static inverter, design analysis and performance, 5929

Performance tests (engineering, etc.)—Con.
sanitary plumbing fixtures, performance
characteristics, investigation, 5999
simulated performance testing for ship
structure components, 10543
three-stage potassium turbine program,
performance test summary, 2072
turbojet combustor performance with nat-
ural gas fuel, 8933
XB-70 structural mode control system, de-
sign and performance analyses, 14810
Performance tests (human):
aptitude test performance affected by de-
mographic differences, 13012
flyover noise from various aircraft, judg-
ment tests, 16936
human performance prediction in man-
machine systems, technical review,
14823
performance contracting experiment to de-
termine effectiveness in improving educa-
tion for disadvantaged, background,
13823
school achievement of children 6-11 years,
as measured by reading and arithmetic
subtests of wide range achievement test,
14935
Performing artists, *see* Entertainers.
Performing arts, cultural presentations,
USA, 1987-88, report, 4729
Perfumes, perfume materials, synthetic or-
ganic chemicals, production and sales,
4768
Perrilla Mountain, watershed work plan,
Cochise County, Ariz., 15245
Periodic systems, Mendeleev Centennial, hon-
oring postulator of periodic table (re-
marks), 1274
Periodicals:
catalog of copyright entries, 529, 3997,
13770
Government, price lists, 4644, 9072,
18305
magazine reprint MR series, 2859
military, Air University Library index,
2319
Sub-Saharan Africa, guide to serials,
16875
trade associations, domestic and interna-
tional business news to use, 2514
Periodontal disease:
beware of plaque, it causes tooth loss
(poster), 10458
pyorrhea and other gum diseases, research
explores, 17229
Peripheral nervous system, *see* Nervous
system.
Perishable agricultural commodities act, *see*
Agricultural products.
Perishables, *see* Agricultural products.
Perk up your grammar, workshop in effec-
tive English, 3673, 13204
Perkins, Don C., hydrographic and sedimen-
tation survey of Kajakal Reservoir, Af-
ghanistan, 16641
Perkins County, Nebr., community profile,
16327
Perkins County, S. Dak., community profile,
14150
Perla, Ronald I., strength tests on newly
fallen snow, 682
Perlite, horticultural grade, voluntary prod-
uct standard, 11749
Perlmutter, Morris, rarefied diffusion by
model sampling, 12786
Perlmutter, N. M.:
detergents and associated contaminants in
ground water at 3 public-supply well
fields in southwestern Suffolk County,
Long Island, N.Y., 8762
dispersal of plating wastes and sewage
contaminants in ground water and sur-
face water, South Farmingdale-Massa-
pequa area, Nassau County, N.Y., 18052

Permafrost:
Alaska, ground water in permafrost re-
gions, 11399
heated rooms excavated in permafrost,
spray-applied polyurethane foam to in-
sulate, 10330
ionic concentration gradients, Barrow,
Alaska, 4069
thermal effects of heated pipeline in perma-
frost, estimates, 4237
Permanent Subcommittee on Investigations,
see Government Operations Committee,
Senate.
Permeability:
air, studies of lightweight coated fabric
subjected to uniaxial tensile loads with
and without prior cycling, 14873
twin-keel parawing with various amounts
and permeabilities of porous material
in outer lobes, performance and deploy-
ment characteristics, 11651
Permian period:
geology of rocks in western phosphate field
(series), 10170
lower, fusulinids from West Pakistan,
morphologic studies, 10178
mineral resources in Permian rocks of
southwest Montana, 10170
Permian red bed formations in Texas,
Oklahoma, and Kansas, production po-
tential of copper deposits associated
with, 16912
probable Permian age of Rampart Group,
central Alaska, 4231
sphenopods from Antaretica, 7244
stratigraphic sections and chemical anal-
yses of phosphatic rocks in Weber County,
Utah, 18040
Permits, *see* classes of persons to whom, or
subjects for which permits are issued.
Perquimans County, N.C., community profile,
14151
Perry, Ellis L., nomination, hearing, 13719
Perry, John M., establishing business in Iran,
10878
Perry County, Ala., community profile, 14152
Perry County, Miss., community profile,
16328
Perry County, Mo., community profile, 17843
Perry County, Ohio, community profile, 14153
Perry County, Pa., community profile, 16329
Perry County, Tenn., appraisal of potentials
for outdoor recreational development, 4681
Perry Preschool Project, Ypsilanti, Mich.,
11237
Pershing, John J., trophy, NGB announce-
ment of winners, 7597
Persian Gulf:
lights and fog signals, 11sts, 6086, 15053
sailing directions, change, 17178
Personal property:
claims of military personnel and civilian
employees, settlement, discontinue
annual report to Congress—
law, 12134
report, 12335
credit sales by dealers in personal prop-
erty, tax information, 5639
Defense Department, utilization and
marketing handbook, supplements, 1762,
11164
Federal surplus, classes sold by Defense
Dept., 16109
taxes levied on farmers, 1950-87, 7942
uniformed services, traffic management,
regulation, 7932
Personality tests, comprehensive MMPI code
book for males, 9257
Personnel administration, *see* Administrative
management.
Personnel management, *see* Administrative
management.
Personnel manual, *see* Civil service.
Personnel research, *see* Ability.

INDEX 1970

- Personnel workers:
 employment outlook, 12666
 human equation, working in personnel for
 Federal Government, 9472
 1 & C, Navy training course, 1028
 Persons under supervision of Federal proba-
 tion system, 1186
 Perspective on Asia, 507
 Perspectives in defense management (peri-
 odical), 3017
 Perspectographs, stereoscopic, patent appli-
 cation, USSR study, 2003
 Persse, Franklin H.:
 bismuth in United States, 5850
 mineral industry of North Dakota, 4450
 PERTRAN, transport-perturbation program,
 12823
 Pertsovitch, Anastasia, relief, 17670
 Perturbation theory:
 based on Lie transforms and its applica-
 tion to stability of motion near sun-
 perturbed earth-moon triangular libra-
 tion points, 14825
 Hill's method of secular perturbations, dis-
 cussion of potential application to de-
 termination of zero rank effects in non-
 singular vectorial elements in planetary
 motion, 11632
 PERTRAN, transport-perturbation pro-
 gram, 12823
 Perturbations:
 inclination perturbations of polar-orbit sat-
 ellites, 1030
 long-wave, stellarator magnetic system
 geometry, 111
 method, nonlinear oscillations theory,
 7520
 Peru:
 background notes, 7804
 economic trends and their implications
 for United States, 11465
 economy, basic data, 4992
 military's role in politics, research study,
 3445
 mineral industry, minerals yearbook chap-
 ter, 4456
 northern Lambayeque Valley, ground-
 water resources, 735
 Peru-Chile trench, presence of Ostracoda
 (Myodocopina), 6158
 records of State Department, pamphlet ac-
 companying microcopy, political rela-
 tions, with other States, 1910-29, 14913
 30 Peruvian woods, natural decay resist-
 ance, 18024
 Perz, Dennis A., experimental evaluation of
 volt-ampere loading and output distortion
 for turboalternator with multiple load
 phase-controlled parasitic speed controller,
 4518
 Peskoff, Arthur, feasibility study for remote
 sensing of atmospheric turbulence profiles,
 7509
 Pessl, Fred, Jr., formation of modern ice-
 push ridge by thermal expansion of lake
 ice in southeastern Connecticut, 1800A
 Pesticides:
 agricultural commodities containing eco-
 nomic poisons, prohibit importation
 hearing, 11017
 aldicarb residues in apples, pears, sugar-
 beets, and cottonseed, performance in
 apples and pears, 9276
 dealers, safety guide, 9321
 documentation bulletin, index to litera-
 ture on pest control (periodical), 3015
 effects on sports and commercial fisheries,
 hearings, 3959
 farmers' expenditures, 1966, statistics,
 etc., 18379
 health aspects, abstract bulletin, 2709
 imported agricultural commodities, eco-
 nomic poison standards, report, 12253
 manual, analytical, 5472
 microorganisms as pesticide producers,
 USSR study, 16783
 Pesticides—Continued
 monitoring journal (periodical), 3019
 organophosphorus, reproduction in rat,
 effects, 11980
 pesticide-induced toxicity in an estuarine
 fish, factors affecting, 15277
 pesticides and related products, production
 and sales, 1172, 15347
 quantities used in 1966 by farmers, 8496
 registered agricultural chemicals, insecti-
 cides, repellants, acaricides, summary of
 uses, 3383
 review, 6296
 safety in your home, 9319
 sources in Florida waters, 16625
 toxicity, to wildlife, handbook, 10589
 errata, 11889
 water, 11262
see also Insecticides.
 Pesticides and Their Relationship to En-
 vironmental Health Commission, report,
 1918
 Pesticides Information Center, National
 Agricultural Library, DDT (1,1-dichloro-2,
 2-bis (P-chlorophenyl) ethylene), lists of
 references, 5983
 Pest:
 control, house plants, 17436
 forest pest conditions in Pacific North-
 west, 5486
 forest pest leaflets, 673, 4179, 5487, 8688,
 12547-548, 14439-446, 16541-543
 going abroad? important message from
 Pestina, 11958
 plants, guard against, for beautiful
 America, 34
 regulating shipment, 10697
 who shall reap? Agriculture Department
 film on pest control, announcement,
 3429
see also Insecticides—Insects—also names
 of individual pests.
 Peterkin, Betty, dietary levels of house-
 holds in North Central region, 4816
 Peters, James A., catalogue of neotropical
 squamata, 6057
 Peterson, James P., buckling of stiffened
 cylinders in axial compression and bend-
 ing, review of test data, 2105
 Peterson, James T., climate of cities, survey
 of recent literature, 14902
 Peterson, John B., Jr., boundary-layer veloc-
 ity profiles downstream of three-dimen-
 sional transition trips on flat plate at
 Mach 3 and 4, 922
 Peterson, Melvin N. A., covering leg 2 of
 cruises of drilling vessel Glomar Chal-
 lenger, Hoboken, N.J. to Dakar, Senegal,
 8069
 Peterson, Neal H.:
 foreign relations of U.S., Paris Peace Con-
 ference—
 departmental edition, 10608
 document edition, 9613
 Petitions for patent waiver, findings of fact
 and recommendations of NASA Inventions
 and Contributions Board, 3020, 7557
 Petrasek, Donald W., preliminary evalua-
 tion of tungsten alloy fiber-nickel-base com-
 posites for turbojet engine application,
 5926
 Petrography, *see* Rocks.
 Petroleum:
 and coal products, census of transporta-
 tion, 1967, commodity transportation
 survey, shipper group, 3604
 and natural gas production and processing
 industry, employment outlook, 14716
 and tanker utilization, estimated interna-
 tional flow, 15101
 and unconventional fuels, permanently in-
 stalled storage and dispensing systems,
 maintenance, civil engineering, Air
 Force manual, 15454
 census of manufactures, 1967, industry
 statistics, 17523

Petroleum—Continued

competitive bidding to award oil and gas leases on federal lands opportunity for benefits through increased use, GAO report, 7215
control of discharges in navigable waters, law, 8138
costs, conservation and oil industry (remarks), 766
criticality of oil (remarks), 18066
crude oil, market demand forecast, monthly, 3021
crude petroleum and products—
minerals yearbook chapters, 4403
1968 annual summary, 4404
crude petroleum, petroleum products, and natural-gas-liquids, monthly statement, 3022
development, Santa Barbara Channel region, Calif., 731
environmental challenges (address), 4296
hydrocarbon seeps in thermal areas, northwestern Wyoming, 11398
hydrosulfurization of residual fuel from Wilmington, Calif., crude oil, 12747
industry—
governmental intervention in market mechanism—
Cabinet Task Force on Oil Import Control, recommendations, 16070
complainants' views, hearings, 8417
industry views, hearings, 1734
injury experience, 844, 16890
natural gas liquids role, 4408
responsible for environmental controls on its products (remarks), 7303
U.S. 1950-68, changing investment patterns, 11580
international petroleum annual, 5857
interstate compact to conserve oil and gas—
consent of Congress to extend, hearing, 425
extension and renewal, consent of Congress, law, 1414
laws of world, summary, 16893
Middle East, 1967 emergency, 2187
oil exploration leases in Santa Barbara Channel, terminate, message from the President, 13363
oil import control—
Cabinet task force recommendations, hearings, 16070
hearings, 12275
oil import question—
report, 15915
report on relationship to national security, 6125
oil leases—
reinstate in—
Alaska, report, 8358
Wyoming, report, 8360
termination and reinstatement—
law, 9609
report, 6691
oil recovery—
by steamflooding in Venango sands, applying Marx and Langenheim calculations, prediction, 850
by waterflooding reservoirs being produced by primary methods, potential, 10321
oil sampling techniques for water pollution, progress report, 8675
oil spillage, Santa Barbara, Calif., hearings, 11131, 16063
petroleum-associated waters from Louisiana, geochemistry, 4473
problems facing oil industry (remarks), 768
production and sales, crude products for chemical conversion, 4767

Petroleum—Continued

products—
radioprotective action of antioxidants obtained from, USSR study, 12627
survey (series), 865, 5870, 7477, 14790-791
Project Seacoke, investigation of process for deriving oil from coal, etc., 4974
rate of gas diffusion in crude oil, method for testing by periodic measurements of concentration profiles, 7483
research, 1967-68, by Mines Bureau, 5853
role of Outer Continental Shelf in national supply, 16871
Santa Barbara, Calif., offshore oil leasing bills, hearings, 11131, 16063
trade, Canadian oil exports, arrangement, 6244
waters for waterflooding San Joaquin Valley, Calif., petroleum reservoirs, 10336
see also Pipelines.
Petroleum as fuel, *see* Fuel oil.
Petroleum engineering, curve fitting method of least squares as applied to petroleum engineering, review, 7459
Petroleum Exposition, International, *see* International Petroleum Exposition.
Petroleum gases, *see* Liquefied petroleum gas.
Petroleum products, *see* Petroleum.
Petroleum refineries:
investment and operating costs for chemical and petroleum plants, bibliography, 14776
petroleum refining industry, employment outlook, 14716
Petrology, *see* Igneous rocks—Rocks.
Pets:
importation by travelers, regulations, 1755
starting and managing pet shop, 9104
Pettibone, Marian H.:
revision of genus *Euthalenessa* Darboux (*Polychaeta sigalionidae*), 11851
revision of some species referred to *Leanira* Kinberg (*Polychaeta: Sigalionidae*), 12915
Pettis County, Mo., community profile, 17844
Pettit, Jack P., guide to installation, operation, and maintenance of electronic traffic counters, 10113
PF series, 3025
Pfeil, Mary P., it's hard to come back, 14287
Pfiker, George, tectonics of Mar. 27, 1964 Alaska earthquake, 7242
Pfrang, Edward O., structural performance evaluation of building system, 2135
pH, *see* Hydrogen ion concentration.
Phanom Nakhon, Thailand, *see* Nakhon Phanom, Thailand.
Pharmaceutical industry, *see* Drugs.
Pharmaceuticals, *see* Drugs.
Pharmacies, pharmacy department intravenous additive incompatibilities, 979
Pharmacists:
employment outlook, 12672
pharmacist mate training (remarks), 10309
Public Health Service hospital residences, 16487
Pharmacology:
new ways of obtaining chemical agents, USSR study, 16803
pediatric, conference proceedings, 5474
see also Drugs.
Pharmacology Section, N.I.M.H., workshop series, 1080
Pharmacotherapy, pharmacotherapeutics in dental practice, 2177
Pharmacy:
Health training improvement act of 1970—
hearings, 9924
report, 13651
residences in hospitals of Public Health Service, 16487
Pharris, Cecil M., inspector, San Francisco Police Department, testimony, hearings, 9920

INDEX 1970

- Phase boundary water in frozen soils, 11251
 Phase control, phase-controlled parasitic speed controller, experimental evaluation of volt-ampere loading and output distortion for turboalternator, 4518
 Phase diagrams, geometric analysis of four-component phase diagram used as basis for estimation of gamma phase composition in nickel-based super-alloys, 11648
 Phase shifters, microwave switching schemes and variable power-division networks using phase shifters, review, 15083
 Phase studies:
 hybrid phase-lock loop, analysis, 11629
 kinetics of ice nucleation from water and electrolyte solutions, 5617
 multiple phase ejector pilot plant, 18070
 phase behavior in binary and multicomponent systems, at elevated pressures, n-pentane and methane-n-pentane, 11732
 secondary nucleation of ice in suspension of crystals in turbulent, cylindrical couette flow, 5616
 two-reflector antenna with automatic phasing, and experimental study, USSR study, 7395
 Phase transformations, *see* Transformation temperatures.
 Phased arrays, phase interpolation circuits for scanning phased arrays, 14854
 Pheasants, ring-necked, habitat management, 15215
 Phelan, Thomas, field guide to cidaroid echinoids of northwestern Atlantic Ocean, Gulf of Mexico, and Caribbean Sea, 6161
 Phelps, William R., antibiotic treatment of blister rust cankers in eastern white pine, 16563
 Phelps County, Mo., community profile, 17845
 Phelps County, Nebr., community profile, 16330
 Phenix, prototypes fast-neutron nuclear power station, 8006
 Phenol-resorcinol adhesives, *see* Adhesives.
 Phenolic nylon, *see* Nylon.
 Phenols, carbon-phenolic ablation material, experimental study, 16963
 Phenomenological and statistical analysis of fracture in polycrystalline aluminum oxide, 14851
 Phenotypes, *see* Genetics.
 Phenoxo herbicides, chamise regrowth control, 1881
 Philadelphia, Pa.:
 area wage survey, 10296
 census of transportation 1967, commodity transportation survey, production area series, 6419
 housing information service, report, 4288
 International Airport, climatological summaries, 4764
 principal electric facilities, map, 8622
 student health project, 5588
 Philadelphia County, Pa., community profile, 16331
 Philadelphia plan, *see* Discrimination in employment.
 Philately and philatelists, *see* Postage stamps.
 Philipp, Warren H., radiation-induced preparations of metals from their aqueous salt solutions, 12812
 Philippine Science High School, special fund for education, agreement with Philippines, 1156
 Philippines:
 agricultural commodities, agreement, 10625, 15318
 customs regulations on cargo for U.S. military forces, agreement, 4736
 economic trends and their implications for United States, 7338, 18086
 mineral industry, minerals yearbook chapter, 14788
 Philippines—Continued
 Myodocopid Ostracoda (Cypridinacea), 6160
 sailing directions, change, 6085
 special fund for education, Philippine Science High School, agreement, 1156
 U.S. security agreements and commitments abroad hearings, 1729
 Veterans Administration regional office, operate and maintain, extend authority—
 law, 13313
 reports, 9660, 11099
 Phillips, D. H., time and frequency transfer via microwave link, 15096
 Phillips, J. Edmund, handbook for job restructuring, 4362
 Philosophy:
 activism, but what kind (address), 10752
 problems, USSR study, 5764
 PIPPS, Howard M., germination of several tree species in plastic greenhouses, 5493
 Phleger, Charles F., experimental sablefish fishing off San Diego, Calif., 13238
 Phoenix, Ariz.:
 area wage survey, 14732
 Indian vital statistics, 1968, area, 8800
 intrastate air quality control region, Federal facilities, air pollution report, 12338
 principal electric facilities, map, 8626
 Phonograph records, Sousa Band, discography, 4392
 Phonographs:
 and record player attachments, current industrial reports, 17537
 Federal item identification guides for supply cataloging, supplements, 2597
 Phonorecords, Library of Congress, catalog, 12724, 16873
 Phosgene, factors affecting production using gamma radiation, 4479
 Phosphate rock, *see* Rock phosphates.
 Phosphates:
 fertilizer, supply, 12970
 industry in southeastern U.S. and its relationship to world mineral fertilizer demand, 8898
 phosphates in detergents and eutrophication of America's waters—
 hearings, 8296
 report, 6690
 sell reserved interests of U.S. in lands located in Highlands County, Fla., to record owners of surface, report, 5106
 superphosphates, current industrial reports, 2475
 waste solution, solvent extraction of nickel and zinc, 5874
 western field, Permian rocks, geology (series), 10170
 see also Rock phosphates.
 Phosphoric acid:
 atmospheric emissions from wet-process phosphoric acid manufacture, 7560
 titrimetric determination of uranium in product, fuel, and scrap materials after ferrous ion reduction in phosphoric acid, 13075
 Phosphors:
 frequency responses and other characteristics of 6 fast-decay phosphors applicable to flying-spot scanners, 18215
 typical zinc sulfide phosphors, alternating-current electroluminescence in, observation and mechanism of direct current quenching, 16984
 Phosphorus:
 diffusion conditions for shallow-junction solar cells, 4528
 interrelation with carbon in regulating heterotrophic and autotrophic populations in aquatic ecosystems, 14413
 phosphorous burns treated with copper sulfate, cupric ion absorption through denuded epithelium, 14761

Phosphorus—Continued
selective removal from wastewater through use of alumina columns, 14406
see also Organophosphorus.

Photo reconnaissance, *see* Reconnaissance (aerial).

Photochemistry:
photochemical oxidants, air quality criteria, 5987, 11715
smog formation, on function of hydrocarbon and nitrogen oxides, 16921

Photoconductivity, cadmium sulfide thin film photovoltaic cells spectral response, effect of bias light and heat treatment, 2088

Photoelectric emission, optical analysis of photoemission, 4520

Photoelectricity:
accumulator with photo-electronic signal selection, USSR study, 5756
automatic photoelectric triggering mechanism for data-record camera, 18012
photoelectric-photographic study of normal albedo of moon, 11396
photoelectric tracking systems, USSR study, 5791

Photoemission, *see* Photoelectric emission.

Photoengravers, employment outlook, 14712.

Photogrammetry, used in land resource inventory and engineering surveys, 8685.

Photographers, employment outlook, 14680.

Photographic apparatus and supplies:
aerial photographic reconnaissance equipment, general environmental requirements, testing procedures, and sampling, military standard, notice, 1772.
census of manufactures, 1967, industry statistics, 17533
census of transportation, 1967, commodity transportation survey, shipper group, 3608
Federal item identification guides for supply cataloging, supplements, 2495
sensitized materials, photographic and copying, Federal item identification guide, 6864
changes, 8475, 13791

Photographic cameras, *see* Cameras.

Photographic emulsions, *see* Emulsions.

Photographic interpretation (military science):
image incongruence effects on location of common terrain in comparative cover, 15497
rapid photointerpretation methods, study, 9364

Photographic laboratories, occupations, employment outlook, 14680

Photographic paper:
sensitized materials, photographic and copying, Federal item identification guide, 6864
changes, 8475, 13791

Photographic processes, *see* Photography.

Photographic surveying, photoelectric-photographic study of normal albedo of moon, 11396

Photographs:
black and white, method for filing, 4717
catalog of copyright entries, 17725
Nisqually Glacier, Mount Rainier National Park, analysis of 24-year photographic record, 5554
photographic data used to prepare contour charts for 5 Apollo landing sites, block and strip solutions involving Lunar Orbiter, 14872
retinal photographs of submariners, measurement of blood vessels, 11571

Photography:
aerial sensing and photographic study of El Verde rain forest, P.R., 4067
Apollo 8 photography and visual observations, analysis, 2078

Photography—Continued
automatic photoelectric triggering mechanism for data-recording camera, 18012
high level cloud photography inventory, BOMEX 4 period, 16454
PACAF basic bibliography, supp., 15463
photographic and accelerometer measurements on Buggy cratering experiment, 6384
photographic calibrations for emission spectrography using small computer, 18174
photographic measures of double stars, 7667
photographic meteors, unaccelerated velocity and mass distributions, empirical analysis, 10388
refracted photographic method, ground plane printed circuit boards, 122

Schlieren—
application of 4-microsecond flashing light synchronized with framing of motion-picture cameras, 11682
optical study of sonic and supersonic jet penetration from flat plate into Mach 2 airstream, 12778
scientific, Palanquin project, 13079
space, application to geology, USSR study, 18095

still photography, Army pictorial techniques, equipments, and systems, still photography, Army technical manual, 3482
VAWS-sponsored competitions, 10660
see also Aerial mapping—Aerial photography—Color photography.

Photointerpretation, *see* Photographic interpretation (military science).

Photolionization, *see* Ionization.

Photometry:
eclipses of Galilean satellites used to infer physical properties of Jovian atmosphere, 17009
lunar features, photometric properties, 889

Photons:
activation analysis using NRL Linac, survey, 15091
counting, problem in classical noise theory, 10413
stray photon spectra and dose above 25 MeV near transverse shielding of proton synchrotron, estimating, 9395

Photonuclear reactions:
photonuclear data index, supplement, 10431
review of theories and experiments, 17032

Photovisual magnitude differences of double stars, 7666

Phreatophytes:
Gila River Phreatophytes project (series), 7247-49
Gila River project, Graham County, Ariz., objectives, methods, and environment, 7247
woody, evapotranspiration in Humboldt River Valley near Winnemucca, Nev., 10172

PHS, *see* Public Health Service.

Physical chemistry, laboratory physicochemical studies, phase 2, bench-scale research on CSG process, 254
Physical constants, international system of units, adjusted, 4506

Physical culture, *see* Physical education and training.

Physical education and training:
circuit training value at Officer Candidate School, Quantico, Va., 16882
selected serum enzymes, indicators of changes in physical condition, 7451

Physical endurance, *see* Physical fitness.

Physical examinations, medical fitness standards, Army regulations, 7981

- Physical fitness:**
 circuit training value at Officer Candidate School, Quantico, Va., 16382
 facts, 2201
 medical fitness standards, Army regulations, 7980-81
- Physical geography:**
 and military environment in transect of Utah and Colorado Rockies, 13042
 physiographic development of Quadrilatro Ferrifero, Minas Gerais, Brazil, 5556
- Physical measurements:**
 close-in physical effects and ground motions, analysis, Gasbuggy event, 6385
 precision measurement and calibration—electricity-radio frequency, 14922
 heat, 12843
- Physical measurements (body measurements),** *see* Anthropometry.
- Physical principles of quantum gyroscopy, USSR, 12653**
- Physical properties:**
 alpine snow, 4068
 Jovian atmosphere, on inference from photometry of eclipses of Galilean satellites, 17009
 physical-chemical studies of clad UO_2 under reactor accident conditions, 9378
 reactor materials, progress report, 9376
 seeded coal combustion products, 12739
- Physical research, program, AEC authorizing legislation, 1971, hearings, 8190**
- Physical Research Program, statistical summary, 144, 15537**
- Physical science aids:**
 examination announcement, 6473
 physical science technicians, amendment, 13196
- Physical sciences,** *see* Science.
- Physical security,** *see* Military security.
- Physical therapists:**
 educational opportunities, Army Medical Department, 8001
 employment outlook, 12675
- Physical therapy:**
 for lower-extremity amputees, 17468
 outpatient, directory of medicare providers of services under health insurance for the aged, 4669
- Physical training,** *see* Physical education and training.
- Physically handicapped,** *see* Handicapped.
- Physician Manpower Division, NIH:**
 continuing education program, 11410
 mission and organization, 973
- Physicians:**
 Air Force, more than 100 Air Force hospitals around the world, waiting for you! 4839
 arrangements for physician services to residents in nursing and personal care homes, 7585
 aviation medical examiners, directories, 8042, 10781
 dietary management of hyperlipoproteinemia, handbook, 18244
 disability evaluation under social security, handbooks, 7758, 17284
 Division of Physician Manpower, continuing education program, 11410
 employment outlook, 12668
 family physician scholarship and fellowship program, establish hearing, 16075
 from abroad, 1968 fiscal year, reviews of data on science resources, 4591
 Georgia, honored, 1969 list, USSR study, 5760
 medical malpractice, patient versus the physician, study, 5266
 Moldavian, SSR, 1st Congress of Rural Physicians meets in Kishinev, 18101
 physician support personnel, selected training programs, 11414
- Physicians—Continued**
 Public Health Service's mental health services career development program in psychiatry, 15012
 rotating psychiatric internship training, 6049
 training medical and scientific cadres, USSR study, 1982
- Physics:**
 atmospheric, problems, collection of papers, 11698
 comets, studies in astrometry and astrophysics, 11702
 East European abstracts, 2523
- Physics:**
 high energy physics, reports, 135, 1265
 high temperature physics and chemistry of materials, bibliographies, 958, 7573, 10430
 hydrophysical techniques and equipment, USSR study, 16792
 journal of research, National Bureau of Standards, 2785
 physics and technological progress, USSR study, 16774
 physics of aerodynamic noise, 949
 reactor shielding problems, USSR study, 5754
 scientific tests, standards, publications, price list, 18306
 solid-earth and ocean physics, terrestrial environment, 10354
 USSR abstracts, 3323
see also Nuclear physics—Plasma—Radio physics.
- Physiography,** *see* Physical geography.
- Physiological chemistry,** *see* Biochemistry.
- Physiological reactions:**
 patterns of physiological activity accompanying performance on perceptual-motor task, 3518
 physiological responses of men during sleep deprivation, 17476
 physiologically tolerable decompression profiles for supersonic transport type certificate, 17478
 stress effects of high noise levels on lower body negative pressure experiments, 16978
- Physiology:**
 anticholinesterase intoxication, pathophysiology, signs and symptoms, and management, Army technical bulletin, 17465
 clinical and physiological investigations dealing with electrosleep and electroanesthesia, USSR study, 10276
 Clostridium botulinum, type F, studies, 127
 computer technology, USSR study, 5726
 of flight, aerospace medicine, 10720
 physiological information, methods of collecting and analyzing, USSR study, 5787
 physiological measurements in space and their automation, USSR study, 12646
 physiological psychology and cell biology, organization and description of complex data through cluster analysis, research, 2148
 vestibular analyzer, 11708
- PI series, 7698, 11828**
- Pianos:**
 piano actions, production and maintenance workers of Rockford plan of Wood & Brooks Co., Tariff Commission report, 12946
 pianos and parts, Tariff Commission report, 4765
- Piarulli, Vincent J., method for determining characteristic functions associated with aeroelastic instabilities of helicopter rotors in forward flight, 11615**
- Piatt, V. R., chemical research in nuclear submarine atmosphere purification, 15073**
- Picea abies,** *see* Spruce.

- Piceance Creek :
basin, Colo.—
dawsonite and nahcolite analyses of
Green River formation oil-shale sec-
tions, 18172
Green River formation lithology and oil
shale correlations, 11583
Colorado, public lands outdoor recreation,
map of area, 14748
Picher Field, Okla. and Kans., geology and
ore deposits, 5549
Pick-Sloan Missouri River Basin program,
program, designate, report, 9880
Pickaway County, Ohio, community profile,
12455
Pickens, Miss., rural industrialization, tissue
paper mill, case study, 14266
Pickens County, Ala., community profile,
14154
Pickens County, S.C., appraisal of potentials
for outdoor recreational development, 1105
Pickering, R. J., composition of water in
Clinch River, Tennessee River, and White-
oak Creek as related to disposal of low-
level radioactive liquid wastes, 8739
Pickford, Stewart G., water pump air sam-
pler for use at remote sites, 16585
Pickles and relishes, making at home, 6304
Picloram, in spaced stem injections to control
Lake States hardwoods, 16561
Picnics, camping and picnicking in Eldorado
National Forest, 18008
Picture story series, 7937-38, 11960, 13001
Pictures :
merchant fleet pictures, 16880
NASA picture sets, 7523
Revolutionary War, list, 952
see also Aerial photography.
Piecewise ergodic problem for gas systems,
12892
Piedmont region :
soil survey interpretations for woodlands
in Southern Piedmont area of Alabama,
Georgia, North Carolina, and South
Carolina, 4696
South Carolina, wildlife food plants on
chopped areas, 4193
Piedras Negras, Mexico, despatches from
U.S. consuls, microcopy, pamphlet to ac-
company, 17024
Pierce, Clarence R., effective resonance in-
tegrals of tantalum, 4527
Pierce, Marie-Louise (Mary Louise), relief,
3788, 9574
Pierce, Samuel R., Jr., nomination, hearing,
11120
Pierce County, Nebr., community profile,
17846
Pierce County, N. Dak., community profile,
14155
Pierce County, Wash., community profile,
6950
Pietrandrea, Anne R., relief, 3790, 9586,
9801
Pigeons :
band-tailed, habitat management, 6181
wild, and white-winged doves, hunting
possession, transportation, importation,
Federal regulations governing, 15276
Pigments, iron oxide, minerals yearbook
chapter, 853
Pigs, *see* Swine.
Pike, Clarence E., Japanese efforts to di-
versify sources of agricultural imports,
8506
Pike :
biology of northern pike in Oahe Reservoir,
1959-65, 7792
northern, vital statistics estimates in Lake
Sharpe, S. Dak., 7792
Pike County, Ala., community profile, 14156
Pike County, Ga. :
convey mineral rights to, 8348, 9581
Pike County, Miss., community profile, 16332
Pike County, Mo., community profile, 17487
Pike County, Ohio, community profile, 12456
Pike County, Pa., community profile, 16333
Pile driving, *see* Piles and pile driving.
Piles and pile driving :
pile driving by means of longitudinal and
torsional vibrations, 16410
piling and stacking, fabricated structural
steel industry, how to inspect chart, 7417
Piling, *see* Piles and pile driving.
Pillage, riots, looting, and burning, sub-
versive influences, hearings, corrected
print, 423
Pillars (mine), *see* Mine pillars.
Pilot guides, *see* Coast pilots.
Pilot plants :
multiple phase ejector pilot plant, 18070
tests and design study of 2.5 MGD hori-
zontal-tube multiple-effect plant, 5615
see also names of plants, or places where
located—*also* subjects.
Pilots and pilotage :
certification, Federal aviation regulations,
17959
fixed-base visual simulation of obstacle
avoidance during terminal descent of
advanced Apollo spacecraft with all-
flexible parawing, 14879
Great Lakes and St. Lawrence Seaway
pilotage services, agreement with Cana-
da, 17342
heart rate during in-flight simulated in-
strument approaches in general aviation
aircraft, 13089
motion drive signals for piloted flight
simulators, 11617
see also Aviators.
Pima County, Ariz. :
community profile, 6951
geochemical study of alluvium-covered
copper deposits, 7224
land conveyance for recreational purposes,
report, 13414
preliminary reconnaissance for uranium,
15525
Pimpale, Maureen O., relief, 12178
Pin Oak Creek, Trinity River basin, Tex.,
1967, hydrologic data, compilation, 7232
Pinal County, Ariz. :
community profile, 6952
preliminary reconnaissance for uranium,
15525
Pinch, *see* Plasma.
Pinder, George F., digital model for aquifer
evaluation, 8751
Pine :
cluster, direct seeding in Hawaii, 4192
does bedding promote pine survival and
growth on ditched wet sands? 12558
eastern, annosus root rot, 14444
eastern white, antibiotic treatment of
blister rust cankers, 16563
Genus Pinus (Pines), subdivisions, 3410
hard, sweetfern rust infection, 14445
loblolly—
Neodiprion taedae linearis, sawfly pest
of, 8688
reproductive maturity related to height,
4195
tool forces and chip formation in ortho-
gonal cutting, 11364
western sources, introgression with
shortleaf pine explains rust resist-
ance, 687
loblolly-slash pine plantation growth and
yield, 11359
lodgepole—
board-foot volumes to 6-inch top in
Colorado and Wyoming, 5505
clearcut size affects minimum tempera-
tures near soil surface, 1884
longleaf saplings—
development of year's height growth,
703
morphology and length correlated in
terminal flushes, 11365
Monterey, ips beetle infestations, 16541

Pine—Continued

- pinyon, tree weights and fuel size distribution, 10123
- pith-associated and non-pith-associated southern pine 2 by 6's, tensile strength of finger joints, 14469
- ponderosa—
 - cacodylic acid field tested for control of mountain pine beetles, 11351
 - monoterpenes of Ponderosa pine wood oleoresin, local and regional variation, 18027
 - past diameters in northern California, estimating, 5501
 - preparing planting sites in Southwest with premergent herbicides, 11354
 - reducing fire hazard in thinning slash by mechanical crushing, 8713
 - seedlings—
 - influence of antitranspirants on water use, growth characteristics, and relative drought resistance, 683
 - root competition with grass, 5516
 - red, initial thinning in plantations, 12561
 - relation of snowpack accumulation to red pine stocking, 5495
 - sand, wood density survey in eastern U.S., 4209
 - Scotch, height growth and foliage color, provenance study in northern Michigan, 675
 - seed losses to small mammals after fall sowing, 695
 - seedlings growing near black locust, deer prefer, 14568
 - seedlings respond to liming of acid strip-mine spoil, 5498
 - shortleaf—
 - introgression with shortleaf pine may explain rust resistance in Western loblolly pine, 687
 - Neodiprion taedae linearis, sawfly pest of, 8688
 - slash—
 - and loblolly pine plantations variously spaced, single commercial thinnings, 705
 - pruning to reduce fusiform-rust damage not justified, 686
 - spacing, quality timber production, 4211
 - southern—
 - ammonium salt-treated, cure rate of resorcinol and phenol-resorcinol adhesives in joints, 8700
 - flexural properties of glue-laminated beams with laminations positioned by visual-stiffness criteria, 8701
 - major southern pines, converting dendrometer estimates of outside-bark stem diameters to wood diameters, 691
 - needle cast, forest pest leaflet, 673
 - nursery diseases, 5487
 - pulpwood prices, determinants, 702
 - white, specific gravity and wood moisture variation, 5496
 - yellow, wood density surveys of minor species in eastern U.S.—
 - sand pine, 4209
 - table mountain pine, 4210
 - Pine Mountain Wilderness, designate as wilderness area, proposal, report, 12322
 - Pine Ridge Reservation, conditions among Oglala Sioux, that these people may live, 4295
 - Pine Valley quadrangle, Nev., nonmarine ostracodes of early Cretaceous age, 5557
 - Pink salmon, *see* Salmon.
 - Pinnipedia, locomotion and blood supply of cardiac valves, USSR study, 7374
 - Pins, Federal item identification guide, 16130
 - Pinson, Larry D., evaluation of finite-element analysis for longitudinal vibrations of liquid-propellant launch vehicles, 11655
 - Pintabona, Rosa, relief, 9791, 13284, 13381
 - Pinyon pine, *see* Pine.
 - Pinyon sawfly, Neodiprion eduliculus Ross, 4179

Pioneer (USC&GS):

- International Indian Ocean Expedition—bathymetry, geomagnetic, and gravity data, errata, 17953
- primary productivity and plankton biological sampling program, results, 615A
- Pipe and pipe fittings:
 - acrylonitrile-butadiene-styrene (ABS) plastic pipe—
 - (schedules 40 and 80), voluntary product standard, 11745
 - standard dimension ratio, product standard, 11746
 - air ducts, radiation errors under nonisothermal conditions using thermocouples, thermistors, etc., 2136
 - concrete and clay pipe, highway construction usage factors, 10525
 - corrugated metal pipe, structural design criteria and recommended installation practice, 10522
 - Federal item identification guide, change, 12393
 - Federal item identification guides for supply cataloging, supplements, 2593
 - flanges, pipe, Federal item identification guide, 4010
 - hose, pipe and tube fittings, quick disconnect and self-sealing, Federal item identification guide, 13788
 - interstage module piping in 2.5 MGD universal desalination plant, Saline Water Office, hydraulic model studies, 17243
 - passage of adult salmon and trout through pipes, 6525
 - pipe-arch culverts hydraulic analysis, electronic computer program, 18310
 - pipe joint welding, rings-locking, and miscellaneous hardware, Federal item identification guide, 17740
 - poly(vinyl chloride) (PVC) plastic pipe—
 - (schedules 40, 80, and 120), product standard, 11747
 - standard dimension ratio, voluntary product standard, 11748
 - polyethylene (PE) plastic pipe—
 - schedule 40, inside diameter dimensions, product standard, 17570
 - schedules 40 and 80, outside diameter dimensions, product standard, 17572
 - (SDR), product standard, 17571
 - vibration characteristics of cylinder partially filled with liquid with attached elastic drain pipe, 4495
- Pipe fitters, employment outlook, 12701
- Pipe lines:
 - accident report, 15040
 - heated pipeline in permafrost, estimates of thermal effects, 4237
 - interstage module piping in 2.5 MGD universal desalination plant, Saline Water Office, hydraulic model studies, 17243
 - low pressure natural gas distribution system, Gary, Ind., pipeline accident report, 15040
 - natural gas—
 - maps, 17984-985
 - pipeline safety act of 1968, administration, annual report of Secretary of Transportation, 9230
 - sales by producers to interstate pipeline companies, 7102
 - oil—
 - transport statistics, 4320
 - transportation revenue and traffic 3290
 - pipeline gas from lignite gasification, commercial economics, current, 1357
 - trans-Alaska—
 - construction, appropriations, increase, hearings, 13534
 - construction plans, status, etc., hearings, 512
- Pipelines, *see* Pipe lines.

- Piper, Arthur M., disposal of liquid wastes by injection underground, neither myth nor millennium, 4236
- Piper, Robert G., ulcer disease in trout, 10582
- Pipes, Richard, testimony, hearings, 6788
- Piracy, *see* Air piracy.
- Protoplasmic, equine, progress report, 15401
- Piskur, Frank T., commercial fisheries abstracts, 2424
- Pitch (motion):
launch vehicle response to winds and optimal pitch programs, analytic calculation, 11667
- Pitcher, Shackford, citrus processing in Brazil, 8680
- Pith, pith-associated and non-pith-associated southern pine 2 by 6's, tensile strength of finger joints, 14469
- Pits, *see* Quarries and quarrying.
- Pitt County, N.C., community profile, 14157
- Pitts, Felix L., electronic strain-level counter for aircraft structural members, 16971
- Pittsburgh, Pa.:
air quality control region, Federal facilities, air pollution report, 12836
area wage survey, 11542
census of transportation, 1967, commodity transportation survey, 8068
Greater Pittsburgh International Airport, climatological summaries, 4764
high schools, Students for a Democratic Society, plans, hearings, 6716
principal electric facilities, map, 8622
- Pittsford, N.Y., small businessmen's problems, hearings, 13544
- Pittston Company, aircraft accident, report, 18278
- Plute County, Utah, community profile, 6953
- PL 480 newsletter, 2834
- Placement, college replacement officers, employment outlook, 14677
- Placer Creek project:
engineers report—
departmental edition, 14328
document edition, 13366
- Placer deposits, rutile and ilmenite, Rose-land district, Nelson and Amherst Counties, Va., 5544
- Placer mining, *see* Gold.
- Plag, John A.:
military effectiveness—
naval enlistees serving as medical specialists, 14764
Navy airmen enlistees, 14763
- Plague:
microbe, action of semisynthetic penicillins, USSR study, 5783
pathogenesis of natural plague foci with reference to history of rodent fauna, USSR study, 10272
- Plain of Reeds, *see* Reeds, Plain of.
- Planagan, Albert J.:
establishing business in Saudi Arabia, 13228
foreign trade regulations of United Arab Republic, 4999
- Plane coordinates, *see* Coordinates.
- Plane elastostatic analysis of V-notched plates, 18217
- Plane sense, general aviation information, 12517
- Plane stress, *see* Strains and stresses.
- Planetary atmosphere, *see* Atmosphere.
- Planetary missions, *see* Planets.
- Planets:
determination of equinox and equator from meridian observation of minor planets, 18282
interplanetary missions, role of staged space propulsion systems, 2123
Mariner-Mars 1969, preliminary report, 5914
planetary cartographic probe, guidance and control payload support requirement, 11680
- Planets—Continued
planetary entry applications, transport properties at high temperatures of $\text{CO}_2\text{-N}_2\text{-O}_2\text{-Ar}$ gas mixtures, 2085
planetary flight handbook, 10371
planetary limb radiance profile as factor in determining atmospheric temperature profiles, 5899
planetary swager used for tube fabrication, summary of studies, 10758
zero-rank effects in non-singular vectorial elements of planetary motion, determination, discussion of potential application of Hill's method of secular perturbations, 11632
see also names of planets.
- Planing mills, census of manufactures, 1967, industry report, 12001
- Plankton:
Barents Sea, distribution, 1011
planktonic Foraminifera, distribution in vicinity of North Atlantic current, 7733
primary productivity and biological sampling program results, USC&GS ship Pioneer, data, 615A
- Planned unit development with homes association, 8616
- Planners, *see* City planners.
- Planning:
airport capacity criteria used in long-range planning, 7056
Army aviation facilities, technical manual, 7994
community planning for nursing in South Dakota, source book, 986
comprehensive health planning, fact sheet, 8171
comprehensive planning assistance in small community, 1926
environmental planning paper, 16659
highway planner in FHWA, steps toward career growth program, committee report, 15133
hospital discharge, bibliography with abstracts and research reviews, 17047
housing planning information series, 15374-376
housing planning notes, 15375-376
industrial mobilization production planning manual, 11161
land use planning and community development, resource data on soils, Creswell area, Oreg., 15228
low-rent housing—
administration of, program handbook, transmittals, 7282, 8787, 12806
preconstruction handbooks, HUD, 1932, 4279
managing development, implementation and operation of model elementary teacher education program project report, 11226
metropolitan airport system, 15464
model cities continued planning and evaluation—
sample work plan for first work year, 14580
workbook for 1st work year, 16677
national aviation system planning review conference, summary report, 14362
national transportation planning manual, 1970-90, general instructions, 15364
planning for change in Michigan, natural resources conservation, 9148
railroad planning for national defense emergencies, 11485
rural-urban resource planning and development, 2228
Seabee planner's and estimator's handbook, 9041
self-service food donation center, 41
urban transportation planning system/360, general information and introduction, 11840
Wisconsin, southeast, rivers basin, 6314

INDEX 1970

Planning (economics), *see* Economic development—Economic policy—Families.
 Planning (programming), *see* Programming (planning).
 Planning your retirement, guide for Department of Agriculture employees, 17446
 Plans, *see* Architecture.
 Plant diseases, *see* Diseases of plants.
 Plant Materials Center—
 Big Flats, N.Y., annual report, 4687
 Coffeeville, Miss., annual report, 15223
 Corvallis, Oreg., general information, 15202
 Quicksand, Ky., annual technical report, 6188
 Plant pests, *see* Pests.
 Plant Protection Division, Western Region, cooperative programs, 12965
 Plant science, *see* Botany.
 Plant Variety Protection Office: establish—
 hearings, 11103, 12257
 report, 15991
 Plantations:
 loblolly-slash pine, growth and yield, 11359
 plantation timber of Island of Maui, 5519
 red pine, initial thinning, 12561
 single commercial thinnings in variously spaced slash and loblolly pine plantations, 705
 sycamore, establishment and early care, 14481
 thinned Douglas-fir plantations, potential production, 8705
 Planting:
 critical area stabilization, guide for landowner in urban areas, western Washington, 15203
 depths affecting emergence and survival of winterfat seedlings, 11352
 growing fourwing saltbush transplants for field planting, 11356
 wheat and rice, high-yield varieties in less developed nations, 4175
 see also Crops—Forest planting—Tree planting.
 Plants:
 absorption of gold, 10161
 better plants beautify, protect, improve our environment, 10556
 conservation plantings for Northeast, invite birds to your home, 3424
 decorative, indoor gardens, care and other uses, 4814
 ecology and esthetics, highway research and development news, 18312
 flora and fauna of basin in central Florida Bay, 13242
 fossil, generic names, 1820-1965 index, 10159
 geochemical environments and cardiovascular mortality rates in Georgia, 4244
 gold content, 5547
 growing ground covers, 3406
 house, insects and related pests, how to control, 17436
 illustrated Paleozoic specimens in National Museum of Natural History, catalog, 15160
 illustrations of plant microfossils from Yazoo clay, Jackson Group, Upper Eocene Mississippi, 8745
 inventory, material received by New Crops Research Branch, 17426
 microbial flora surviving irradiation pasteurization of seafood, effect of irradiation, 131
 nursery, lath house, farm building plan, 1200
 plant materials annual report of field plantings, Arkansas, 15222
 plant materials center, Knox City, Tex., 7760
 plant materials in Soil Conservation Service, 4688, 10564
 plant quarantine inspector, discontinuance notice, 8121

Plants—Continued

Plant variety protection act—
 hearings, 11103, 12257
 report, 15991
 production and sales, etc., 7842
 protection, new means, chemistry series, no. 10-11, 1969, USSR study, 5775
 publications, price list, 7713
 quarantine import requirements—
 foreign countries summaries, list, 6290
 French Polynesia, 8
 Guernsey 4804
 India, 3382
 Libya, 11942
 Norway, addition, 1194
 Portugal, 11943
 Spain, 6293
 Sweden, change, 15409
 quarantine notices under plant quarantine act, P.P.C. series, 3001
 spore flora and Miocene pollen of Eniwetok Atoll, Marshall Islands, 4242
 traveling? don't spread plant pests, 11959
 varieties, proprietary rights of breeders, protect—
 hearings, 11103, 12257
 report, 15991
 wildlife food plants on chopped areas in Piedmont of South Carolina, 4193
 woody plant seedlings, perennial grasses reduce on mixed conifer fuel-break, 18016
see also Diseases of plants—Medical botany.
 Plants (industrial):
 AEC's gaseous diffusion plants, future ownership, hearings, 1426
 construction of industrial facilities at Government-owned plants without disclosure to Congress, by Navy Dept. and Air Force Dept., GAO report, 5527
 Cresap pilot plant, start-up and initial operations, 3675
 Defense facilities and industrial security act of 1970, reports, 1548, 3838
 defense industrial plant equipment center operations, DSA manual, changes, 538, 6853, 11163, 13779
 defense oriented industries, shipments, 1968, current industrial reports, 220
 desalting plants—
 conceptual designs for outfall systems, 14594
 inventory report, 7302
 optimum operation, supplemental source of safe yield, 8807
 equipment handbooks—
 boring machines, broaching machines, gear cutting and finishing machines, 11159
 chemical analysis and laboratory instruments, 6849
 driers, dehydrators, and anhydrators, 13777
 drilling and tapping machines, 6850
 marking, metal container, assembly, clean work stations and miscellaneous industry machinery, 1759
 motor vehicle maintenance and repair shop specialized equipment, 11160
 scales, balances, and optical instruments, 13778
 fallout protection in design of new industrial facilities, 149
 Government equipment kept by Defense Department for possible future use, management should be improved, GAO report, 10147
 industrial buildings, USSR study, 10271
 industrial site survey, how to make, formula for growth, 566
 manufacturing plants, apprenticeship schedules, 18034
 multistage flash distillation plants, survey of materials behavior, 5625
 multistage flash phenomena in 3-stage test system, investigation, 7310

Plants (Industrial)—Continued

- new industry, how to improve your community by attracting, 11188
- plant design and cost estimates for limestone treatment, mine water research, 7491
- plant effluents, pond linings for desalting, 17246
- poultry and egg, operating under USDA inspection and grading programs, list, 8444
- poultry processing plant layouts, guidelines, 10690
- prices negotiated for rock-crushing plants for use in Vietnam, GAO report, 4223
- productivity analysis in manufacturing plants, 12661
- Project Gasoline, CSF process of coal liquefaction, summary report, 6488
- safeguarding classified information, industrial security manual, 8480
- carrier supplement, 8457
- small manufacturing plants, traffic patterns, commodity transportation survey, 13156
- 2.5 MGD—
 - horizontal-tube multiple-effect plant, pilot plant tests and design study, 5615
 - universal desalination plant, interstage module piping, Saline Water Office, hydraulic model studies, 17243
- 2.5 million gallons per day universal desalting plant, universal design, report, 5631
- under USDA, continuous inspection, processed fruits and vegetables, etc., list, 16094
- water plant isolation from contamination, study, 8805
- worker relocation, role in active manpower policy, symposium, 7412
- see also Petroleum refineries—also types of industrial plants.
- Plaque, see Dental plaque.
- Plasma :
 - column hovering freely in high frequency field, for thermonuclear reactor, USSR study, 7396
 - confinement in closed magnet systems, conference proceedings, USSR study, 4883
 - current plasma in toroidal systems, equilibrium and stability, 4875
 - density, extension of range of measurements by means of laser interferometer with phase modulation of visual signal, 4869
 - devices, forming high-frequency fields in plasma, 4873
 - diagnosis, and radio blackout alleviation results from 25,000 foot per second blunt-body reentry, 5934
 - electrical conduction in plasma, third-order contributions, 4509
 - free column in high frequency field at high pressure, USSR study, 7375
 - Grad approximation for closing out magnetohydrodynamic equations, critical analysis, 2128
 - high frequency instabilities derived from electron beam interactions with plasma, studies of threshold, AEC translation, 15508
 - high-frequency properties, 10754
 - induced pressure and temperature gradients as result of weak electric fields, 7550
 - induction heating, measurement of gas concentrations, etc., in binary plasma system, 5903
 - interaction with oblique magnetic field, 6371
 - ionospheric plasma, one-dimensional time-dependent interaction of satellite with, 8954

Plasma—Continued

- ions, turbulent heating during development of electron-acoustic instability, 4870
- laser-generated plasma as spectroscopic light source, 18222
- laser heating of ionized helium, 12792
- laser noise characteristics and amplitude stabilization, investigation, 14826
- lower E-layer alkali-plasma-cloud releases, instabilities observed and their implications regarding sporadic E, 17192
- magnetically confined, effect of aperture on measurement of axial distribution function, 10394
- nitrogen 2 and carbon 2 resonance multiplet line shapes from plasma, 10495
- nonlinear particle-wave interaction, introduction to statistical theory, 4877
- nonuniform, solutions of Vlasov-Poisson equations for oscillations, 1818
- physics—
 - and problems of controlled thermonuclear synthesis, 10754
 - possibilities for using high-current relativistic beams, 113
 - plasma-covered cavity-backed slot antenna experimental investigation, 907
 - plasma kinetic theory, collision integrals for nonelastic processes, 2096
 - plasma slab, theoretical investigation of electromagnetic waves obliquely incident upon, 10414
 - propulsion and power research, conference proceedings, 4503
 - reflected shock air plasmas at 12–16,000°K, thermodynamic property measurements, 12766
 - research, literature search, 10766
 - seeded coal combustion products, thermodynamic, electrical, physical, and compositional properties, 12739
 - stimulated emission in argon pinch discharge, detection and investigation, 4876
 - technology in minerals processing, possible applications, 852
 - theta-pinch growth of azimuthal current and microwave radiation, investigation, 8003
 - turbulent, theory of low-frequency electromagnetic properties, 112
- Plass, William T., pine seedlings respond to liming of acid strip-mine spoil, 5498
- PLASTEC notes, 565, 8489, 13814
- PLASTEC reports, 5321, 9967
- Plaster, census of manufactures, 1967, industry statistics, 15603
- Plasterers :
 - employment outlook, 14697
 - job grading standard, civil service, 6482
- Plastering, special trade contractors, census of construction industry, 1967, statistics, 13128
- Plastic jungle, hearings, 6723
- Plastic molds, see Molds (forms).
- Plastic strain, see Strains and stresses.
- Plastic stresses, see Strains and stresses.
- Plasticity :
 - application of new scaling method for KIC plasticity corrections to characterization of TIG welds in 12–5–3 maraging steel plate, 12895
 - graphical methods for plasticity corrections in fracture mechanics, 9057
 - shock wave propagation in inhomogeneous elastic-plastic media, stability of difference approximation, 5365
 - solid state plasticity and strength, new Soviet booklet, 12641
- Plasticizers, production and sales, 2284
- Plastics :
 - defense engineering materials and applications, Government specifications and standards, 565

INDEX 1970

Plastics—Continued

- elastic-plastic media, shock wave diffraction by circular cylindrical cavity, numerical computation, 8535
- injection molding processing parameters, literature search, 8489
- materials—
 - census of manufactures, 1967, industry, statistics, 15598
 - census of transportation, 1967, commodity transportation survey, shipper group, 3603
- miscellaneous products—
 - census of manufactures, 1967, industry statistics, 17524
 - census of transportation, 1967, commodity transportation survey group, 4926
- physical and mechanical properties of wood-plastic combinations, investigation, 125
- PLASTEC notes, 565, 8489, 13814
- PLASTEC reports, 5321, 9967
- polyethylene (PE) plastic pipe, schedule 40, inside diameter dimensions, product standard, 7570
- production and sales, 7856
- shipments of selected products, 1967, current industrial reports, 9554
- technical conference papers, index, bibliography, etc., 9967
- U.S. production and sales, preliminary report, 3033
- see also names of plastics—also names of articles made from plastics.
- Plastics Technical Evaluation Center:
 - PLASTEC notes, 565, 8489, 13814
 - PLASTEC reports, 5321, 9967
- Plastometers, plastometer and dilatometer tests of coal, repeatability, 10332
- Plate etch, temper etch inspection, military standard, 5318
- Plate glass, see Glass.
- Plateau States, station precipitation from 700-Mb, lows during winter, charts, 1834
- Plated ware, census of manufactures, 1967, industry statistics, 12011
- Plateris, Alexander A., children of divorced couples, U.S., selected years, 6018
- Plates:
 - class of clamped thin plates, small deflection using conformal mapping, 16943
 - concentrated loads on plates, 8533
 - deformation of snow under rigid plates at constant rate of penetration, 8534
- Federal item identification guide, 13780
- flat—
 - boundary-layer velocity profiles downstream of three dimensional transition trips at Mach 3 and 4, 922
 - charts for estimating boundary layer transition, 11678
 - nonadiabatic, direct measurements of turbulent skin friction at Mach number 6.5 and comparisons with 8 theories, 5966
 - plate in low-density, hypervelocity flow, used for wedge-induced laminar boundary layer separation, 10408
 - single turbulent air jet impinging on flat plate, survey of literature on flow characteristics, 5949
 - viscous compressible fluid flow over plates, numerical calculations, and step geometry, 4490
 - with deflected trailing edge flap, heat-transfer measurements at March 8 with transition effects included, 14861
 - flow characteristics on single turbulent jet impinging on flat plate, experimental, 7536
 - heat transfer and pressure over plate at Mach 8.0, two-dimensional sinusoidal waves effects, 14876

Plates—Continued

- neutron irradiated 12Ni-5Cr-3Mo maraging steel plate and companion steel metals, behavior of mechanical properties, 6103.
- plates and shells, vibration responses to fluctuating pressure environments, study, 12755
- plates with rows of holes considered as anisotropic soft-inclusion models of 3-dimensional room-and-pillar mining systems, 18165
- rectangular moments and reactions, 15142
- sandwich, manual for structural stability analysis, 4489
- sonic and supersonic jet penetration from flat plate into Mach 2 airstream, optical study, 12778
- thermal buckling in supersonic gas flow, USSR study, 2001
- thin—
 - 9 materials under hypervelocity impact, dimple, spall, and perforation characteristics, 4524
 - sheets, simplified ballistic-limit expressions, 2102
 - stress concentration due to hyperboloid cavity, 14887
- V-notched, plane elastostatic analysis, 18217
- vibration, 5910
- Plating:
 - chrome plated steel and steel parts heat treated to 180,000 psi or over, grinding, military standard, 1777
 - dispersal of plating wastes and sewages contaminants in ground water and surface water, South Farmingdale-Massapequa area, Nassau County, N.Y., 18052
- Platinum:
 - platinum-group metals, mineral industry surveys—
 - annual preliminary, 2053
 - quarterly, 3024
- Platoons:
 - rifle, Marine Corps, function, etc., Fleet Marine Force manual, 828
 - tank units, Army field manual, 6347
- Platt, John D. R., Continental Congress in New York City Hall, 1785-88, background and evaluation study, 15025
- Platt National Park, general information, 7644
- Platte County, Mo., community profile, 17848
- Platte River and Valley:
 - water supply outlook and snow surveys, 3338
 - watershed snow courses and soil moisture stations, list, 7764
- Platte County, Nebr., community profile, 17849
- Plattsmouth, Nebr., and Sioux City, Iowa, measurement of mixing characteristics of Missouri River between, 10191
- Platyrhini, see Monkeys.
- Play, organizing free play, program manual and study guide, 4953
- Plaza Hotel:
 - District of Columbia, acquisition for additional Senate office building, authorization—
 - hearings, 8438, 15933
 - report, 9873
- Pleasant, Wylo, relief, 1378, 3914
- Pleasant Valley, Calif., pumping plant, foundation instrumentation, 18319
- Pleasant Valley Canal:
 - change name to Coalinga Canal—
 - law, 13311
 - report, 12343
- Pleasant Western Lumber Co., relief, 1378, 3914
- Pleasant's Logging & Milling, Inc., relief, 1378, 3914

Pleban, Eugene J., analytical heat transfer investigation of insulated liquid methane wing tanks for supersonic cruise aircraft, 4531

Plotters:

plotter subroutine COMBI for meteorological flight path and 4 parameters, 8571
subroutines for—
meteorological flight path, 4089
meteorological straight line flight data (SLENDER), 5387

Plotting boards and plotting:

cross-sectional plots of plane intersections, adaptation of APT system, 15072
radar X-Y plots, technique to identify certain relative errors, 15471
time history plots of ion-polar-molecule collisions, computer made motion pictures, 14849

Plotting instruments:

CalComp plotters, general purpose programs, 9043
programmer's manual for CalComp plotting, 971

Plowshare program (civil, industrial, and scientific uses for nuclear explosives): AEC authorizing legislation, 1971, 8190
commercial plowshare services, hearings, 1427

Gasbuggy event, ground motions and close-in physical effects, analysis, 6385

Project Buggy

analysis of ground motion, 3494
special cloud content study, 13077
surface motion, photographic and accelerometer measurements on Buggy cratering experiment, 6384

Project Cabriolet—

analysis of ground motion, 3496
spectroradiometric detection of effluents, 3495

Project Gasbuggy, 130

seismic measurements, 3497

Project Schooner, ecological and environmental effects from local fallout, soil thermoluminescence in relation to radiation exposure under field conditions, 8020

Projects Gasbuggy and Schooner, hardcord costs, 3498

reports, 9399, 13078-82, 13085

Plugs:

Federal item identification guide, 13781
inlet-region, in test of single-tube-in-shell water boiler, 5948

pegmatitic trachyandesite plugs and associated volcanic rocks in Saline Range, Inyo Mountains region, Calif., 8742

plug base contour effect on performance of fully truncated plug nozzle with translating shroud, 5950

polytetrafluoroethylene, glass stopcocks with, voluntary product standard, 14931

Pluhowski, Edward J.:

hydrology of Upper Malad River Basin, southeastern Idaho, 10190
urbanization and its effects on temperature of streams on Long Island, N.Y., 14536

Plum Creek, subwatershed No. 4, Shelby County, Ky., sedimentation, 5564

Plumas National Forest:

Antelope Recreation Area, general information, 16536
Little Grass Valley Recreation Area, general information, 16552

Plumb, T. R., control of chamise regrowth with phenoxy herbicides, 1851

Plumbers, employment outlook, 12701

Plumbers' supplies:

plumbing fixtures—
census of manufactures, 1967, industry statistics, 15607
current industrial reports, 2476
sanitary plumbing fixtures, performance characteristics, investigation, 5999

Plumbing:

equipment, Federal item identification guides for supply cataloging, supplements, 2593

special trade contractors, census of construction industry, 1967, statistics, 18124

system for home and farmstead, planning, etc., 3399

Plumbing fixtures, *see* Plumbers' supplies—
Refractory materials.

Plumes, *see* Flue plumes.

Plummer, C. W.:

development of sulfonated polyphenylene oxide membranes for reverse osmosis, 11448

evaluation of newly developed ion-exchange membranes for electrodialysis and/or transport depletion, 775

Plus Program, Buffalo, N.Y., 4064

Plutonium:

irradiations of UO₂-PuO₂ ceramic fuels with high burn-up ratios, 1250

research program, 1970 fiscal year, 8032

Plutonium isotopes, production of 238 Pu in commercial light water reactors, 9401

Plymouth County, Iowa, community profile, 14158

Plymouth-Provincetown Celebration Commission:

establish—

hearings, 15922

report, 12331

Plymouth Rock National Memorial, proposed, general information, 10473

Plywood:

census of manufactures, 1967 industry statistics, 10796

Federal item identification guides for supply cataloging, supplements, 2593

hardwood, current industrial reports, 4938

imports, 4906

softwood—

construction and industrial, standard of trade, amendments, 11742

current industrial reports, 15638

PM (series), 5818

PMG series, 1749-50, 5291-92, 12387-388, 16095

Pneumatic lines, thermal transpiration effects in pneumatic lines, correction of pressure data, 2074

Pneumoautomation, *see* Automation.

Pneumoconiosis:

Appalachian bituminous coal miners, 8560
coal miners black lung benefits under Federal coal mine health and safety act of 1969, 7759

Pocahontas County, Iowa, community profile, 14159

Pocatello, Idaho:

floods, 14323

Portneuf River and tributaries, flood plain information, 14316

Pocket gophers, control in Utah, 17300

Pocket guides:

calories and weight, 15429

Japan, 14590

Korea, 11438

Low Countries, 10219

Podesta, Robert A.:

addresses—

Feb. 27, 1970, 5325

Mar. 21, 1970, 6886

Mar. 31, 1970, 6887

Apr. 9, 1970, 8492

Apr. 15, 1970, 8490-91

Oct. 14, 1970, 16161

Podiatry, *see* Chiropody.

Poehlein, Robert L., relief, 9640, 18621

Poesta Creek:

flood plain information, 4080

floods in Beeville, Tex., how to avoid damage, 4082

Poetry, and children, bibliography, 824

INDEX 1970

- Pohn, Howard A., photoelectric-photographic study of normal albedo of moon, 11396
 POHT, *see* Project One Hundred Thousand.
 Point Reyes National Seashore:
 land acquisition, appropriation of additional funds, authorize—
 hearing, 6807
 law, 8182
 reports, 5105, 5114, 6758, 15837
 Poiseuille equation, *see* Equations.
 Poison ivy, 3 leaves mean poison ivy, identification, etc., 11955
 Poison Prevention Week, *see* National Poison Prevention Week.
 Poisoning:
 ion exchange materials by surface active ions, 14599
 mercury, effects on man and the environment, hearings, 17693
 Poisonous and venomous marine animals of world, 13815
 Poisons:
 acute toxicities of organochlorine and organophosphorous insecticides to estuarine fishes, 15277
 candidate mothproofers, toxicity to fabric insects and persistence through washing and drycleaning, 17443
 chronic disulfoton poisoning, at various levels, comparison of behavioral effects, 8039
 economic standards for imported agricultural commodities, report, 12253
 factors affecting pesticide-induced toxicity in estuarine fish, 15277
 Federal hazardous substances act, poison prevention law, general information, 11338
 isomers of cresol as possible fish-collecting aids, possible toxicities, 6207
 National Clearinghouse for Poison Control Centers, bulletins, 2924
 new candidate materials as toxicants, repellents, and attractants against stored-product insects, preliminary evaluation, 12989
 90-day subacute oral toxicity studies on radiation, pasteurized food, strawberries, apples, and pears, 4892
 poison control statistics, 14423
 Poison prevention packaging act—
 hearing, 13527
 report, 9847
 toxicity—
 bibliography, 3265
 of aerosols to larch casebearer larvae, 18020
 of hyamine 3500 to fish, 6207
 of pesticides to wildlife, handbook, 10589
 errata, 11889
 see also Food poisoning.
 Poisson equations, *see* Equations.
 Pok, Bonnie W., agricultural marketing, 2304
 Pokeberry, germinating pokeberry seed (*Phytolacca americana* L.), 14459
 Poland:
 background notes, 17325
 cotton textiles, trade agreement, 9203
 environmental studies, bibliography, 15461
 fisheries, Middle Atlantic Ocean, western region, agreement, 15322
 mineral industry, minerals yearbook chapter, 4457
 Polar orbits, *see* Orbits.
 Polar regions, *see* Arctic regions.
 Polarimetry, radio, at sea, USSR study, 1995
 Polarization (electricity):
 test cell for measuring concentration polarization boundary layer in reverse osmosis system, 8806
 Polarization (light):
 scattering of polarized light by polydisperse systems of irregular particles, 2088
 Polarization (radio):
 linearly polarized radar sets, precipitation echo attenuation, USSR study, 16739
 predetection polarization diversity combiner, 14891
 Polcari, Samuel M., some practical aspects of scribing, 10411
 Poles:
 car and telephone pole, rollover accident investigation, 18260
 pole-type structure, initial evaluation, 694
 Poliakov, Melvin Z., oil dispersing chemicals, study of composition, properties, and use of chemicals for dispersing oil spills, 7173
 Police:
 and State police officers, employment outlook, 14694
 District of Columbia—
 Commissioner, establish, hearings, 6704
 salaries, increase—
 hearings, 502, 8283
 law, 13304
 reports, 1693, 9876, 12199
 emergency handling of radiation accident cases, 3513
 Government Printing Office, special policemen, designate—
 law, 13333
 reports, 10953, 13663
 killing or wounding of policemen, amend U.S. Code, hearings, 17706
 police patrol areas, use of probability theory in assignment, 16820
 Policemen's salary supplement act, hearings, 16068
 training police as specialists in family crisis intervention, 16819
 White House, change name to Executive Protective Service—
 hearing, 3989
 law, 8176
 reports, 1517, 3828, 3941
 Policemen, *see* Police.
 Policies for solid waste management, 11875
 Polish People's Republic, *see* Poland.
 Political activity, *see* Politics.
 Political broadcasting, 1970, hearings, 11043
 Political campaigns, *see* Elections.
 Political corruption, Federal corrupt practices act of 1925, amend, report, 13662
 Political science, publications, price list, 9073
 Political scientists, employment outlook, 12689
 Politics:
 Eastern Europe, translations, 3272
 Hatch political activities act of 1939, amend, report, 13662
 Navajo political process, 10465A
 Peruvian, military's role, research study, 3445
 political broadcasting—
 equal time for candidates for office, reports, 15855, 15977
 revise provisions, reports, 13436, 15853
 South Viet-Nam, political development, 4723
 USSR, political and sociological affairs, translations, 3284
 Polk, Kenneth, nonmetropolitan delinquency, action program, 1098
 Polk County, Ark., Upper Ouachita River watershed work plan for flood prevention, municipal and industrial water supply and recreation, 9175
 Polk County, Iowa, community profile, 14160
 Polk County, N.C., community profile, 12457
 Polk County, Mo., community profile, 17850
 Polk County, Neb., community profile, 17851
 Polk County, Tenn., appraisal of potentials for outdoor recreational development, 15190
 Pollack, Burton R., proceedings of 2d conference on teaching of preventive dentistry and community health, 8767

- Pollack, portraits with pollock, recipes, 12075
- Pollen:
- Aquilapollenites and Fibularpollis, species from 2 upper Cretaceous localities in Alaska, 4247
 - Miocene, and spore flora of Enlwetok Marshall Islands, 4242
 - new genera, late Cretaceous and Paleocene, with possible affinity to Illiciaceae, 7246
- Pollock, *see* Pollack.
- Pollution of air, *see* Air pollution.
- Pollution of streams, *see* Water pollution.
- Pollution of water, *see* Water pollution.
- Pol y Zapata, Pio A., relief, 17662
- Polychaeta:
- review of some little known genera of serpulidae (Annelid: Polychaeta), 4665
 - revision of genus Euthalenessa Darboux, (Polychaeta Sigalionidae), 11851
 - revision of some species referred to Leanira Kinberg (Polychaeta: Sigalionidae), 12915
- Polycrystalline, *see* Rocks.
- Polyesters, *see* Esters.
- Polyethylene:
- plastic pipe, schedule 40, inside diameter dimension, product standard, 7570
 - sheeting, construction, industrial, and agricultural applications, voluntary product standard, 11744
 - see also* names of manufactured articles.
- Polyethylene pipe, *see* Pipe and pipe fittings.
- Polyimides, *see* Amides.
- Polymers and polymerization:
- concrete-polymer materials, topical report, 13065
 - effect of polymer on properties of soil-cement, 17244
 - evaluation of concrete and related materials for desalination plants, 15144
 - high polymers, thermal degradation, thermal oxidation, and thermal analysis, literature survey, 13814
 - imide/pyrrone copolymers, preparation and properties, 940
 - improval membranes for reverse osmosis, 770
 - polymer boundary layers, influence of solid surface on relaxation, crosslinking process, USSR, study, 18111
 - polymer cement concretes and polymer concretes, 15505
 - polymer injection, gas flood efficiency improvement, 14798
 - polymer membranes, determination of surface and colloidal conditions which can lead to high salt rejection, reverse osmosis, 5614
 - polymers for sewer flow control, 1871
 - pyrrone polymers, synthesis, 12761
 - pyrrones as membranes, evaluation, 16940
 - radioprotective effect of polymer salt of cystamine, etc., USSR study, 10268
 - visual appearance of polymeric contamination, 11675
 - weatherability of copolymers and terpolymers, 5321
 - see also* Polythylene.
- Polymethacrylates, *see* Methacrylates.
- Polymethyl methacrylate, dielectric constants and loss tangents at E-Band measurements using Fabry-Perot interferometer, 2117
- Polynesia, French, *see* French Polynesia.
- Polynomials:
- estimating virial coefficients from experimental data, 2050
 - high-precision Chebyshev series approximation to exponential integral, 14885
 - meromorphic functions and derivatives, 15068
 - method for determining local emission intensity by Abel inversion, 5968
- Polynuclear hydrocarbons, *see* Hydrocarbons.
- Polyolefins, *see* Olefins resins.
- Polyphenylene oxide, sulfonated polyphenylene oxide membranes, development for reverse osmosis, 11448
- Polystyrene:
- and fiberboard foam boxes and polyethylene mesh bags for shipping California table grapes, feasibility, 15437
 - dielectric constants and loss tangents at E-band, measurements using Fabry-Perot interferometer, 2117
 - weatherability, 5321
- Polsulfides:
- canal contraction point sealer, 17245
 - canal sealant, coal-tar extended, laboratory test for use in contraction joints in concrete-lined canals, 7723
 - preformed strips, for canal contraction joints, Wahluke Branch Canal, Columbia Basin project, tests, 9090
- Polytetrafluoroethylene:
- dielectric constants and loss tangents, at E-band measurements using Fabry-Perot interferometer, 2117
 - glass-fiber-filled polytetrafluoroethylene retainers in cold hydrogen gas, cooling requirements of ball bearings lubricated by, 8934
 - plugs, glass stopcocks with, voluntary product standard, 14931
 - teflon-clad rubber-gate seals, research investigation, 9093
- Polyurethanes, spray applied foam to insulate heated rooms excavated in permafrost, 10330
- Polyvinyl chloride:
- plastic pipe, standard dimension ratio, voluntary product standards, 11748
 - rigid, profile extrusions, voluntary product standard, 17044
 - see also* names of articles made from polyvinyl chloride.
- Pomatomus saltatrix, *see* Bluefishes.
- Pomona, Calif., elementary program in compensatory education augmented reading project, 4052
- Pomona, N.J., aircraft accident, 10478
- Poncha Springs, Colo., NE quadrangle, Chaffee County, geology and mineral deposits, 5552
- Pond, Floyd W., storage does not affect crude protein content of forage samples, 11350
- Pond Creek:
- floods, how to avoid damage in Jefferson County, Ky., 14329
 - Jefferson County, Ky., flood plain information, 14317
- Ponderosa pine, *see* Pine.
- Ponds:
- brine disposal pond manual, 17239
 - linings, for desalting plant effluents, 17246
 - see also* Fish ponds.
- Pong, W. Y., automatic photoelectric triggering mechanism for data-recording camera, 18012
- Pontoons, Federal item identification guides for supply cataloging, supplements, 2598
- Pontotoc County, Miss., community profile, 16334
- Pony express, saga, 11828
- Poole, William, subversive involvement in origin, etc., of New Mobilization Committee to End War in Vietnam, etc., 12277
- Poor:
- green power, consumer action for the poor, community action program, 13825
 - human resources in—
 - Ozarks region, 9969
 - rural Mississippi Delta, 1785
 - nutrition and human needs, national survey, hearings, 1743, 3984, 5278, 9932, 13756, 16082

INDEX 1970

Poor—Continued

- poverty amid plenty, American paradox, report of President's Commission on Income Maintenance Programs, 6126
- President's Commission on Income Maintenance—
 - background papers, 11830
 - technical studies, 15122
- rural, propensity for change in Mississippi Delta, study, 11192
- toward economic security for the poor, report, 520
- Pop Warner Little Scholars, Incorporated, incorporate, hearings, 13531
- Pope, Clarence J., reliability of some critical performance characteristics of cotton duck fabric, 1220
- Pope, Jimmie R., relief, 3802, 5049
- Poplar, International Poplar Commission convention, as amended, agreement, 18361
- Poplars, *see* Poplar.
- Popular actions, qui tam actions and 1899 Refuse act, citizen lawsuits against polluters of Nation's waterways, 15910
- Population:
 - census, 1790-1890, revised price list, effective July 1, 1970, National Archives microfilm publications of census records, 17020
 - census, 1970—
 - advance reports, publications order form, 15658
 - congressional apportionment, 13427
 - data access descriptions of items included, 6452
 - final reports, number of inhabitants—
 - announcement and order form, 15615
 - microfiche order form, 17166
 - first count summary tapes, results, 8094
 - fourth count summary tapes, results, 8095
 - number of inhabitants, 17535
 - preliminary reports, publications order form, 10830
 - printed reports, summary tapes, 10825
 - State editions, print additional copies, 12193
 - census publications, price list, 11836
 - challenges of food and population, Air Force Academy Library, bibliography, 15450
 - Chile, estimates and projections, 225
 - county veteran population, Dec. 1969, estimates, 15378
 - Cuba, by age and sex, 1968-90, projections, 6454
 - current population reports, 2478
 - consumer buying indicators, 224, 1334, 10823-824, 13177, 15653
 - consumer income, series, 1332-33, 3642, 6449, 10821-822, 13176, 15652, 17538
 - Federal-State cooperative program for population estimates, 223, 3640-41, 4946-47, 6448, 8091
 - population characteristics, series, 221-222, 1326, 4941-42, 6440-42, 8090, 9455, 10814-817, 12035, 15647
 - population estimates, series, 1327-30, 3639, 4944-45, 6443-47, 10818-820, 13175, 15649-651
 - special censuses series, 1331, 4948, 8092
 - special studies, 12036, 15648
 - technical studies, 4943, 6442
 - Eastern Europe, Communist countries, by age and sex, 1969-90, projections, 3647
 - educational attainment, 4941
 - estimation, use of social security's continuous work history, sample for, 6442
 - explosion, problems, etc. (address), 5590
 - farm—
 - 1969 estimates, 14272
 - 1969, United States, 10813
 - series Census ERS, 10813
 - statistical series of Agriculture Department, 12

Population—Continued

- growth, effects on natural resources and the environment, hearings, 417
- growth showing an affluent majority by 1985 (remarks), 15657
- Hawaii counties, July 1, 1967 and 1968 estimates, 4946
- increasing rate of growth, message from the President, 4728
- international reports, 3647, 4950, 6454, 8099
- Negroes, changing characteristics, 6437
- North Carolina counties, July 1, 1968 and 1969, estimates, 8091
- nuclear power reactors and population, radiation exposure overview, 8561
- Panama, estimates and projections, 10826
- population dynamics, needs for national studies, United States National Committee on Vital and Health Statistics report, 10447
- population trends and environmental policy (periodical), 4305
- program assistance, aid to developing nations by United States, other nations, and international and private agencies, 7346
- research activities and family planning services, expanding, improving, and better coordinating, 13653
- research and family planning, hearing, 8426
- research centers, construction grants—
 - hearings, 8426, 15918
 - report, 13653
- research, grants and awards, list, 15009
- research, needs to be met by NICHD research goals and programs, 17136
- Spanish-Americans, Nov. 1969 sample survey, preliminary data, 4942
- special censuses conducted by Census Bureau, summary, 1331, 4948
- States—
 - by age, estimates, 3639
 - estimates, 1330
 - households, estimates, 6444
- United States—
 - by metropolitan-nonmetropolitan residence, 6440
 - estimates, 1327-29, 4944-45, 6443, 6447, 15649-651
 - and components of change, 6446
 - by age, race, and sex, 6445, 10818-820
 - mobility, 1326
 - projections by age and sex, 1970-2020, interim revisions, 13175
- USSR, by age and sex, 1969-90, projections, 4950
- working age, poverty area profiles, 7436
- see also* Demography—Rural population—*also* names of States, etc.
- Population and Family Planning, National Center, *see* National Center for Population and Family Planning.
- Population Affairs Office, establish, report, 13653
- Population Commission, establish, hearing, 15918
- Population Growth and American Future Commission:
 - establish—
 - hearings, 6712
 - law, 6545
 - message from the President, 4728
 - reports, 1538, 3845
- Population Research, National Institute for, *see* National Institute for Population Research.
- Populations (mathematics):
 - heterotrophic and autotrophic, in aquatic ecosystems, interrelation of carbon and phosphorous as means of regulating, 14413
 - normal population, tests based on range and studentized range of samples, order statistics and their use in testing and estimation, 9340

Populations (mathematics)—Continued
various populations, estimates based on
order statistics of samples, order statistics
and their use in testing and estimation,
9341

Populus tremuloides, *see* Aspen.

Porcelain enamels, *see* Enamel.

Porcupines, western Oregon, status, review,
7789

Pore, N. Arthur:

interim report on sea and swell forecasting,
609

summary of selected reference material on
oceanographic phenomena of tides,
storm surges, waves, and breakers,
14343

Pork:

carcasses, USDA grades, 7922

dynamic price-output model of beef and
pork sectors, 15447

frozen pork bellies, commitments of traders,
2428

trading in frozen pork belly futures, 291

Pornography, *see* Obscene matter.

Porosity, electrodeposit, radiographic test,
12748

Porous materials:

channels, and capillaries, fluid flow under
influence of electric field, 4481

permeabilities, in outer lobes of twin-keel
parawing, performance and deployment
characteristics, 11651

porous glass membranes for reverse
osmosis, research, 5621

porous structures used as oxygen fuel cell
electrodes, factors affecting performance,
12767

steady state heat transfer in two dimensional
porous media, analytical method,
11693

Porphyries, Silver Bell Oxide porphyry
copper deposit, comparison of triangular,
polygonal, and statistical methods of computing
grade and tonnage of ore, 5873

Port Allen Lock, finite element analyses,
16445

Port Arthur, Tex.:

area wage survey, 16850

census of transportation, 1967, commodity
transportation survey, production, area
series, 6431

Port Chilkoot area, Alaska, reconnaissance
of water resources, 11391

Portage County, Ohio, community profile,
12458

Porter, Dorothy B., Negro in United States,
selected bibliography, 12725

Porter, Horace G.:

cotton in—

Tanzania, 11342

Uganda, 8679

Porter, J. Winston, economic and engineering
analysis of electrodialysis process, 769

Porter, Richard F.:

evaluation of gust-alleviation characteristics
and handling qualities of free-
wing aircraft, 11603

procedure for assessing aircraft turbulence-
penetration performance, 7513

Porters, bellmen and bell captains, employment
outlook, 14726

Portland, Maine:

area wage survey, 5830

foreign trade zone, establish hearings,
11110

Portland, Oreg.:

area wage survey, 16846

Indian vital statistics, area, 7297

interstate air quality control region, report
for consultation, 8972

Portland International Airport, climatological
summaries, 4764

principal electric facilities, map, 8625

Portland cement, *see* Cement.

Portneuf River, Pocatello, Idaho, flood plain
information, 14316

Portraits, *see* names, etc., of subjects sitting
for portraits.

Ports:

port in our changing times (address),
11309

port security, amend internal security act,
hearings, 1586

port series, 5372, 10009, 16441

price spreads, 1949-69, revised series,
9312

see also names of ports or places where
located.

Portsmouth, Va.:

area wage survey, 11541

land conveyance to, 15848, 17633

Portugal:

air transport services, agreement, 18355
economic trends and their implications for
United States, 11478

foreign trade regulations, 17563

metropolitan, economic trends and their
implications for United States, 1977

mineral industry, minerals yearbook chapter,
4458

plant quarantine import requirements,
11943

west coast, sailing directions, change, 7672

Portuguese East Africa:

minerals yearbook chapter, 18150

Mozambique—

economic trends and their implications
for United States, 8821

mineral industry, minerals yearbook
chapter, 5858

special study mission, report, 390

print additional copies, reports, 9696,
13634

Portuguese Guinea, *see* Portuguese West
Africa.

Portuguese West Africa:

Angola—

mineral industry, minerals yearbook
chapters, 5858, 18150

special study mission, report, 390

print additional copies, reports, 9696,
13634

economic trends and their implications for
United States, 790

Guinea and liberation movement report,
hearing, 6709

Guinea, mineral industry, minerals year-
book chapter, 5858, 18150

Posey, Merne H., sunflower, literature survey,
list, 951

Position classification, *see* Classification—
Job analysis.

Position finding:

probability density function for future
position of vessel at sea, 18294

two-dimensional point resolution, 18293

Positive power of science (remarks), 8031

Possessions of United States, *see* Outlying
possessions.

Possony, Stefan T., testimony, hearing, 11134

Post, Boyd W., forestry research progress,
McIntire-Stennis cooperative forestry
research program, 13769

Post mortem examinations, *see* Autopsy.

Post Office and Civil Service Committee,
House:

calendar, 2809

committee prints, 3889, 8315

hearings, 431-432, 3884-88, 6723, 8314,
9763, 11054, 12281, 13536-538, 15928,
16083, 17651

investigations and studies, expenses, report,
6658

reports, 1554, 1565, 5112, 5136, 6624, 6671,
6682, 8245, 8259, 8263, 9709, 10992,
11085, 13408, 13427, 13539

rules 8316

Post Office and Civil Service Committee,
Senate:

calendar, 2828

committee print, 9934

table, 17713

INDEX 1970

- Post Office and Civil Service Committee—
Continued
hearings, 522, 1744, 3985-86 6816, 9933,
11142, 13757
investigations and studies—
authorization and continuation, report,
5195
authorization, report, 5237
revision and codification of U.S. statutes,
report, 6736
reports, 1645, 1649, 1665-66, 5195, 5255,
6736-37, 8352, 11083, 11102, 13695,
15981, 16004, 16008, 16018, 16027
Post Office and Customhouse Bath, Maine,
demolition property investigation, 2156
Post Office Department:
annual report—
departmental edition, 6118
document edition, 5083
appropriations, 1971—
hearings, 6693, 13710
law, 17608
reports, 8247, 15870, 16009
buildings, floor care and maintenance,
1040
employees, nonpolitical appointments and
promotion, hearing, 3886
facilities handbook series, 2195
licensed vendor listing, uniform allow-
ance program, 6120
maintenance handbooks MS series, 1041
modernize, reports, 6682, 9709, 11083,
12195, 12256
postal facts, 9067
postal manual, 3029
postal rates and revenue and cost analysis,
hearings, 12281
Postal reform and salary adjustment act
of 1970—
hearings, 9783
report, 6882
postal reform system, reports, 6682, 9709,
11083, 12195, 12256
Postal reorganization and salary adjust-
ment act of 1970, reports, 9709, 11083,
12195, 12256
posters, commemorative stamp, 2421,
6119, 9066, 11826-827, 12900-901,
15107-110, 17207-210
press releases—
general, 3084
philatelic, 3084
public information service, PI series, 7698,
11828
reorganization—
hearings, 3986, 9933
law, 13342
proposals, hearings, 9763
revenue and cost analysis, 7699, 17713
scheme study, techniques, 4638
second class mail, money loser to Dept.,
better controls needed over assessment
and collection of postage, GAO report,
16588
unrecovered costs in providing address
correction service to postal patrons,
10154
vehicle maintenance, nonpersonnel offices,
facilities handbook, 2195
work schedules of employees assigned to
railway and highway post offices, need
to revise, GAO report, 7212
Post offices:
acceptance of U.S. passport applications,
test program, hearings, 13536
directory, with ZIP code numbers, 18393
manual, 3029
occupations, employment outlook, 14728
post office box names or addresses fur-
nished by Government agencies to pub-
lic, prohibit, hearings, 15928
post office dedication, Columbus, Ind. (re-
marks), 12902
postal service manual, 18396
Post offices—Continued
railway and highway post offices, need to
revise work schedules of employees as-
signed, Post Office Department, GAO
report, 7212
revenues and classes, 4637
see also Postal service.
Postage:
assessment and collection, better controls
needed for second class mail, money
loser to Post Office Dept., GAO report,
16588
postal rates and revenue and cost analysis,
hearings, 12281
postal revenue and offensive intrusion of
sexually oriented mail act of 1969, hear-
ings, 3888
postal revenues, adjust, hearings, 3888
Postage stamps:
commemorative—
5-cent weather services postal card
(poster), 15107
issuance, standards governing, 15112
6-cent—
American flag (poster), 12900
anti-pollution (poster), 17207
Christmas (posters), 17208-209
Dwight D. Eisenhower (poster), 12901
Edgar Lee Masters (poster), 15108
Fort Snelling (poster), 17210
Herman Melville Moby Dick stamped
envelope (poster), 6119
Maine Statehood (poster), 11826
natural history (poster), 9066
South Carolina tricentennial (poster),
15109
United Nations (poster), 18392
wildlife conservation, 11827
woman's suffrage, 15110
posters, 2421
history, 7698
moon and man and mail 10¢ air mail en-
velope, first man on moon with die, gen-
eral information, 15111
philatelic releases, 3084
postage meter stamps, counterfeiting and
other improper uses of metered postal
systems, report, 1466
Postal bulletin, see Postal service.
Postal cards, history, 7698
Postal carriers, see Mail carriers.
Postal clerks:
employment outlook, 14728
substitute clerk-carrier, examination an-
nouncement, 1355
amendment, 4962
revision, 6486
Postal delivery, see Postal service.
Postal employees, see Postal service.
Postal facts, 9067
Postal Inspection Service, enforcement re-
port, fraud, obscenity, extortion, monthly,
2539
Postal life, magazine for postal employees,
3028
Postal rates, see Postage.
Postal service:
and pornographic mail (remarks), 17211
code of Federal regulations, 7136
employees—
pay increase, legislation—
hearing, 6816
law, 8189
reports, 8245-46, 8251, 8352
postal salary system compensation, re-
lated legislation, hearings, 522
salary adjustments for 1970—
hearings, 9783
reports, 6682, 9709, 12195, 12256
salary and retirement annuity increases,
13539
salary comparability act of 1969, im-
plement, hearings, 522
salary rates, Federal general schedule,
3889

Postal service—Continued
 implications of true collective bargaining (remarks), 18270
 improve and modernize—
 hearings, 9763, 9933
 law, 13342
 improvements (address), 1039
 investigation, authorization and continuation, report, 5195
 laws, 10502
 mailing articles which present hazard to postal employees or mail processing machines, restrict, report, 15850
 mailing of unsolicited credit cards, restrict, hearings, 8723
 metered mail systems, counterfeiting of postage meter stamps and other improper uses, report, 14466
 modernization, hearings, 3986
 neither snow, nor rain . . . story of U.S. mails, 17270
 personal checks to pay postal charges, permit, report, 5255
 postage stamps, postal cards, and stamped envelopes, history, 7698
 postal bulletin, 3027
 postal facts, 9067
 postal life, magazine for postal employees, 3028
 postal rates and revenue and cost analysis, hearings, 12281
 postal reform (remarks), 15113
 postal service manual, 18396
 publications, price list, 10515
 qualification standards for field service, 3116
 revenue and cost analysis, 7699
 saga of pony express, 11828
 scheme study, techniques, 4638
 State postal maps, 2196-99, 6122-23, 7700-5, 9068, 10503-506, 15114-117, 17212-213
 unrecovered costs in providing address correction service to postal patrons by Post Office Dept., 10154
 what mailers should do to get best service, 4639
 see also International postal service. Mail matter—Post offices.

Posten Bayou, Ark.:
 engineers report—
 departmental edition, 10010
 document edition, 9623

Posters:
 Agricultural Research Service, 15404
 American soldiers, 1775-1965, uniforms, 4850
 beware of plaque, it causes tooth loss, through periodontal disease, 10458
 Consumer and Marketing Service, 12391
 Custer Battlefield, 9028
 daily food guide, some choices for thrifty families, 11339
 Education Office, 14296
 National Institute of Mental Health, 15011, 15014-16, 15018-20
 Post Office Department, commemorative stamps, 2421, 6119, 9066, 11826-827, 12900-901, 15107-110, 17207-210
 Public Health Service, 17226, 17231
 Soil Conservation Service, 17287
 sold by Superintendent of Documents, price list, 17225
 this is our flag, be proud of it!, 10518
 United States Postal Service, commemorative stamps, 13392

Postmaster General, see Post Office Department.

Postmasters, appointments on basis of merit and fitness, hearing, 3886

Posts, binding posts, electrical, military standard, 13807

Postwar Nigerian situation, hearing, 6708

Postwar planning, see Economic policy.

Potash:
 fertilizer, supply, 12970
 United States position and outlook, 18146

Potassium:
 commercially pure and oxygen-doped tantalum and niobium in, apparent solubilities, 11691
 corrosion test conducted Cb-1Zr Rankine system loop, 11602
 flowing adiabatically through venturi sized as boiler inlet, experimental cavitation and dashing, 11639
 three-stage potassium turbine program, performance test summary, 2072
 turboalternator, preliminary design study, 16934
 turboalternator (KTA)—
 phase 2 final design, 8921
 preliminary design study, 10345
 alternator parametric design, 12754
 turboalternator phase 2, refinement of selected layout, 12765

Potassium carbonates, seeding high-temperature combustion coal in MHD generation of electric power, 7485

Potassium chloride:
 magnesium electrode in molten mixture of, anolyte studies, 5952
 muriate of potash, from Canada, France, and West Germany, determination of injury to U.S. industry, 1169

Potato leafhopper, on alfalfa, control, 12986

Potato wart, see Warts (plant disease).

Potatoes:
 controlling insects, 11949
 diseases through 1945, with common scientific names, bibliography, 12995
 Florida, Alabama, and North Carolina, marketing summary, 3993
 futures—
 commitments of traders, 2427
 floor trading on New York Mercantile Exchange, extent and price effects of market, 13247
 trading and open contracts, 2684
 golden nematode, description, control, etc., 5316
 market organization and practices, changes in industry, 1958-68, Hastings area, Fla., 16468
 marketing orders—
 law, 5055
 reports, 3841, 3844
 National Potato Utilization Conference, proceedings, 4802
 potato processing waste treatment, current practice, 7169
 processing wastes, secondary treatment, 4170
 research and promotion act, report, 3806
 sold in fresh markets, prices and spreads, 12993
 spring-early summer, 1970 acreage marketing guides, 1746
 summer and fall, acreage marketing guides, 6819
 total stocks, monthly report, 3264
 winter, acreage marketing guide, 13762

Potawatomi Indians:
 Citizen Band of Oklahoma, judgment funds, disposition—
 law, 15789
 report, 16002

Potential:
 average evoked potentials, methods, results, and evaluation, conference, 4501
 input-output economics in 1970's (remarks), 3696, 5003
 semiclassical elastic scattering cross sections for central field function, 4504
 Potential for work among welfare parents, 2017

INDEX 1970

- Potomac Edison Company:
high voltage transmission line, esthetic impact on Chesapeake & Ohio Canal National Monument—
hearing, 8297
report, 9694
- Potomac River and Valley:
basin, flood control emergency projects, hearings, 523
estuary, protecting, hearings, 15909
Great Falls and Potomac River gorge, geologic story of river and rocks, 7250
pollution of interstate waters, progress evaluation meeting, proceedings, 8672
pollution, Washington, D.C. metropolitan area, conference proceedings, 1865, 16517
reservoirs, authorize District of Columbia to contract for payment—
hearing, 3971
report, 1690
water quality, pollution, etc., hearings, 11116
- Potomac River Basin, Interstate Commission on, *see* Interstate Commission on Potomac River Basin.
- Potomac Valley Conservancy District:
compact, amendments—
hearing, 1598
law, 17606
report, 13467
- Potowmack Canal, Potowmack Company canal and locks, Great Falls, Va., historic structures report, 17159
- Pottawattamie County, Iowa, community profile, 14161
- Potted plants, *see* Plants.
- Potter, Andrew E., Jr., static electricity in Apollo spacecraft, 2114
- Potter, George M., recovering gold from stripping waste and ore by percolation cyanide leaching, 4485
- Potter, Merle C., stability of plane Poiseuille flow with heat transfer, 17005
- Potter County, Pa., community profile, 16335
- Potter County, S. Dak., community profile, 14162
- Pottery, and related products, 1967 census of manufactures, industry statistics, 13151
- Potting electronic modules, report, 4505
- Poultry:
and meat inspection, Federal statistical summary, 8442
biodegrading poultry excreta with house fly larvae, concept and equipment, 4797
byproducts—
monitoring for presence of salmonella, 6289
rendering, 6289
care tips for you, the consumer, 4815
commercial broiler farms, costs and returns, 1969, Georgia, 14268
establishments, guidelines for implementation of sanitary requirements, 2699
foreign agriculture circulars, 2657
foreign, inspection program, fact sheet, 17720
hatchery production, 2705
health requirements, etc., governing interstate and international movement, 1191
home canning, 9293
home freezing, 3401
household consumption patterns, 1965, spring, 5337
inspection in United States, brief history, 16085
inventory, 6257
laying house, farm building plan, 3416
market statistics, 1969, annual summary, 6318
meat and poultry, clean for you, 3405
national improvement plan, hatcheries and dealers participating, 4798
plants operating under USDA inspection and grading programs, list, 8444
- Poultry—Continued
poultry and egg situation (periodical), 3030
processing plant layouts, guidelines, 10690
processing plants, chemical compounds authorized for use under USDA inspection programs, lists, 528, 11154
publications, price list, 12907
radiation pasteurization, 10755
slaughtered under Federal inspection, monthly report, 3031
standards for you the consumer, 20
statistical series, selected, 6994
used in further processing, monthly report, 3031
see also Avian leukosis—Chickens—Turkeys.
- Poultry processing plants, *see* Poultry.
- Pounds, Bonnie A., Ghana, country market survey, 5714
- Poverty:
amid plenty, American paradox, report of President's Commission on Income Maintenance Programs, 6126
antipoverty program—
administration and conduct, investigation, hearings, 8284
communities in action (periodical) 2431
area profiles, working age population, 7436
continues to decline in 1969, advance data from Mar. 1970 current population survey, current population reports, 10822
Detroit, broad outline, population characteristics, unemployment, etc., 8875
Economic opportunity act of 1964, as amended—
compilation, 12373
text, 8495
hunger and the income gap, hearings, 9932
persons and families, Mar. 1970, selected characteristics, 10817
poverty in U.S., 1959-68, current population reports, 3642
President's Commission on Income Maintenance—
background papers, 11830
technical studies, 15122
propensity for change among rural poor in Mississippi Delta, study, 11192
publications, price list, 6132
rural, in 3 southern regions, Mississippi Delta, Ozarks, and Southeast coastal plain, 6991
rurality, poverty, and health, medical problems in rural areas, 14265
socioeconomic trends in poverty areas, 1333
studies in the sixties, annotated bibliography, 10552
urban and rural areas, encourage flow of credit to stimulate rate of economic growth and employment, hearings, 17691
war on poverty—
Legal Services program, monthly account, 2793
news summary, 2965
rural opportunities (periodical), 3166
- Powdered carbon, *see* Carbon.
- Powderhorn, Colo., public lands outdoor recreation map of area, 14749
- Powders, iron-copper-carbon powder metal-lurgy alloy, use of cement copper in, 7479
- Powell, Howard E., solvent extraction of nickel and zinc from waste phosphate solution, 5874
- Powell, Mel D., community action program for traffic safety, responsibilities of local officials, 17075
- Powell River and Valley, drainage basin, Tennessee Valley streams, their fish, bottom fauna, and aquatic habitat, 15358
- Power, Garrett, Chesapeake Bay in legal perspective, 8671

Power:

- Brayton-cycle power generation system using SNAP-8 nuclear reactor as energy source, study, 11641
- errata, 16959
- Brayton cycle space power system—alternator and voltage regulator exciter, unbalanced electromagnetic forces, 10343
- steady-state analysis, 5964
- conservation, code of Federal regulations, 7121
- development, public works appropriations, 1971—
 - hearings, 8272, 11022, 11106, 13709
 - reports, 12207, 13697, 15873
- economics of seawater desalting in combination with power production, 1948
- fluid, rate training manual, 17184
- Intergovernmental coordination of power development and environmental protection act, 13737
- law profiles, some statistical aspects, 15473
- law velocity-profile-exponent variations, etc., in turbulent boundary layer, 10397
- motive, for class 1 railroads, 2915
- power engineering, technical progress, USSR study, 16745
- power technology and the future (remarks), 10777
- research, application of plasmas and magnetic fields, conference proceedings, 4503
- resources, conservation, code of Federal regulations, 7122
- spacecraft power, 18193
- spectra of XB-70 in response to atmospheric turbulence, 14824
- see also Electric power stations—Electricity.
- Power boilers, see Boilers.
- Power generators:
 - net power output of 2- to 10-kilowatt Brayton rotating cycle, effect of operating parameters, 11661
 - terrestrial/marine radiol isotopic power units, implications of substitution of strontium oxide for strontium titanate, 8027
- Power O. and M. bulletin series, 7721
- Power lines, see Electric lines.
- Power plants:
 - coal-fired, thermionic topping converter for, 4975
 - Federal power program, change proposed in interest rate criteria for determining financing costs, GAO report, 4217
 - large power plant effluent study [LAPPES], instrumentation procedures, and data tabulations, 14903
 - Morrow Point underground powerplant, rock movement and subsequent stabilization (paper), 7728
 - 10-kilowatt space power system, experimental evaluation of 3.50-inch radial turbine, 939
 - see also Electric power plants—Nuclear reactor power plants.
- Power resources:
 - selected United States energy forecasts, review and comparison, 4658
 - supply and demand, in United States by States and regions, 1960 and 1965, integrated energy balances and energy flows, 5849
- Power transformers, see Electric transformers.
- Power transmission:
 - equipment, mechanical, Federal item identification guides for supply cataloging, supplements, 2590
 - mechanical power transmission equipment and bearings, Kennedy Round special report, 8825
- Power truck operators, employment outlook, 16834

- Power units, see Electric generators.
- Powers, H. R., jr., annosus root rot in eastern pines, 14444
- Powers, Robert F., estimating past diameters of ponderosa pine in northern California, 5501
- Poweshiek County, Iowa, community profile, 14163
- P-p and p-t final state interactions in reaction $^3\text{He}(\text{d}, \text{tp})\text{p}$, 14870
- PR series, 16819-820
- Prairie Flat Operation, see Operation Prairie Flat.
- Prasky, Charles, reduction roasting of non-magnetic taconites with automobile scrap, 8912
- Prawns:
 - giant Alaskan, experimental trawling and pot fishing, 12067
 - world demand for, outstripping supply in next decade, 9532
- Prayers, see National Day of Prayer.
- PRB, see Public Roads Bureau.
- Preamble County, Ohio, community profile, 12459
- Pre-Cambrian period:
 - melaenite of Ute Creek, San Juan Mountains, Colo., chemistry, petrology, and strontium isotopes, 5542
 - Precambrian geology of Needle Mountains, southwestern Colorado, 4248
 - Precambrian rocks structure and mineralization in Galena-Koubais district, Black Hills, S. Dak., 7225
 - upper Precambrian and lower Cambrian strata in southern Great Basin, Calif., and Nev., 14535
- Precious metals, neutron activation techniques for precious metal exploration, 133
- Precipitation:
 - Columbia basin States, climatological handbook, 2191
 - echo attenuation in linearly polarized radar sets, USSR study, 16739
 - effects on Omega aircraft receivers, 12896
 - hourly data, by States, etc., 2718
 - leach-precipitation-flotation studies in red bed copper ore using controlled atmosphere, 7497
 - management in Lebanon, for increasing useful water supply, report, 7727
 - Mekong River basin, probable maximum estimates, 17411
 - liquid, at Voyekovo, preliminary results of study of errors in measuring, USSR study, 11516
 - monthly precipitation probabilities by climatic divisions, 23 Eastern States from Great Lakes to Gulf Coast, 32
 - Pacific Northwest, monthly, 3004
 - Plateau States, station precipitation from 700-Mb. lows during winter, charts, 1834
 - persistence at 108 cities in conterminous United States, 14344
 - probability forecasts, 10032
 - radar for microstructural studies, USSR study, 10274
 - station, in Plateau States from 850- and 500-millibar lows during winter, charts giving information, 7049
 - streamflow, and major floods at selected sites in Gila River drainage basin above Coolidge Dam, Ariz., 7248
 - substation observations, 11936
 - Tennessee River basin, monthly, 3032
 - see also Hail.
- Precision measurements, see Physical measurements.
- Precooling, see Cooling.
- Predetection polarization diversity combiner, 14891

INDEX 1970

- Prediction (psychology):
 - criminal court data on pre-trial release of defendants, pilot study, 14924
 - human performance prediction in man-machine systems, technical review, 14823
 - probability learning, 1st-order Markov structures of quaternary events, 5971
- Predmore, Roamer, friction and wear of steels in air and vacuum, 15966
- Prefabricated buildings, *see* Buildings.
- Preferred for good business reasons, business and industry speak out on value of Army ROTC for leadership, 3478
- Pregnancy:
 - maternal nutrition, summary report, 18139
 - planning your pregnancy, 16377
- Prehn, W. Lawrence, Jr., desalting cost calculating procedures, 12610
- Premiums (insurance), *see* Life Insurance.
- Prentiss County, Miss., community profile, 16336
- Prepare with care, how to prepare Government mail, 5538
- Preparing evaluation reports, guide for authors, 8521
- Preparing way for new era of advancement of education (address), 5354
- Preprimary enrollment, 14293
- Preprimary enrollment trends of children under six, 8522
- Presbyterian-St. Luke Hospital, Chicago student health project, 1968 summer, 8772
- Preschool children, *see* Children.
- Prescriptions, prescription drugs, identification and labeling, provide code system, hearings, 11141
- Preservation of biological specimens, *see* Biology.
- Preservation of food, *see* Food.
- Preservation of materials:
 - fence posts in Puerto Rico, preservative treatments and service life, 1969 progress report, 14470
 - ultraviolet irradiation techniques to preserve maple sap, 7904
- Preservation of wood, *see* Wood.
- Preservatives, Federal item identification guide, 16134
- President of United States:
 - addresses, etc.—
 - July 12, 1966, 1141
 - Oct. 31, 1969, 1145
 - Nov. 3, 1969, 1140
 - Mar. 5, 1970, 9191
 - Mar. 24, 1970, 7711
 - Apr. 30, 1970, 9192
 - June 3, 1970, 10605
 - Oct. 7, 1970, 17330
 - Oct. 23, 1970, 18345
 - campaign, repeal equal time requirements of Communications act, reports, 15855, 15977
 - Code of Federal regulations, 7105, 11319
 - conversation with the President, television interview, transcript, 17333
 - economic report—
 - departmental edition, 4640
 - document edition, 3780
 - extend time to file, law, 3758
 - hearings, 9612, 10937
 - print additional copies, report, 6667
 - election, amend Constitution relating to electoral college reform, hearings, 12370
 - election by direct popular vote, amend U.S. Constitution, proposal, report, 13700
 - emergency fund appropriations, 1971, hearings, 6693
 - inaugural addresses of Presidents of United States from George Washington to Richard Milhous Nixon, 328
 - inaugurations, selected list of references, 2040
 - maritime program, recommendations, hearings, 8812
- President of United States—Continued
 - messages, *see*, in main alphabet, subject of message.
 - papers—
 - index series, 11555
 - Johnson, Lyndon B., 5461-62
 - Roosevelt, Theodore, index, 11555
 - President Nixon's anti-heroin action program (remarks), 9249
 - presidential advisory committees, management and control, hearings, 9744, 13521
 - presidential documents, weekly compilation, 3349
 - press releases, 3085
 - proclamations in Statutes at large, 651
 - public speeches of former President
 - Dwight D. Eisenhower, 12161
 - print as House document, report, 12194
 - report to Nation, June 30, 1970, 11896
 - state of the Union address, 3775
 - veto messages—
 - Education Office appropriations, 1971, 15829
 - Health, Education, and Welfare Department appropriations, 1970, 5073, 5077
 - independent offices and Housing and Urban Development appropriations, 1971, 15830
 - medical facilities construction and modernization amendments of 1970, 12160
 - war powers, authority as commander in chief—
 - documents, 16052
 - hearings, 15899
- Presidential scholars, *see* Scholars.
- President's Commission on All-Volunteer Armed Force, report, 6127
- President's Commission on Campus Unrest:
 - report, 18302
 - subpoena authority, law, 13309
- President's Commission on Income Maintenance Programs:
 - background papers, 11830
 - report, 6126
 - technical studies, 15122
- President's Commission on Personnel Interchange, report, 7709
- President's Committee on Consumer Interests:
 - appropriations, 1970—
 - hearings, 1700
 - report, 1683
 - appropriations, 1971—
 - hearings, 12259, 17687
 - reports, 13426, 16031
 - waiving points of order, report, 13429
 - report, 17217
- President's Committee on Employment of the Handicapped:
 - annual meeting, minutes, 2200, 17218
 - appropriations, 1971, hearings, 17687
 - awards and recognition, 1043
 - performance (periodical), 3015
 - press releases, 3086
 - special report, fresh views on employment of mentally handicapped (periodical), 3216
- President's Committee on Mental Retardation, PCMR message, 3010
- President's Council on Physical Fitness and Sports, newsletter, 2966
- President's Council on Youth Opportunity:
 - appropriations, 1970—
 - hearings, 1700
 - law, 3746, 6536
 - reports, 1563, 1683, 3834, 3929, 5254
 - appropriations, 1971—
 - hearings, 12259, 17687
 - reports, 13426, 16031
 - waiving points of order, report, 13429
- President's National Advisory Council on Supplementary Centers and Services, report, 7710
- President's reorganization plans, *see* Government reorganization plans.

President's Science Advisory Committee, next decade in space, report, 7729
 President's Task Force on Aging, toward a brighter future for elderly, report, 11832
 President's Task Force on Economic Growth, report, 11829
 President's Task Force on Higher Education, priorities in higher education, report, 17220
 President's Task Force on Low Income Housing, toward better housing for low income families, report, 11833
 President's Task Force on Mentally Handicapped, action against mental disability, report, 17214
 President's Task Force on Model Cities, report, 15121
 President's Task Force on Physically Handicapped, national effort for physically handicapped, report, 17219
 President's Task Force on Prisoner Rehabilitation, criminal offender, what should be done?, report, 10507
 President's Task Force on Rural Development, new life for the country, report, 8124
 President's Task Force on Science Policy, report, 9070
 President's Task Force on Urban Renewal, urban renewal, one tool among many, report, 11834
 President's Task Force on Women's Rights and Responsibilities, matter of simple justice, report, 10510
Press:
 Czechoslovak, abbreviations, reference aid, English translation, 16737
 Gallery, House, salary adjustment, certain employees, report, 1505
 Is media a product of the times, or has it helped create them? (remarks), 10054
 see also Liberty of the press.
 Press releases, see names of offices issuing releases.
 Presses, see Punch presses.
 Pressman, printing pressmen and assistants, employment outlook, 14712
Pressure:
aerodynamic—
 on Apollo command module configuration, wind-tunnel investigation, 917
 on Apollo launch escape vehicle configuration, wind-tunnel investigation, 10385
 ambient, increased, performance effects on helium-oxygen saturation and excursion dive to simulated depth of 1,100 ft., 8890
 arbitrary pressure gradients—
 compressible laminar and turbulent boundary layers in FORTRAN program for calculating, 12772
 investigation of high speed turbulent boundary layer, compressibility transformation, general considerations, 18189
 investigation of high speed turbulent boundary layer with computer program manual, 18190
 bending deformations of filamentary tubular shell typical for pressure constraint components of space suits, analysis, 2075
 constant-pressure hydrogen-air combustion, analytical chemical kinetic study of effect of carbon dioxide and water vapor, 10402
 data, correction, for thermal transpiration effects in pneumatic lines, 2074
 distribution effects on bluff tension-shell shapes, 5944
 distributions and ram-air inflation of attached inflatable decelerator models at Mach 3.0, 11662

Pressure—Continued
 elastic, distortion of volumes of 1,000 atmosphere Burnett compressibility apparatus over temperature range 0°-75° C, 7490
 external, isotropic conical shells loaded by, preliminary design procedures for end rings, 16985
 fluctuating pressure environments, vibration responses of shells and plates, study, 12755
 free-stream dynamic pressures exceeding pressure and very low ground clearances, effect of these conditions on aerodynamic characteristic of air cushion vehicles, 18209
 heat transfer rate and pressure measurements obtained during Apollo orbital entries, 18211
 helium at pressures to 800 atmospheres and over temperature range -5° C to 80° C, compressibility data, 5883
 high, free plasma column in high frequency field, USSR study, 7375
 ice, on engineering structures, 14306
 induced in plasma as result of weak electric fields, 7550
 lower body negative experiments, stress effects of high noise levels, 16978
 measurement, isotopic altimeter setting indicator, design and development, 10638
 One atmosphere pressure used in measurements of extinction parameters of hot seeded hydrogen, 5896
 pore pressure in concrete, investigation of instruments for measuring, instruments installed at Hartwell Dam, Ga., 10018
 pressure and heat transfer over plate at Mach 8.0, two-dimensional sinusoidal waves effects, 14876
 pressures on elliptic cones at supersonic speeds, methods for predicting, 14884
 saturation-excitation diving to pressures equivalent to 800 to 1,000 feet of seawater, pulmonary gas exchange and urinary electrolyte excretion, 12735
 stratosphere and mesosphere, 14893
 surface pressures on hemisphere and cone cylinders in low-density hypersonic flow, 16633
 water vapor pressure function of concentration of anomalous component in modified water, USSR study, 12626
 XB-70-1 inlet pressure fluctuations during takeoff and prior to compressor stall at Mach 2.5, dynamic analysis, 11669
 Pressure apparatus, see Suction and pressure apparatus.
Pressure gages:
 air tower pressure gages in suburban Washington, D.C., accuracy, 2139
 errata, 7575
 Pressure measuring systems, maximum-bubble-pressure system improved for measuring surface tension of molten metals, 4480
 Pressure suits, see Life support systems.
 Pressure transducers, see Transducers.
Pressure vessels:
 Army SM-1 reactor pressure vessels, analysis of neutron-embrittlement and flux-density considerations, 17191
 glass filament-wound, static and dynamic fatigue behavior at ambient and cryogenic temperatures, 12794
 neutron-embrittled pressure vessel steels, Charpy-V shelf energy degradation and strength increase, trends, 6110
 1,000 atmosphere Burnett compressibility apparatus, elastic pressure distortion of volumes of helium over temperature range 0°-75° C, 7490

INDEX 1970

Prestressing:
flexural behavior of prestressed concrete composite tee-beams, 14915
multiaxial, temperature effects of concrete members, USSR study, 16804
see also Strains and stresses.

Prestridge, T. D., jr., construction of commercial catfish ponds, 2226

Pretreating steel scrap to speed oxidation, 4476

Pretrial detention, *see* Arrest.

Preventing office accidents, 12658

Prevention and Punishment of Crime of Genocide, Convention, *see* Convention on Prevention and Punishment of Crime of Genocide.

Prevention of accidents, *see* Accidents.

Preventive detention, hearings, 12371

Price, Bronson:
library statistics of colleges and universities—
analytic report, fall 1968, 9990
data for individual institutions, 14288

Price, Daniel N., income-loss protection against illness, 2222

Price, Daniel O., changing characteristics of Negro population, 6437

Price, Michael J., on inference of physical properties of Jovian atmosphere from photometry of eclipses of Galilean satellites, 17009

Price discrimination, *see* Prices.

Price lists, *see* Government publications—
also names of departments, etc., issuing lists—*also* subjects.

Price supports, *see* Prices.

Prices:
agricultural prices (periodical), 2306
consumer price indexes—
average for groups, subgroups, and selected items, 16857
city average and selected items, 2447
components, relative importance, 3874
urban wage earners and clerical workers, 4335
consumer, United States, 1959–68, trends and indexes, 16828
crop values, season average prices, value of production, 4759
demand and price situation, 2497
discrimination, legislation, hearings, 5274
economic policy and restoration of price stability in United States (remarks), 11324
farm prices, information relating to agriculture, compilation, 15884
food prices before and after distribution of welfare checks, 1969, low-income areas—
cities, 15438
statistical summary, 17445
increases in price index, automatic increase in wage rate, extend coverage of Fair labor standards act, hearings, 15896
index numbers, hydraulic turbine industry, 2738
indexes, department store inventory, 16858
long climb back to full employment with price stability (address), 15717
negotiating prices of noncompetitive contracts over \$100,000, improvements needed on basis of contractors' catalog or market prices, Defense Dept., GAO report, 710
Northwest forest industries, 3100
price support and related activities, Commodity Credit Corporation charts, providing graphic summary, 3719
price supports—
Commodity Credit Corporation program data, 2429
glossary of terms used in ASCS and related programs, 13
price-wage guideposts, provide, hearing, 11034

Prices—Continued

Robinson-Patman act, small business, congressional intent, hearings, 1601, 15944
spot market price index and prices, 3295
wage-price issue, need for guideposts, hearings, 419
wholesale index numbers, 2733
wholesale price index—
advance summary, 3360
prices and price indexes—
historical table, 1913–69, all commodities, 10300
monthly, 3361
see also Cost—Inflation (finance)—Supply and demand—*also* names of commodities.

Prices, Thomas H., strong surface wind gusts at Holloman AFB, March–May, 15475

Primas, James E., records of Department of State relating to internal affairs of Haiti, pamphlet accompanying microcopy, 11724

Prime Project, *see* Resource management system.

Primers (ammunition):
Federal item identification guide, 16125

Primitive areas, *see* Wilderness areas.

Primitive solutions, *see* Equations.

Prince of Wales Island:
Mississippian rugose corals, Peratrovich formation, 16614
Paleozoic stratigraphy in northwest coastal area, 11387

Prince William County, Va.:
property owned by District of Columbia, disposition, authorize—
hearings, 17636
reports, 12246, 16030

Prince William Forest Park, general information, 1002

Prince William Sound, Alaska, biological characteristics of intertidal and freshwater spawning pink salmon at Olsen Creek, 10897

Principle of the maximum, adaptive random-search algorithm for implementation of maximum principle, 5947

Principles of MEDLARS, 7629

Printed circuits, *see* Circuits.

Printed wiring for electronic equipment, military standard, 11180

Printer (photographic device):
selective roll-to-roll printer for producing duplicate microfilm copies, 6009

Printers:
apprentice, printing crafts—
compositor, bookbinder, pressman, machinist, lithographer, photoengraver, examination announcement, 3662
examination announcement, amendment, 8117

Printing:
census of manufactures, 1967, industry statistics, 18149
commercial printing and manifold business forms, 17520
electronic composition, review of costs, 17654
industry—
machinery, trade and tariff information summaries, 6262
report, 3097
technological changes, 18131
union wages and hours, 816, 14740
layouts for flat-bed, rotary, and web press imposition, 11403
occupations, employment outlook, 14712
printing, publishing and allied industries, 1967 census of transportation, commodity transportation survey, commodity groups, 13155

Printing Joint Committee, committee prints, 6727, 17654

Printing presses, flat-bed, rotary, and web press imposition, layouts, 11403

Prints:

and pictorial illustrations, catalog of copyright entries, 17725
 chiaroscuro woodcuts, "Pembroke" album, 5835
 commercial, catalog of copyright entries, 1753, 17726

Priorities:

military budget and national economic priorities, hearings, 323
 national economic priorities and military budget, report, 3765
 top priority, quality of life (remarks), 9255
 Prisms, magnetic fields for 4 x 6 prismatic model, 5560
 Prisoner Rehabilitation, President's Task Force on, *see* President's Task Force on Prisoner Rehabilitation.

Prisoners of war:

American—

held by North Vietnam and National Liberation Front, humane treatment and release, report, 3820, 5249
 in Southeast Asia, 1970, hearings, 9733
 in Viet-Nam—
 an appeal to U.N. (statement), 2241
 hearings, 1580

Geneva convention relative to treatment, with reservations, if any, by governments participating in hostilities in Vietnam, Cambodia and Laos, 13511
 Students for a Democratic Society, efforts, hearings, 8305

print additional copies, report, 15838

Vietnam conflict—

payment of claims, amend War claims act—
 law, 12116
 report, 9874
 problems of U.S. servicemen held captive and their families, hearings, 6700

Viet-Nam information notes, 9190

Prisons and prisoners:

Army confinement system, report of special civilian committee, 9356
 detainees, interstate agreement, enact into law, report, 8255
 residential community treatment centers, authorize admission of persons placed on probation, released on parole, or mandatorily released, hearings, 15920

Pritchard, E. Brian, lifting entry ($L/D \leq C.2$) for unmanned Viking class Mars landers, 11670

Pritchard, Norris T., prospects for U.S. agricultural exports to Jamaica 574

Privacy:

census and Federal questionnaires hearings, 17709
 protecting privacy and rights of Federal employees, report, 9869
 protection of right of privacy from sexually-oriented mail, reports, 8624, 9655
 Private development assistant series, 10250
 Private enterprise, *see* Business.

Private Law, International Institute for Unification, *see* International Institute for Unification of Private Law.

Private laws, *see* Law.

Private schools, *see* Schools.

Privateers in Charleston 1793-96, account of French palatine in South Carolina, 4666

Prizes, *see* Rewards (prizes, etc.).

Probabilities (mathematics):

adaptive random-search algorithm for implementation of maximum principle, 5947
 atomic transition probabilities, bibliography, 6004
 digital receiver decision techniques for certain fixed length binary block codes transmitted through Gaussian channel, 4632

Probabilities (mathematics)—Continued

estimates based on order statistics of samples from various populations, order statistics and their use in testing and estimation, 9341

intermittency measurements in boundary layer of accelerated flow, 18220

joint probability method of tide frequency analysis applied to Atlantic City and Long Beach Island, N.J., 11269

Markov chain models for probabilities of hot and cool days sequences and hot spells in Nevada, 14345

marriage, divorce, and remarriage, current population report, 12036

opacity probability distribution functions for carbon monoxide at elevated temperatures, 5977

probabilistic analysis of interactions of periodically pulsing signal and periodically gated receiver, 2178

probability density function for future position of vessel at sea, 18294

probability learning, 1st-order Markov structures of quaternary events, 5071

probability theory, use in assignment of police patrol areas 16820

pseudo-random numbers, multiplicative generator of, evaluation, 15493

tests based on range and studentized range or samples from normal population, order statistics and their use in testing and estimation, 9340

Probation:

Federal probation (periodical), 2618

Federal system, persons under supervision, 1186

residential community treatment centers, authorize admission of persons placed on probation released on parole, or mandatorily released, hearing, 15920

Probes:

aerodynamics of Mars entry probe-lander configurations at Mach 10 number, 5931
 quantifying hazardous microwave fields, analysis, 9899

radiation, design and construction, 16916

Problem solving, geologic hazards and public problems, conference proceedings, 5362

Problems of Alaska, joint hearings, 17717

Procedures, *see* Administrative management.

Process Research and Development Division, research, development and demonstration projects, 1969 fiscal year, list, 7167

Processing (agricultural), *see* Agricultural processing.

Processing of food, *see* Food processing—also names of food processed.

Processing personnel actions, 2604, 4970

Processors, *see* Signal processors.

Proclamations, *see* President of United States.

Procurement, *see* Air Force—Armed Forces—Army—Defense Department—Government contracts—Government supplies—Military supplies—Navy—also names of commodities procured—also names of departments, etc., engaged in procurement—also subjects.

Procurement law statutes, DA pamphlet, 3469

Produce, *see* Agricultural products.

Produce markets, *see* Markets and marketing.

Producers Interstate Co-op., motor carrier accident, 7503

Product Safety Commission, *see* National Commission on Product Safety.

Production:

adjustment, glossary of terms used in ASCS and related programs, 13

beef and pork sectors, dynamic price-output model, 15447

central plant concrete mixers, factors affecting productivity, 6188

defense, loan guarantees, regulations, supplement, 667, 14396

INDEX 1970

- Production—Continued
 defense mobilization organization directory, 3762
 Defense production act of 1950, amend and extend—
 hearings, 9896, 12267
 laws, 12125, 13346, 15770
 reports, 9879, 13430, 13441, 13455
 farm production and efficiency changes, summary report, 13006
 foreign production and commercial reports, index, 2737
 Industrial indexes, 4157
 industrial mobilization production planning manual, 11161
 national contractors zero defects seminar, Defense Supply Agency proceedings, 6884
 national defense, report, 5196
 Northwest Forest industries, 3100
 output—
 as related to U.S. commodity exports and imports, 17541
 indexes per man-hour—
 1958-66, corrugated and solid fiber boxes industry, 4375
 selected industries, 7425, 18123
 performance standards for more efficient use of civilian production personnel, need to improve, Defense Dept., GAO review, 1895
 potential production in thinned Douglas-fir plantations, 8705
 preharvest research under marketing agreement, authorize, reports, 383, 5110, 5113
 procurement, preproduction evaluation (PPE) contracts, 10732
 productivity analysis in manufacturing plants, 12661
 research reports, 4625, 6315, 9322, 10702-703
 research under marketing agreement and order programs, authorize—
 law, 12118
 report, 9845
 science in service of production, USSR study, 10264
see also Gross national product—also names or classes of commodities.
 Production equipment, preparation and handling of industrial plant equipment for shipment and storage, military standard, 9959
 Production painters, *see* Painters.
 Productivity, *see* Production.
 Products, *see* Commercial products.
 Proechimys, *see* Rats.
 Profera, Charles E., Jr., evaluation of low sidelobe phased array antenna, 895
 Professional education, higher and professional education in India, 7014
see also Education.
 Professional equipment, scientific and professional instruments, trade and tariff information summaries, 10639
 Professional papers:
 Environmental Science Services Administration, 16453
 Geologic Survey, 727-732, 1913, 4242-52, 5548-61, 7242-49, 8739-49, 10170-183, 11394-899, 12589, 14534-638, 16614-622, 18041-47
 Professional workers:
 aliens, immigration to U.S., annual indicator, 16683
 pay, national survey, 5822
 State agricultural experiment stations and other cooperating State institutions, list, 6298
 Professions:
 allied health professions personnel advanced training, hearing, 11044
 Allied health-professions personnel training act, advanced traineeship programs, extension, reports, 13410, 13416
 Professions—Continued
 education, 1968, report on people who serve our schools and colleges, 1789
 education professions development act programs for 1970-71 training projects/fellowships, 5350
 health, educational assistance program, report, 18056
 Proficiency differences of pilot and navigator, F-4 2d-seat crewmembers, Southeast Asia evaluation, 13011
 Profit:
 do you know your economic ABC's? profits and American economy, etc., 17561
 large corporations, quarterly report, 3172
 pathways for profits (remarks), 7936
 performance of food manufacturing companies, economic report on influence of market structure, 8666
 Profit by your wholesalers' services, 11848
 Profit sharing, tax exemption, procedures and guides for qualification under Internal revenue code, 11457
 Program aid series, 33-42, 1201-2, 3417-25, 4623-24, 6309-13, 7931-85, 9313-21, 10695-10701, 11954-959, 12998-13000, 15441-445
 Program analysis series, 16652
 Program evaluation and review technique, national conference of Statistical Reporting Service, 17367
 Program information act, hearing, 15908
 Programmed instruction:
 brief of its development and current status, 10848
 catalog of instructional material, Navy, 11812
 elementary program in compensatory education intensive reading instructional teams, Hartford, Conn., 11215
 Russell Soundex Coding and Filing System programmed text, 4674
 social security, introduction, 9122
 Programmers, data processing career opportunities in Veterans Administration, 7894
 see also Computer specialists.
 Programmer's manual for CalComp plotting, 971
 Programming (computers), *see* Computer programs/programming.
 Programming (planning):
 capital improvements programming in local government, 751
 planning-programming-budgeting—
 hearings, 3977
 Inquiry of National Security and International Operations Subcommittee, 8410
 planning, programming-budgeting systems—
 glossary, 709
 hearings, reports, and committee prints, compilation, authorize printing, reports, 5208, 6664
 program information, cancer chemotherapy reports, 2388
 radio and television media, obscenity, hearings, 5258
 Programs for the handicapped (periodical), 3101
 Les progres de l'instruction publique aux Etats-Unis d'Amerique, 11235
 Progreso, Mexico, despatches from U.S. consuls, 1843-97, pamphlet to accompany microcopy, 4536
 Progress in sport fishery research, 17318
 Progress of public education in United States of America, 9992
 Russian edition, 11240
 Progress report W-(series), 7779-82, 9158-59
 Project Apollo (man-in-space program):
 accident, Apollo 13, hearings, 12282
 Apollo command module mockup flammability tests, 8939

Project Apollo—Continued

Apollo 8, photography and visual observations analysis, 2078

Apollo 12—

pinpoint landing on moon, picture set, 7523

preliminary science report, 14841

Apollo 13—

mission, problems encountered, hearing, 9883

mission review, hearing, 13705

Review Board, report to Administrator, NASA, 11711

configuration management manual, 5889

1/10-scale Apollo/Saturn V replica model,

lateral vibration characteristics, 8945

post-Apollo space program, directions for the future, 1045

static electricity in Apollo spacecraft, 2114

Project Buggy (plowshare program) :

ground motion, analysis, 3494

lidar observations of debris clouds from nuclear cratering detonations, 13085

special cloud content studies, 13077

surface motion, photographic and accelerometer measurements on Buggy cratering experiment, 6384

Project Cabriole (field cratering experiment) :

analysis of ground motion, 3496

engineering properties investigations of Cabriole crater, 9400

measurements of subsurface and close-in surface dynamic effects, 13082

spectroradiometric detection of effluents, 3495

surface-motion and vented-gas temperature measurements, 8021

Project Concern, Hartford, Conn., 11217

Project Early Push, Buffalo, N.Y., 5356

Project Flambeau, investigation of mass fire

1964-67, final report, 10122

appendixes, 10123

Project Flood, data report, Caribbean Sea,

1012

Project Gasbuggy, *see* Gasbuggy experiment

(plowshare program).

Project GOFAR (Global ocean floor analysis

and research) :

Kane 9, 1009

Project Head Start, *see* Children.

Project management, technical and manage-

ment information specifications for use

on NASA programs, NASA data require-

ment description index, 10366

Project Nassau, *see* Columbia Broadcasting

System.

Project One Hundred Thousand, manage-

ment, Army Department, GAO report,

1894

Project Palanquin (plowshare program) :

off-site surveillance, final report, 13080

on-site radiological safety report, 13081

quantitative postshot distribution of close-

in fallout, throwout, and base surge,

4894

scientific photography, 13079

Project Prime, *see* Resource management

system.

Project R-3, San Jose, Calif., 11244

Project RULISON, post-shot plans and eval-

uation, 4888

Project Rullson (nuclear experiment) :

geohydrology, Garfield County, with sec-

tion on aquifer response, 8734

Rullson subsurface nuclear blast vibra-

tion effects on Vega Dam, 15147

Project Schooner (plowshare program) :

analysis of seismic data from cratering

and contained events, contribution,

13078

close-in airblast from Schooner event, 9399

costs, hardware, special report, 3488

Project Schooner—Continued

ecological and environmental effects from local fallout, soil thermoluminescence in relation to radiation exposure under field conditions, 8020

Project Seacoke, *see* Coke.

Project Skywater (atmospheric water resources program) :

annual report, summary and contractor reports, 10532

Project Tank Trap, field evaluation of nuclear terrain barriers, 8018

Project Transition, need to improve management by Defense Department, GAO report, 1896

Project Western Coal, conversion of coal into liquids, 13207

Projectiles :

and propelling charges, Federal item identification guide, 16185

dense, simulation of meteoroid-velocity impact by use, 10390

Projectionists, *see* Motion picture project-

ionists.

Projectors, *see* Aural projectors—Launchers.

Prologue, Journal of National Archives, 3103

Promotions :

airman—

extension of weighted promotion system

to grades E-8 and E-9, 9331

field test of weighted promotion system,

validation of system, E-4 through E-7

grades, 3431

Coast Guard Reserve officers, remove re-

strictions—

hearing, 9900

law, 17004

reports, 1537, 16005

evaluation of employees for promotion and

internal placement, 2606

promotions and transfer provisions, senior-

ity in major collective bargaining agree-

ments, 7421

Pronin, Dimitri, evaluating quaking aspen

of Wisconsin for site-quality to wood-

quality relationship, 18023

Propagation :

azimuthal surface wave, launching on

cylindrical impedance boundary, 7951

biological nose propagation characteristics

in shallow water regions of Black Sea,

USSR study, 11500

data over irregular terrain, North Table

Mountain-Golden, tabulations, 17951

electromagnetic waves over smooth multi-

section curved earth, exact theory, 7950

error, in Runge-Kutta type integration

formulas, experimental results, 17010

F2-layer maximum usable frequencies from

local magnetic activity, short-term pre-

diction, 8572

15-GHz line-of-sight propagation channels,

correlation analysis and scintillation,

10382

foreign game birds, 1966-68 summary,

9153

ground wave, in ionized atmosphere with

arbitrary variation of conductivity with

altitude, 11274

magnetospheric duct propagation, ray

tracing digital computer program for

study, 14842

magnetospheric ducts, characteristics ob-

served by Alouette-2 topside sounder,

12806

measurements, comparison with predicted

values in 20 to 10,000 MHz range, 10023

pulse propagation of electromagnetic sig-

nals through solar corona, study, 14815

shock wave propagation in inhomogeneous

elastic-plastic media, stability of differ-

ence approximation, 5366

short term ionospheric forecasts for

selected southeast Asia, DCA trunks,

evaluation, 612

Propagation—Continued

- theoretical LF, VLF field calculations with spherical wave functions of integer order, 14348
- underground of radio waves, USSR study, 5781
- VLF multimode predictions, theoretical, errata, 11818
- waves—
 - electromagnetic, etc., problems, 2131
 - scattering by spherically symmetric inhomogeneities, 2180
- Propanes, radioprotective effect of propane sulfonate ester of dextran, etc., USSR study, 10268
- Propellant tanks, *see* Tanks (containers).
- Propellants:
 - aircraft and missile propulsion, elements, AMC engineering design handbook, 80
 - ammonium perchlorate, thermal decomposition and explosion up to 50 kilobars (5.0×10^8 N/m²), 17001
 - liquid propellant—
 - launch vehicles, evaluation of finite-element analysis for longitudinal vibrations, 11035
 - two-stage launch vehicle, measured and predicted longitudinal vibrations, 14882
 - neutral propellant from electric thrusters onto spacecraft components, distribution, 2111
 - propellant actuated devices and components, Federal Item Identification guide, 17735
- Propellers:
 - aircraft—
 - current industrial reports, 15623
 - type, certificate data sheets and specifications, 2321, 10040
 - vibration evaluation, 7074
 - airworthiness standards, Federal aviation regulations, 16473
 - design of light aircraft NACA and NASA publications, list, 5894
 - model ducted, influence of duct-mounted Helmholtz resonators on sound field, investigation, 16941
 - nonlinear actuator disk theory and flow field calculations, including nonuniform loading, 16950
 - under static thrust conditions, tests, 4498
 - wide-bladed, static stresses, 15097
 - wing slipstream flow interaction, analysis, 14829
- Property:
 - assessed valuations and sales ratios, 1956—66 trends, 6457
 - assets, cost or other basis, tax information, 5676
 - common and contract carrier, tax assessments, hearing, 11047
 - common carrier, tax assessments—
 - hearing, 499
 - report, 1694
 - community, tax information, 5635
 - District of Columbia, Unclaimed property act, amend, report, 9854
 - donated, valuation, tax information, 5604
 - FHA improvement loans, dealer and contractor guide, 4273
 - located in Federal areas, permit State or local tax authorities to tax, hearings, 8403
 - making eligible for standard fire and extended insurance coverage, 11483
 - rehabilitation and neighborhood conservation, bibliography, 4280
 - residential, rehabilitating in urban renewal and code enforcement areas, 14582
 - restricted stock plans, tax reform, summary of recommendations, 1728
 - sales and exchanges of assets, tax information, 5664
 - sales and other dispositions of depreciable property, tax information, 5665

Property—Continued

- tax deduction information for casualty losses, and thefts, 5679
- urban, FAIR plan, fire and extended coverage insurance, 8781
- see also* Personal property—Public property—Real estate—Surplus property.
- Property accounting, *see* Accounts and accounting.
- Property rights, family and property law, summary, Ohio, 4792
- Prophylaxis, epidemiology and prophylaxis of cholera, USSR study, 18097
- Propps, Herbert F., address, Sept. 24, 1970, 17313
- Propulsion:
 - Air Force units, logistics management, policy and guidance, manual, 3438
 - aircraft and missile propulsion, elements, AMC engineering design handbook, 80
 - 5th AFOSR Symposium on Advance Propulsion Concepts, proceedings, 6321
 - fuel system fire safety, 17455
 - induced effects on aerodynamics of jet/STOL aircraft, review, 5936
 - neutral propellant from electric thrusters onto spacecraft components, distribution, 2111
 - nuclear, Naval program, 1970, hearings, 12155
 - optimum solar electric interplanetary trajectory and performance data, 8923
 - propulsion and power research, application of plasmas and magnetic fields, conference proceedings, 4503
 - staged space propulsion systems, role in interplanetary missions, 2128
 - subsystems, design of light aircraft, NACA and NASA publications, 5894
 - system, XB-70 compressor-noise reduction and performance for choked inlet flow, 7537
- Prosin, Michael A., electrocardiography and cardiac monitoring aboard nuclear powered submarine on patrol, 16884
- Prospecting:
 - aerial electrical prospecting, measurement equipment using natural electromagnetic fields method, USSR study, 5735
 - lode mines and prospects in Fairbanks district, Alaska, 729
 - see also* Explorations.
- Prostate gland, cancer, general information, 1059
- Prostheses:
 - immediate postsurgical prosthetic fitting, patient care, management of lower-extremity amputations, 4786
 - maxillofacial prosthetics, interprofessional conference, proceedings, 6148
 - prosthetic research bulletin, 4781, 7888
 - prosthetic services available to eligible veterans, 1182
- Prosthetics, *see* Prostheses.
- Protection of Industrial Property, International Bureau for, *see* International Bureau for Protection of Industrial Property.
- Protective coatings, *see* Coating materials.
- Protective eye devices, reports, 1500, 9840
- Protective shelters:
 - buried field shelter, dynamic response, Project LN314, Operation Prairie Flat, errata, 11258
 - fallout shelters—
 - architectural, engineering and consulting firms with certified fallout shelter analysts, directory, 3655
 - design and analysis, change, 4960
 - guide to informative literature, addendum, 8113
 - qualified analysts, national directory, 10842
 - signs, requesting and using, 8112
 - technical report, 15662

Protective shelters—Continued
model buried field shelter, dynamic response, Project LN314, Operation Prairie Flat, 10020
movable shelter for calves, 6308
red oak lumber makes good shade-shelter for hogs, 16565
shelters in new homes, 9461

Proteins:

crude, content of forage samples unaffected by storage, 11350
films for use in water desalination, modification, 1950
fish protein concentrate—
(FPC) from Mediterranean sardines, experimental production, 3710
program, U.S., 13237
soybean protein—
edible and related studies, publications and patents, 1962-69 list, 17422
products, edible, 1968 publication, list, 1188

see also Lipoproteins.

Protestant Episcopal Church in the U.S.A., District of Columbia vestry act, amend, report, 15978

Proton beams:

external characteristics of NASA Space Radiation Effects Laboratory synchro-cyclotron, 5921
large-area, established at NASA Space Radiation Effects Laboratory in energy range from 31 to 225 MeV, 5920
Proton scattering, see Scattering.

Protons:

intermediate energy protons, interaction with light nuclei, 14888
irradiation of micrococcus radiodurans and sardina flava microorganisms placed in meteorite, USSR study, 4333
magnetospherically trapped particles, sources, losses, and transport, 16464
proton-induced effects on reflective surfaces of space mirrors, 5905
proton synchrotron, estimating stray photon spectra and dose above 25MeV near transverse shielding, 9395

Protozoa:

Ichthyophthirius multifiliis of fishes, 6203
Microsporidia of fishes, 6205
Protuberances, surface, effect on impact limiters for spherical hard-landing payloads, 10386

Providence, R.I.:

air quality control region, Federal facilities, air pollution report, 12837
area wage survey, 12714
census of transportation, 1967, commodity transportation survey, production, area series, 6417
educational program dealing with drug abuse, 17059
principal electric facilities, map, 8622
Provisional hourly values of equatorial Dst for 1964-67, 10395
Prunes, marketing orders to include paid advertising, hearings, 15882

Pruning:

spacing, thinning, and pruning of young cottonwood plantations, 16562
to reduce fusiform-rust damage not justified on young slash pines, 686

Pruter, A. T., Soviet trawlers observed in Gulf of Alaska, fishing vessel and gear developments, 9518

Przybyszewski, John S.:

friction and contact resistance for—
gallium-lubricated low-speed copper slip-rings in vacuum, 16989
low-speed gallium lubricated sliding electrical contacts of beryllium in vacuum, 7542

Pseudanthessius, see Copepoda.

Pseudoleperditia, see Crustaceans.

Pseudorabies, see Aujeszky's disease.

Psoriasis, description, symptoms, etc., 15128

Psychiatric clinics, see Clinics.

Psychiatric nurses, see Nurses and nursing.

Psychiatric patients, see Mentally ill.

Psychiatry:

and medicine, impact of biological rhythms research, 17137
careers in Public Health Service, 15012
comprehensive review of geronto-psychiatric literature in postwar period, 1050
cooperative studies, 1956-70, annotated bibliography, 7890
drug treatment, 6276
outpatient psychiatric services, 1063
psychiatric-mental health nursing institutions offering stipends, list, 9017
rotating psychiatric internship training, 6049

Veterans Administration cooperative studies conference, 7891
highlights, 1181

see also Mental disorders.

Psychoacoustics:

calibration of earphones—
differential sensitivity for alternate interaural loudness balancing, 5846
efficient monaural procedure, 5845

Psychological technicians, and aids, professional opportunities in Veterans Administration, 10663

Psychological tests, see Mental tests—Personality tests.

Psychologists:

Army Medical Department early commissioning program, 9370
clinical or counseling, professional opportunities in Veterans Administration, 10663
employment outlook, 12688
national register, 1966, of National Science Foundation, analysis, 1069
psychologists in mental health, 1966 survey, 1069

Psychology:

chairside psychology in dental patient education, self-instruction course, 7261
computer-simulated conventional and branching tests, comparison, 15494
maintaining target detection through team consensus feedback, 15496

military—

near real-time screening performance, scale, resolution, and presentation rate, study, 9361

performance of initial image interpreter affects checker confidence statements, 9362

modelling of the psyche, USSR study, 5740
newsletter for research, Veterans Administration Center, 10661, 17396

physiological, and cell biology, organization and description of complex data through cluster analysis, research, 2148
practice in District of Columbia, regulate, report, 1691

psychological attrition in basic enlisted submarine school, relationship of background variables, 8891

psychological distress, selected symptoms, United States, 17050

survey applications of social psychological questions, report on conference, 1340

see also Engineering psychology.

Psychometrics, algorithms for psychometric calculations (skeleton tables for thermodynamic properties of moist air), 5998

Psychopharmacology:

abstracts (periodical), 3104

bulletin (periodical), 3105

effects of 2 common medications on complex performance, 6402

INDEX 1970

Psychophysiology:
 applied to work of astronauts, USSR studies, 10416
 aviation and space medicine, psychophysiological and engineering-psychological aspects, USSR study, 10259
 Psychotherapy:
 computer applications, bibliography and abstracts, 9016
 individual, research, bibliography, 2147
 Psychotics, *see* Mentally ill.
 Psychotropic drugs:
 and dysfunctions of basal ganglia, multidisciplinary workshop, proceedings, 1080
 competitive problems in drug industry, hearings, 524
 Psychrometers, mortarboard psychrometer, test and evaluation, final report, 1835
 PTFE, *see* Polytetrafluoroethylene.
 PU-(nos.), *see* Plutonium isotopes.
 Public address systems:
 Federal item identification guide, 1768
 change, 8468
 Public affairs, *see* Public information.
 Public assistance, *see* Public welfare—Social work and problems.
 Public Broadcasting Corporation:
 appropriations, 1970—
 hearings, 1700
 law, 6536
 reports, 1563, 1683, 3834, 5254
 appropriations, 1971—
 authorization, extend, reports, 12237, 13476
 hearings, 17687
 report, 16031
 appropriations, 1971-73, authorization, extend—
 hearings, 8384
 report, 9866
 financial support, law, 313
 financing, continue, hearings, 9758
 \$600,000 environmental grant announcement (remarks), 11201
 Public buildings:
 accessibility to physically handicapped, insure—
 amend law—
 hearings, 3892
 report, 3940
 law, 6537
 report, 1544
 air pollution abatement by Federal facilities, report, 13501
 Comptroller of Currency Office, provided with rent-free space in Government-owned buildings, GAO report, 14512
 design and construction, Public Buildings Service program, 15123
 Federal facilities—
 Air pollution abatement, report by Secretary of Health, Education, and Welfare Dept., print as Senate document, report, 12353
 air quality control region reports—
 Baltimore, Md., 12834
 Boston, Mass, 10419
 Chattanooga, Tenn., 12833
 Chicago, 8957
 Cleveland, Ohio, 10420
 Denver, Colo., 8958
 Detroit, Mich., 12835
 Hartford, New Haven, Springfield, 11712
 Indianapolis, Ind., 10421
 Los Angeles, 8959
 National Capital Interstate, 8960
 New Jersey, New York, and Connecticut, 8961
 Niagara frontier, 10423
 Phoenix-Tucson, Ariz., 12838
 Pittsburgh, Pa., 12836
 Providence, R.I., 12837
 Puget Sound, 12839
 St. Louis, Mo., 10422

Public buildings—Continued
 Federal facilities—Continued
 air quality control region reports—con.
 San Francisco Bay area, 8962
 Toledo, Ohio, 14901
 incineration, good practice, interim guide, 2133
 prevention, control and abatement of air and water pollution, Executive order, 8964
 janitorial services, trash removal, and similar services in Federally owned and leased properties, 3-year contracts, authorized report, 13444
 States and territories of United States and their resources, price list, 2207
 Public Buildings Service, design and construction program, 15123
 Public contracts, *see* Government contracts.
 Public debt:
 German external debts, agreement with other Governments, 1161
 increase in ceiling—
 hearing, 11121
 law, 12124
 proposal, hearings, 9772
 reports, 10959, 12338, 13399
 request, 13361
 Treasury Department circular, 1177, 7874-75, 10650, 12950
 Public Defender Service for District of Columbia, designate, hearings, 3968
 Public defenders:
 District of Columbia, service, hearings, 3857
 Legal Aid Agency for District of Columbia redesignated District of Columbia Public Defender Service, hearings, 501, 3968
 representation of criminal defendants, who are financially unable to obtain counsel, amend Criminal justice act, hearings, 3978
 Public Documents Division:
 classified list of Government publications, 15124
 price lists, 1046, 2205-8, 6131-32, 7713, 10515-517, 11836, 12907, 15125-127, 17223-225, 18305-307
 Public domain, *see* Public lands.
 Public employment, *see* Employment.
 Public facilities:
 accessibility to physically handicapped—
 hearing, 3892
 insure, law, 6537
 insure, report, 1544
 report, 3940
 loans for construction, 7288
 Public funds:
 accumulation funds of USSR, structure and effectiveness, USSR study, 5786
 capital expenditures in public sector, 3
 methods of evaluating, 8019
 Federal spending and scientists and engineer employment, 16853
 illegal expenditures for construction of research facilities by Air Force, GAO report, 5530
 Public health, *see* Health.
 Public Health Service:
 act, amend—
 hearings, 426, 516, 519, 5277, 8307, 8428, 9924, 11044, 12279, 12375, 15918, 16075
 laws, 6540-41, 6544, 13303
 reports, 395, 470, 1522, 1637, 1686, 8939, 6137-39, 9718, 10989, 12242, 12248, 13410, 13416, 13489, 13651, 13679, 15867, 16980, 16019, 17627
 to include vaccines, blood, blood components, and allergenic products among biological products for licensing purposes, 9669
 veto, 12160
 CCPM pamphlets, 4647

Public Health Service—Continued
 certification of interstate milk shippers
 under State-PHS cooperative program,
 5473
 commissioned officers—
 equalization of retirement benefits—
 hearing, 5164
 laws, 10914
 reports, 6622, 9654
 transfer to Environmental Protection
 Agency, report, 16018
 cooperative study, renal disease and
 hypertension, conference proceedings,
 14367
 formula grants for family planning—
 hearings, 8426
 report, 13653
 grants and awards, 1968 funds—
 health services, formula, project, re-
 gional medical planning, etc., 7624
 training, traineeships, fellowships, and
 research, 7623
 grants and awards 1969 funds—
 research, 4570
 training, construction, medical libraries
 and summary tables, including re-
 search, 10459
 health research facilities, construction
 program, Surgeon General's report, 5069
 hospital—
 closing in Detroit, Mich., and Savannah,
 Ga., hearings, 514
 New Orleans, La., exchange with Tulane
 University—
 hearing, 1589
 law, 8186
 reports, 1530, 6765
 pharmacy residencies, 16487
 Indian health program, 1060
 report to the first Americans, 16658
 international postdoctoral research fel-
 lowships, awards for study in U.S., 981
 numbered publications, lists, 4267-68
 nurse training act of 1964, project grants,
 list, 1062
 nursing schools awarded construction
 grants, Dec. 1965-June 1969, list, 1061
 ordinance and code regulating processing
 of eggs and egg products, recommenda-
 tions, 16528
 posters, 17226, 17231
 research grants index, 11782
 subsidized transportation for employees
 transferred to Parklawn Building in
 Rockville, Md.—
 hearing, 5165
 reports, 6625, 6649
 Surgeon General, nomination of Jessie L.
 Steinfeld, hearing, 8432
 travel regulations, uniformed services,
 2781, 4017
 Public housing, *see* Housing.
 Public information:
 access to information from regulatory
 boards and commissions, 15902
 Navy Department, direction for command-
 ings officers and public affairs staffs
 (periodical), 2511
 Navy public affairs regulations, change,
 7693
 OE data collections, preparing requests
 for clearance, manual, 7019
 Post Office Department, PI series, 7698,
 11828, 15112
 Program information act, hearing, 15908
 some free information on inflation (re-
 marks), 8152
 USSR, selection and dissemination of in-
 formation, 5774
 Public Land Law Review Commission:
 appropriations, 1970, law, 314
 appropriations, 1971—
 hearings, 8263
 law, 13335
 reports, 9702, 13645

Public Land Law Review Commission—Con.
 extend—
 hearing, 13741
 report, 13650
 report, one third of Nation's land, 11837
 Public lands:
 Classification and multiple use act, ex-
 tend—
 hearing, 13741
 report, 13650
 code of Federal regulations, 8654, 10075
 Colorado, outdoor recreation maps, 14746-
 749
 competitive bidding to award oil and gas
 leases on Federal lands, opportunity for
 benefits through increased use, Interior
 Department, GAO report, 7215
 geothermal steam deposits, disposition—
 hearings, 17702
 report, 17683
 Interior Department decisions, 2749
 land appeals, 2752
 letters relating to, sent by Secretary of
 Treasury (N series), 1801-78, micro-
 copy, pamphlet to accompany, 11727
 management of fish and resident wildlife
 on Federal lands, by States, report, 1643
 Matanuska-Susitna Borough, Alaska—
 development of new lands, 10727
 possibilities of new land development,
 7971
 one third of Nation's land, report to Pres-
 ident and Congress for its use, etc., by
 Public Land Law Review Commission,
 11837
 our public lands (periodical), 2997
 patenting mining claim on Federal lands,
 basic procedure, 8876
 promote mining of coal, etc., on public
 domain, hearing, 17704
 Public land sale act, extend—
 hearing, 13741
 report, 13650
 staking mining claims on Federal lands,
 questions and answers, 10302
 States and territories of United States
 and their resources, price list, 2207
 statistics, 8877
 suppression of fires, Interior Dept. con-
 tracts—
 law, 17610
 reports, 13648, 15866
 surveying, 823
see also Grazing—Land—National forests.
 Public law 480, *see* Agricultural trade
 development and assistance act of 1954.
 Public laws, *see* Law.
 Public libraries, *see* Libraries.
 Public management, *see* Administrative man-
 agement.
 Public opinion:
 in Washington, D.C., regarding new free-
 ways, 503
 nuclear reactors and public reaction (re-
 marks), 10776
 Public ownership of lands in Federal reclam-
 ation projects, 6611
 Public papers of Presidents of United States,
 5461-62
 Public policy:
 activism, but what kind (address), 10752
 Euro-dollar market and public policy im-
 plications, 5066
 rehabilitation financing, public body ap-
 proval of loans, 7273
 role of scientists and engineers in devel-
 oping (address), 8151
 Public Printer:
 fix subscription price for daily Congres-
 sional record, authorize—
 law, 12104
 reports, 5256, 12184
 Public property:
 administration of Government property by
 contractors, guidance, 8454
 code of Federal regulations, 4153, 7138

INDEX 1970

Public property—Continued

- economy in Government, management and procurement of data processing equipment, hearing, 15815
- facilities engineering, grounds maintenance and land management training conferences, Army pamphlet, 1231
- Federal property and administrative services act of 1949, amend—
 - hearing, 13522
 - law, 15808
 - reports, 13444, 15841, 15851, 15868
- Federal surplus, disposal for park and recreational purposes, hearing, 13520
- Government property in military departments and agencies, make uniform laws concerning responsibility, report, 1497
- management, code of Federal regulations, 5457-58, 7137, 7139-40, 8653
- mechanized supply and accounting procedures for office of United States property and fiscal officers (USPFO), change, 2145
- transferred to other Government departments by RFC, payment in lieu of taxes, extend, hearings, 6713
- Public reactions to sonic booms, 16947
- Public relations:
 - why not be a public relations worker? careers for women, 7900
 - workers, employment outlook, 12665
- Public roads, *see* Roads and highways.
- Public Roads Bureau:
 - hydraulic engineering workshop, report, 7719
 - labor compliance manual, direct Federal and Federal-aid construction, 17232
 - program (series), 18310
- Public schools, *see* High schools—Schools.
- Public service:
 - broadcasting time for members of legislative branch, require licensees hearings, 17694
 - careers, jobs and advancement in public agencies, 5814
- Public speaking, on drug abuse prevention, handbook for law enforcement officer, 7504
- Public speaking engagements, *see* Addresses, lectures, etc.
- Public utilities:
 - accounts, uniform system, 11315
 - holding companies, security transactions and holdings, 2985
 - see also* Electric utilities.
- Public welfare:
 - AFDC 1967 study, findings by State and census division, demographic and program characteristics, 17052
 - AFDC program, welfare policy and consequences for recipient population study, 7743
 - agencies, work incentive program, survey, 15957
 - caseloads, impact of public assistance work and training programs, and training programs under manpower development and training act, 2726
 - code of Federal regulations, 8655
 - disabled on public assistance, 15168
 - family assistance act (speech), 7406
 - Family assistance act of 1970—
 - hearings, 8319, 9932
 - material related to Administration revision, 17697
 - work and training provisions, 17698
 - related material, 13727
 - report, 8227
 - Federal domestic assistance program, catalog, 13824
 - Federally aided public assistance income maintenance programs, facts, 6020
 - how HUD helps with relocation, 8783
 - medicaid and other medical care financed from—
 - 1951-69 statistics, 6019
 - 1969 fiscal year, 12851

Public welfare—Continued

- medicaid program, costly problems, hearings, 13728
- medical assistance financed under public assistance titles of Society security act, 8999
- medical care, vendor payments by type of service, 12852, 14933
- money payments to persons aged 65 or over, concurrent receipt, 14937
- new way to apply for public assistance, 109
- personnel, 1969 annual statistical data, 11759
- perspectives, history, 1099
- programs, material related to Administration revision, 17697
- work and training provisions, 17698
- promote to give every American opportunity to live in decency, hearings, 8427
- proposals, public hearings, press release, 8327
- public assistance—
 - act of 1962, amend, report, 9679
 - act of 1970—
 - bill form, 11117
 - brief summary, 13548
 - hearings, 9905
 - report, 8252
 - revision as resubmitted by Administration, 11118
 - adult programs, improve, bill form, 11117
 - AFDC study, 1969, preliminary report, 11758
 - cases, reasons for opening and closing, 11760
 - costs of State and local administration, services, and training, 10450, 17055
 - medical assistance financed under public assistance titles of Social security act, 11756
 - payments, source of funds expended, 7586, 17057
 - profile of vocationally rehabilitated clients who were recipients at time of acceptance, 2212
 - programs, improve—
 - brief summary of act, 13548
 - hearings, 8319, 9905
 - related material, 13727
 - reports, 8227, 8252
 - revision as resubmitted by Administration, 11118
 - public assistance and related data, graphic presentation, 1969, trend report, 11762
 - QC, quality control, administrative control of eligibility and amounts of payments, 15504
 - services to AFDC families receiving aid under Social Security act, annual report, 15952
 - source of funds expended for payments and cost of administration, services, and training, 11761, 17058
 - statistics, monthly, 3106
 - work and training programs, impact on caseloads, 2726
 - research and statistics to meet today's and tomorrow's challenges, 9th workshop meeting, proceedings, 7587
 - services to AFDC families, annual report to Congress, 17571
 - social services for families and children, 18241
 - special types, money payments to recipients, 17053
 - State salary ranges of positions, 743, 11405
 - unemployed-parent segment of aid to families of dependent children, 3304
 - vocational rehabilitation for disabled public assistance recipients, cooperative demonstration, 17276

Public welfare—Continued

welfare checks, 1969, low-income areas, 7
cities, food prices before and after distribution of, 15438, 17445
welfare in review (periodical), 3356
welfare parents, potential for work, 2017
welfare proposals, hearings, 3895
see also Social work and problems.

Public works:

appropriations, 1970—
for water and power resources development—
hearings, 486
report, 477
law, 3734
report, 1512
appropriations, 1971—
hearings, 11022, 11106
reports, 12207, 13697, 15873
water, pollution control and power development, hearings, 8272, 13709
capital improvements programming in local government, 751
code of Federal regulations, 4153
Economic Development Administration's public works program, evaluation—
individual project reports, 13820
summary of findings and survey methodology, 13819
economic development districts, composition and status, 5327, 13821
economic development programs, evaluation, hearings, 3890
EDA grants and loans for public works and development facilities, 17750
Engineers Corps, Army, report, 1968 civil works activities, specific project data—
departmental edition, 7031
document edition, 6552
floating plant list, Engineers Corps pamphlet, 7041
Public works and economic development act of 1965, amend and extend—
hearings, 9765, 13758
law, 12127
reports, 9703, 12340, 13395
qualified areas, criteria and data, 567, 6888
River basin monetary authorization and miscellaneous civil works amendments—
act of 1970, law, 12110
report, 11080

Public Works Committee, House:

calendar, 2810
committee prints, 5177, 8317, 15929-931
hearings, 433-435, 1596-99, 3890-93, 5174-76, 8318, 9764-65, 11055-57, 15932-934
investigations and studies, expenses, report, 6653
reports, 1470-71, 1517, 1542, 1544, 1566, 3826, 6683-84, 9703, 12340, 13412, 13467, 15877

Public Works Committee, Senate:

calendar, 2829
committee print, 8439, 9935, 9937, 9939
hearings, 523, 1745, 3987-91, 5279-80, 6817, 8386, 8437-38, 9936, 9938, 9940, 11143-146, 12380-82, 13758-760, 16084-87, 17714-719
investigations and studies—
air and water pollution and other environmental matters, authorization, report, 5240
authorization, report, 5234
reports, 1420, 3940-41, 5203, 5206, 9850, 9873, 9878, 9880-81, 11080, 12327, 12355, 13667-668, 16010, 16020

Publications:

Federal item identification guide, 5304
Federal item identification guides for supply cataloging, supplements, 2597

Publications, *see* Government publications—
Military publications—*also* names of departments, etc., issuing publications—*also* subjects.

Publications Distribution Service of House of Representatives, *see* House of Representatives.

Publicity, defense utilization and marketing handbook, supplement, 1762

Publishing:

industry—
report, 3097
technological changes, 18131
printing, publishing and allied industries, 1967 census of transportation, commodity transportation survey, commodity groups, 13155
Puccinia triticina, immunity of wheat from VIR world collection, USSR study, 1998
Puddle ducks, 15270
Pueblo, Colo., St. Charles River, flood plain information, 16430
Pueblo Indians, New Mexico tribes, exempt from Indian rights section of 1968 civil rights act, hearing, 16065
see also Taos Indians.

Pueblo (U.S.S.):
persons serving aboard, held captive by forces of North Korea, payment of claims, amend War claims act—
law, 12116
report, 9874
tax treatment of individuals serving at time of capture by North Korea—
law, 9800
report, 6777

Pueblos, *see* Laguna Pueblo.
Puerto Rico:

Bauta-Toa Vaca Tunnel, feasibility design report, 11842
census of governments, 1967, State reports, 3600
census of manufactures, 1967, statistics, 15612
climate, 14341
climatological data, 2409
coast pilot, supplement, 8133
commercial marine fisheries, 9535
cooperative soil survey, soils and people, 7733
conservation needs, summary of 1968 conservation needs inventory, 9150
county business patterns, 4933, 13174
Culebra Island, lease easements and re-lease land by Navy Dept.—
hearings, 13497
subcommittee report, 15885
El Verde rain forest, aerial, sensing and photographic study, 4067
fence posts, preservative treatments and service life, 1969 progress report, 14470
military personnel of 3d U.S. Army ordered to helpful hints, DA pamphlet, 1235
mineral industry, minerals yearbook chapter, 4459, 18159
minimum wage rates—
food and related products industry, 2282
general agriculture industry, 4787
sugarcane industry, 4788
nautical chart catalog, 4976
northwestern, cretaceous and lower tertiary stratigraphy, 1909
political status, report, Spanish edition, 15370
principal electric facilities, map, 8629
trade study, 11311
trade with Continental U.S. (address), 644
U.S. trade, monthly report, 2667

Puerto Rico International Airlines, Inc., accident report, 11800

Puget Sound, air quality control region, Federal facilities, air pollution report, 12639
Pugh, John R., bathysphere for fishery research, 12078

INDEX 1970

- Puglisi, Enzo A., construction review, monthly industry report, 2443
- Pulaski County, Ark., Arkansas River and tributaries, flood plain information, 7034
- Pulaski County, Mo., community profile, 17852
- Pullets, *see* Chickens.
- Pullman Company, transport statistics, 5720
- Pulmonary diseases, research conference, transactions, 18398
- Pulmonary functions, *see* Respiratory system.
- Pulp:
- and paper industry, stream pollution problems, studies on application of radioisotope techniques, 6386
 - butt swells of water tupelo for pulp and paper, 4199
 - current industrial reports, 2475, 9453
 - industry and Northwest, 5489
 - industry report, 3115
 - joint municipal and semichemical pulping waste treatment, 663
 - kenaf, cultural and harvesting methods, annual crop source in Southeast, 6315
 - soft molded pulp products, industrial opportunity in Tennessee Valley, 9227
 - see also* Wood pulp.
- Pulp mills, census of manufactures, 1967, industry, statistics, 17519
- Pulp wood, *see* Wood pulp.
- Pulpboard:
- current industrial reports, 2475
 - corrugated fiberboard pads, atmospheric moisture content effect on shock cushioning properties, 16572
 - cushioning properties of 5-layer corrugated fiberboard pads, 1882
 - multilayer corrugated fiberboard pads loaded at center only, cushioning performance, 14468
- Pulpwood, *see* Wood pulp.
- Pulsars, bibliography, 10763
- Pulse height analyzers:
- computational method for photopeak location and integration, 9394
 - multichannel analyzer, computer program for plotting data points, via remote teletype, 8902
- Pulse modulators, 2.5 kVA pulse-width-modulated static inverter, design analysis and performance, 5929
- Pulse of earth's magnetosphere, USSR study, 5780
- Pulse waves:
- pulse compression radar study, space geodesyaltimetry, 14822
 - pulse propagation of electromagnetic signals through solar corona, study, 14815
- Pulses:
- basic pulse-radar maximum-range calculation, guide, equations, definitions, and aids to calculations, 15060
 - dual-PRF, dual-pulse-length synchronizer for two-frequency Randle Cliff radar, 15095
 - free surface displacement pulses and crater dimensions, effects of explosive properties, 11592
 - periodically pulsing signal and periodically gated receiver interactions probabilistic analysis, 2178
 - pulse reflections, survey and analysis of normal ionospheric absorption measurements obtained, 16453
 - pulsed microwave therapy, USSR study, 18108
 - radar pulses in clutter, spectral approach to resolution, experimental verification, 9329
 - radiated, in dolphins, echolocation differentiation and characteristics, USSR study, 4329
- Pulses (seeds):
- dried, foreign agriculture circulars, 2657
- Pumice, minerals yearbook chapter, 18164
- Pumping:
- ground-water infiltration reduced in sewers by zone pumping, 14417
 - hydrologic conditions and artificial recharge through well in Salem Heights area of Salem, Oreg., 12590
 - liquid oxygen and liquid hydrogen, rocket-powered ejectors, analysis, 18212
- Pumping plants, *see* Pumping stations.
- Pumping stations:
- Pleasant Valley pumping plant, Calif., foundation instrumentation, 18319
 - reclamation Bureau pumped storage plants (paper), 9079
- Pumps:
- air tower pressure gages in suburban Washington, D.C., accuracy, 2139, 7575
 - analysis of effect of design and measurement errors on pump performance parameters, 14868
 - classification definitions, 6112
 - current industrial reports, 4939, 8088
 - discharge measurements using radioisotopes, Flatiron Power and Pumping Plant, Colorado-Big Thompson project, 3504
 - Edson model 117A lever-action hand pump, for chemical toilet servicing, equip tips, 14432
 - Federal item identification guide, 17739
 - Federal item identification guides for supply cataloging, supplements, 2593
 - high entrainment jet pumps, analytical and experimental investigation, 14820
 - intake manifolds and evaporation trays, at San Diego Saline Water Test Facility, Office of Saline Water, hydraulic model studies, 7725
 - liquid, general purpose, Federal item identification guide, 8472
 - primary loop electromagnetic pump design for reactors, 11612
 - water pump air sampler for use at remote sites, 16585
- Punch presses, fabricated structural steel industry, how to inspect chart, 7416
- Pung, Tae, *see* Hills, Tae P.
- Pupils (students), *see* Students.
- Purchasers, *see* Vendors and purchasers.
- Purchasing:
- automated procurement system for small purchases, opportunities for more effective use, Navy Department, GAO report, 1899
 - consumer buying indicators, series, 224, 1334, 6450, 10823-824, 13177, 15653
 - Federal buying directory, 11384
 - fresh fruits, how to buy, 15427
 - home buying serviceman, 749, 16660
 - how to buy dry beans, peas, and lentils, 12983
 - institutional meat purchase specifications approved by USDA—edible byproducts, 1748
 - fresh beef, 5288
 - lamb and mutton, 12386
 - sausage products, 6829
 - meat for your freezer, how to buy, 3404
 - national forest timber, 870
 - small purchase manual, armed services procurement regulation, 5298
 - spendable earnings and purchasing power, monthly release, 3217
- Purchasing agents:
- buyer's guide to urban renewal, 14571
 - buyers, pay, national survey, 5822
 - employment outlook, 12667
- Purees, *see* Tomato puree.
- Purification of water, *see* Water purification.
- Purple martins, *see* Martins.
- Purse seine fisheries, *see* Fish and fisheries.
- Pursuit of peace, address, 1140
- Puthoff, Richard L., parametric study of frangible-tube energy-absorption system for protection of nuclear aircraft reactor, 12781

Putnam, Lawrence E., experimental determination of equivalent solid bodies to represent jets exhausting into Mach 2.20 external stream, 2099

Putnam, Stephen H., impact studies, NECTP, 8634

Putnam, Terrill W., XB-70 compressor-noise reduction and propulsion-system performance for choked inlet flow, 7537

Putnam County, Fla., Hastings area, potato industry, 1958-68 changes in market organization and practices, 16468

Putnam County, Mo., community profile, 17853

Putnam County, N.Y. community profile, 14164

Putnam County, Ohio, community profile, 12460

Putre, Henry A.:
computer solution of unsteady Navier-Stokes equations for infinite hydrodynamic step bearing, 11630
improved data agreement using new eddy viscosity equations in coaxial free-jet computer code, 11673

Putz, R. E., parasites of freshwater fishes, protozoa, Microsporidia of fish, 6205

Putzel, Henry, jr., official reports of Supreme Court, United States, preliminary print, 2984

Puzak, P. P., fracture toughness characteristics of new weldable steels of 180-210-Ksi yield strengths, 1033

Pylonephritis, Public Health Service cooperative study, conference proceedings, 14367

Pyle, E. John, spin synchronous clock for spin-stabilized vehicles, 16975

Pylons (struts), *see* Struts (aircraft).

Pyorrhea, *see* Periodontal disease.

Pyrethrins, *see* Pyrethrum.

Pyrethrum, controlled field test, stabilized pyrethrins against western hemlock looper, 18570

Pyrites:
electrophoretic-specific gravity separation from coal, laboratory studies, 16924
minerals yearbook chapter, 8915

Pyrolysis:
conversion of municipal and industrial refuse into useful materials, 14796
phenolic-nylon pyrolysis products, thermal cracking on passing through heated char, 8952

Pyromellitic dianhydride, polyimides from diaminoanthraquinones, 12300

Pyrophyllite, low-temperature heat capacities and entropies at 298.15° K, 7492

Pyrrone polymers, *see* Polymers and polymerization.

Q

Qatar, Amirate of, background notes, 6212

Quadrature approximations, Gauss quadrature rules involving some nonclassical weight functions, 11649

Quadriplegics, veterans, mortgage protection life insurance, provide report, 17628

Quail:
California, habitat management, 15209
Gambel's, habitat management, 17293

Quaking aspen, *see* Aspen.

Qualifications for union office, issue of reasonableness in court cases under Labor-Management reporting and disclosure act, 11526

Quality assurance:
computer aids highway construction, 6137
guidance to nondestructive testing techniques, 15468
highway construction, 12908
quality and reliability assurance handbook, 11185
reliability and quality assurance publication NHB series, 8956

Quality control:
public assistance, QC, administrative control of eligibility and amounts of payments, 15504
qualitative analysis of APC tablets, 12543
see also subjects.

Quantitative analysis:
electron probe microanalysis, present state of classical theory, 12847
optically induced disorientation, 11979
quantifying hazardous electromagnetic fields, practical considerations, 8987
quantifying hazardous microwave fields, analysis, 8989
quantitative methods for evaluating hospital designs, 14933
quantitative models for automobile accidents and insurance, 17382
quantitative radiation-response time-data, theory, 13076

Quantum electronics, physical principles of quantum gyroscopy, USSR study, 12653

Quantum mechanics, semiempirical electric dipole moment and its derivative in H₂-H₂ and H₂-H collisions, 16992

Quantum theory, photon counting, problem in classical noise theory, 10413

Quapaw Indians:
land restrictions, extend—
law, 12117
reports, 10980, 11072

Quarantine:
going abroad? important message from Pestina, 11958
guarding our agricultural resources in jet age, 15442
plant, guard against pests for beautiful America, 34
see also subjects.

Quarantine stations:
international, to permit entry of animals from any country to improve livestock breeds, establish—
hearings, 1569, 3949
law, 9604
reports, 3933, 6587

Quarries and quarrying:
Hunting Hill quarry, Montgomery County, Md., serpentinite and rodingite, 8728
pit slope structures by stiffness matrix method, systematic analysis, 5877

Quarterly:
NOTE.—For all publications which begin with the word "Quarterly", *see* subject, or name of department, etc., issuing publication.

Quarters, low rents charged for personnel quarters, continued loss of revenue, Veterans Administration, GAO report, 16589

Quartz, crystal units, and holders, military standard, 8483

Quaternary period, quaternary geology of Long and Bear Valleys, West-Central Idaho, 14521

Quattlebaum, Charles A.:
education and training enactments, 17711
Youth Conservation Corps, pilot program proposed, etc., 8288

Quebec Province, participation in Northeastern Interstate Forest Fire Protection Compact, agreement with Canada, 7826

Queens County, N.Y., community profile, 14165

Queja, Irene G., relief, 5041

Quenching, direct current, of alternating current electro-luminescence in typical zinc sulfide phosphors, observation and mechanism, 16984

Quercus, *see* Oak.

Questionnaires, Federal, census and personal privacy, hearings, 17709

Questions and answers on employment security amendments, 15368

Questions and answers on guaranteed and direct loans for veterans, 9261

INDEX 1970

- Questions asked by U.S. taxpayers abroad, 1961
 Qui tam, *see* Popular actions.
 Quinces, blight, 17440
 Quiet cries, play about suicide prevention, suitable for amateur groups, 6048
 Quinn, George H., evaluation of Loran-C/D airborne systems, 18369
 Quinn Canyon Range, Nev., fluorite deposits, 10157
 Quinziplac River :
 Southington, Conn.—
 Flood plain information, 8544
 floods, how to avoid damage, 8547
 Quitman County, Miss., community profile, 16337
 Quivira National Wildlife Refuge, general information, 1129
 Quiz booklet for fundamentals of supervision for Navy civilians, home study course, 4596
- R**
- R.E.A., *see* Rural Electrification Administration.
 R factor, *see* Genetics.
 R.A.A., *see* Renewal Assistance Administration.
 Rabbits :
 cottontail rabbits, general information, 6178
 habitat management, 15214
 hares, habitat management, 15213
 processing plants, chemical compounds authorized for use under USDA inspection programs, lists, 523, 11154
 Rabung, John R., note on van der Waerden's theorem on arithmetic progressions, 15082
 Race problems :
 advertising discrimination in sale and rental of housing, new trend (remarks), 5609
 desegregation of public elementary and secondary schools—
 enforce guarantees of 14th amendment, hearings, 17710
 provide financial assistance, hearings, 17638
 desegregation under law, hearings, 17696
 effective human relations commissions, guidelines, organization, membership, budget, staff, goals, programs, 10898
 elementary and secondary schools with special problems, incident to desegregation, provide financial assistance message from the President, 9633
 equal educational opportunities, annual report, 16392
 equal educational opportunity, hearings, 13726, 16048, 17696
 Federal Aviation Administration, nondiscrimination in federally assisted programs, FAA regulations, 2571
 HUD equal opportunity, what it is, what it does, 16662
 integrating the desegregated school, planning educational change, 16401
 public elementary and secondary schools in selected districts, enrollment and staff by racial/ethnic group, directory, 14562
 racism in America and how to combat it, 3657
 school desegregation—
 emergency assistance program, 14283
 Federal enforcement, 243
 free and open society, statement by the President, 7711
 stranger in one's land, Civil Rights Commission on Mexican-Americans, 9462
 Voting rights act of 1965—
 amendments, hearings, 5269
 extend—
 hearings, 436
 law, 18301
 reports, 1483, 13401
 your housing rights, live where you want to live, 16682
- Races of man, racial exclusion in granting visas, foreign policy implications, hearing, 6707
 Raceways :
 fish-trout management, animal guide, 6177
 management for trout, 17303
 Rachetto, John, land conveyance to, 15831
 Rachetto, Ruth, land conveyance to, 15831
 Racine, Wis. :
 aircraft accident, 18277
 census of transportation, 1967, commodity transportation survey, production, area series, 6426
 Racism in America and how to combat it, 3657
 Rackley, R. A. :
 potassium turboalternator (KTA), preliminary design study—
 alternator parametric design, 12754
 turbine bearing and seal parametric design, 10345
 Radar :
 aerological receiver, increasing sensitivity, USSR study, 7384
 airborne laser-radar studies of lower atmosphere, 2104
 auroras at frequencies of 75 and 50 MHz, simultaneous radar studies, USSR study, 8831
 basic pulse-radar maximum-range calculation guide, equations, definitions and aids to calculations, 15080
 beacons—
 ATCBI-3 altitude and identity readout modifications, 4119
 interrogation repetition frequency sets nonsynchronous for n interrogations, methods for calculating and analyzing, 15081
 equipment, Federal item identification guide, 5310
 change, 8473
 for microstructural studies of clouds and precipitation, USSR study, 10274
 hook echo, relationship of use to size of tornado warning area, 1830
 large time-bandwidth product radars, capture and spurious target generation due to hard limiting, 6109
 laser radars
 range equation considerations, 6106
 USSR study, 7370
 lidar observations of debris clouds from nuclear cratering detonations, 13085
 linearly, polarized sets, precipitation echo attenuation, USSR study, 16739
 local-use/gap-filler radar design analysis, 9269
 NAS-en route stage A, radar video data processor modifications, 17965
 pulse compression radar study, space geodesy altimetry, 14822
 radar backscatter, effect of sea roughness on bandwidth, 12889
 radar X-Y plots, technique to identify certain relative errors, 15471
 sea-echo, study of doppler spectra, 4622
 simulated ocean radar impulse responses from lunar radar measurements, 12894
 siting criteria, experimentation and analysis, 7066
 spectral approach to resolution of radar pulses in clutter, experimental verification, 9329
 study of sea return at normal and near-normal incidence, 12890
 TRACON facilities, improvement of operating conditions, handbook, 14359
 trimmed-mean detector for noncoherent distributions, 15069
 two-frequency Randle Cliff radar, dual PRF, dual-pulse-length synchronizer, 15095
 weather manual, national network observing and reporting procedures, change, 10672

Radar—Continued

- weather radar, method of reducing blind zone of, USSR study, 10270
- see also Doppler radar.
- Radar display systems, see Display systems.
- Radar interference:
 - capture and spurious target generation due to hard limiting in large time-bandwidth product radars, 6109
 - method of reducing blind zone of weather radar, USSR study, 10270
- Radar stations, continued operation, agreement with Canada, 17348
- Radar targets:
 - capture and spurious target generation due to hard limiting in large time-bandwidth product radars, 6109
 - narrowband ambiguity functions, review, 10496
 - spectral approach to resolution of radar pulses in clutter, experimental verification, 9329
- Radar tracking:
 - radar X-Y plots, technique to identify certain relative errors, 15471
 - severe thunderstorm radar echo motion and related weather events hazardous to aviation operations, 11268
 - siting criteria, experimentation and analysis, 7068
- Radclyffe, Donna R., biological effects of oil pollution, bibliography, collection of references concerning effects of oil on biological systems, 7171
- Radiant energy:
 - energy distribution of spiraling electron beam, 2086
 - energy transfers and transformations, atmospheric transport processes, 3502
 - laser power and energy measurements, 961
 - radiant heat transfer properties of particle-seeded gases, theoretical calculations, 5897
 - spectral measurements of solar simulators on, effect of error on surface response, 16963
- Radiant heating:
 - of coal dust clouds by flames in coal mine galleries, 18168
 - USSR articles, 8835
- Radiance, planetary limb radiance profile as factor in determining atmospheric temperature profiles, 5899
- Radiation:
 - accident cases, emergency handling of, 3513
 - dose and effects of medical radionuclides, symposium proceedings, 13068
 - doses, nuclear detonations for peaceful purposes, approaches to calculation of limitations, papers, 5384
 - embrittlement of steels, damage-function analysis of neutron-energy and spectrum effects, 6099
 - employee exposure to alpha radiation in underground uranium mines, controlling, 11573
 - errors in air ducts under nonisothermal conditions using thermocouples, thermistors, and resistance thermometer, 2136
- exposure—
 - microwave ovens and the public, 5382
 - overview, nuclear power reactors and population, 8561
 - under field conditions, soil thermoluminescence in relation to, ecological and environmental effects from local fallout from Schooner, 8020
 - fallout from Schooner cratering project, ecological and environmental effects, soil thermoluminescence in relation to radiation exposure under field conditions, 8020
 - hazards to man on extended near earth missions, study, 2065
 - health hazards and protection, FAA handbook, 7064

Radiation—Continued

- Humboldt Bay environmental radiation survey, 9374
- induced nonlinear degradation of transistor gain, 14813
- induced preparation of metals from their aqueous salt solutions, 12812
- initiated emulsion oxidation, 4893
- inviscid radiating shock layers—
 - about spheres traveling at hyperbolic speeds in air, 17008
- stagnation-point solutions, 12791
- irradiated metals, dislocation channeling, 17188
- irradiated-pasteurized fishery products, maximum shelf life study, radiation chemistry, annual report, 10767
- Radiation:
 - irradiation—
 - effect on microbial flora surviving irradiation pasteurization of seafoods, 131
 - fisheries products, temperature 38°–50° F. growth and toxin production of *Clostridium botulinum*, types E, etc., 3506
 - fruits and vegetables, annual report, 121
 - of UO_2 - PuO_2 ceramic fuels with high burn-up ratios, 1250
 - preservation of food products, effects, annual report, 126
 - testing technology, national symposium, 4882
 - isotopes and radiation technology, quarterly technical progress review, 2776
 - laser—
 - biological effects, USSR study, 12633
 - use in coal investigations, 4475
 - low-dose, processed food, benefit-cost analysis, 6390
 - low-level environmental radiation measurements made by TLD-700 high sensitivity LiF ribbon, tests, 15514
 - marine products development irradiator, operations, 9402
 - medical radiation information for litigation, conference proceedings, 1052
 - microwave—
 - and azimuthal current of theta-pinch plasma, growth, investigation, 8003
 - effects, USSR study, 16782
 - oven radiation, facts about, 18313A
 - molecular genetics, study of radiation effects, 6029
 - neutron irradiated 12Ni-5Cr-3Mo maraging steel plate and companion weld metals, behavior of mechanical properties, 6103
 - 90-day subacute oral toxicity studies on radiation, pasteurized foods, strawberries, apples, and pears, 4892
 - nocturnal, loss estimates for forest canopy, 5503
 - nuclear, effects on high-reliability silicon power diode, analysis of forward electrical characteristics, 11637
 - Palanquin Event, quantitative postshot distribution of close-in fallout, throw-out, and base surge, 4894
 - pasteurization—
 - fresh meats and poultry, 10755
 - Gulf shellfish, annual report and final summary of total program, 15518
 - pasteurization processes, application to Pacific coast fishery products, annual report, 3503
 - pasteurized clams, chronic animal feeding studies, on chicken feeding experiments, final reports, 8025, 9403-4
 - preservation of foods, AEC authorizing legislation, 1971, hearings, 8190
 - probes, design and construction, 16916
 - proton, of micrococcus radiodurans, and *sarcina flava* microorganisms placed in meteorite, USSR study, 4833

Radiation—Continued

- public safety newsletter, public safety information bulletin, 17475
- quantitative response time-data, theory, 13076
- radiating, nonadiabatic, equilibrium inviscid flow over blunt body, inverse-method solution, 14863
- radiation exposure overview, OCS series, 5382, 8561
- radiation from slots on cylindrical bodies using geometrical theory of diffraction and creeping wave theory, 5979
- radiation resistant insulating layers for planar silicon technology, development, 10358
- radiation-sterilized fish products, development, 1225
- radiation transport in ablation-product contaminated boundary layers, advanced methods for calculating, 16942
- radiative corrections to electron scattering from complex nuclei, 17189
- reactor irradiation effects on ductile-brittle transition and stress-strain behavior of tungsten, 16990
- reflected radiation measurement of angular distribution on basis of data obtained during flights of an Il-18 aircraft, in 1964, USSR study, 7399
- satellite infrared radiation data, estimating cloud amount and height from, 17948
- secondary schools, sources, report of limited survey, 6380
- space radiation effects of NASA Space Radiation Effects Laboratory synchrotron, external proton beam characteristics, 5921
- surveillance networks, 6391
- transient effects on ruby lasers, 15079
- UHF irradiation in silicosis, effect, USSR study, 16748
- see also* Electromagnetic radiation—Gamma rays—Heat transfer—Ionizing radiation—Radioactivity—Radiobiology—Radiochemistry — Radioprotective agents—Shielding—Thermal radiation—Ultraviolet rays.
- Radiation doses, *see* Radiation.
- Radiation emission, polynomial method for determining local emission intensity by Abel inversion, 5968
- Radiation exposure, *see* Radiation.
- Radiation injuries, workmen's compensation and radiation injury, studies, 6399
- Radiation Research, Center for, *see* Center for Radiation Research.
- Radicals, *see* Free radicals.
- Radin, Beryl A., T.W.O.'s model cities plan, 6467
- Radio:
 - drug abuse information-education materials available, 9016
 - HF, basis and application of simulation model for oceanographic data transmission system using, 14350
 - transistor, research in USSR, 12644
 - see also* Radio communication—headings beginning Radio.
- Radio announcers, employment outlook, 16841
- Radio apparatus and appliances:
 - antenna system for tropospheric radio relay communication lines in centimeter waveband, USSR study, 8841
 - communications-radio receiving set AN/PBR-9 and transmitting set AN/PRT-4, operator training course, electronics and communications, 13050
 - method of radio astronomical observations and equipment construction principles, USSR study, 12649
 - radio equipment, interference and interference suppression, USSR study, 12650

Radio astronomy:

- aperture synthesis in, USSR study, 8845
- high efficiency parabolic antennas, USSR study, 12655
- radio astronomical observations method and equipment construction principles, USSR study, 12649
- radio astronomical studies with 1500-meter diameter low-frequency telescope, 4499
- Radio Astronomy Explorer, *see* Satellites.
- Radio broadcast technicians, examination announcement, amendments, 6469, 10844
- Radio broadcasting:
 - agreement with Mexico, withdrawal of obsolete protocol, 6733
 - applications, FCC reports, 2576
 - broadcast actions, FCC reports, 2576
 - call signs, new or modified, FCC reports, 2576
 - emergency broadcast system, basic plan, 10841
 - employment outlook, 16841
 - equal time for candidates, purchase requirements—
 - congressional office, report, 15855
 - President and Vice President, report, 15977
 - experimental, auxiliary, and special services, FCC rules and regulations, 2580
 - fairness doctrine, Federal Communications Commission reports, 16480
 - licenses, applications for renewal, establish orderly procedures, hearings, 5258
 - marine weather services, Weather Bureau, 7055
 - obscene programing, Federal Communications Commission, regulations (address), 4125
 - public broadcasting act of 1967, amend, law, 313
 - services, FCC rules and regulations, 2580
 - see also* Radio stations—Radio transmissions.
- Radio communication:
 - amateur service, FCC rules and regulations, 2583
 - applications, FCC reports, 2576
 - aviation, public safety, industrial, and land transportation services, FCC rules and regulations, 2582, 8606
 - citizens radio service, FCC rules and regulations, 2583
 - domestic, public services, FCC rules and regulations, 2584
 - equipment, Federal item identification guide, 8474
 - experimental services, FCC rules and regulations, 2579, 4129
 - industrial scientific and medical services, FCC rules and regulations, 2579, 4129
 - international fixed public services, FCC rules and regulations, 2584
 - ionospheric channel model, experimental verifications, 4090
 - radiotelegraph carriers, uniform system of accounts, FCC rules and regulations, 2586
 - safety and special radio services, FCC applications and actions, reports, 2576
 - treaty matters, FCC rules and regulations, 2579, 4129
 - tropospheric radio-relay communication lines, in centimeter waveband, antenna system for, USSR study, 8841
- Radio direction finding, finding probable position fix of ship from error configuration, USSR study, 7390
- Radio emission, obtained by Kosmos-243 artificial earth satellite, determining geophysical parameters, USSR study, 4328
- Radio engineering, Scientific and Technical Society of Radio Engineering Electronics, and Communications session, report, USSR study, 7357
- Radio equipment, *see* Radio apparatus and appliances—Radio communications.

Radio frequencies:

- allocation of radio frequency spectrum for land mobile radio use, and its impact on small business, report, 6678
- allocations, FCC rules and regulations, 2579, 4129
- devices, FCC rules and regulations, 2579, 4129
- electricity-radio frequencies, precision measurement and calibration, 14922
- frequency management—
 - and electromagnetic compatibility, Air Force communications-electronics activities, manual, 6326
 - principles, spectrum engineering measurements, 4109
- F2-layer maximum usable frequencies, from local magnetic activity, short-term prediction, 8572
- HF communication systems, required signal-to-noise ratios, 1839
- NBS frequency and time broadcast services, radio stations WWV, WWVH, WWVB, and WWVL, 11735
- system analysis of Lewis cyclotron modification, 2094

Radio frequency allocations, *see* Radio frequencies.

Radio frequency modulation:

- broadcasting stations of world, indexed by country and city, and by frequency, 4177
- Federal Communications Commission reports, 16480

Radio in navigation:

- aids—
 - Atlantic and Mediterranean area, 1019
 - Pacific and Indian Oceans area, 7675
- radio/optical strapdown inertial guidance study for advanced kick stage applications, summary, 4497

Radio interference:

- atmospheric and man-made radio noise, amplitude and time statistics, 10024
- interference—
 - and interference suppression in radio equipment, USSR study, 12650
 - predictions for VHF/UHF air navigation aids, 4093

Radio journalism, state of fairness doctrine (address), 16479

Radio measurements, *see* Measurements.

Radio navigation, *see* Radio in navigation.

Radio noise, *see* Noise.

Radio operators:

- alien amateur, agreement authorizing operation in U.S. and—
 - France, 6222
 - Great Britain, 6238
 - Guatemala, 4738
- commercial, FCC rules and regulations, 2578
- ground, employment outlook, 14723
- handbook, 10652
- operator training course, electronics and communications, communications-radio receiving set AN/PRR-9 and transmitting set AN/PRT-4, 13050
- transmitter and receiver operator and maintenance technician, examination announcement, amdt., 6470, 10845

Radio programs, *see* Radio broadcasting.

Radio propagation, *see* Radio waves.

Radio ranges, *see* Omnidirections.

Radio service technicians, employment outlook, 14707

Radio services, *see* Radio communications.

Radio sets, *see* Radio apparatus and appliances.

Radio signals:

- atmospheric and man-made radio noise, amplitude and time statistics, 10024
- complex signal synthesis of radio systems, USSR study, 16759

Radio signals—Continued

- predetection polarization diversity combiners, 14891
- spacecraft, used in probing solar corona, 18184
- two-signal primer for Fourier analysis of random access communication system, 16461

see also Signals.

Radio spectrum, *see* Radio frequencies.

Radio stations:

- amateur, alien, agreement authorizing operation in U.S. and—
 - France, 6222
 - Great Britain, 6238
- broadcasting stations of the world—
 - amplitude modulation, indexed by country and city, 1874
 - frequency, 1875
 - frequency modulation indexed by country and city, and by frequency, 4177
 - television, indexed by country, city, frequency, 5478
- maritime services on land, shipboard, etc., FCC rules and regulations, 2581
- WWV, WWVH, WWVB, and WWVL, NBS frequency and time broadcast services, 11735

Radio telemetry, animal ecology, radio tracking of animals, USSR study, 1999

Radio telephone:

- stations, operation, agreement with Canada, 5192, 11086
- vessel bridge-to-bridge radiotelephone act—
 - hearings, 3881
 - report, 3819

Radio telescopes, radio astronomical studies with 1500-meter diameter low-frequency telescope, 4499

Radio transmissions:

- non-compulsory radio fixes, 3452
- radio blackout alleviation and plasma diagnostic results from 25,000 foot per second blunt-body reentry, 5934

Radio transmitters, *see* Transmitters (radio).

Radio waves:

- ground wave propagation in ionized atmosphere with arbitrary variation of conductivity with altitude, 11274
 - HF radio ground waves, theory of scatter from sea waves, 5392
 - magnetospheric ducts, characteristics observed by Alouette-2 topside sounder, 12805
 - propagation, VLF, multimode, predictions, theoretical, errata, 11818
 - radio polarimetry at sea, USSR study, 1995
 - ray tracing digital computer program for study of magnetospheric duct propagation, 14842
 - switching inverter with sine-wave output, 15088
 - theoretical LF, VLF field calculations with spherical wave functions of integer order, 14348
 - UHF radio propagation data for low antenna heights, 4091, 5390
 - underground propagation, USSR study, 5781
 - wave channel type antenna with modulated phase velocity, USSR study, 18105
- see also* Microwaves.

Radioactivation analysis:

- activation analysis papers on determination of light elements in metals, 8995
- bibliography—
 - activation analysis literature, oceanography, 11740
 - addendum, 8980
 - appendices, 8991
- forensic science, bibliography of activation analysis papers, 7578
- 14-MeV neutron generators in activation analysis, bibliography, 11739

Radioactivation analysis—Continued
 neutron activation—
 for measuring bone calcium content,
 study to develop, 11618
 techniques for precious metal exploration, 133
 photon activation analysis using NRL
 Linac, survey, 15901
 pollution analysis, 11738
 Radioactive isotopes, *see* Isotopes.
 Radioactive substances, shipping containers,
 directory,
 Radioactive tracers, radiotracer technique
 used in determination of cation exchange
 capacity of earth materials, 7033
 Radioactive waste disposal:
 Clinch River, Tennessee River, and White-
 oak Creek, composition of water as
 related to disposal, 8739
 land burial of solid radioactive wastes,
 study of commercial operations and
 facilities, 3511
 radioactive gaseous mixture in off-gas system
 delay section, hold-up time, 1243
 Radioactivity:
 aeroradioactivity survey—
 and areal geology of Minneapolis-Saint
 Paul area, Minn.-Wis., 8011
 and related surface geology of Chicago
 area, Ill. and Ind., 1772
 calibration standards, special conference
 session, proceedings, 14923
 cesium-137, strontium-90, and ruthenium-
 106 problems of distribution and evaluation
 of permissible levels, USSR study, 8005
 contamination of environment by under-
 ground nuclear explosions and methods of
 forecasting it, USSR study, 8004
 debris clouds from nuclear cratering
 detonations, lidar observations, Project
 Buggy, 13085
 fallout—
 air and water pollution and other en-
 vironmental effects of under-ground
 uses of nuclear energy, study, hear-
 ings, 6817
 architectural, engineering, and con-
 sulting firms with certified fallout
 shelter analysts, 3655
 Health and Safety Laboratory program,
 quarterly summary reports, 1252,
 6377, 9392, 13071
 appendixes, 1253, 6378, 9393, 13072
 protection in design of new industrial
 facilities, 149
 relation to leukemia and fetal mortality,
 reconsideration, 6375
 shelters—
 analysts, national directory, 10842
 buildings with fallout protection
 design case study, DCS series, 13187
 design and analysis, change, 4960
 guide to informative literature, ad-
 dendum, 8113
 signs, requesting and using, 8112
 technical report, 15682
 strontium 90 deposition, infant and
 fetal mortality trends, relationship
 between, evaluation, 8557
 natural environmental, annotated bibliog-
 raphy, 10771
 off-site surveillance, final report, Palan-
 quin project, 13080
 radioactive occurrences in U.S., selected
 bibliography, 10762, 13083
 special cloud content study, Project
 Buggy, 13077
 terrestrial/marine radiolotopic power
 units, implications of substitution of
 strontium oxide for strontium titanate,
 8027
see also Shielding.

Radiobiology:
 biological implications of nuclear age, 4885
 human, 10774
 neutrons, their use, effects, etc., sym-
 posium, proceedings, 15510
 radiation biology of fetal and juvenile
 mammal, 4886
 research project, Radiological Research
 Laboratory, Columbia University, an-
 nual report, 17474
 USSR periodical, translations, 3487, 6370,
 8008, 10753, 15506
 Radiochemical Analysis Section, summary of
 activities, 4554
 Radiochemistry:
 nuclear chemistry, Radiochemical Analysis
 Section, July 1968-June 1969, summary
 of activities, 4554
 radiation chemistry applied to irradiated
 pasteurized fishery products, maximum
 shelf life study, 10767
 radiation-induced preparation of metals
 from their aqueous salt solutions, 12812
 Radioecology:
 marine radioecology, selected bibliography
 of non-Russian literature, 3501
 radio and ecology, USSR study, 7355
 Radiography:
 devices, isotope device safety testing study,
 128
 radiographic image, some physical factors
 affecting quality, their theoretical basis
 and measurement, 1054
 radiographic test for electrodeposit poros-
 ity, 12748
 Radiolotopes, *see* Isotopes.
 Radiologic technologists, *see* X-ray tech-
 nicians.
 Radiological health, *see* Health.
 Radiological Health Bureau:
 BRH/ORO series, 15139
 seminar paper, selected papers, 5384
 transfer functions to Environmental
 Protection Agency—
 hearings, 15911, 16057
 report, 15874
 Radiological Research Laboratory, Columbia
 University, annual report on research
 project, 17474
 Radiology:
 on-site radiological safety report, Palan-
 quin project, 13081
 radiological characteristics of uranium
 mine atmospheres, investigation, 9390
 radiological health—
 data and reports (periodical), 3126
 directory of personnel responsible for
 programs, 5381
 safety in design and operation of particle
 accelerators, 10425
 Radimeters, high resolution infrared radio-
 meter on Nimbus II, accuracy for mapping,
 10380
 Radiometry:
 atmospheric attenuation at 15, 31, and
 53 GHz, 10027
 infrared radiometric microscope used in
 nondestructive determination of flexible
 package seal defects, 13041
 radiometric anomalies, Serpentine Hot
 Springs area, Seward Peninsula, Alaska,
 14522
 radiometric measurements from TIROS
 VII, monthly global atmospheric circula-
 tion characteristics as reflected, 14845
 Radionuclides:
 ecological techniques utilizing radio-
 nuclides and ionizing radiation, selected
 bibliography, 3499
 medical, radiation dose and effects, sym-
 posium proceedings, 13068
 nuclides, emphasizing nuclear power by
 product easements and isotopes for
 large scale applications, chart, 15533
 transport of radionuclides by streams
 (series), 8739, 12589

- Radiopasteurization, *see* Radiosterilization.
- Radiophysics:
 radiological physics, research project,
 Radiological Research Laboratory,
 Columbia University, annual report,
 17474
 studies of aurorae and upper atmosphere
 by radiophysical methods, 12830
- Radioprotective agents:
 radioprotective action of antioxidants
 obtained from petroleum products, USSR
 study, 12627
- Radioprotective agents:
 radioprotective effects of polymer salt of
 cystamine and propanesulfonate ester
 of dextran, USSR study, 10268
- Radios, *see* Receivers (radios).
- Radiosterilization, radiopasteurized chicken,
 microbiological aspects, reports, 1255-60,
 3491-92
- Radiotelemetry, *see* Radio telemetry.
- Radiotelephone, *see* Radio telephone.
- Radiotransmissions, *see* Radio transmissions.
- Radlinski, Richard W., brake pedal force
 capability of adult females, 18238
- Radwan, M. A.:
 impregnating and coating with endrin to
 protect Douglas fir seed from rodents,
 8709
 storing endrin-coated and endrin-im-
 pregnated Douglas-fir seed, 8710
- Raffo, Peter L., thermomechanical process-
 ing of molybdenum-hafnium-carbon alloys,
 8936
- Raft River and Valley, basin, Idaho-Utah,
 1966, reappraisal of water resources and
 ground water development, 14539
- Rabe, Jurgen, atlas of cometary forms, struc-
 tures near nucleus, 2077
- Rahman, Abdul R.:
 factors affecting quality of freeze-dried
 peas, 85
 quality of dehydrated lima beans as in-
 fluenced by processing variables and
 storage temperature, 6349
 studies of reversible compression of freeze
 dried RTP cherries and blueberries, 7986
- RAIL (runway alignment indicator light).
see Runways (aeronautics).
- Rail shear test for evaluating edgewise shear
 properties of wood-base panel products,
 5506
- Railroad accidents:
 all line-haul and switching and terminal
 companies, summary, 3241
 car-train collision, multidisciplinary ac-
 cident investigation, 14973
 investigation reports, 4149, 5435, 11316-
 317, 14383, 17233-236
 investigation summary reports, 10062,
 17237
 rail-highway grade crossing accidents,
 11841
 train to car collision, multidisciplinary ac-
 cident investigations, 14982
 train versus automobile collision at inter-
 section/railroad crossing, 14969
 United States, summary and analysis, 1968
 calendar year, 4652
- Railroad and Airline Representation Board,
 name, proposal, 5093
- Railroad cars:
 equipment of class 1 railroads, 2915
 linear induction motor test vehicle,
 stability and dynamic response, study,
 14384
- Railroad crossings, rail-highway grade cross-
 ings accidents, 11841
- Railroad employees:
 emergency board report, 1797
 employment outlook, 16842
- Railroad employees—Continued
 hours of service act of 1907, amend to
 reduce 16-hour maximum limitation
 for certain employees—
 hearings, 1706
 law, 1422
 report, 1677
 railroad labor-management dispute, 1970,
 settlement, hearings, 9753
 railroad retirement amendments of 1970,
 18329
 railroad retirement and unemployment in-
 surance programs, benefit statistics,
 monthly, 2898
 Railway labor act, amend to prohibit
 strikes, report, 6613
 railway labor-management dispute—
 1970, settlement, reports, 8243-44
 temporary strike prohibition—
 law, 5062
 reports, 6594, 6613, 6740
 railway shopcraft dispute—
 Mar. 1970, hearings, 6814
 Apr. 1970, hearing, 6815
 retirement act of 1937, etc., amend—
 to continue supplemental annuities,
 etc.—
 hearings, 1742
 law, 6547
 reports, 5103, 5204, 6592
 to increase benefits—
 hearings, 6719, 9930
 laws, 12129, 13344
 reports, 8228, 8232, 12330, 13432
 retirement beneficiaries, hospital insurance
 and social security benefits, medicare
 handbook, 10529
 Retirement tax act, amendments—
 law, 6547
 reports, 5103, 5204, 6592
 wage statistics, class 1 railroads, 3333
 Railroad equipment, *see* Railroad supplies.
- Railroad retirement act, *see* Railroad em-
 ployees.
- Railroad Retirement Board:
 annual report, 1969—
 departmental edition, 6140
 document edition, 6087
 appropriations, 1970—
 hearings, 1700
 law, 6536
 reports, 1683, 5254
 appropriations, 1971—
 hearings, 17687, 12259
 reports, 16031, 13426
 waiving points of order, report, 13429
 quarterly review, 3164
 railroad retirement accounts, interests or
 investments, change method of com-
 puting—
 hearings, 6719, 9930
 law, 13344
 reports, 8228, 8232, 12330, 13432
 railroad retirement and unemployment in-
 surance programs, benefit statistics,
 monthly, 2898
 study of railroad retirement system, au-
 thorize, hearing, 9930
- Railroad Retirement Commission, establish,
 law, 13344
- Railroad supplies:
 census of manufactures, 1967, industry
 statistics, 12010
 Federal item identification guides for sup-
 ply cataloging, supplements, 2590
- Railroad ties, economic implications of man-
 ufacturing sawed ties, and timbers, 10133
- Railroads:
 automatic block signal systems, etc., rules
 standards and instructions, for installa-
 tion, inspection, maintenance, and
 repair, 10530
 carload cost scales by territories, 14648
 class 1—
 freight commodity statistics, annual re-
 port, 799
 income and balance-sheet items, 3187

INDEX 1970

Railroads—Continued class 1—continued

line-haul, operating statistics, 2992
 motive power and car equipment, 2915
 operating revenues and expenses, 2991
 revenue traffic statistics, 3153
 train and yard service, 3266
 Communist China railroad passenger timetable, 1990
 Connecticut-New York railroad passenger transportation compact, consent of Congress—
 law, 1415
 reports, 1451, 1628
 discharge of raw human waste, garbage, etc., from trains, environmental pollution, hearings, 15905
 Federal railroad safety act of 1969—
 hearings, 1707, 9756
 reports, 10996, 13420
 high speed ground modes, costs analyses for NECTP, 8636
 interstate commerce act, amend—
 hearings, 499, 3871, 3964, 5261, 6720, 13723
 reports, 1694, 6778
 supplemental hearings, 11048
 labor management dispute, settlement—
 law, 8185
 report, 6775
 lessors, and proprietary companies, transport statistics, 5720, 18090
 narrow gauge, Denver & Rio Grande Western, alternative study for preservation, 17157
 nation-wide rail strike—
 legislation, message from the President, 5095
 prevent—
 law, 8185
 report, 6775
 nonfriction braking systems for high-speed trains, 14381
 Northeast corridor air traffic and high speed ground transportation, 8604
 passenger equipment, modernize, report, 6778
 passenger service, prescribe minimum standards, report, 6778
 passenger train service—
 legislation, proposals—
 hearings, 3964
 supplemental hearings, 11048
 study, hearings, 3871
 planning for national defense emergencies, 11485
 private car lines, transport statistics, 4322
 rail passenger service act of 1970, report, 6778
 rail passenger statistics in Northeast Corridor, 7865
 Railway labor act—
 amend—
 hearing, 6718
 law, 9599
 report, 8618
 strike prohibition, extend—
 law, 5062
 reports, 6594, 6740
 railway operating rules, technical manual, change, 10747
 regional intercity rail passenger service authority compact, consent of Congress, hearings, 13724
 relocating railroad facilities at water resources projects, Engineers Corps, Army, improved guidance needed, GAO report, 11873
 shipments of lettuce, market quality affected by modified-atmosphere, 9301
 surface, freight rates, publish for use by common carriers, authorize, hearings, 6720
 technology, adjusting, 4389
 train to car collision, investigation, 17107
 TRANSOP model methodology, 8632

Railroads—Continued

transportation of hazardous materials, prescribe rules, regulations, etc.—
 hearings, 9756
 reports, 10996, 13420
 unit train transportation of coal, technology and description of 9 representative operations, 5851
 see also Electric railroads—Railroad employees.
 Rails (birds):
 hunting, possession, transportation, importation, 1970-71, Federal regulations governing, 15276
 Railway crossings, see Railroad crossings.
 Railway Express Agency, Inc., transport statistics, 5720, 18090
 Railway labor act, see Railroad employees—Railroads.
 Railways, see Electric railroads—Railroad employees—Railroads.
 Rain:
 attenuation study for 15 GHz relay design, 15342
 liquid precipitation at Voyeykovo, preliminary results of study of errors in measuring, USSR study, 11516
 overland flow on hillslopes, hydraulics, 5559
 rain models for landing guidance systems, 52
 storm runoff in Texas Blackland Prairie, effects of conservation practices, 3428
 see also Precipitation.
 Rainbow Bridge National Monument, general information, 6066
 Rainbow trout, see Trout.
 Rainfall, see Rain.
 Rainy River, toll bridge, construct, maintain, and operate, hearing, 15901
 Raisins:
 effect of oil treatment on numbers of insects infesting packages, 10679
 making raisins, science study aid, 7941
 marketing orders to include paid advertising, hearings, 15882
 Raleigh, Henry D., reactor safety, literature search, 13064
 Raleigh, N.C., area wage survey, 2030
 Ralls County, Mo., community profile, 17854
 Ramasastry, Jayaram:
 characteristics of magnetospheric ducts observed by Alouette-2 topside sounder, 12805
 oblique echoes from large-scale horizontal gradients observed by Alouette-2 topside sounder, 4512
 ray tracing digital computer program for study of magnetospheric duct propagation, 14842
 Ramey, James T.:
 remarks—
 Jan. 19, 1970, 4899
 Apr. 4, 1970, 13087
 Ramjets, see Engines (aircraft).
 Rampart Group, central Alaska, probable Permian age, 4231
 Ramsay, James G., relief, 13584
 Ramsey County, N. Dak., community profile, 14166
 Ranchers, see Stockmen.
 Ranches:
 conservation ranching in Hawaii, good grass and water, the key, 10557
 furnishing plan for Badlands ranch house, Theodore Roosevelt National Memorial Park, 15027
 migratory sheep ranches, 1969, costs and returns, 14270
 Randall, Charles E., so you want to be a forester? 16534
 Randall County, Tex., soil survey report, 11870
 Randolph, John N., jr., basic data on economy of Australia, 13225

- Randolph County, Ala., community profile, 14167
- Randolph County, Mo., community profile, 17855
- Randolph County, N.C., community profile, 12461
- Randolph-Sheppard act, *see* Blind.
- Random processes, *see* Probabilities (mathematics).
- Random selection system for induction into Armed Forces, hearing, 489
- Random walks (mathematics):
test particles in velocity space with application to magnetic mirror system, 5962
- Range conservationists, *see* Range management specialists.
- Range finding, method for determination of accuracy of closed distant stationary orbits determined from range rate, 12818
- Range lands:
Fort Worth prairie, general information, 6179
managing public rangelands, 15
range and wildlife, habitat evaluation, research symposium, 10698
range in Soil Conservation Service, 9151
seeded ranges response to different grazing intensities in ponderosa pine zone of Colorado, 4825
western range and livestock, monthly report, 3357
- Range management specialists:
managers, conservation occupations, employment outlook, 12682
range conservationist, examination announcement, discontinuance notice, 6471
- Range plants, winterfat seedlings, emergence and survival from 4 planting depths, 11352
- Rangelands, *see* Range lands.
- Rank, Marine Corps, 1775-1969, ranks and grades, 18138
- Rankin, Kirk, component combination and frame-embedding in Chinese character grammars, 4553
- Rankin County, Miss., community profile, 16338
- Rankine cycles:
Cb-Izr Rankine system corrosion test loop, 11602
component parametric data and initial integrated turboalternator analyses, 16934
- Ransom County, N. Dak., community profile, 14168
- Rantz, S. E., urban sprawl and flooding in southern California, water in urban development, 5545
- Rao, P. Krishna, estimating cloud amount and height from satellite infrared radiation data, 17948
- Rapid transit, *see* Local transit.
- RAPIER *see* Computer programs/programming.
- RAPLOT, computer program for data processing and graphical display for radioisotopic sand tracer study, 16408
- Rapp, J. R., catalog of information on water data, index to ground water stations, 10164
- Rare earths, and yttrium metals, preparation by electrodeposition and vacuum distillation of alloys, 868
- Rarefied gases, *see* Gases.
- Rasch, Philip J., selected serum enzymes as indicators of changes in physical condition, 7451
- Raspberries, growing, types, planting sites, etc., 15416
- Ratchet wrenches, *see* Wrenches.
- Rate training manuals, 1026-29, 4612-14, 4616, 6089-91, 7684-86, 7688-89, 12885-887, 18287-288
- Rates, *see* Electricity—Freight rates.
- Rathdrum Prairie project:
East Greenacres unit, construct, operate, and maintain—
hearings, 3868, 16059
law, 12113
reports, 6555, 6631, 11090
- Rathjen, Warren F., Alaska shrimp explorations, 9520
- Ratings:
Navy, training manuals, 1026-29, 4612-14, 4616, 6089-91, 7684-86, 7688-89
soil conditioning rating indices for major irrigated and non-irrigated crops grown in western United States, 17288
- Ratio analysis for small business, 12914
- Rationale of new maritime program (address), 831
- Ratlift, Forrest R., inflight performance differences of pilot and navigator, F-4 2d-seat crewmembers limited Southeast Asia combat evaluation, 7955
- Rata:
liver glycogen content, at ground level and at altitude, effect of decaborane, 57
reproduction of organophosphorus pesticide effects, 11980
spiny, cranial and bacular variation in populations of Genus *Proechimys* (Rodentia: Echimyidae) from South America, 4663
- Ratte, James C., geology of Hill quadrangle, Pennington County, S. Dak., preliminary report, 726
- Rausch, D. L., sedimentation and eutrophication research on 3 small reservoirs, 3372
- Raw materials:
in United States economy, 6461
program, AEC authorizing legislation, 1971, hearings, 13348
- Rawcliffe, Bethany V., cancer chemotherapy reports, 2386, 2388
- Rawlings, Steve W., population of Chile, estimates and projections, 225
- Ray, Edward J., buffet and static aerodynamic characteristics of a systematic series of wings determined from subsonic wind-tunnel study, 11656
- Ray, John G., jr., catalog of tissue typing antisera, 18263
- Ray County, Mo., community profile, 17856
- Ray tracing digital computer program for study of magnetospheric duct propagation, 14842
- Rayburn, Sam:
Veterans Administration center hospital named for—
law, 15805
reports, 13402, 16016
- Rea, David K., bathymetry and magnetics of region (POL-421-3) 29°-35°-155°-165°W, 16462
- REA, *see* Rural Electrification Administration.
- Reaction attitude control system for jet VTOL research aircraft, 7545
- Reaction kinetics, *see* Kinetics.
- Reaction wheels, inertia wheels, experimental investigation of attitude control system that uses star trackers and, 11677
- Reactions (chemical), *see* Chemical reactions.
- Reactions (nuclear), *see* Nuclear reactions.
- Reactions (physiological), *see* Physiological reactions.
- Reactivation, of inhibited cholinesterase, effect of structure of organophosphorus inhibitors on degree, USSR study, 18781
- Reactivity, PERTRAN, transport-perturbation program, 12823
- Reactor fuel, nuclear spent fuel, Southern Governors Conference on transportation, proceedings, 13070
- Reactor fuel elements:
fast breeder reactor advanced fuel element cladding fabrication, 15518

INDEX 1970

Reactor fuel elements—Continued
 refractory metal fuel element research, final report, 9387
 Reactor fuel pins, nuclear fuel pin swelling, simplified analysis, 5932
 Reactor fuels:
 burnup calculations, annotated bibliography, 1273
 dispersion type fuel elements for nuclear reactors, USSR study, 5766
 fuel accountability methods applied to Yankee fuel, evaluation, 6392
 fuel assemblies for experimental fast breeder reactor, test manufacturing, U.S.-Japanese fast breeder exchange program, 8016
 minor isotope safeguard techniques in reprocessing, evaluation, 8028
 nuclear fuel pin swelling, simplified analysis, 5932
 nuclear materials, safeguards and management, bibliography, 1272
 plume rise, effluents, dispersion, control, etc., 15530
 reactor and fuel-processing technology, quarterly technical progress review, 3127
 Reactor power plants, *see* Nuclear reactor power plants.
 Reactor safety, *see* Safety of life.
 Reactors (atomic):
 Army SM-1 reactor pressure vessel, analysis of neutron-embrittlement and flux-density considerations, 17191
 boiling water reactors—
 investigations on cyclones for steam separation, 1251
 stability studies, 1249
 built, being built, or planned in U.S., 6388
 civilian program, AEC authorizing legislation, 1971, hearings, 8190
 clad UO_2 under reactor accident conditions, physical-chemical studies, 9378
 commercial light water reactors, production of 238 Pu, 9401
 development of neutron spectrometry for critical facilities, quarterly report, 6380
 dispersion type fuel elements, USSR study, 5766
 EBR-II neutron spectra, analysis by Monte Carlo method and discrete ordinate methods, 9388
 fast breeder reactor advanced fuel element cladding fabrication, 15513
 fast breeder reactor control shield, and reflector materials development, report, 10756
 fast burst reactors, proceedings of national topical meeting, 4884
 fast flux test facility, AEC, problems in developing, GAO report, 16596
 Federal item identification guides for supply cataloging, supplements, 2593
 fuel accountability methods applied to Yankee fuel, evaluation, 6392
 fuel assemblies for experimental fast breeder reactor, test manufacturing U.S.-Japanese fast breeder exchange program, 8016
 gas-cooled reactor passage, observation of flow excursions, 5906
 geologic environmental map of greater Los Angeles area, Calif., pertinent to nuclear facility siting and design, preliminary, 10768
 heavy-water-moderated boiling-light-water-cooled, evaluation, 3510
 high-temperature gas-cooled reactors, evaluation, 1269
 iodine filter tests at NRL nuclear reactor, 15078
 light water breeder program, AEC authorizing legislation, 1971, hearings, 13348
 light water reactor power plants for utilities, cost trends, 9406

Reactors (atomic)—Continued
 LMFBR, liquid metal fast breeder reactor, 1000 MWe, follow-on study, task reports, 115-119, 3508-9, 4878-81, 8009-10, 8371-73, 1244-48, 1266-68
 materials, physical and mechanical properties, progress report, 9376
 materials, quarterly technical progress review, 3128
 nuclear installations, use of prestressed reinforced concrete in construction of, USSR study, 4331
 nuclear powerplants, precicensing anti-trust review, hearings, 5063, 9610
 nuclear power reactors and population, radiation exposure overview, 8561
 nuclear reactors and public reaction (remarks), 10776
 nuclear reactors, general information, 9410
 ORTC-III in-reactor experiment, 9386
 PEC reactor, design studies, 114
 PERTIAN, transport-perturbation program, 12823
 Phenix, prototypes fast-neutron nuclear power station, 8006
 physics of reactor shielding, problems, USSR study, 5754
 protection of nuclear aircraft reactor, parametric study of frangible-tube energy-absorption system for, 12781
 reactor and fuel-processing technology, quarterly technical progress review, 3127
 reactor irradiation effects on ductile-brittle transition and stress-strain behavior of tungsten, 16990
 reactor safety, literature search, 13084
 reactor shielding, problems in physics, USSR study, 16746
 safeguards, application to United States facilities, agreement with International Atomic Energy Agency, 4739, 7829
 SNAP-8 nuclear reactor as energy source for Brayton cycle power generation system, potential applications, study, 11641, 16959
 thermonuclear reactor with plasma column hovering freely in high-frequency field, USSR study, 7396
 use of thorium, civilian nuclear power, revised page, 1270
 READAT (Replaceable electronic assembly description and English language test) program, *see* Electronic equipment.
 Reading, Charles L., asbestos, 16886
 Reading, Pa., census of transportation, 1967, commodity transportation survey, production area series, 6421
 Reading:
 augmented reading project, Pomona, Calif., elementary program in compensatory education, 4052
 difficulties, treating, role of principal, teacher, etc., 9997
 disorders in United States, report, 9023
 elementary centers, Milwaukee, Wis., elementary program in compensatory education, 11214
 frost gage direct is reliable, inexpensive, 12553, 16559
 go! developmental reading (C), Armed Forces Institute manual, 11158
 intensive reading instructional teams, Hartford, Conn., elementary program in compensatory education, 11215
 looking deep into reading process, 8519
 malabar reading program for Mexican-American children, Los Angeles, Calif., elementary program in compensatory education, 4053
 professional, guide for Navy and Marine Corps officers, 15057
 remedial and enrichment programs, afternoon, Buffalo, N.Y., 4051
 remedial, Plus Program, Buffalo, N.Y., successful compensatory education program, 4054

Reading—Continued

- the right to read goal—
 - role of elementary school principal in achieving (address), 8528
 - role of volunteer (address), 7024
 - target for the 70's (poster), 14296
- 'riting, and 'rithmetic, Federal style, 1970 (address), 8525
- school achievement of children 6-11 years as measured by wide range achievement test, 14935
- school and home program, Flint, Mich., compensatory program in elementary education, 11218
- statistical tables, self-instruction course, programmed, 7266
- talking books for very young readers, 14756
- Ready Reserve, *see* Reserve components of Armed Forces.
- Reagents, agents, Federal item identification guide, 16114
- Real estate:
 - buyer's guide to urban renewal, 14571
 - condemnations of private property for public use, how Federal income tax applies, 5637
 - depreciation allowed, tax reform, summary of recommendations, 8400
 - Farmers Home Administration loan limitation, increase—
 - hearing, 11019
 - report, 12226
 - HUD property insurance, reports, 15878, 16026
 - leased by U.S. throughout world, inventory report, 10155
 - minimum property standards—
 - living units, interim revision, 10050
 - multifamily housing, 8617
 - owned by U.S. throughout world, inventory, report, 7220
 - property disposition handbook 1-4 family properties, 16666
 - salesmen and brokers, employment outlook, 14691
 - subdividers and developers, except cemeteries, census of construction industry, 1967, statistics, 13142
 - transfers between RFC and other agencies, payments in lieu of taxes, extend time—
 - hearings, 6713
 - reports, 6639, 9649
 - unclaimed property in District of Columbia disposition, hearing, 6796
 - see also* Farms—Mortgages—Public property.
- Real property, *see* Real estate.
- Rearing larval tunas in laboratory, 9528
- REC-OCE series, 7723-26, 9088-93, 10533, 15144-147, 17243-246, 18318-320
- Receipts and expenditures, *see* Finance.
- Receivers, aerological radar, increasing sensitivity, USSR study, 7384
- Receivers (radio):
 - home-type and automobile, current industrial reports, 17537
 - home-type radio, Federal item identification guides for supply cataloging, supplements, 2597
 - NEL receiving system, design of digital control unit, 6098
 - Omega aircraft receivers, precipitation effects, 12896
 - optical altimeter receiver systems study and design for spaceborne laser altimeter, 5901
 - periodically gated receiver, and periodically pulsing signal, interactions probabilistic analysis, 2178
- Receiving clerks, employment outlook, 14687
- Receptionists, employment outlook, 12693

Receptors:

- specific and nonspecific gravi-receptors, influence on nystagmic responses to angular acceleration, adaptation to vestibular disorientation, 8040
- structures in inner ear of vertebrates, development, 11707
- Recht, Howard L., tracer study of prescaling deposition of scale forming compounds on controlled surfaces, 5629
- Recipes:
 - beef and veal, 12981
 - family fare, guide to good nutrition, 9289
 - fruits in family meals, 15425
 - money-saving main dishes, 1196, 15418
 - nuts in family meals, guide for consumers, 9297
 - pickles and relishes, 6304
 - portraits with pollock, 12075
 - tomatoes on your table, 10687
 - vegetables in family meals, 10686
- Reclamation, *see* Reclamation of land.
- Reclamation Bureau:
 - appropriations, 1970—
 - hearings, 486
 - law, 3734
 - report, 1512
 - appropriations, 1971, public works, hearings, 11022, 13709
 - bibliography series, 17238
 - list, 17238
 - contract for transmission of electric power between Great Falls and Browning, Mont., proposal, hearing 11130
 - construction and operation of San Luis unit, Central Valley project, questionable aspects concerning information presented to Congress, GAO report, 5534
 - general information, 4653
 - irrigation operation and maintenance, bulletin, 2775
 - library accessions, 2831
 - Office of Chief Engineer, REC-OCE series, 7723-26, 9088-93, 10533, 15144-147, 17243-246, 18318-320
 - progress in evaporation reduction research, paper, 7722
 - project feasibility and authorization supplement, 6142
 - pumped storage plants (paper), 9079
 - report, 1969, statistical appendix, 10535, 11843
 - research report, 4655, 9094, 10534, 12910
 - safety news (periodical), 3134
- Reclamation era, water review quarterly, 3133
- Reclamation of land:
 - acid strip-mine spoil, pine seedlings respond to liming, 5493
 - answering your questions about reclamation, 12909
 - engineering and economic relationships in selection and classification of irrigable lands, 17240
 - experimental planting of 14 tree species on Pennsylvania's anthracite, strip-mine spoils, 14472
 - feasibility of proposals, Interior Dept. to investigate, law, 297
 - Federal projects, 1969, water & land resource accomplishments, statistics, 18315
 - main drainage canals, Beaufort County, S.C., requirements, feasibility study, 15206
 - mountain strip mine, water control, key to reclaiming, 2267
 - pH determination of strip-mine spoils, 4181
 - pilot drainage and irrigation project, Thanh Quoi, An Giang Province, Viet-Nam, feasibility study, 5868

INDEX 1970

Reclamation of land—Continued
 private and public ownership, differentia-
 tion, Federal laws, acreage limitation
 amendments—
 law, 12133
 reports, 6611, 10998
 program to speed land distribution in
 Viet-Nam, land reform, 5369
 projects, feasibilities and authorizations,
 supplement, 6142
 reclamation brings wildlife back to Para-
 dise strip mine, 6263
 recreational impact of reclamation reser-
 voirs, summary report, 17247
 surface mine reclamation, Moraine State
 Park, Pa., 8896
 Reclamation projects, *see* Reclamation of
 land—*also* names of projects.
 Reconnaissance (aerial):
 aerial photographic reconnaissance equip-
 ment, general environmental require-
 ments, testing procedures and sampling,
 military standard, notice, 1772
 geologic interpretation of reconnaissance
 aeromagnetic survey of northeastern
 Alaska, 5539
 Reconnaissance (geologic):
 Cuba Project, New Mexico, 15140
 geochemical and geologic, of part of Forty-
 mile area, Alaska, 8731
 ground water, of Republic of Ghana with
 description of geohydrologic provinces,
 8758
 Nam Yang Project, Northeastern Thailand,
 4654
 uranium in—
 Apache and Cochise Counties, Ariz.,
 15520
 Coconino County, Ariz., 15521
 Gila County, Ariz., 15522
 Graham, Grant, Greenlee, and Maricopa
 Counties, Ariz., 15523
 Mohave County, Ariz., 15524
 Pima and Pinal Counties, Ariz., 15525
 Texas, 15519
 water resources in Haines-Port Chilkoot
 area, Alaska, 11391
see also Geology.
 Reconstruction, proposed, jetties 1 through 6
 at Port of Chittagong, East, Pakistan,
 economic analysis, final report, 6264
 Reconstruction Finance Corporation:
 real properties transferred, payments in
 lieu of taxes, extend time—
 hearings, 6713
 reports, 6639, 9649
 Record players, *see* Phonographs.
 Recorder of deeds of D.C.:
 land records, defects, validate, amend
 code—
 hearing, 9904
 report, 384
 Recorders, *see* Flight recorders—Recording
 instruments.
 Recording employee injuries, 11528
 Recording instruments:
 compact portable temperature recorder,
 604
 model GDR-1C-19—T Gift depth recorder,
 description, etc., 15050
 model OSR-19T oceanographic survey re-
 corder, description, etc., 15048
 strip-chart recorders, improved pen mecha-
 nisms for, 1189
 Recordings, *see* Sound recordings.
 Recordkeeping requirements and guide to tax
 publications, 5659
 Records:
 disclosure of official records and informa-
 tion, by Social Security Administration,
 regulation, 17278
 economic papers, 1966-69, FTC, 12537
 Government, disposal, amend U.S. Code—
 law, 12114
 reports, 1534, 11085

Records—Continued

Medical Care Section, abstract of con-
 tributed papers, American Public Health
 Association, 98th annual meeting, 17569
 National Archives, reproductions of his-
 torical documents, 17022
 papers available, Foreign Affairs Research
 Documentation Center, 2654
 papers in Library of Congress—
 Dulany, Bladen, 10305
 Horner, Gustavus, R. B., 10305
 Patterson, Daniel T., 10305
 Ridgely, Charles, Roe, Francis, Walker,
 John, 16872
 papers in Natick Laboratories, Natick,
 Mass., July 1967-June 1968, bibliog-
 raphy, 1217
 production in legal proceedings, Federal
 aviation regulations, 2571
 public health conference, proceedings 12th
 annual meeting, 7533
 retention requirements, guide, 12529
see also Experience records—Military rec-
 ords—names of departrments, etc.—*also*
 subjects.
 Recovery, *see* Escape capsules.
 Recreation:
 camping, national forests, America's play-
 grounds, 15441
 disposal of surplus Federal property for
 park and recreational purposes, hearing,
 13520
 equipment, Federal item identification
 guides for supply cataloging, supplе-
 ments, 2597
 Federal surplus property, disposal for
 park and recreational uses, report, 15841
 HUD programs to assist recreation facili-
 ties and activities, 7284
 impact of reclamation reservoirs, summary
 report, 17247
 income crop for Wyoming farmers and
 ranchers, how and where to get help,
 15226
 islands of America, inventory of recrea-
 tional resources, 17203
 national forest recreation sites and areas,
 regulations governing occupancy and
 use, 1201
 national recreation areas, problems in land
 acquisitions, National Park Service,
 GAO report, 8725
 outdoor—
 appraisal of potentials for outdoor
 recreational development—
 Blount County, Tenn., 15177
 Bradley County, Tenn., 15170
 Carroll County, Tenn., 4878
 Carter County, Okla., 15176
 Claiborne County, Tenn., 15179
 Coffee County, Tenn., 15180
 Crockett County, Tenn., 15181
 Decatur County, Tenn., 15182
 Gibson County, Tenn., 15183
 Greenville, Oconee, and Pickens
 Counties, S.C., 1165
 Hancock County, Tenn., 9124
 Hardin County, Tenn., 15184
 Henderson County, Tenn., 4679
 Houston County, Tenn., 9125
 Illinois, northeastern, 9127
 Jefferson County, Tenn., 15185
 Johnson County, Tenn., 9126
 Kaskaskia River, basin, Ill., 4680
 Lake County, Tenn., 15186
 Meigs County, Tenn., 7761
 Mississippi, northwest, 7762
 Monroe County, Tenn., 15187
 Montgomery County, Tenn., 15188
 Moore County, Tenn., 15189
 Perry County, Tenn., 4681
 Polk County, Tenn., 15190
 Roane County, Tenn., 9128
 Rutherford County, Tenn., 9129
 Stewart County, Tenn., 9130
 Talladega County, Ala., 15240

- Recreation—Continued
 outdoor—Continued
 appraisal of potentials for outdoor recreational development—con.
 Unicoi County, Tenn., 15191
 Weakley County, Tenn., 4682
 balance, discussion of conservation issues (periodical), 11821
 Federal assistance available to States, their subdivisions, organizations, individuals, 17204
 Federal programs for, and recreation-related environmental programs, 10498
 grants-in-aid manual, 2999, 4634, 7694, 17202
 index of selected literature, 2188
 national scenic and recreation trails, 11824
 outdoor recreation action (periodical), 2998
 private assistance, directory of organizations providing aid to individuals and public groups, 11825
 private enterprises in rural Appalachia, 4044
 research, 1969 reference catalog, 9063
 research, publications list, 16381
 water-oriented, Lake Huron basin, Mich., 7695
 recreational and athletic equipment, Federal item identification guide, 16136
 recreational resources, States and Territories of United States and their resources, price list, 2207
 sites, Colorado, 14750
 water resource projects, cost sharing grants—
 hearing, 11018
 law, 13318
 reports, 6772, 12224
 watershed protection and flood prevention—
 Fish Stream Watershed, Penobscot County, Maine, 15252
 municipal and industrial water supply, Upper Ouachita River watershed, Polk County, Ark., 9175
 Sugar River Watershed, Grafton, Merrimack and Sullivan Counties, N.H., 15253
see also Boating.
 Recreation workers, employment outlook, 14682
 Recreational areas and demonstration projects:
 Colorado public lands outdoor recreation map—
 Eagle area, 14746
 Glade Park area, 14747
 Piceance Creek area, 14748
 Powderhorn area, 14749
 Houghton-Higgins Lake area, Mich., climatic summaries of resort areas, 7047
 keep it alive! tips on living history demonstrations, 11795
 mid-continent memo (periodical), 11823
 Pima and Maricopa Counties, Ariz., and Albuquerque, N. Mex., land conveyance for recreation, report, 13414
 recreational directory to national forests in Rocky Mountain region, 7200
 solid wastes demonstration grant projects, 1969, summaries, 8563
see also names of areas.
 Recruiting, *see* Civil service.
 Recruiting and enlistment:
 Armed Forces, obstruction of recruitment services, report, 15861
 Army recruiting & career counseling journal, 3135
 recruitment and community penetration, experimental and demonstration programs for disadvantaged youth, 7411
 Rectifiers, gallium phosphide, design and fabrication, 18188
 Rectum, cancer, 4648
 Recursion formula for logarithmic derivatives of spherical Bessel functions in complex plane, 12513
 Recycle operations (chemical technology):
 motor vehicles, junked and abandoned, hearings, 17714
 Red alder, *see* Alder.
 Red Bluff Recreation Area:
 general recreation development plan, 12874
 interpretive concept, 15032
 Red cedar, *see* Cedar.
 Red Dane cattle, *see* Cattle.
 Red fir, *see* Fir.
 Red oak, *see* Oak.
 Red pine, *see* Pine.
 Red Poll cattle, *see* Cattle.
 Red River and Valley, Arkansas-White-Red basins area development under USDA programs, progress, 6189
 Red Sea, lights and fog signals, list, change, 6086, 15053
 Red Willow County, Nebr., community profile, 17857
 Redding, A. H., 1000 MWe LMFBR liquid metal, fast breeder reactor follow-on study, 1268
 Reddy, N. Muniswamy, shock-tube flow analysis with dimensionless velocity number, 920
 Redear sunfish, *see* Sunfish.
 Redevelopment (city planning, etc.):
 alternative approaches to rebuilding 7th, 14th streets, N.W. and H street, N.E., 12849
 basic laws and authorities, 11025
 buyer's guide to urban renewal, 14571
 certified areas, grants & loans to rehabilitate homes, 8782
 cooperative role of industry and government in dealing with urban problems (remarks), 4284
 economic development districts, composition and status, 5327, 13821
 Federal housing and urban development programs, description and progress report, 6792
 Government's policy is betterment for all with complete breakthrough in urban planning (remarks), 762
 Housing and urban development act of 1965, amend—
 hearings, 11028
 reports, 13457, 12232, 16017
 Housing and urban development act of 1969—
 law, 3737
 report, 3821
 Housing and urban development act of 1970, report, 16026
 housing and urban development legislation of 1970, hearings, 12266, 13500, 13716
 housing development and urban planning, policies and programs of 4 countries, report, 8195
 how HUD helps with relocation, 8783
 HUD international information series, 16674
 interim assistance grant program, 8789
 local public agency letters, 2850
 low-rent housing relocation handbook, HUD, 1934
 model cities continued planning and evaluation—
 sample work plan for first work year, 14580
 workbook for 1st work year, 16677
 Office of Small Town Services, HUD, general information, 5607
 planned-unit development with homes association, 8616
 restructuring metropolitan areas to meet needs of people (remarks), 4290
 small urban parks, 16680

INDEX 1970

- Redevelopment (city planning, etc.):
 - uniform relocation assistance and land acquisition policies act of 1969, report, 1607
 - uniform relocation assistance and land acquisition policies of 1970, hearings, 9764
- urban beautification and improvement program, 14583
- Urban growth and new community development act of 1970, report, 15878
- urban planning, data uses, 4930
- urban renewal—
 - and code enforcement areas, rehabilitating residential property, 14582
 - areas, neighborhood conservation and rehabilitation, 11434
 - directories, 1082, 9095
 - handbooks, 752-754, 1929, 3314, 4276-78, 5598-9, 5602-3, 7277-80, 10205-209, 11424-427, 12604-605, 14576-577, 16667-670
 - one tool among many, report of President's Task Force on Urban renewal, 11834
 - operations under title 1, Housing act of 1949, report, 3145
 - small businessmen's problems, hearings, 11061, 13544
- urban-suburban environment of the 70's (speech), 4289
- water in urban planning, Salt Creek basin, Ill., water management as related to alternative land-use practices, 11402
- Redlich, R. W., instrument landing system improvement program, 18368
- Redlich-Kwong equation, *see* Equations.
- Reduction of Federal Expenditures Joint Committee, committee prints, 441, 2293-94, 8336-42, 13555-557, 15959-962, 17655-656
- Reduction roasting of nonmagnetic taconites with automobile scrap, 8912
- Redwood National Park, general information, 7645
- Reed, Charles E., guidelines for cooperative alfalfa dehydrating plants, 17956
- Reed, Clyde F., selected weeds of United States, 6301
- Reed, Curtis N., relief, 12296, 17591
- Reed, John C., jr., gold veins near Great Falls Md., 4229
- remarks—
 - Oct. 27-31, 1969, 7662
 - Nov. 25, 1969, 1007
 - Dec. 1, 1969, 1006
 - Jan. 20, 1970, 4593
 - Feb. 7, 1970, 7660
 - Mar. 4, 1970, 7659
 - Apr. 9, 1970, 15042
 - May 2, 1970, 11805
 - Sept. 29, 1970, 17169
 - Oct. 8, 1970, 18279
- Reed, Louis S.:
 - benefit structure of private health insurance, 7751
 - enrollment and finances of Blue Cross and Blue Shield plans, 4673
- Reed, Robert E., jr., stress concentration due to hyperboloid cavity in thin plate, 14887
- Reeds, Plain of, Vietnam, accelerated development, 14300
- Reedy River:
 - flood control, engineers report—departmental edition, 14330
 - document edition, 13365
- Reef Bay ("Par Force") Estate House and Sugar Factory, Virgin Islands National Park, historic structures report, 17160
- Reels:
 - and spools, Federal Item Identification guide, 4014
 - trawl net reels, recent innovations, 9524
- Reemployment of veterans, *see* Veterans.
- Reemployment rights, *see* Government officials and employees—Veterans.
- Reentry into atmosphere, *see* Atmospheric entry.
- Reentry vehicles, *see* Missiles.
- Reese, Aaron W., remarks, June 11, 1970, 11309
- Reese, Howard C.:
 - area handbook for—Hashemite Kingdom of Jordan, 4860
 - Tunisia, 15488
- Reese Bayou:
 - Cleveland, Tex., flood plain information, 16418
 - floods, how to avoid damage, Cleveland, Tex., 17928
- Reference books, reference aid, abbreviations in Czechoslovak Press, English translation, 16737
- Reference data system, *see* National standard reference data system.
- Refining, *see* Smelting.
- Reflection:
 - acoustic reflection from sea surface, experiment, 17187
 - all multiple reflections and shading among diffuse gray surfaces in spacecraft, method of thermal analysis, 12824
 - brain as mechanism of reflection of reality, chemical continuum, USSR study, 16770
 - coefficients of pyramidal and H-plane horns radiating into dielectric materials, 16983
 - sonic booms by buildings, laboratory investigation, 12799
- Reflection (light):
 - meteorological objects identified from reflected laser signals, USSR study, 7378
 - proton-induced effects on reflective surfaces of space mirrors, 5905
- Reflection (radio):
 - radio and pulse reflections normal ionospheric absorption measurements obtained, survey and analysis, 16453
- Reflection (sound), *see* Sound.
- Reflectors:
 - fast breeder reactor, development, report, 10756
 - two-reflector antenna with automatic phasing, and experimental study of it, USSR study, 7395
 - two-reflector antenna with circular symmetry, calculating compensating reflector, USSR study, 5759
- Reflexes, dolphin, USSR study, 1992
- Reforestation, *see* Forest planting.
- Reform in taxation of foreign source income (remarks), 2269
- Reform of Federal Criminal Laws, National Commission on, *see* National Commission on Reform of Federal Criminal Laws.
- Reforms in social security, 334
- Refraction:
 - ground plane printed circuit boards by refracted photographic method, 122
 - of sound by jet flow, effects of temperature-profile variation, 10405
 - portable refraction seismograph survey of gold placer areas near Nome, Alaska, 10160
- Refractory alloys, *see* Alloys.
- Refractory materials:
 - high temperature—
 - electrical components, thermal vacuum testing, 14817
 - materials, ARPA-NBS program of research, 11737
 - refractories, current industrial reports, 219, 2476
 - refractory/austenitic bimetal combinations, evaluation, 10346
 - see also* Chromite.
- Refractory metals, *see* Metals.
- Refrigerated storage warehouses, *see* Warehouses.

Refrigeration and refrigerating machinery : equipment, Federal item identification guides for supply cataloging, supplements, 2593
 pneumatic hypothermic devices and cranio-cerebral cooling apparatus, method for improving effectiveness, 5755
 Refrigeration mechanics, *see* Mechanics (persons).
 Refugees :
 and escapees, problems, investigation, expenses, report, 465, 5230
 children, education in federally impacted areas, extend law, hearing, 3859
 Cuban, and others, assistance, appropriations, 1970—
 law, 5053
 reports, 3818, 3926
 hearings, 9728
 Cubans, health professions educational assistance program, student loans, repayment, deferment, and cancellation, guide, 7264
 migration and assistance, appropriations, 1970—
 hearings, 1702
 reports, 1521, 3840
 situation in Middle East, subsequent to 6-day Arab-Israeli conflict of 1967, report, 3848
 war casualty problems in Laos and Cambodia, hearing, 13749
 Refugees, Freedmen, and Abandoned Lands Bureau, Assistant Commissioner for Georgia, 1865-69 records, pamphlet to accompany microcopy, 4546
 Refugees, *see* Wildlife refugees—*also* names of refugees.
 Refund of taxes, *see* Tax refunds.
 Refuse :
 disposal system, Oakland County, Mich., proposals, final report, 10578
 extinguishing and removing burning coal refuse banks, 16894
 Kenilworth Model Sanitary Landfill, Dec. 1967-Jan. 1969 interim report on solid waste demonstration project, 8558
 municipal and industrial, conversion into useful materials by pyrolysis, 14796
 national status on control of garbage-feeding, 2933
 qui tam actions and 1899 Refuse act, citizen lawsuits against polluters of Nation's waterways, 15910
 sanitary landfill—
 accounting system for operations, 12930
 facts, 15257
 Tezuka Refuse Compression System, preliminary report, 8564
 urban, conversion to oil, 10338
 see also Waste products.
 Regan, Denis R., basic data on economy of India, 6508
 Regeneration (biology) :
 Engelmann spruce regeneration practices in Rocky Mountains, 13003
 natural regeneration, plant ecology and esthetics, highway research and development news, 18312
 white and red fir, natural regeneration influence of several factors, 14461
 Regeneration of spent granular activated carbon, 14405
 Regn, N. Victoria, endocrinology index, 2538
 Regional Medical Programs, conference of coordinators and chairmen of regional advisory groups, 6149
 Regional Operations Office :
 BRH/OEO series, 15139
 ORO series, 5380-81
 Regional project research, guidelines for preparing a proposal, 17913
 Regional reports, Middle Atlantic region, 7436

Registers :
 Air Force—
 departmental editions, 6330-31
 document editions, 6567-68
 Army—
 departmental editions, 10748-750, 13061
 document editions, 10942-944, 13352
 Army Materiel Command, approved recurring reports, 4847, 13036
 Army National Guard, 4560, 14956
 civil aircraft, United States, 631, 10046, 17966
 Coast Guard, 6496
 Coast Guard cutters, 8136
 Coast Guard Reserve, 10855
 Federal register, 2620
 index, 2622
 list of CFR sections affected, 2621
 Federal Water Pollution Control Administration project register, distribution by river basin of projects approved, 4167
 Hill-Burton projects, 1919
 minority construction contractors, registry minority construction contractors located in selected cities, list, 8791-96
 national register of historic places, 2164
 advisory list, 9026
 Naval Academy, Annapolis, 11806
 Naval Reserve officers, 4619
 Navy and Marine Corps officers—
 departmental edition, 11816
 document edition, 10941
 papers in Library of Congress—
 Dulany, Bladen, 10305
 Horner, Gustavus, R. B., 10305
 Patterson, Daniel T., 10305
 Ridgeley, Charles, Roe, Francis, Walker, John, 16872
 psychologists of National Science Foundation, 1966, analysis, 1069
 State Department, biographic, 15292
 Registration, voting and registration in election of Nov. 1968, current population reports, 222
 Registration, *see also* subjects.
 Regression (statistics) :
 accuracy of stepwise regression of computer program BMD02R in network analysis, highway planning technical report, 15134
 multiple linear regression analysis providing internally evaluated remodeling, use of RAPIER, FORTRAN 4 program, 5951
 regression analysis, approximating functions (and methods) as applied to ocean station data, critical study, 17174
 statistical response surface regression analysis used in evaluating sulfur and ash distribution in coal seams, 8906
 Regression tests, hybrid or tribrid rocket motor, analytical method for determining melt-layer thickness and regression rates, 10387
 Regulations, *see* Code of Federal regulations—*also* names of departments, etc., issuing regulations—*also* subjects.
 Regulators, sewer fluidic regulator, combined, design, 14418
 see also types of regulators.
 Regulatory agencies, *see* Government offices.
 Regulatory announcements, Sport Fisheries and Wildlife Bureau, 15276
 Rehabilitation :
 consumer involvement, 7738
 drug abuse, rehabilitation programs supported by State health agencies and voluntary organizations, 7609
 Federal grants for comprehensive community alcoholism treatment and rehabilitation services, 18265
 financing RAA programs, handbook, 7281, 10210
 public body approval of loans, 7273
 financing services, 7740
 grants & loans to rehabilitate homes in certified areas, 8782

INDEX 1970

- Rehabilitation—Continued
 - HUD grants and loans to meet insurability requirements in FAIR plan areas, 11433
 - low cost housing, modernization program handbook, 1939
 - mission structure programs, Social and Rehabilitation Service, 18327
 - property rehabilitation & neighborhood conservation, bibliography, 4280
 - residential property in urban renewal and code enforcement areas, 14582
 - see also* subjects.
- Rehabilitation counselors, *see* Counselors.
- Rehabilitation of criminals, selective placement in Federal civil service employment, handbook, 15689
- Rehabilitation of the disabled:
 - clients receiving training who were rehabilitated during fiscal year 1968, profile, 15150
 - delivering rehabilitation services, 7739
 - panel on international scene, proceedings, 6128
 - profile of rehabilitated clients who were recipients of public assistance at time of acceptance for Federal-State program of Vocational Rehabilitation, 2212
 - rehabilitation of auto accident victims, 15360
 - rehabilitation record (periodical), 3141
 - research and demonstration grants, 1955-69, listing, 10550
 - State salary ranges—
 - positions, 11405
 - selected classes of positions in vocational rehabilitation, 743
 - State vocational rehabilitation agencies, major disabling condition of rehabilitated and not rehabilitated clients, 2211
 - therapists in Veterans Administration, career opportunities, 1183
 - veterans, vocational rehabilitation assistance allowances, increase rates—
 - report, 6632
 - law, 8178
 - vocational—
 - Federal-State program, 1920-69 statistical history, 17252
 - information for persons disabled in military service, 17401
 - public assistance recipients, cooperative demonstration, 17276
 - rehabilitation 1920-70, 50 years in U.S.A., 10637
 - State agencies, caseload statistics, 2210
- Rehabilitation of the Disabled and Disadvantaged, National Citizens Conference, *see* National Citizens Conference on Rehabilitation of Disabled and Disadvantaged.
- Rehabilitation Services Administration, statistical notes, 2211-12, 15150
- Reid, George W., evaluation of electrochemical desalination process for brackish water, 4301
- Reid, Robert C., university role in astronaut life support systems, atmospheres, 8925
- Reigle, Norman J., jr., bottom trawl explorations, 1963-65, in northern Lake Michigan, 3703
- Reinforced concrete, *see* Concrete.
- Reinmuth, Dennis P., study of assigned risk plans, 15361
- Reinsel, Robert D.:
 - farm real estate market developments, 16384
 - farm tenure and cash rents in U.S., 14267
- Reintjes, John W., synopsis of biological data on Atlantic menhaden, 3704
- Reiter, Elmar K., atmospheric transport processes, energy transfers and transformations, 3502
- Relativity (physics):
 - high-current relativistic beams in plasma physics, possibilities for using, 113
 - relativistic equations of motion of artificial earth satellite, integration, 14894
 - solid of model universes, 5975
- Relaxation time (physics):
 - crosslinking processes in polymer boundary layers, influence of solid surface on relaxation, USSR study, 18111
 - isolation system with relaxation type damping, response and optimization, 10350
 - piecewise ergodic problem for gas systems, 12892
- Relay devices, *see* Devices.
- Relays, *see* Electric relays.
- Releases, *see* names of departments, etc., issuing releases.
- Relevant research and statistics to meet today's and tomorrow's challenges in public welfare, 7587
- Reliability (mechanical):
 - bathymorphographs study, 17176
 - component reliability tables for binomial redundancy applications, 2097
 - design reliability of solid rocket motors, application of requirement vs. capability analysis to estimating, 7511
 - fail-safe structures for highway safety, designing, 10523
 - improvement needed in reliability of Navy manpower and personnel management information system, GAO report, 11375
 - integrated circuits, multilevel large scale, failure modes, study, 12763
 - method for achieving equipment reliability, maintainability, and logistics support, 4763
 - operational reliability of flight control systems, and automatic piloting of aircraft, problem, 14897
 - quality and reliability assurance handbook, 11185
 - reliability abstracts and technical reviews (periodical), 3142
 - reliability and quality assurance publication NHB series, 8956
 - reliability of equipment in service, effect of value engineering changes, 5301
 - reliability program provisions for aeronautical and space system contractors, 8956
- Reliability of some critical performance characteristics of cotton duck fabric, 1220
- Relief work:
 - disaster communications, FCC rules and regulations, 2583
 - disaster relief—
 - message from the President, 8223
 - status of funds, 1969 report, 8225
 - Nigerian-Biafran relief problems, hearings, 1737, 8420
- Religions, active church in today's problems (remarks), 9982
- Religious activities, basic religious books and chaplain services, PACAF basic bibliography, 15462
- Religious services, layman as leader, report of conference, 2175
- Relishes, *see* Pickles and relishes.
- Relocation, *see* Eminent domain—Plants (Industrial).
- Relocation (housing), *see* Redevelopment (city planning, etc.).
- Remedial reading, *see* Reading.
- Remote sensing:
 - earth resources, literature survey with indexes, 16955
 - wind profiles in boundary layer, 16465
- Ren Huang, Peter C., *see* Huang, Peter R. H.
- Renal diseases, *see* Kidneys.
- Rendering animal and poultry byproducts, 6289
- Rendezvous (space):
 - research in optical rendezvous, 7512
- René 41, effect of strain-gage attachment by spotwelding and bonding on fatigue behavior, 18204
- Renegotiation, *see* Government contracts.

Renegotiation Board:
 annual report, 10539
 appropriations, 1971, hearings, 8271, 11106
 operations, efficiency and effectiveness, hearing, 5160
Renin, see Peptides.
 regulations, 10540
Renewal Assistance Administration:
 rehabilitation financing, RAA programs handbook, 7281, 10210
Reno, Horace T., ferroalloys, 18145
Reno-Sparks Indian Colony, lands in trust, report, 15996
Rensselaer County, N.Y., community profile, 14169
Rent:
 cash rents and farm tenure in U.S., 14267
 low-rent housing—
 administration of program, handbook, HUD, 7274, 1930
 income limits, rents, and occupancy handbook, HUD, 1937, 7283, 8788, 11428-429, 16671
 low rents charged for personnel quarters by Veterans Administration, continued loss of revenue, GAO report, 16589
 rent-free space provided to Comptroller of Currency Office in Government-owned buildings, GAO report, 14512
 rental and royalty income, tax information, 5660
 rental rates for barges used in Republic of Vietnam included costs previously recovered by contractor, GAO report, 10153
 supplement assistance, FHA regulations, 14370
 Rental automobiles, *see* Automobiles.
 Rental housing, *see* Housing.
 Renton quadrangle, Wash., geology, 16620
 Renville County, N. Dak., community profile, 14170
 Reorganization of Government activities, *see* Government reorganization plans.
Repair parts:
 aircraft—
 census of manufactures, 1967, industry statistics, 17531
 certification procedures for products and parts, Federal aviation regulations, 821, 2571, 4106
 automotive repair industry, hearings, 3979
 excess spare parts, improvements needed in FAA procedures for determining, GAO report, 14502
 farm equipment and repair parts, what manufacturers, distributors, and dealers should do with them in national emergency, 7932
Repair shops:
 clothing and textile repair shop, mobile, Federal Item Identification guide, 11169
 equipment, Federal Item Identification guides for supply cataloging, supplements, 2592
 motor vehicle maintenance and repair shop specialized equipment, industrial plant equipment handbook, 11160
 Repair stations, *see* Aircraft repair stations.
Repairing:
 emergency repairs afloat, boatman's pocket guide, 3680
 mechanical trade, apprenticeship schedules, 4844
 tax information on repairs, replacements, and improvements, 5685
 see also subjects.
Repairmen, see Body and fender repairmen—
 Mechanics (persons).
Repairs, see Repairing.
Repeatability, accuracy, portability, and errors of portable alignment gyrocompass system, 14846
Repellents, see Insect repellents.

Reporters and reporting:
 court reporter fees for transcripts furnished to poor persons in criminal proceedings under Criminal Justice act, authorize payment, report, 1464
 newspaper reporters, employment outlook, 14685
 official reporters to committees and expert transcribers to official committee reporters, increase number of positions, report, 6621
 Reports, reports to be made to Congress, list, 3772
 see also names of departments, etc., issuing reports—*also* subjects.
Representatives, see House of Representatives.
Reproduction:
 and taxonomic status of striped bass, *Morone saxatilis* in Florida, 6210
 rat, organophosphorus pesticide, effects, 11980
 Reproductions of historical documents in National Archives, 17022
Reptiles:
 endangered species, prevent importation and interstate shipment of—
 law, 1400
 report, 475
 neotropical squamata, catalogue, 6057
 Requirements for electing union officers, 8857
Requisitions:
 MILSTRIP—
 military standard requisitioning and issue procedures, 563, 5320
 routing identifier codes, 11181
Rescue equipment and appliances:
 deep submergence rescue vehicles, evaluation needed of cost-effectiveness of 4 more before purchase by Navy, GAO report, 5529
 Federal item identification guides for supply cataloging, supplements, 2592
Rescue operations, see Rescue work.
Rescue work:
 fire protection program operation procedures, civil engineering, Air Force manual, 15455
 national search and rescue manual, amendment, 10856
 search and rescue, survival—
 Air Force manual, 3435
 training edition, 3434
Research:
 and development—
 allowances for independent research development costs in negotiated contracts, issues and alternatives, Defense Dept., National Aeronautics and Space Administration, Atomic Energy Commission, GAO report, 5522
 directory of Federal R & D installations, report to Federal Council for Science and Technology, 12879
 federally financed, investigation and study authorization, report, 5213
 Government supported, direct and indirect benefits, hearings, 6318
 resources, funds and manpower in U.S., 1953-70, national patterns, 4589
 State government agencies, 1967 and 1968, science resource studies highlights, 11798
 applications of research on human decisionmaking, symposium, 7627
 automation and conversion of information form, USSE study, 6793
 building, selected studies applicable to design and construction of health facilities, 11407
 EARI development research series, reports, 5367, 16412
 fellowships program of national Center for Health Services Research and Development, 7582

INDEX 1970

Research—Continued

funds, State agricultural experiment stations and other State institutions, 8449
grant and award programs of National Institutes of Health, guide, 12859
Industrial R & D spending, 1968, science resources studies highlights, 11797
international affairs, Government-supported, completed and in progress, 7814
materials developed under NBS inorganic materials program, 17037
naval, reviews (periodical), 2939
nursing, 1955-68 research grants, 11413
postdoctoral associateships, 1971, tenable at National Bureau of Standards, 18234
research and demonstrations briefs, 3146
research and statistics notes, 7750
research, development and test facilities, Naval Facilities Engineering Command, design manual, changes, 7664
research 1970, Socialand Rehabilitation Service research and demonstration grants, 1955-69, listing, 10550
U.S. Government research and development reports, 3300
index, 3301
quarterly cumulative index, 3302
University of Michigan, management of federally financed research, case study, GAO report, 16591
see also Experiments and experimentation—Military research—Scientific research—*also* names of departments, etc., doing research—*also* subjects.

Research and development reports:
Atomic Energy Commission, 110-136, 1242-73, 3487-3511, 4869-94, 6370-92, 8003-28, 9371-9406, 10753-771, 11975, 13065-86, 15505-532, 17472-474
Coal Research Office, 254-255, 1357-58, 3675, 4974-76, 6487-88, 9479-81, 10850-852, 13207
Research and statistics notes, 2220-22, 4672-73, 6171, 9114-16, 11859-861, 12921-922, 15170, 17270-281, 18325
Research and Statistics Office, staff papers, 6170
Research Bureau, Education Office, elementary teacher education project, 581
Research centers and laboratories supported by Office of Education, 1795
Research Conference in Pulmonary Diseases, transactions, 18398
Research Flight Facility, Miami, Fla.: data processing procedures, 5393
ESSA technical report, ERL-RFF series, 5393
Research information digest, recent publications of Southeastern Forest Experiment Station, 4180, 10124
Research laboratories:
Education Office, research centers and laboratories, list, 1795
ESSA technical memorandum, ERLTM-BOMAP series, 16454
ESSA technical report—
ERL-AOML series, 11272, 17949
ERL-ESL series, 16455-456
ERL-ITS series, 16457-461
ERL-POL series, 16462
ERL-SDL series, 16463-464
ERL-WPL series, 16465
see also names of laboratories or places where located.

Research notes, Forest Service, 675-691, 1882-84, 4181-97, 5490, 5505, 8692-99, 10125, 12550-559, 14458-463, 16558-571, 18011-21
Research papers, Forest Service, 692-705, 1880-81, 4198-4211, 5506-16, 8700-14, 10126-135, 11362-366, 12560-566, 14464-481, 16572-582, 18022-28

Research reports:

Cold Regions Research and Engineering Laboratory, 1800-1, 4067-69, 5363-65, 7032-33, 8533-35, 10001, 11250-252, 16409
Federal Credit Unions Bureau, 4131
Injury Control Research Laboratory, 5378-79, 8557, 15754-755
Lake Survey, 10301, 18135
National Cancer Institute, 14932
Reclamation Bureau, 4655, 9094, 10534, 12910
Social Security Administration, 1101, 7751, 15171
Sport Fisheries and Wildlife Bureau, 1131
Waterways Experiment Station, 8555, 10017
Research review (periodical), 3149
Research scientists, Agricultural Research Service, profile in research activities, grade, education, etc., 17428
Reserve banks, *see* Federal reserve banks.
Reserve components of Armed Forces:
annual report of Secretary of Defense, 13774
facilities, construction appropriations, 1970—
hearings, 400, 487, 1703
laws, 1406, 3743
reports, 476, 1460-61, 1650, 3813, 3832
facilities, construction appropriations, 1971—
hearings, 9729, 11023
reports, 9704, 10951, 10985
waiving points of order, report, 13404
personnel strengths for 1971, authorization—
hearings, 11107
law, 1386
reports, 1450, 9657, 9662, 12352
readiness of selected units, GAO report, 4225
retirement benefits for members—
active in Berlin crisis or Vietnam conflict, report, 1488
serving as aviation midshipman, report, 1493
see also Air Force Reserve.
Reserve officers, *see* Officers' Reserve Corps, Army—Reserve components of Armed Forces.
Reserve Officers Training Corps, Air Force:
big step into a big future, general information, 6334
career opportunities, all the way from the ground up, 13025
financial assistance grant program, 3443
flight training, get flying start with Air Force ROTC, 53
management control system, 1969 updating of data file, 13013
Reserve Officers' Training Corps Army:
preferred for good business reasons, business and industry speak out on value of Army ROTC for leadership, 3478
program, where the leaders are, 13062, 15501
scholarship program, Army ROTC, 17460
tomorrow belongs to leaders, 1239, 15499
Reservoirs:
new and old Ozark reservoir, thermal, oxygen, and conductance characteristics, 11891
on Bureau of Reclamation projects, statistical compilation, 1081
outlet works and spillway, Rowlesburg Dam, Cheat River, W. Va., 11257
Pacific Northwest, month-end storage in major reservoirs, 2896
recreational impact of reclamation reservoirs, summary report, 17247
sedimentation and eutrophication research on 3 small reservoirs, 3372
spillway and outlet works, Tocks Island Dam, Pa., N.J., and N.Y., hydraulic model investigation, 16451

Reservoirs—Continued
 water quality behavior in reservoirs, published research papers, 8565
see also names of reservoirs or places where located.

Reshotko, Meyer, heat transfer in 60° half-angle of convergence nozzle with various degrees of roughness, 12816

Residences, *see* Houses.

Residential care enterprises under Fair Labor standards act, 10669

Residential community treatment centers, hearings, 15920

Residential construction, *see* Building—Construction industry.

composite ablation material with silicone-resin base, investigation of char formation and surface recession, 16999

crazed resin filtration of combined sewer overflows self-adjusting and self-cleaning filter feasibility study, 14416

fluorocarbon-resin film, using as coating for seed-roll boxes, effects on gin-stand capacity, seed-roll density, and rotational velocity, 3373

ion exchange resin properties with high selectivity for gold, 7482

materials, U.S. production and sales, preliminary report, 3033

natural, trade and tariff information, 4766

production and sales, 7856
see also Oleoresins.

Resistance, *see* Electric resistance.

Resistors, *see* Electric resistors.

Resnik, H. L. P., bulletin of suicidology, 10455

Resolutions:
 digest, 2508
 history, 2435
see also Law.

Resolvers, *see* Electric resolvers.

Resonance:
 absorbers, spatial capture distributions in, estimation, 12783
 electron paramagnetic resonance study of order in several nematic liquid crystals, 5954
 neutron pseudo resonance parameter chains in unresolved energy region, DALSY, efficient program for production, 12802
 nitrogen 2 and carbon 2 measurement of resonance multiplet line shapes from plasma, 10495

Resonance integrals, *see* Neutrons.

Resonators, duct-mounted Helmholtz, investigation of influence on sound field of model ducted propeller, 16941

Resorcinol adhesives, *see* Adhesives.

Resort areas, climatic summaries, 601, 1816, 7047-48, 8568

Resource book for drug abuse education, 1073

Resource bulletins, Forest Service, 706-707, 5517-19, 8715, 10137-39, 11367-368, 12567-568, 14482-485, 16583

Resource management system, accounting and reporting procedures manual for Project Prime, Army pamphlet, 3470

Resource publications (series), 4713, 6208, 9182, 10589, 11889-890, 12934, 17318-320, 18341

Resource recovery act of 1970, reports, 10981, 13403, 13668

Resources, *see* Natural resources.

Resources, Environment, and Population Department, establish, hearings, 417

Respiration:
 intermittent exposure to 3% CO₂, effect on respiration, 11570
 magnetometer respirometer for laboratory and diving studies, 834
 suspended particles, effect on breathing investigated, USSR study, 4341
 tissue respiration of rainbow trout and channel catfish, effects of Antimycin A, 11878

Respiratory equipment:
 chemical cartridge respirator face fit, evaluation, 16919
 chemical cartridge respirators, freon 113 as test material, 8908
 Mines Bureau approved respiratory protective devices, 4407
 respirator filter penetration using sodium chloride aerosol, 11588

Respiratory system:
 pulmonary gas exchanges and urinary electrolyte excretion during saturation-excision diving to pressures equivalent to 800 and 1000 feet of seawater, 12735
 pulmonary program directors meeting, National Heart and Lung Institute, report, 17074

Response functions:
 performance change and autonomic response consistency as function of expressed attitude toward specific stress situation, 3517
 theoretical frequency response functions and power spectra of XB-70, response to atmospheric turbulence, 14824

Responses:
 radiation-response time-data, theory of quantitative, 13076
 transient thermal code response and ablation of non-charring heat shields and nose tips, coupled computer code for determining, 18183

Restaurants, lunchrooms, etc.:
 occupations, employment outlook, 18122
 serving oleomargarine, identification options, hearing, 15917
 training food service personnel for hospitality industry, 593

Restraint apparatus, lateral (+Gy), rearward facing (+Gx), and forward facing (-Gx) body orientations, experimental comparison of trauma when restrained by lap belt only, 10780

Retail credit, and collections, bibliography, 6153

Retail stores, *see* Stores.

Retail trade:
 annual sales, year-end inventories, and accounts receivable of retail stores, by kind of business, current business reports, 216, 10812
 census of business, 1967—
 area statistics, 1290, 4915
 major retail centers, area statistics, 154, 3530-39, 6412-15, 9418-29
 major retail centers, area statistics, 154, 3530-39, 6412-15, 9418-29
 major retail centers in standard metropolitan statistical areas, 4908-14, 6412-15, 8052-64
 major retail centers, publications order form, 1335
 merchandise line sales, 10785-794, 11986-996, 13099-121
 United States, summary, 4915
 current business reports, 2467, 2470, 2471A
 New York City, facts, 7437
 retail role in core city (speech), 4289
see also Stores—also names of commodities and industries.

Retainers, glass-fiber-filled polytetrafluoroethylene, retainers hydrogen gas, cooling requirements of ball bearings lubricated by, 8934

Retina:
 retinal photographs of submariners, measurement of blood vessels, 11571
 spiral aftereffect, some influences of visual angle and retinal speed on duration and intensity of illusory motion, 8036
 stimulus size, duration, and retinal location effects upon appearance of color, 7453

Retired officers, etc., *see* Armed Forces.

INDEX 1970

Retired pay, *see* Pensions.

Retirement:

benefits for reserve components in active service during Berlin crisis or Vietnam conflict, report, 1488
 benefits for reserve officers service as aviation midshipman, report, 1493
 Central Intelligence Agency system, increase benefits, amend act—
 law, 3755
 reports, 1479, 1689
 communities, economics of aging, toward a full share in abundance, hearings, 9885
 early retirement program, and certain personal factors, notes, 12921
 Federal judges after 20 years service at age 60, report, 9661
 Federal judges after 20 years service regardless of age, hearings, 8311
 Federal-State employees, credit under Civil service retirement act, allow, hearing, 11142
 Foreign Service career ministers, lower mandatory retirement age, report, 11096
 Government officials and employees pre-retirement counseling and new work lifetime patterns, Federal role in encouraging, hearing, 6782
 income and retirement income credit, tax information, 5662
 income, central suburban area, cost-of-living increase, economics of aging, hearings, 9885
 planning and conducting pre-retirement seminars, 11863
 plans for self-employed, questions and answers, tax information, 5658
 pre-retirement years, labor market experience of men, longitudinal study, 5811, 16822
 public employee retirement systems, 1969, benefits and beneficiaries, 11859
 Public Health Service commissioned officers, equalization of retirement benefits—
 hearings, 5164
 law, 10914
 reports, 6622, 9654
 publications, price list, 6132
 retired couple, 1967-68, 3 budgets in urban areas, 8863
 Retired Federal employees health benefits act, amend—
 law, 15802
 reports, 15839, 16004
 selected public-employee retirement systems, holdings, quarterly report, 2716
 stake of today's workers in retirement security, working paper, 16034
 State and local governments, employee-retirement systems—
 1967-68 finances, 226
 1968-69 finances, 6453
 test changes on earnings of workers aged 65-72, 1969, effects, 9114
 your social security, 9117, 11864
see also Air Force Reserve. Civil service pensions—Navy—Pensions—Railroad employees.
 Retirement insurance, *see* Old age, survivors, and disability insurance.
 Retirement pay, *see* Pensions.
 Retorts, gas combustion retorting of oil shale under Anvil Points, lease agreement, 866
 Reukema, Donald L., forty-year development of Douglas-fir stands planted at various spacings, 16581
 Revenue:
 District of Columbia—
 Federal payment authorization—
 law, 321
 report, 1448
 Intergovernmental revenue act of 1969, hearings, 8408
 print additional copies, report, 9831

Revenue—Continued

key questions on revenue sharing (remarks), 1180
 Post Office Department, revenue and cost analysis, 1969 fiscal year, 17713
 progress report on revenue sharing with States (remarks), 10651
 sharing (remarks), 9254, 17388
 Revenue, *see* names of articles etc., from which revenue is derived.
 Revenue agents, career in professional accounting, IRS, 14615
 Revenues and classes of post offices, 4637
 Revere Beach, Mass.:
 erosion control study, engineers report—
 departmental edition, 5374
 document edition, 6075
 Reverse osmosis process, *see* Osmosis.
 Revolution, 1775-83, picture list, 952
 Revolutionists, Students for a Democratic Society, anatomy of a revolutionary movement, report, 15879
 Revolutions:
 Communist strategy and tactics of employing peasant dissatisfaction over conditions of land tenure in Vietnam, 17646
 Warsaw Insurrection, Communist version versus facts, 8422
 Revolving funds:
 Civil Service Commission, expand use, amend U.S. code—
 law, 3759
 report, 1685
 District of Columbia housing for low-and moderate-income persons, establish—
 hearings, 6796
 report, 9854
 financing agency programs other than by directing appropriation, revolving funds, GAO report, 7219
 Rewards (prizes, etc.):
 awards and recognition, President's Committee on Employment of the Handicapped, 1043
 career education awards and other programs, long term educational opportunities, for Government employees, 250
 competitions and awards, VA voluntary service, 10660
 Enrico Fermi award, 1969, presentation (remarks), 143
 NASA awards for new technology, 16931
 National Guard Association trophy, Pershing trophy, National Guard (State) trophy, announcement of winners, 7597
 1970 Lenin prize competition in science and technology, USSR study, 11519
 nuclear applications in chemistry award to Dr. Paul R. Fields (remarks), 4895
 outstanding handicapped award nominees, coordinator's scorecard, 15687
 science and technology, USSR, 12630
 2d annual highway beauty awards competition, 5416
 technicians incentive awards plan, National Guard Bureau, 17064
 University of Connecticut Loeb awards presentation (remarks), 10654
 USSR, 1969 State prizes awarded for science and technology, 5767
 Reynolds, Carol, labor law and practice in Belgium, 18114
 Reynolds, Hugh W., sawmill stimulation, concepts and computer use, 4182
 Reynolds, Thaine W., distribution of neutral propellant from electric thrusters onto spacecraft components, 2111
 Reynolds County, Mo., community profile, 17858
 Reynolds number:
 effect on overall performance of 6-inch radial bladed centrifugal compressor, 11645

Reynolds number—Continued

- Reynolds analogy for zero-pressure-gradient, compressible, turbulent-boundary-layer flow, summary of available information, 5923
wall cooling and Mach number, in relation to power law velocity-profile-exponent variations in turbulent boundary layer, 10397
- RFC, *see* Reconstruction Finance Corporation.
- RFF, *see* Research Flight Facility.
- RH factor, *see* Blood.
- Rhea County, Tenn., forest inventory statistics, 17379
- Rhenium, oxides of rhenium, heats of formation, 881
- Rheumatic fever, rheumatic fever memo (periodical), 1074
- Rheumatism, arthritis and rheumatic diseases abstracts, 2351
- Rhode Island:
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 4911
retail trade, merchandise line sales, 13117
census of construction industries, 1967, statistics, 17494
census of governments, 1967, State reports, 3588
census of manufactures, 1967, statistics, 17507
county business patterns, 208, 10808
fishery products, wholesale dealers, list, 12076
landings, fish and shellfish, 3157, 10887
postal map, 6122
- Rhode Island State Department of Education, selected drug education curricula, 17059
- Rhodesia:
and United States foreign policy, hearings, 1581
Southern, background notes, 17328
- Rhombic antennas, *see* Antennas.
- Rhone, T. J., hydraulic model studies of Silver Jack Dam spillway stilling basin, Bostwick Park Project, Colo., 9092
- Ribbons for typewriters, etc., ribbons, typewriter and composing machine (changeable type style), etc., Federal standard, 10091
- Rice, Philip F., use of input-output analysis in studying industry problems applied to employment changes in U.S. textile industry, 4828
- Rice, Roy W.:
fabrication and characterization of hot pressed Al₂O₃, 15093
welding of ceramics, 15084
- Rice, William L., investigation of low-grade gold deposit in Orogrande district, Idaho, 16915
- Rice:
alternative government programs, economic evaluation, 11193
food grain statistics, supplement, 10706
foreign agriculture circulars, 2657
high-yield varieties in less developed nations, imports and plantings, 4175
market news, 5158
Rice Technical Working Group, proceedings, 1203
situation, 7004, 16388
- Rice flour, *see* Flour.
- Rich, Thomas A., basic concepts of aging, programmed manual, 12958
- Rich County, Utah, community profile, 6954
- Richards, Louise G., LSD-25, factual account, layman's guide to pharmacology, physiology, psychology and sociology of LSD, 14805
- Richards, Marshall M., elements of river forecasting, 1828
- Richards, William J., tropical Atlantic tuna larvae collected during EQUALANT surveys, 5010
- Richardson, Allan C. B., multiple scattering corrections for associated-particle neutron time-of-flight technique, 963
- Richardson, Elliot L.:
addresses—
Nov. 20, 1969, 4726
July 27, 1970, 14566
nomination, hearings, 11119
strengthened program of international cooperation for halting illicit supply of drugs, 10609
testimony, 17687
- Richardson, John L., reverse osmosis tubular module optimization, 1947
- Richardson, Paul A., active list of permissible explosives and blasting devices, 16898
- Richardson County, Nebr., community profile, 17859
- Richland County, N. Dak., community profile, 14171
- Richland County, Ohio, community profile, 12462
- Richland Parish, La., work plan for watershed protection, flood prevention and drainage, 9174
- Richmond County, N.C., community profile, 12463
- Richmond County, N.Y., community profile, 14172
- Richmond, Va., area wage survey, 14731
- Richter, Donald H., geology and lode-gold deposits of Nuka Bay area, Kenai Peninsula, Alaska, 8743
- Rickey, Don., jr., cavalry barracks, Fort Laramie, furnishing study, 7633
- Ricklefs, Robert E., analysis of nesting mortality in birds, 2217
- Rickover, Hyman G., testimony, hearings, 3849, 5160, 12155, 13492
- Ridgely, Charles, papers in Library of Congress, register, 16872
- Rietveld, W. J., influence of antitranspirants on water use, growth characteristics, and relative drought resistance of ponderosa pine seedlings, 683
- Rietz, Raymond C., air drying lumber in forklift yard, 16558
- Rifle Association, National, *see* National Rifle Association.
- Rifle company, Marine Corps, function, etc., Fleet Marine Force manual, 828
- Rigby, J. F., Permian sphenopsids from Antarctica, 7244
- Rigby, Malcolm, NODC quarterly accessions, computer produced indexes, 2969
- Rigdon, Dorothy, rehabilitation record, 3141
- Rigdon, W. S., stagnation point heat transfer during hypervelocity atmospheric entry, 5892
- Rigging:
airdrop operations, technical manuals—
¼ ton cargo trailer, 102
1½-ton trailers, 103
trucks, 6362
5 KW generator set, with portable flood-light set, 13058
M6 rolling wheel-type, 1,000 gal. liquid transporter, 104
- Right and Left (political science):
Fall River, Mass., extent of subversion in New Left, hearings, 17707
New Left, subversion, extent of hearings, 8416, 9920, 13747, 17707
- Right of privacy, *see* Privacy.
- Right to appeal, 10553
- Rights (civil), *see* Civil rights.
- Rights-of-way, *see* Roads and highways.
- Riley, Francis S., land-surface tilting near Wheeler Ridge, southern San Joaquin Valley, Calif., 8741
- Riley, H. L., mineral industry of Kentucky, 4436

INDEX 1970

- Rinderpest, highly contagious disease of cattle, 10699
- Rindner, Wilhelm, miniature electromechanical tunnel diode transducer, 2082
- Rinehart, Gayle S., new method for detecting micron-sized sulfate and water-soluble particles and its usage, 15472
- Ring-necked pheasants, *see* Pheasants.
- Ringgold County, Iowa, community profile, 14173
- Rings:
end rings of isotropic conical shells loaded by external pressure, preliminary design procedure, 16985
generalized ring stiffness matrix for ring-stiffened shells of revolution, 12774
rings-locking, pipe joint welding, and miscellaneous hardware, Federal item, identification guide, 17740
wiping and sealing, Federal item identification guide, change, 13790
- Rinn-Sup, Shinn, area handbook for North Korea, 4861
- Rio Arriba County, N. Mex., hydrology of Project Gasbuggy site, 8023
- Rio Blanco County, Colo., USBM-AEC Colorado core hole 3, hydraulic testing and sampling for oil shale, 7239
- Rio Grande and Valley:
drainage basin, saline-ground water resources, pilot study, 14596
lower basin, comprehensive study and plan of developments, 6302
national wild and scenic river plan, 1436
water supply outlook and snow surveys, 3338
watershed snow courses and soil moisture stations, list, 7764
- Riots:
campus disorders, extent of subversion, hearings, 3980
civil and criminal disorders, investigation, hearings, 16058
civil disturbances, policy, control, planning and training techniques, Army field manual, change, 82
disturbances at Marine Corps base, Camp Lejeune, N.C., inquiry, report of special subcommittee, 1573
looting and burning, subversive influences, hearings, corrected print, 423
role of Defense Department in civil disturbances, national security management, Industrial College of Armed Forces, monograph, 10254
- Ripley County, Mo., community profile, 17860
- Riprap, and erosion requirements at culvert and storm-drain outlets, hydraulic laboratory, investigation, 8555
- Risk:
assigned risk plans, automobile insurance and compensation study, 15361
if you must smoke, 5 ways to reduce risks, 6147
motor vehicle assigned risk plans, report, 15359
- Rittenhouse, John B., space materials handbook, 5916
- Ritter, Dorothy, statistics and maps for national market analysis, 4661
- Ritter, J. R., summary of preliminary studies of sedimentation and hydrology in Bolinas Lagoon, Marin County, Calif., 10165
- Rivas, Luis R., snappers of western Atlantic, 9529
- Riverine warfare, U.S. Navy's operations on inland waters, 1023
- Rivers:
alluvial stream, error analysis of streamflow data, 7249
basin plans, additional authorizations, 1969—
hearing, 3893
report, 1542
hearing, 3991
- Rivers—Continued
basin plans, additional authorizations, 1969—Continued
law, 12110
report, 11080
basins of United States, drainage areas, land resources regions, etc., atlas, 15192
daily stages, 15387
daily weather and river bulletin Albuquerque, N. Mex., 2484
elements of river forecasting, 1828
fluorescent sand as tracer of fluvial sediment, 7243
fluvial sedimentation concepts, 10185
generalization of streamflow characteristics from drainage-basin characteristics, 12593
hydrology of 4 streams in western Washington related to Pacific salmon species, 14529
Illinois, statistical summaries of streamflow data, 4254
Michigan streamflow data, statistical summaries, duration hydrographs and summaries of flow duration, low flow, high flow, and monthly mean discharge through Sept. 1967, 16626
national river and flood forecast and warning service, plan for improving, 6281
national wild and scenic rivers system, Eleven Point River, classification, boundaries, and development as unit, 337
preservation (remarks), 16694
quantitative comparison of some aesthetic factors, 4235
river hydraulics (series), 8760
river of life, water, environmental challenge, 16690
river summary and forecast, daily bulletin—
Memphis, Tenn., area, 3159
New Orleans, La., area, 3160
riverine warfare, Navy's operations on inland waters, 4253
small-stream flood investigations in Minnesota, 4253
southeast Alaska streams, effects of clear-cutting on salmon habitat, 4206
stream depletion by wells, rate and volume computation, 14542
stream dispersion at selected sites, 12589
stream temperature in southeast Alaska, some effects of shade covered, 8695
streambank erosion in United States, study, 8317
streambank protection, 6201
streamflow and forest land use in central Oregon, 8708
streamflow data for Michigan, proposed, 16623
streamflow from United States into Atlantic Ocean, 5566
streamflow in upper Colorado River basin, correlative estimates, 5565
streams in California, annual mean runoff as related to channel geometry, 16646
streams, increases in maximum temperatures after slash burning in small experimental watershed, 4185
streams on Long Island, N.Y. urbanization and its effect on temperature, 14536
summary and forecast, daily bulletin, Shreveport, La., area, 3161
temperatures, Pacific Northwest, 3162-63
transport of radionuclides by streams (series), 8739, 12589
water quality studies of streams, practical guide, 11334
why improve channels? 15254
Wisconsin, southeast, planning basin, 6514
see also, names of rivers or places where located.

Riverside, Calif., area wage survey, 8872
 San Jacinto River, San Jacinto to Railroad Canyon, flood plain information, 17026
 San Juan drainage basin, sediment discharge, preliminary determination, 8738
 Riverton extension unit, *see* Missouri River Basin project.
 Riverton reclamation project, *see* Missouri River Basin project.
 Rivets, rocket and missile structures, preparation for and installation of, military standard, notice, 4021
 Rizen, Robert L., household consumption patterns for meat and poultry, spring 1965, 5337
 Roach, Kenneth E., production of 238 Pu in commercial light water reactors, 9401
 Roaches, *see* Cockroaches.
 Road machinery, maintenance equipment, Federal item identification guides for supply cataloging, supplements, 2590
 Road signs, *see* Signs (road).
 Roads and highways:
 accelerated road construction on Bureau of Land Management's Tillamook Resource Area, economic analysis, 16580
 benefits of interstate highways, 17968
 code of Federal regulations, 4160
 concrete pavements, standard practice, Army technical manual, 7986
 construction, appropriations, 1972 and 1973, authorize, hearings, 16085
 construction usage factors for cement, pipe, etc., 10525
 deterioration of pavement on interstate system, resulting problems, Federal Highway Administration, GAO report, 11381
 District of Columbia highway projects, progress report, 1444
 El Paso North-South Freeway, right-of-way alignment, law, 5061
 entrance road, Great Smoky Mountains National Park, specify route, etc, law, 3722
 explorative freeway cost earnings study, 18311
 fall-safe structures for highway safety, designing, 10523
 fatal accidents on interstate system, 15132
 fatal and injury accident rates, 1968, on Federal-aid and other highway systems, 2209
 Federal-aid highway act—
 hearings, 15932, 16085
 reports, 1470, 1484, 15877
 Federal-aid highway program—
 1956-70, stewardship report on administration, 16488
 status report, hearing, 11144
 review, 9078
 Federal-aid highway relocation assistance and payment statistics, 4649
 Federal laws, regulations, and material relating to Federal Highway Administration, 12522
 FHA bus public transit project (address), 7718
 FHWA motion pictures, 7085
 freeways, District of Columbia, authority to lease airspace, above, on and below rights-of-way—
 hearing, 8388
 report, 13870
 Guam, American Samoa, Virgin Islands, territorial highway study, 8344
 guardrail, single vehicle, penetration, multidisciplinary accident investigation, 14991
 highway accident reports, 9040
 highway and street construction contractors, census of construction industry, 1967, industry statistics, final report, 11997

Roads and highways—Continued
 highway construction, computer aids quality, assurance, 8137
 highway construction, quality assurance, 12908
 highway engineering economy, syllabus, 10526
 highway funds, use for public transportation, hearings, 13760
 highway joint development and multiple use status report, 10627
 highway planner in FHWA, steps toward career growth program, committee report, 15133
 highway planning development (address), 7086
 highway planning technical report, 15134
 highway research and development news plant ecology and esthetics, progress and implementation, 18312
 highway research and development studies using Federal-aid-funds, 4650
 highway safety—
 design and operating practices, handbook, supplement, 5417
 literature—
 announcement of recent acquisitions, 2713
 annual indexes to issues 69-1 thru 69-50, author, subject, etc., 14960
 index, 2714
 NHSB corporate author authority list, 7603
 program for the seventies (remarks), 11805
 programs (remarks), 7659
 16 safety programs, purpose of each, 2146
 highway trust fund, financial condition and operations, annual report, 5092
 highway U.S. 50 in Nevada, include in interstate system, hearings, 3988
 highways construction, appropriations, 1974-78, authorize—
 hearings, 15932
 report, 15877
 highways, municipalities of 50,000 or more population, 1967, activities, annual report, 10524
 highways USA, current programs and activities of Federal Highway Administration, 17970
 Interstate 40 from Tucumcari, N. Mex., to Texas border, realignment, hearing, 3990
 interstate system—
 cost estimate, due date, revise—
 hearings, 15932
 reports, 1470, 1484
 cost, revised estimate, 8221
 questionable basis for approving certain auxiliary route segments of interstate highway system, GAO report, 12585
 labor compliance manual, 17232
 logging roads in Appalachians, erosion control, 14473
 Maryland real property, acquisition for highway purposes, law, 299
 median crossover, multivehicle collision, multidisciplinary accident investigation, 14991
 merging control systems, 18313
 military installations, geometric design, etc., Army technical manual, 7995
 multidisciplinary accident investigation summaries, 18248
 National environmental policy act relative to planning and construction of highways, implement hearing, 17716
 national highway functional classification and needs study manual, 8139
 national highway needs, 1970 report, 5177, 15929
 National Highway Safety Bureau contract research reports, 18245

INDEX 1970

Roads and highways—Continued

natural disaster damages to roads, streets, bridges, Federal assistance available, 9076
network analysis series, computer program BMD02R, accuracy of stepwise regression, 15134
new freeways, public opinion in Washington, D.C. regarding, 503
nonskid road or runway, disclosure report, 11741
outdoor advertising control, pilot programs, authorize, amend U.S. Code, report, 1620
planning, construction, etc., miscellaneous bills, hearings, 16085
public roads, journal of highway research (periodical), 3110
publications, price list, 10515
rigid pavements for roads, Army technical manual, change, 6361
road user and property taxes on selected motor vehicles, 1970, 7720
rural and urban systems, traffic volume counting manual, guide, 9077
2d annual highway beauty awards competition, 5416
selection of highway route, choices and values, report on Red buffalo section of interstate highway 70 in Colorado, 10489
stabilization of newly constructed road backslashes by mulch and grass-legume treatments, 18013
State right-of-way acquisition activities, observations on problems encountered in resolving weaknesses, Federal Highway Administration, GAO report, 720 statistics, 4651
summer youth opportunity campaign, 1969, contractors and State highway departments, 4135
territorial highway study, Guam, American Samoa, Virgin Islands, print as Senate document, report, 9828
TIES computer program series, 15137
transportation cost analyses, 8637
U.S. highway 70 between La Cruces, N. Mex., and Amarillo, Tex., designate as part of interstate system, hearing, 3987
see also names of roads or highways.
Roadsides, see Roads and highways.
Roane County, Tenn., appraisal of potentials for outdoor recreational development, 9128
Roanoke, Va.:
engineering investigation of sewer overflow problem, detailed investigation into cause and effect of sanitary sewer overflows and recommended remedial measures, 18001
hurricane Camille, Federal response, hearings, 8437
magnetic roasting and leaching for upgrading Minnesota manganiferous iron ores, 11595
oxidation roasting of chalcocite concentrate, 5875
reduction roasting of nonmagnetic taconites with automobile scrap, 8912
Robbery, see Pillage.
Robbins, David, disclosure on viscous camped wind vane, nonskid road or runway, etc., 11741
Robell, A. J., trace contaminant adsorption and sorbent regeneration, 16933
Robert A. Taft Water Research Center, report TWRC series, 4168-69, 14405-8
Roberts, Charles F., recent trends in accuracy and quality of Weather Bureau forecasting service, 1829
Roberts, Hadley B., osprey management area plan, Crane Prairie Reservoir, Deschutes National Forest, Oreg., 10121

Roberts, Jean:

hearing levels of children by age and sex, United States, 6016
visual acuity of children, United States, 6015
Roberts, R. M., development of economical methods of boron removal from irrigation return waters, 18071
Roberts, Thomas D., area handbook for Turkey, 9354
Roberts, W. K., interaction of intermediate energy protons with light nuclei, 14888
Roberts County, S. Dak., community profile, 14174
Robertson, Harry F., mineral industry of Puerto Rico, Panama Canal Zone, Virgin Islands, Pacific Island Possessions and Trust Territory of Pacific Islands, 4459, 18159
Robertson, Hugh J., development of active optics concept using thin deformable mirror, 14818
Robertson, J. L.:
remarks—
Dec. 10, 1969, 659
May 14, 1970, 10085
June 16, 1970, 11330
Sept. 21, 1970, 16507
Robertson, Neise W., soil survey, Greene County, Ark., 6193
Robeson County, N.C., community profile, 12464
Robinia pseudoacacia, see Locust trees.
Robinson, George B., interpretive concept, Red Bluff Recreation Area, 15032
Robinson, Henry E., proceedings of seminar on durability of insulating glass, 5997
Robinson, James F., making and preserving apple cider, 11948
Robinson, John E., maxillofacial prosthetics, 6148
Robinson, T. W., evapotranspiration by woody phreatophytes in Humboldt River valley near Winnemucca, Nev., 10172
Robinson-Patman act, see Prices.
Robusta eucalyptus, see Eucalyptus.
Rocco, August L., planning for hospital discharge, bibliography with abstracts and research reviews, 17047
Rochester, N.Y.:
area wage survey, 2028
census of transportation, 1967, commodity transportation survey production, area series, 6424
principal electric facilities, map, 8622
Rochester-Monroe County Airport, climatological summaries, 7849
small businessmen's problems, hearings, 13544
Rock, Robert L., controlling employee exposure to alpha radiation in underground uranium mines, 11573
Rock County, Nebr., community profile, 17861
Rock Creek Park, general information, 4584
Rock Creek watershed work plan, Washington and Multnomah Counties, Oreg., 15244
Rock drilling, see Drilling.
Rock Island, Ill., area wage survey, 5825
Rock Island, N.Y., Lighthouse Station, St. Lawrence River, surplus property study, 17161
Rock phosphates:
concentrates, removal of magnesium impurities from, 7486
minerals yearbook chapter, 16911
phosphatic rocks of Permian and Mississippian ages in Weber County, Utah, 18040
Rock River, flood plain information, Winnebago, Ill., 14318
Rock Springs, Wyo., oil-shale fracturing tests, evaluation, 11584
Rockefeller, Nelson A., report on quality of life in Latin America, hearings, 3861, 3974
Rocket fuel, see Fuel.

Rocket launchers:
 aircraft, procurement—
 hearings, 3867
 report, 1558

Rockets:
 Apollo-Saturn V launch vehicle, applica-
 tion of analysis and models to struc-
 tural dynamic problems, 11672
 combustor, thermometric determination
 of oxidant-fuel distribution, 4525
 constant-gain systems with vector feed-
 back, stability, 12777
 extremal maximum range thrust limited
 rocket trajectories, method for com-
 puting with application to lunar trans-
 port, 16986
 hybrid or tribrid rocket motor, analytical
 method for determining melt-layer thick-
 ness and regression rates, 10387
 lightning hazard
 during launch 1, 7050
 during launch 11, 5388
 meteorological rocket network firings, data
 report (periodical), 2488
 meteorological rocket sounding systems,
 30KM to 200KM, study, literature and
 data review, 11604
 nuclear rocket development station, Ne-
 vada test site adequacy of water supply,
 7253
 1/10 scale Apollo/Saturn V replica model,
 lateral vibration characteristics, 8945
 passive inflatable falling-sphere tech-
 nology for atmospheric sensing to 100
 km, status, 5913
 rivets and screws, preparation for and in-
 stallation in military standard, notice,
 4021
 rocket-powered ejectors for pumping liquid
 oxygen and liquid hydrogen, analysis,
 18212
 roll-out clamshell ejection concept for
 spinning rocket vehicles, equations for
 study, 11658
 Saturn V—
 incentive provisions of stage contracts,
 National Aeronautics and Space Ad-
 ministration, GAO report, 5532
 launch vehicle, 1st stage, overstatement
 of contract target cost, National Aero-
 nautics and Space Administration,
 GAO report, 18035
 programs, structural dynamic tech-
 nology advancements, 11608-609
 Saturn launch vehicle's navigation, guid-
 ance, and control system, description
 and performance, 12809
 solid motors, application of requirements
 vs. capability analysis to estimating de-
 sign reliability, 7511
 unguided, wind-weighting techniques to
 predict velocity vector azimuth angles,
 13038
 unmanned, Federal aviation regulations,
 2573
 variable-mass flexible, with internal flow,
 general motion, 5904
 Rockford, Ill., area wage survey, 16845
 Rockingham County, N.C., community pro-
 file, 12465
 Rockland County, N.Y., community profile,
 14175
 Rocklin, Calif., Southern Pacific Co., inves-
 tigation summary, report, 17237

Rocks:
 Appalachian area oil-producing forma-
 tions, lithologic descriptions, 11581
 attenuation symmetry of materials, ultra-
 sonic method for determining, 4478
 black shale and associated rocks, geo-
 chemical investigations, 4232
 carbonate facies and lithostrotonid corals
 of Mississippian Kogruk Formation,
 DeLong Mountains, northwestern Alas-
 ka, 16619

Rocks—Continued
 elastically anisotropic polycrystalline and
 amorphous materials, suggested orien-
 tation conventions, 4477
 electrohydraulic effect, potential applica-
 tion in rock fragmentation, 875
 fragmentation by creating thermal in-
 clusion and dielectric heating, 16914
 geologic structure and ground stresses,
 geometric relationships near Atlanta,
 Ga., 7489
 Green River formation lithology and oil
 shale correlations in Piceance Creek
 basin, Colo., 11583
 hard, fracturing with nuclear explosives
 and extraction of ore by modified block-
 caving method, 10329
 melasyenite, Precambrian, of Ute Creek,
 San Juan Mountains, Colo., chemistry,
 petrology, and strontium isotopes, 5542
 metamorphic, tunnel boring technology,
 disk cutter experiments, 12743
 Morrow Point underground powerplant,
 rock movement and subsequent stabili-
 zation (paper), 7728
 natural rubble slopes and their relevance
 to crater fallback slopes, 5375
 Permian—
 in western phosphate field, geology
 (series), 10170
 mineral resources, southwest Montana,
 10170
 Pre-cambrian—
 geology of Needle Mountains, south-
 western Colorado, 4248
 structure and mineralization in Galena-
 Rouboux district, Black Hills, S. Dak.,
 7225
 rock-fill and earth dams stability engineer-
 ing and design, EM manual, 14307
 rock joints, shear and sliding resistance
 tests for Forebay Dam, Grant Coulee,
 3d power plant project, 15145
 rock noise source location techniques,
 16920
 Skolai Group in McCarthy B-4, C-4, and
 C-5 quadrangles, Wrangell Mountains,
 Alaska, 4228
 two-well tracer test in fractured crystal-
 line rock, 8757
 upper Cretaceous and lower Tertiary, in
 south-central Wyoming, stratigraphy
 and nomenclature, 8748
 upper part of upper Triassic Chinle For-
 mation, southeastern Utah and adjacent
 areas, 10180
see also Gneiss.

Rockville, Md., subsidized transportation
 for DHEW employees transferred to Park-
 lawn Building, reports, 6625, 6649
 Rocky Face Ridge Site, land conveyance to
 Georgia, report, 13413
 Rocky Mountain Forest and Range Experi-
 ment Station, publications, lists, 2841,
 11369
 Rocky Mountain National Park, general in-
 formation, 4585
 Rocky Mountain States, station precipita-
 tion in Plateau States from 850 and 500
 millibar lows during winter, charts, 7049
 Rocky Mountains:
 carices, manual, 12977
 central, Engelmann spruce seedlings sur-
 vival affected by shading and other fac-
 tors, 11353
 Engelmann spruce regeneration practices,
 13003
 lindane spray effective against mountain
 pine beetle, 14463
 recreational directory to national forests,
 7200
 Utah and Colorado, physical geography
 and military environment, 13042
 Rocky road called innovation, report of
 President's National Council on Supple-
 mentary Centers and Services, 7710

INDEX 1970

Rodent plague, *see* Plague.

Rodenticides:

act—

administration deficiencies, report, 1463
amend, hearing, 11017
see also Pesticides.

Rodents:

protection from, of Douglas fir seed, by
impregnating and coating with endrin,
8709

rodent fauna, natural plague foci with refer-
ence to history of, USSR study, 10272
see also Rats.

Rodingite, and serpentinite in Hunting Hill
quarry, Montgomery County, Md., 8728

Rodriguez, Marcos R., relief, 12308, 13389

Rods, *see* Tie rods.

Roe, Arthur L., Engelmann spruce regenera-
tion practices in Rocky Mountains, 13003

Roe, Francis Ashbury, papers in Library of
Congress, register, 16872

Roentgenology, radiographic image, some
physical factors affecting quality, their
theoretical basis and measurement, 1054

Roger Stanley Orchestra, relief, 15834

Rogers, Byron G., complaint regarding cam-
paign expenditures in Colorado 1st Con-
gressional district Sept. 8, 1970 primary
election, investigation, report, 15880

Rogers, Edith N., Veterans' Administration
Hospital, Bedford, Mass., named for, re-
port, 12187

Rogers, George B., economic characteristics
of and changes in market egg industry,
9305

Rogers, Leonard N., relief, 3781, 3787, 5047

Rogers, Lola E., museums and related insti-
tutions, basic program survey, 7016

Rogers, Marianne P., list of Bureau of Mines
publications on oil shale and shale oil, 848

Rogers, William P.:

addresses, etc.—

Apr. 21, 1969, 2236

Nov. 13, 1969, 2238

Dec. 9, 1969, 4731

Mar. 26, 1970, 9185

Apr. 18, 1970, 9194

Apr. 25, 1970, 15294

Vietnam briefing, testimony, hearings, 506

Rogue River:

component of national wild and scenic
rivers system, master plan for develop-
ment, etc., 1437

wildlife and scenic river plan, 1434

Rogue River Basin project:

Merlin division, construct, operate, and
maintain—

hearings, 3869

law, 10930

reports, 6680, 11074

Rohrer, Robert F.:

Buggy, photographic and accelerometer
measurements of surface motion on
Buggy cratering experiment, 6384

Cabriolet, surface-motion and vented-gas
temperature measurements, 8021

Rojko, Anthony S., world demand prospects for
agricultural exports of less developed
countries in 1980, 9979

Role of Department of Commerce in foreign
trade (address), 8826

Role of elementary school principal in
achieving right to read goal (address),
8528

Role of Federal agencies in crime and delin-
quency field, 11778

Rolette County, N. Dak., community profile,
14176

Roll:

coupled roll-spiral mode effects on lateral-
directional handling qualities, simu-
lator study, 12769

transport airplane requirements, flight in-
vestigation in cruising flight, 16973

Roll stability, *see* Stability of aircraft.

Rollers (printing):

selective roll-to-roll printer for producing
duplicate microfilm copies, 6009

Rolling-element lubrication with fluorinated
polyether at cryogenic temperatures (160°
to 410° R), 944

Roman, Harriet R., technical papers of 21st
metallographic group meeting, 3489

Romania, *see* Rumania.

Romanowitz, Charles M., gold placer mining,
placer evaluation and dredge selection,
8899

Romberger, J. A., culture of apical meri-
stems and embryonic shoots of *Picea*
abies, approach and techniques, 9326

Rome, N.Y.:

area wage survey, 2026

census of transportation, 1967, commodity
transportation survey, production, area
series, 6423

Romer, A. Russell, foreign trade regulations
of Ireland, 4997

Romney, Cumorah K., relief, 9810, 12183,
13287

Romney, George:

addresses, etc.—

Nov. 11, 1969, 762

Nov. 19, 1969, 4290

Dec. 2, 1969, 745

Dec. 3, 1969, 1923

Dec. 4, 1969, 1924

Jan. 2, 1970, 4270

Jan. 19, 1970, 4285

Jan. 23, 1970, 4287

Jan. 29, 1970, 4288

Feb. 5, 1970, 5591

Mar. 11, 1970, 7289

Mar. 12, 1970, 7270

Apr. 1, 1970, 10199

Ronan, Daniel J., memorial services, 6530

Ronco, Frank, shading and other factors
affect survival of planted Engelmann
spruce seedlings in central Rocky Moun-
tains, 11353

Ronk, Richard M., State safety code, high-
lights, 16825

Ronsivalli, L. J., study of irradiated-
pasteurized fishery products, maximum
shelf life study, radiation chemistry,
10767

Roof supports, *see* Mine props.

Roofers:

employment outlook, 14703

job grading standard, civil service, 8129

Roofing:

asphalt and tar roofing and siding prod-
ucts, current industrial reports, 2475,
3629

special trade contractors, census of con-
struction, industry, 1967, statistics,
13132

Rooms, diplomatic reception rooms, guide-
book, 9195

Roosevelt, Theodore, papers, index, 11555

Roosevelt, Theodore, Birthplace, National
Historic Site, *see* Theodore Roosevelt
Birthplace National Historic Site.

Root, Robert T., maintaining interpreter pro-
ficiency in computerized facility, pro-
gramming and feedback method, 9358

Root crops, *see* Crops.

Root rot:

annosus, in eastern pines, 14444

laminated, of Douglas-fir in western
Oregon and Washington, 18025

Roots:

competition between ponderosa pine seed-
lings and grass, 5516

seedling root growth of 7 northwestern
tree species, effects of high soil density,
4187

Rope, Federal item identification guides for
supply cataloging, supplements, 2592
see also Wire rope.

- Rose, Arthur I.:
 union wages and hours—
 local transit operating employees, 14738
 local truckdrivers and helpers, 12717
- Rose, Vernon E., occupational health survey of Chicago metropolitan area, 8559
- Rosebud Reservation, Sioux Indian, tribal land, sale and exchange of isolated tracts, law, 3729
- Rosebud Sioux tribe, *see* Sioux Indians.
- Roseland, Va., Nelson and Amherst Counties, rutile and ilmenite placer deposits, 5544
- Rosen, B., hydrogen leak and fire protection, survey, 16954
- Rosen, H. Francis, conservation education in curricula of 50 States, 7181
- Rosen, Joseph S., numerical solution of differential equations using Obrechhoff corrector formulas, 2084
- Rosenbaum, Richard C., launch vehicle error sensitivity study, 5898
- Rosenberg, Beatrice, day care facts, 15389
- Rosenkranz, William A., storm and combined sewer demonstration projects, 7172
- Rosenstein, Marvin, microwave ovens and the public, 5382
- Rosenthal, Neal H., college educated workers, 1968-80, study of supply and demand, 16856
- Rosenthal, Stanley L.:
 experiments with numerical model of tropical cyclone development, some effects of radial resolution, 1824
 numerical experiments with multilevel primitive equation model designed to simulate development of tropical cyclones, 1820
 survey of experimental results obtained from numerical model designed to simulate tropical cyclone development, 8570
- Roses:
 for the home, 15417
 production and sales, etc., 7842
- Roshore, E. C., investigation of instruments for measuring pore pressure in concrete, instruments installed at Hartwell Dam, Ga., 10018
- Rosin, *see* Naval stores.
- Ross, Avron J., vibriosis in fish, 17316
- Ross, David A., Atlantic Continental Shelf and slope of U.S. heavy minerals of continental margin from southern Nova Scotia to northern New Jersey, 10175
- Ross, Joe, starting and managing pet shop, 9104
- Ross County, Ohio, community profile, 12466
- Ross Lake National Recreation Area, general information, 10471
- Ross Sea, oceanographic cruise summary, 4598
- Rossbach, R. J., hydrodynamic journal bearing test and analysis, 12756
- Rossides, Eugene T.:
 addresses, etc.,
 Mar. 4, 1970, 6267
 Apr. 16, 1970, 9249
 Apr. 23, 1970, 9248
 June 9, 1970, 10657
- Rossiter, Sidney B., graphic simulation study of 2 sites for 2d major airport in Atlanta area, 18377
- Rossville, Ga., interstate air quality study, 18229
- Rosters, *see* names of departments, etc., issuing rosters.
- Rostvedt, J. O.:
 summary of floods in United States—
 during 1964, 10187
 during 1965, 18051
- Roswell, N. Mex.:
 motor carrier accident, 14804
 Roswell brackish water test facility, annual report, 10221
- Rotary inductosyn, general information and error theory, 4337
- Rotary inductosyn tests, USSR study, 11615
- Rotation:
 end-plane rotations of truncated cones under bending loads, analytical and experimental investigation, 932
 Rotational energy levels and rotational line intensities in diatomic molecules, calculation, 11731
 rotationally restrained panels, experimental investigation of flutter at Mach 3 comparison with theory, 914
 2 slowly rotating point-mass vehicles connected by massless tether and in circular orbit, dynamics, 4314
- ROTC, *see* Reserve Officers Training Corps, Air Force—Reserve Officers Training Corps, Army.
- Roth, William H., foundation instrumentation at Pleasant Valley pumping plant, 18319
- Roth, William V., jr., listing of operating Federal assistance programs, 3770
- Rothenberg, M. J.:
 access and demand data used in development and calibration of Northeast Corridor Transportation models, 8633
 Northeast Corridor transportation facts and statistics, 10061
- Rotorcraft:
 airworthiness standards—
 normal category, Federal aviation regulations, 16473
 transport category, Federal aviation regulations, 16473
 briefs of accidents involving, U.S. general aviation, 10481
 external-load operations, Federal aviation regulations, 14357
 helicopters, method for analyzing aeroelastic stability in forward flight, 16932.
- Rotors:
 air-lubricated pivoted-pad journal bearing-rotor system, effect of mount stiffness and damping on dynamic behavior, 5972
 foil gas-bearing test rig design, fabrication and testing, 10353.
- helicopters—
 aeroelastic instabilities, method for determining characteristic functions associated with forward flight, 11615
 hingeless-rotor compound, investigation of level-flight and maneuvering characteristics, 4517
 rotor blades, flapwise bending moments, simplified procedures for estimating flapwise, 890
 jet-flap rotor blade, performance evaluation, 10355
 modified tandem rotor blade, performance evaluation, 11621
 nonlinear actuator disk theory and flow field calculations, including nonuniform loading, 16950
 rotor blade-vortex interaction, experimental study, 11613
 rotary inductosyn, general information and error theory, USSR studies, 7389, 10283
- Rottman, Ellis, manpower (periodical), 2862
- Roubaix, S. Dak., structure and mineralization of Precambrian rocks, 7225
- Rough, Robert L., lithologic descriptions of Appalachian area oil-producing formations, 11581
- Roughness, *see* Surfaces—Temperature.
- Round trip trajectories with stopovers at both Mars and Venus, 10398
- Rouse, George C., vibration of Vega Dam following Rulison subsurface nuclear blast, 16147

INDEX 1970

- Rouse, T. O., research on new ion-adsorption electrodes for demineralization of saline water, 8804
- Rousselot, Louis M., nomination, hearing, 13712
- Routeman, *see* Salesmen and salesmanship.
- Routing, MILSTRIP, identifier codes, 11181
- Rowan County, N.C., community profile, 12487
- Rowland, George E., visual illusion problems, 17962
- Rowlesburg Dam, Cheat River, W. Va., spillway and outlet works, 11257
- Royalties, royalty income, tax information, 5660
- Royt, T. R., electrical noise in GaAs diode lasers, 12888
- Rozelle, L. T., development of new reverse osmosis membranes for desalination, 10223
- Rozenman, Tzvi, recirculation patterns in initial region of coaxial jets, 8929
- RRB, *see* Railroad Retirement Board.
- Ruark, Jabe R., gas combustion retorting of oil shale under Anvil Points lease agreement, 866
- Rubber:
census of manufactures, 1967, industry statistics, 17524
miscellaneous products and reclaimed rubber, census of transportation, 1967, commodity transportation survey group, 4926
rubber-processing chemicals, production and sales, 18383
sampling and testing, test method standard, 8665
supply and distribution for U.S., current industrial reports, 2475, 15636
synthetic, census of transportation 1967, commodity transportation survey shipper group, 3603
Teflon-clad rubber-gate seals, research investigation, 9093
see also names of articles manufactured from rubber.
- Rubber footwear, *see* Boots and shoes.
- Rubella, *see* Measles.
- Rubey, Raymond J., flight computer and language processor study, 14809
- Rubus spectabilis, *see* Salmonberry.
- Ruby lasers, transient radiation effects on, 15079
- Rucks, Frances B.:
Air University—
abstracts of research reports, 6333
Library index to military periodicals, 2319
- Rudd, Benjamin W., decisions of United States courts involving copyright, 8450
- Rudikarokh River, Afghanistan, geological structure, USSR study, 18758
- Ruffed grouse, *see* Grouse.
- Rugs:
current industrial reports, 2476
fabric flammability, bibliography, 7574
Wilton, Brussels, velvet and tapestry, Tariff Commission report, 2266, 11911
- Rule, A. R., removal of magnesium impurities from phosphate rock concentrates, 7486
- Rules, *see* International law—names of courts, commissions, etc. issuing rules—also subjects.
- Rules (measures):
carpenter's folding ruler for measuring angles, 684
- Rules and Administration Committee, Senate:
calendar, 2830
committee print, 8440
hearings, 5281, 11147
investigations and studies, privileges and elections, authorization, report, 5244
- Rules and Administration Committee, Senate—Continued
reports, 454-469, 1605, 1615, 1635-40, 1871-76, 3921, 3937, 5208, 5210-44, 5256, 6738-39, 6763, 9823-31, 11071, 11081, 12318-319, 12321, 12353-354, 13624-636, 13662-666, 13680-683, 15989
- Rules Committee, House:
committee print, 8320
hearings, 436, 5178-79, 8319
reports, 366, 381, 1449, 1455, 1460, 1472-73, 1483-85, 1509, 1511, 1520, 1549, 3804-7, 3815, 3817-18, 3828-29, 3837-39, 3844-45, 5103, 5113-14, 6586-88, 6593, 6613, 6615-17, 6626-29, 6649-50, 8232, 8244, 8246, 8251-52, 9649-56, 9662-65, 9672-76, 9682, 9688, 9706, 9711, 10950-951, 11013, 12185-186, 12188, 12195-197, 12205-206, 12211-212, 12219-220, 12231, 12242-244, 13395-397, 13999-401, 13403-404, 13407, 13416, 13420-421, 13428-429, 13441, 13457, 13469-476, 13485, 15839, 15842-843, 15853-854, 15856, 17626
- Rulison project (nuclear experiment), *see* Project Rulison (nuclear experiment).
- Rumania:
background notes, 17327
claims of U.S. nationals against Government, text of act, regulations, etc., 5479
materials in National Archives relating to Rumania, 17030
mineral industry, minerals yearbook chapter, 14789
- Rumsfeld, Donald:
addresses, etc.—
Nov. 24, 1969, 1784
Dec. 16, 1969, 4039
Mar. 13, 1970, 12491
Aug. 11, 1970, 17903
- Runge-Kutta method, *see* Equations.
- Runnels County, Tex., soil survey report, 7776
- Running Water Draw Watershed:
flood protection, engineers report—departmental edition, 1814
document edition, 1442
- Runoff:
agricultural and secondary effluents, ammonia removal by selected ion exchange, 4168
direct, to East Meadow Brook, effects of urban development, Nassau County, Long Island, N.Y., 5553
mean annual, as related to channel geometry of selected streams in California, 16646
overland flow on hillslopes, hydraulics, 5559
storm—
and combined sewer demonstration projects, 1868
overflow, control of pollution by under-water storage, 8676
runoff in Texas Blackland Prairie, effects of conservation practices, 3423
- Runways (aeronautics):
nonskid road or runway, disclosure report, 11741
response of several turbojet airplanes to roughness, 11640
runway alignment indicator light (RAIL) for approach guidance, test and evaluate, 4113
three-track elevation profiles measured at 2 U.S. Government installations, 938
errata, 10379
three-track runway and taxiway profiles measured at international airports C and D, 7540
- Ruos, James L., mourning dove status report, 7791, 17321

Rural communities:

- building rural America through farmers home insured notes, 3423
- development of rural America (remarks), 43
- financial assistance to rural groups, water systems, sanitary sewer systems, solid waste disposal, 9315
- health care in rural areas, 17905
- housing programs, extend—
law, 3737
report, 3821
- keeping up with change in rural society, 5415
- let's grow! community benefits from watershed projects, 3396
- look of our land, airphoto atlas of rural U.S., 17431
- problems (address), 5594
- problems of local airline service (address), 13186
- prospects for growth and rebuilding in next decade (address), 12491
- retirement communities, economics of aging, toward a full share in abundance, hearings, 9835
- revitalize and expand opportunity (address), 9283
- rural community action agencies, study of neighborhood center programs, 5336
- rural handicapped, developing programs, 15444
- rural opportunities, war on poverty (periodical), 3165
- rural urban resource planning and development, 2225
- rurality, poverty, and health, medical problems in rural areas, 14265
- small businessmen's problems, hearings, 11061, 13544
- urban crisis cannot be separated from solutions for rural decline (remarks), 5608
- see also* Country life.
- Rural Community Development Service:
appropriations, 1970—
law, 1392
report, 1482
- Rural conditions, *see* Country life.
- Rural development programs, newsletter, 3165
- Rural electricity, *see* Electricity.
- Rural electrification, *see* Electricity.
- Rural Electrification Administration:
annual report, 11845
- appropriations, 1970—
law, 1392
report, 1482
- appropriations, 1971, hearings, 8266
- distribution line extension construction contract, 15151
- materials acceptable—
on electrification systems, lists, 1083, 2839, 6150, 15152
- telephone systems, list, 2840, 17253
- REA bulletin, 4656, 15153
- statistical bulletin, quarterly, 3123-24
- statistical report, rural telephone borrowers, 2213
- telephone system construction contract, 17257
- Rural families, *see* Families.
- Rural housing, *see* Housing.
- Rural life, *see* Country life.
- Rural mental health centers, 6050
- Rural population:
keeping up with change in rural society, 5415
- rural handicapped, developing programs, 15444
- United States, by metropolitan-nonmetropolitan residence, 6440
- Rural poverty, *see* Poverty.
- Rural development:
Iowa rural renewal area, economic analysis, 11190

Rural development—Continued

- new life for the country, report of President's Task Force on Rural Development, 6124
- rural industrialization, tissue paper mill in Pickens, Miss., case study, 14266
- Rural Retreat, Va., aircraft accident, 18272
- Rural telephone bank, establish, hearing, 484
- Rural telephone program, *see* Telephone.
- Rusaleem, Herbert, delivering rehabilitation services, 7739
- Rush (Coast Guard cutter):
general information, 264
- Rushmore, Francis M., sapsucker, damage varies with tree species and seasons, 696
- Russell, Fred J., nomination, hearing, 9915
- Russell, Harold, remarks, June 7-9, 1970, 11831
- Russell, James H., mathematical evaluation of SO₂ sorption-regeneration reactions with alkalinized alumina, 14793
- Russell, Joe L., seasonality and manpower in construction, 14666
- Russell, Louise B., health insurance for aged, amounts reimbursed by State, fiscal years, 1967-69, 9112
- Russell, Louise M., additions and corrections to annotated list of generic names of scale insects (Homoptera: Coccoidea), 15439
- Russell, Terrance E., gas turbine face seal thermal deformation and computer program for calculation of axisymmetric temperature field, 2125
- Russell County, Ala., community profile, 14177
- Russell Mountain, formation, new stratigraphic unit in western Massachusetts, 16610
- Russell Soundex Coding and Filing System, programmed text, 4674
- Russian accessions, Library of Congress monthly index, 2904
- Russian literature, accessions in Atmospheric Sciences Library and Geophysical Sciences Library, guides, 7054, 8579
- Russian olive, management and uses in Washington State, 6185
- Russo, Robert S.:
air pollution report, Federal facilities—
Chattanooga, interstate air quality control region, 12833
- Hartford, New Haven, Springfield, interstate air quality control region, 11712
- metropolitan Boston intrastate air quality control region, 10419
- metropolitan Chicago, interstate quality control region, 8957
- New York, New Jersey, Connecticut, interstate air quality control region, 8961
- Providence interstate air quality control region, 12837
- Puget Sound, intrastate air quality control region, 12839
- San Francisco Bay area, intrastate air quality control region, 8962
- Russotti, Joseph S., evaluation of three methods for unscrambling helium speech produced at depths of 800 and 1000 ft., 3894
- Rust, *see* Scale (corrosion).
- Rusts (plant disease):
southern cone rust, cause, control, etc., 14440
- see also* Fusiform rust—Gall rust—also names of diseases.
- Ruth, Robert H., effect of shade on germination and growth of salmonberry, 16579
- Ruthenium isotopes, ruthenium-106, problems of distribution and experimental evaluation of permissible levels, USSR study, 8005

INDEX 1970

- Rutherford County, N.C., community profile, 12468
 Rutherford County, Tenn., appraisal of potentials for outdoor recreational development, 9129
 Rutile:
 placer deposits, Roseland district, Nelson and Amherst Counties, Va., 5544
 substitutes, proposed processes for making, 7460
 Rutzick, May A., skills and location of defense-related workers, 12720
 Rwanda:
 area handbook, 4863
 economic trends and their implications for United States, 11469
 Ryan, J. Patrick, gold, 845
 Ryan, John M., area handbook for Nicaragua, 15487
 Ryan, Leonard C., effects of organophosphorus pesticide on reproduction in rat, 11980
 Ryan, Patrick E., empirically determined wind and scale effects on hot gas recirculation characteristics of jet V/STOL aircraft, 891
 Rye:
 crop production, 2247
 food grain statistics, supplement, 10706
 futures trading and open contracts, 2685
 Rygg, G. L., tests of overseas shipments of California citrus fruit, interrelations between fruit condition, biphenyl content, transit temperature, delayed loading, and biphenyl pad placement, 26
 Rymarowicz, Lillian, historical statistics on governmental finances and employment, 1308
 Rynearson, Garn A., mineral industry of Chile, 4421
 Ryukyu Islands:
 appropriations, 1970—
 hearings, 1702
 law, 5053
 reports, 1521, 1561, 3818, 3840, 3926
 appropriations, 1971, hearings, 9728
 military personnel of U.S. Army ordered to, helpful hints, 96

S

- S³-A (small scientific satellite), *see* Satellites.
 Saari, David J., modern court management, trends in role of court executive, 16817
 Sabec, Edwin J., relief, 9593, 9813
 Sablefish, experimental fishing off San Diego, Calif., 13238
 Sabotage, internal security laws, etc., investigation, expenses, report, 5226
 Sa Cha Bae, *see* Bae, Sa Cha.
 Sac and Fox Indians:
 disposition of funds—
 law, 15791
 reports, 13438, 16003
 Sac City, Iowa, floods, how to avoid damage, North Raccoon River, 17942
 Sac County, Iowa:
 community profile, 14178
 North Raccoon River, flood plain information, 17924
 Sac Indians, *see* Sac and Fox Indians.
 Sachs, Milton S., desalting plants inventory report, 7302
 Sacramento, Calif., principal electric facilities, map, 8626
 Sadowski, Alexander, size of tornado warning area when issued on basis of radar hook echo, 1830
 Safe Harbor, Pa., principal electric facilities, map, 8622
 Safe work guides, Department of Labor safety training programs, SWG LS series, 4369, 8859, 12660
 SAFEGUARD antiballistic missile program, *see* Missiles.

- Safeguards and nuclear materials management, annotated bibliography, 1272
 Safety at sea, *see* Safety of life.
 Safety belts:
 cross-chest systems, comparison of attitudes after operational experience, 5379
 lateral (+Gy), rearward-facing (+Gx), and forward-facing (-Gx) body orientations, experimental comparison of trauma when restrained by lap belts only, 10780
 see also Automobile seat belts.
 Safety equipment and appliances:
 Federal item identification guides for supply cataloging, supplements, 2592
 safety guard for bow saws and bar saws, equip tips, 7194
 Safety guards, *see* Safety equipment and appliances.
 Safety in the air, *see* Safety of life.
 Safety of life:
 accident bibliography, 17076
 aerospace maintenance safety, 2299
 air safety—
 aerospace safety (periodical), 2301
 art of flying (remarks), 15041
 field trip, report, 3877
 naval aviation safety review, 2340
 rules of National Transportation Safety Board, pertaining to accidents, etc. investigations, 12882
 aircraft, engine, and systems failure and human error, types of accidents, improvements required to reduce, data report on general aviation accident data acquisition and analysis, 7058
 alcohol safety countermeasures program, 14957
 ambulance design criteria, 6032
 AMC safety manual, 4851
 boating safety circular, 261, 2373
 British drug safety system, report, 8230
 building trades and construction industry in Federal and federally financed construction projects, promote legislative history, 1740
 coal program, 1969, Mines Bureau, review, 11582
 Coast Guard Auxiliary—
 courtesy examination, need boat insurance? make seal of safety your policy, 4978
 examination program, courtesy examiners handbook, 13214
 commercial fishing vessel and crew, safety standards, 9525
 controlled dangerous substances act of 1969, report, 1684
 District of Columbia industrial safety act, amend—
 hearings, 3969, 8389
 report, 9337
 driver, traffic safety magazine of Air Force, 2515
 earthquake safety rules, 603
 BSSA, improving quality and safety of human life and prospects, as these are affected by physical environment, 5385
 experimental safety cars study, condensation of, report, 4562
 fall-safe structures designs for highway safety, designing, 10523
 fatal and injury accident rates, 1968, on Federal-aid and other highway systems, 2209
 Federal boat safety act—
 hearings, 15926
 report, 17630
 Federal coal mine health and safety act of 1969—
 law, 1424
 respirable dust sampling requirements, 12742
 Federal consumer safety legislation, automobile safety, flammable fabrics, etc., 11767

Safety of life—Continued

Federal motor vehicle safety standards—
automobiles imported into United States, 666
regulations, with amendments and interpretations, 968, 14959
Federal railroad safety act of 1969—
hearings, 1707, 8756
reports, 10996, 13420
fire! fire! look out! it burns!, 1341
Fire research and safety act of 1968—
appropriations, authorize, reports, 13422, 13673
hearings, 8324
program, subcommittee report, 15937
flight safety, design of light aircraft, NACA and NASA publications, 5894
FSS, flight service stations, pioneers of flight safety, 1920-1970 history, 12516
getting through, hurricane safety message for administrators of hospitals and other institutions, 8577
goggles, industrial, safety, military standard, 18809
hazards to people and animals from Bureau-constructed canals, open and closed conduit systems program, 9091
highway crashes, causation, culpability and deterrence, 12949
highway and all modes of transportation safety (remarks), 18279
highway safety—
and related fields, suggested topics for university graduate theses and dissertations, 7604
bibliography, 17077
design and operating practices, handbook, 5417
problems (remarks), 7659
highway safety literature—
announcement of recent acquisitions, 2713
indexes, 2714, 14960
NHSB corporate author authority list, 7603
1969 annual cumulation, 17076-79
highway safety program—
16 program standards, purpose of each, 2146
the seventies (remarks), 11805
State and community local participation, 4563
horse safety guidelines, 12520
human factors in highway safety, bibliography, 17078
in your keeping, skywarn 70 tornado safety message to administrators of schools, hospitals, and other institutions, 5396
Industrial safety, 4388
accident prevention handbook, Air Force manual, 10719
consultative approach, 5817
Labor Dept. training programs—
how to inspect chart HTIC LS series, 7416-17
occupational safety aid, OSA LS series, 813, 4370-71, 5819, 12658-659, 14658
safe work guides, 4369, 8859, 12660
student reference, SR LS series, 7420
LMFBR, liquid metal fast breeder reactor—
plant safety analyses, 4879
maritime safety digest (periodical)—
longshoring, 2870
shipyards, 2871
mechanical and physical hazards series, 812
metalworking machines safeguarding, safe work guide, 12660
mine safety—
coal miners, improve working conditions—
hearings, 412
law, 1424
Federal coal mine health and safety act of 1969 legislative history, 12269

Safety of life—Continued

mine safety—Continued
respiratory protective devices approved by Mines Bureau, 4407
mineral industries, injury experience, employment and worktime, 16899
motor vehicle safety—
defect recall campaigns reported to National Highway Safety Bureau, 2916
motor vehicle safety standards—
and regulations, Federal, with amendments and interpretations, 2601
interpretation, mini-bikes, consumer information, supplement, 6033
new passenger cars and motorcycles, performance data, consumer information, 4561
roles of General Services Administration and Transportation Department, special study, 15043
National Highway Safety Bureau—
contract research reports, 18245
Priorities seminar, proceedings, background and summary, expectations and limitations, final session, 6034
National traffic and motor vehicle safety act of 1966, amend—
law, 10925
reports, 1647, 8253
report on activities under act, 18262
National Transportation Safety Board's role in promoting public safety (remarks), 12884
Natural gas pipeline safety act of 1968, administration, annual report of Secretary of Transportation, 9230
nautical accident prevention, fathom (periodical), 6079
Navy safety precautions for shore activities, change, 15100
nuclear power plant safety on ships, USSR study, 5737
nuclear safety, technical progress view, 2974
Occupational health and safety act—
hearings, 5157, 11140
report, 11014
occupational safety aids, 11528, 16826
on guard, Bureau of Motor Carrier Safety bulletin, 2988
on-site radiological safety report, Palanquin project, 13081
passenger vessels meeting safety standards, disclosure of construction details, eliminate—
hearing, 3963
law, 1411
report, 1659
pesticide dealers, safety guide, 9321
pesticide safety in your home, 9319
propulsion fuel system fire safety, 17455
protection of nuclear aircraft reactor, parametric study of frangible-tube energy-absorption system for, 12781
public safety newsletter, public safety information bulletin, 17475
public safety radio services, FCC rules and regulations, 8606
radiological safety in design and operation of particle accelerators, 10425
railroad employees and travelers, rules, standards, and instruction for installation, inspection, maintenance, and repair of systems, etc., 10530
reactor fuel reprocessing, minor isotope safeguard techniques, evaluation, 8028
reactor safety, literature search, 13084
reclamation safety news (periodical), 3134
recreational boat safety, coordinated national program, provide, hearings, 15926
related areas in highway safety, bibliography, 17079
reviews to insure safety of nuclear operations, 1254

INDEX 1970

Safety of life—Continued

- road checks, motor carriers of property, 4488
- safe practices for users of gas burning and welding equipment, construction industry safe work guide, 4369
- Safe streets act, making it work, inter-governmental challenge, 17418
- safeguards papers from ANS/AIF winter meeting, Nov. 1968, proceedings, 9405
- safety and fire protection bulletin, VA, 3167
- safety and special radio services, FCC applications and actions, reports, 2576
- safety bus checks, motor carriers of passengers, 8918
- safety clauses in collective bargaining agreements in Federal service, 16510
- safety committee, organization, activities, etc., 5819
- safety digest, AMC pamphlet, 3168
- safety evaluation and design definition study of compact 60/Co heat source in space, final report, 6374
- safety for workers, publications, price list, 15126
- safety handbook, Soil Conservation Service, 4689
- safety in industry—
 - control of physical environment, 811
 - instructor outline, instructor institute, 7415
 - maintenance and safety, 812
 - promoting worker interest, 16826
 - teach them to lift, 14657
- safety is our business (remarks), 1006
- safety of air travel (remarks), 7660
- safety of dams, investigation at Salt River Project, Ariz., field and laboratory tests, 15146
- safety on waterfront, its importance to U.S. trade and commerce (remarks), 5428
- safety progress report, 1968, Indian Affairs Bureau, 4294
- safety review, Navy Department (periodical), 3169
- safety road checks, motor carriers of property, 16929
- safety significance of aircraft accident post mortem findings, 8038
- safety standards (periodical), 3170
- safety training techniques in the classroom, 12659
- safety trends for the seventies (address), 15042
- schoolbus safety report, 8287
- ship repairing, regulations, 8860
- shipbreaking regulations, 10289
- shipbuilding regulations, 10290
- skywarn, tips for tornado safety, 10034
- State safety code activity, 1967-68 highlights, 16825
- tornado safety rules, 14351
- traffic safety—
 - community action program for traffic safety, guides, 17075
 - responsibilities of local officials, 17075
 - transportation by railroad of hazardous materials, prescribe rules, regulations, etc.—
 - hearings, 9756
 - reports, 10996, 13420
 - transportation of hazardous materials, provide proper precautions, hearing, 421
 - transportation prevention of fatalities and property damage (remarks), 17169
 - transportation safety (remarks), 7662, 10483
 - vehicles, sizes and weights, increased, safety and economic aspects, review, 8612
 - where we stand in aviation safety (remarks), 1007
- Safford, G. J., neutron scattering study of water and ionic solutions, 1952

- Safford, Ariz., soil survey report of area, 11871
- Saga of pony express, 11828
- Sagamore Hill, National Historic Site, general information, 7646
- Sage Creek, Casper, Wyo., flood plain information, 14310
- Sage grouse, *see* Grouse.
- Sagebrush, grasses in sagebrush type, west-central New Mexico, establishment and survival, 681
- Saguinus Geoffroyi, *see* Monkeys.
- Sagus Iron Works National Historic Site, general information, 11794
- Sailing directions:
 - Africa—
 - northwest, change, 7672
 - southeast coast, change, 4606
 - Bay of Bengal, 4607
 - Bay of Biscay, 17179
 - British Columbia, 4605
 - China, coast, change, 4608
 - England, south coast, 18284
 - France, north coast, 6081
 - Indian Ocean, south, change, 1017
- Japan—
 - Naikai (inland sea), 10487
 - northern part, change, 4609
- Kattegat and the Sound, change, 6082
- Malacca Strait and Sumatra, change, 6084
- Mediterranean, changes, 6083, 7673, 17180
- Mexico and Central America, west coasts, 2171
- New Zealand, change, 9047
- Norway, northwest and north coasts, change, 1016
- Pacific Islands, changes, 15052
- Persian Gulf, 17178
- Philippine Islands, change, 6085
- Portugal, west coast, change, 7672
- Siberia and Korea, southeast coast, change, 1018
- South China Sea, western shores, change, 10486
- Spain, west coast, change, 7672
- West Indies, change, 7671
- Sailors, Seamen's service act, report, 13466
- Sainsbury, C. L.:
 - fluorite deposits of Quinn Canyon Range, Nev., 10157
 - geology and ore deposits of central York Mountains, Western Seward Peninsula, Alaska, 4230
 - geology, mineral deposits, and geochemical and radiometric anomalies, Seward Peninsula, Alaska, Serpentine Hot Springs area, 14522
- St. Charles River, Pueblo, Colo., flood plain information, 16430
- St. Charles County, Mo., community profile, 17862
- St. Clair, Hillary W., gamma and beta distribution functions applied to size distribution of mineral products, 869
- St. Clair County, Ala., community profile, 14179
- St. Clair County, Mich., North Branch Mill Creek watershed, water conservation, 4686
- St. Clair County, Mo., community profile, 17863
- St. Croix National Scenic Riverway, classification, boundary, and development plans, 3768
- St. Croix River, Maine, to Little River, S.C., light list, 3681
- St. Elizabeth's Hospital, D.C., we of Saint Elizabeths, patients, treatment and care, etc., 17139
- St. Francis County, Ark., Fish Bayou watershed work plan for watershed protection, flood prevention, drainage, fish and wildlife water resource improvement, 15251
- St. Francois County, Mo., community profile, 17864
- Saint-Gaudens National Historic Site, Aspet, historic structures report, 2153

- St. George, R. A., protecting log cabins, rustic works, and unseasoned wood from injurious insects in eastern U.S., 17434
- St. Jean, Quebec, Canada, aircraft accident, 18276
- St. Johns County, Fla., Hastings area, potato industry, 1958-68 changes in market organization and practices, 16468
- St. John's River and Valley, basin and intervening coastal areas, river basin investigation report, 9152
- St. Lawrence County, N.Y., community profile, 14180
- St. Lawrence River and Valley :
Seaway—
pilotage services, agreement with Canada, 17342
traffic report, 12912
surface water quality of basin, 10194
- St. Lawrence Seaway, *see* St. Lawrence River and Valley.
- St. Lawrence Seaway Authority, traffic report of St. Lawrence Seaway, 12912
- St. Lawrence Seaway Development Corporation :
Administrator, nomination of David W. Oberlin, hearings, 404
annual report, 1968—
departmental edition, 2214
document edition, 333
annual report, 1969—
departmental edition, 15155
document edition, 13375
appropriations, 1970—
hearings, 1701
law, 3742
report, 1468
appropriations, 1971, hearings, 9726
audit report, 345
financial statements, audit, GAO reports, 712, 14495
traffic report of St. Lawrence Seaway, 12912
- St. Louis, Mo. :
air pollution control, hearing, 5279
air quality control region, Federal facilities, 10422
area wage survey, 12709
census of transportation, 1967, commodity transportation survey production, area series, 6428
community profile, 17866
concentrated employment program, effectiveness and administrative efficiency, GAO report, 1887
Lambert-St. Louis Municipal Airport, climatological summaries, 7849
Neighborhood Youth Corps program, effectiveness and administrative efficiency, GAO report, 715
principal electric facilities, map, 8624
- St. Louis County, Mo. :
community profile, 17865
floods in Gravois Creek basin, 7237
Neighborhood Youth Corps program, effectiveness and administrative efficiency, GAO report, 715
- St. Louis Detoxification and Diagnostic Evaluation Center, alcoholism treatment program, LEAA project report, 4359
- St. Mary's Parish, La., soil survey report, supplement, 15236
- St. Onge, William L., memorial services, 17573
- St. Paul, Minn. :
aeroradioactivity survey and areal geology of area, 8011
area wage survey, 10295
census of transportation, 1967, commodity transportation survey, production, area series, 6427
principal electric facilities, map, 8624
- St. Petersburg, Fla., area wage survey, 2031
- Ste. Genevieve County, Mo., community profile, 17867
- Sakamoto, Clarence M., Markov chain models for probabilities of hot and cool days sequences and hot spells in Nevada, 14345
- Sakon Nakhon, Thailand, *see* Nakhon Sakon, Thailand.
- Salad oil, *see* Oils.
- Salaman, Roger K., evaluation of short-term ionospheric forecasts for selected southeast Asia DCA trunks, 612
- Salaries :
certain officers and employees of organizations funded under Economic opportunity act, 1970 report, message from the President, 17616
classified and postal salary systems compensation related legislation, hearings, 523
- District of Columbia—
firemen, increase—
hearings, 502
law, 13304
reports, 1693, 9876, 12199
judges, increase, report, 1645
Legal Aid Agency Director, increase, report, 1641
National Guard, commanding general, increase, hearings, 8274
police, firemen, and teachers salaries, increase, hearings, 8283
police, increase—
hearings, 502
law, 13304
reports, 1693, 9876, 12199
teachers, increase—
hearings, 502
law, 13304
reports, 1693, 9876, 12199
- Federal agencies, principles and procedures, GAO guidance manual, 8720
- Federal classified and postal employees, increases, 13539
- Federal classified system, compensation, hearings, 13537
- Federal employees—
pay comparability system, implement, hearings, 13537
salary comparability act—
hearings, 522, 13537
report, 1666
- Government officials and employees—
bimonthly statistics, 2204
Federal personnel manual supplement, 2014
FPM supplement, 4971
pay increase, legislation—
hearing, 6816
law, 8189
reports, 8245-46, 8251, 8352
pay structure of Federal civil service, 15694
salary act of 1970, reports, 8245-46, 8251, 8352
salary supplement to examination announcements, 1354
higher education, 16395
- House Press Gallery, adjustment, certain employees, report, 1505
- labor union membership in 1968, advance report based on data from 1967 survey of economic opportunity, 10816
- overpayments to Air Force civilian employees at Kelly Air Force Base, Tex., 12165
- Police's salary, equipment act, hearings, 16068
- postal, and Foreign Service rates, Federal general schedule, 3889
- postal employees salary adjustments for 1970—
hearings, 6682
reports, 9709, 11083, 12195, 12256
- professional, administrative, technical, and clerical pay, national survey, 5822

Salaries—Continued

- scientists and engineers engaged in research and development, 1969 national survey of compensation, 4897
- Senate employees, pay increase, retroactive compensation, authorize, report, 9830
- State, salary ranges of positions in employment security, etc., 743, 11405
- see also* Wages.
- Salem, Oreg., Salem Heights area, hydrologic conditions and artificial recharge through well, 12590
- Sales:
 - credit sales by dealers in personal property, tax information, 5639
 - department store sales, selected areas, special, current business reports, 3215
 - export, promotion announcements, 2554
 - firm electric power for resale, 1965-68, by private electric utilities, by Federal projects, 11812
 - installment and deferred-payment sales, 5650
 - interstate land sales can be risky, 5604
 - large corporations, quarterly report, 3172
 - monthly wholesale trade, current business reports, 2472
 - P.L. 480 concessional sales, history, procedures, negotiating and implementing agreements, 16386
 - sales ratio, assessment trends, 1956-68, 6457
 - selling to Post Office Department, 6121
 - tax information on—
 - sale of a business, 5686
 - sales and exchanges of assets, 5664
 - sales and other dispositions of depreciable property, 5665
 - selling your home, 5688
 - see also* Military supplies—*also* names of commodities, etc.
- Sales finance companies, *see* Finance companies.
- Sales management, information sources, selections from Marketing information guide, 4902
- Salesmen and salesmanship:
 - employment outlook—
 - automobile salesmen, 14688
 - insurance agents and brokers, 14689
 - real estate salesman and brokers, 14691
 - retail and wholesale trade salesworkers, manufacturers' salesmen, 14690
 - route men, 14709
 - securities salesmen, 14692
 - executive administrative, professional and outside salesmen, exemptions under Fair labor standards act, 15304
 - knock, knock, door-to-door salesmen and consumer protection, 17217
 - manufacturers' sales representative, 18323
 - selling in—
 - Denmark, 13226
 - Italy, 6512
 - Switzerland, 6511
 - Yugoslavia, 15723
 - Zambia, 6514
- Saline County, Mo., community profile, 17868
- Saline County, Nebr., community profile, 17869
- Saline Range, Inyo Mountains region, Calif., pegmatitic trachyandesite plugs and associated volcanic rocks, 8742
- Saline water, *see* Sea water—Water.
- Saline Water Office:
 - appropriations, 1970, law, 314
 - guides for submission of research and development proposals, contracts and grants for research and development relating to saline water conversion, 10220
 - press releases, 3087
 - report, 11440
 - executive summary, 16896

Saline Water Office—Continued

- San Diego Saline Water Test Facility, pump intake manifold and evaporation trays, hydraulic model studies, 7725
- universal desalination plant, 2.5 MGD, interstage module piping, hydraulic model studies, 17243
- Webster Test Facility and Electrodialysis Test-bed Plant, Webster, S. Dak., annual report, 14600
- Salinity:
 - Galveston Bay hurricane surge study, effects of—
 - plan 2 Alpha and plan 2 Gamma barriers on salinities, etc., 16448
 - proposed barriers on salinities, etc., 16447
 - mineral quality problem in Colorado River Basin, physical and economic impacts, 14404
 - ocean salinity and distribution of Pacific salmon, fishery oceanography, 5009
 - vertical sections in trade wind zone of Central North Pacific, Feb. 1964 to June 1965, 1369
- Salinometers, model RS7-B portable induction salinometer, description, etc., 15049
- Salix, *see* Willows.
- Salmon:
 - Abernathy diet, tests of substitute ingredients and effects of storage, 7793
 - chinook, effect of flow on performance and behavior in fishways, 8169
 - chum, *Oncorhynchus keta* (Walbaum) 1792, biological data, synopsis, 13233
 - fin rot, coldwater disease, and peduncle disease of salmonid fishes, 10583
 - fishing, by South Korean vessels off Alaskan coast, hearing, 16044
 - habitat, effects of clearcutting on salmon in 2 southeast Alaska streams, 4206
 - intertidal and fresh-water spawning pink salmon at Olsen Creek, Prince William Sound, Alaska, biological characteristics, 10397
 - Pacific species—
 - hydrology of 4 streams in western Washington related to spawning depths, 14529
 - ocean salinity and distribution, fishery oceanography, 3711, 5009
 - passage of adult salmon and trout through pipes, 6525
 - research at Ice Harbor Dam, 9517
 - sockeye—
 - ocean circulation and distribution, 10890
 - ocean food of, 9530
 - (*Oncorhynchus nerka*), directilinear recruitment curves to assess influence of lake size on survival, Bristol Bay and forecast runs, 8168
 - sportsman's guide to handling, smoking, and preserving Great Lakes coho salmon, 17566
- Salmon River, Middle Fork, river plan, 1435
- Salmonberry, effect of shade on germination and growth, 16579
- Salmonella:
 - monitoring animal, fish, and poultry by-products for presence, 6289
- surveillance—
 - Center for Disease Control, 1969 annual summary, 15670
 - National Communicable Disease Center, report, 2925
 - program inspectors, reference reports, 6289
- Salmonidae fishes, *see* Trout.
- Salt:
 - aqueous salt solutions used in radiation induced preparation of metals, 12812
 - determination of surface and colloidal conditions which can lead to high salt rejection, reverse osmosis, polymer membranes, 5614

- Salt—Continued
influence of salt and elevated-temperature exposure on maximum compressive strength of titanium alloy skin-stringer panels, 5961
 N_2O_4 and aqueous and hot-salt environments, effect of composition on mechanism of stress-corrosion cracking of titanium alloys, 7514
rejection, relationship to morphology, and oriented cellulose membranes for reverse osmosis, study, 5622
salt packages, voluntary product standard, 10440
sodium chloride aerosols, used in respirator filter penetration, 11588
see also Brines.
- SALT (Strategic Arms Limitation Talks), *see* Disarmament.
- Salt Creek:
Basin, Ill., water in urban planning, 11402
flood plain information, 4080
- Salt Lake City, Utah:
area wage survey, 7429
Municipal Airport No. 1, climatological summaries, 7849
- Salt Lake City Corporation, land conveyance, release conditions in deed, report, 13445
- Salt Lake County, Utah, community profile, 6955
- Salt River, water supply outlook and snow surveys, 3337
- Salt River project, Ariz., safety of dams investigation, field and laboratory tests, 15146
- Salt water, *see* Sea water.
- Saltbush:
fourwing saltbush—
Southwest, germination and establishment, 11363
survival after inundation, 11355
transplants, growing for field planting, 11356
- Salterella:
Salterella conulata, Clark, early Cambrian fossil found in eastern North America, 18047
Salterella from Lower Cambrian, of central Nevada, 10179
- Salts:
inorganic, high temperature properties and decomposition, 956
metal, in multicomponent salt solutions, use of amalgam electrodes to measure activity coefficients, 1953
molten, electrical conductance, density and viscosity, data, errata, 4549
radioprotective effect of polymer salt of cystamine, etc., USSR study, 10268
- Saltzman, Edwin J., some turbulent boundary layer measurements obtained from forebody of airplane at Mach numbers up to 1.72, 11674
- Salutes (military), *see* Military ceremonies, honors, and salutes.
- Salvador, *see* El Salvador.
- Salwen, Howard C., optical altimeter receiver systems study and design for spaceborne laser altimeter, 5901
- Salyer, I. O., improved anionic membranes for electrodialysis, 776
- Saltzman, Jack A., low-gravity liquid-vapor interface configurations in spherical containers, 8938
- SAM, *see* School of Aerospace Medicine.
- Sam Rayburn Memorial Veterans' Administration Center:
Bonham, Tex., designate—
law, 15805
reports, 13402, 18016
- Samet, Michael G., checker confidence statements as affected by performance of initial image interpreter, 9362
- Sammonds, Robert L., aerodynamics of Mars entry probe-lander configurations at Mach 10 number, 5931
- Samoa, *see* American Samoa—Western Samoa.
- Samplers, sled-mounted suction sampler for benthic organisms, 17568
- Sampling:
gas sampling system, development, 14821
military equipment, basic concepts and analysis of measurements data, engineering design handbook, 4848
yeasts and bacteria in sound wood, method, 18014
see also names of substances or objects sampled.
- Sampling (statistics):
Air Force job inventory procedure, study, 7953
dual-rate, finite-settling-time discrete systems, 10393
estimates based on order statistics of samples from various populations, order statistics and their use in testing and evaluation, 9341
Monte-Carlo sampling techniques to evaluate multi-variate normal integral, experimental comparison, 107
rarefied diffusion by model sampling, 12786
tests based on range and studentized range of samples from normal population, order statistics and their use in testing and estimation, 9340
- Sampling devices:
water pump air sampler for use at remote sites, 16585
zooplankton, annotated bibliography, 15747
- Sampson County, N.C., community profile, 12469
- Samson, C. A., weather effects on approach and landing systems, 18375
- San Antonio, Tex.:
area wage survey, 12713
metropolitan intrastate air quality control region, report for consultation, 1071
- San Antonio Conservation Society:
Jose Antonio Navarro commemorative medal—
law, 9608
reports, 1528, 8355
- San Bernardino, Calif.:
area wage survey, 8872
principal electric facilities, map, 8626
- San Bernardino Mountains, area, general information, 18029
- San Bernardino National Forest, San Bernardino Mountain Area, general information, 18029
- San Diego, Calif., area wage survey, 7433
- San Diego Creek:
flood plain information, 4079
floods in Alice, Tex., how to avoid damage, 4081
- San Diego Saline Water Test Facility, Office of Saline Water, pump intake manifold and evaporation trays, hydraulic model studies, 7725
- San Francisco, Calif.:
area wage survey, 7432
census of transportation, 1967, commodity transportation survey, production, area series, 6434
International Airport, climatological summaries, 7849
principal electric facilities, map, 8626
San Francisco Unified School District, selected drug education curricula, 14944
- San Francisco Bay:
airport accident report, 11799
area, air quality control region, Federal facilities, 8962

INDEX 1970

San Francisco Bay—Continued

- estuary—
 - movement of seabed drifters, 11393
 - water circulation effects of, fresh-water inflow on flushing, 11393
 - water pollution—
 - hearings, 6714
 - report, 13488
- San Geronimo Pass area, Calif., underground storage of imported water, 4257
- San Isabel National Forest, general information, 7201
- San Jacinto River:
 - East Fork, floods, how to avoid damage, Cleveland, Tex., 17928
 - San Jacinto to Railroad Canyon, Riverside County, Calif., flood plain information, 17826
- San Joaquin Valley, Calif.:
 - petroleum reservoirs, waters for water-flooding, 10336
 - southern, land surface tilting near Wheeler Ridge, Calif., 8741
 - westside, draining agricultural land, Fresno County, Calif., guide, 7765
- San Jose, Calif.:
 - area wage survey, 7428
 - census of transportation, 1967, commodity transportation survey, production, area series, 6434
 - Project R-3, secondary program in compensatory education, 11244
- San Juan, P.R.:
 - aircraft accident, 11800
 - harbor, SS Ocean Eagle (Lib.) grounding and breaking up with no loss of life, Mar. 3, 1968, marine casualty report, 7657
- San Juan County, Utah, community profile, 6956
- San Juan County, Wash., community profile, 6957
- San Juan Island National Historic Park, English Camp, historic structures report, 2157
- San Juan Mountains:
 - Eureka and adjoining districts, geology and ore deposits, 10176
- Precambrian melasyenite, chemistry, petrology and strontium isotopes, 5542
- San Juan River and Valley, drainage basin, Orange and Riverside Counties, Calif., preliminary determination, 8738
- San Luis unit, *see* Central Valley project.
- San Luis Valley, Colo.:
 - irrigation and municipal wells, 4241
 - irrigation water management study, 10560
- San Luis Valley project, Closed Basin Division, construct, operate, and maintain, hearings, 15913
- San Miguel County, Colo.:
 - geologic investigations in Slick Rock district (series), 11395
 - Slick Rock district and vicinity, structure, 11395
- San Miguel quadrangle, Calif., complete Bouguer gravity and general geology, 10181
- San Quintin Bay, Baja California, benthic ecology, 6162
- Sanborn County, S. Dak., community profile, 14181
- Sand:
 - Alabama sand, recovery of heavy minerals, 12749
 - does bedding promote pine survival and growth on ditched wet sands? 12558
 - fluorescent sand as tracer of fluvial sediment, 7243
 - minerals yearbook chapter, 8914
 - radiolotopic sand traced study, RAPLOT, computer program for data processing and graphical display, 16408
 - ridge migration, Apalachicola River, Fla., report, 7668
- Sand castings, *see* Castings.

Sand dunes, *see* Dunes.

- Sand Lake National Wildlife Refuge, birds, list, 11881
- Sand Mountain, area of Alabama and Georgia, soil survey interpretations for woodlands, 7780
- Sand pine, *see* Pine.
- Sandborn Lumber Co., Inc., relief, 9594, 9814
- Sander, Kenneth G., effects of 1966 retirement test changes on earnings of workers aged 65-72, 9114
- Sanders, Leslie D., evaluation of roughness lengths at NSSL-WKY meteorological tower, 17946
- Sanderson Canyon Watershed, watershed work plan for watershed protection and flood prevention, Terrell, Pecos, and Brewster Counties, Tex., 15246
- Sando, Rodney W., current status of prescribed burning in Lake States, 5491
- Sandpaintings of Navaho Shootingway and Walcott Collection, 10467
- Sandrock, Gary D., statistical design and analysis of optimum seeking experiments to develop gamma-prime strengthened cobalt-nickel base alloy, 2118
- Sandstone:
 - age of Berea sandstone, etc., in Appalachian and Michigan basins, Pennsylvania, Ohio and Michigan, 5541
 - Glorieta sandstone and Ogallala formation in Oklahoma Panhandle and adjoining areas as related to underground waste disposal, hydrogeologic information, 1912
- Sandusky County, Ohio, community profile, 12470
- Sandved, K. G., Antarctic journal of United States, 2335
- Sandwich construction:
 - buckling coefficients for simply supported, flat, rectangular sandwich panels under biaxial compression, 14467
 - plates and shells, manual for structural stability analysis, 4489
 - sandwich panels, modal density estimates, theory and experiment, 16960
- Sandy Hook to Cape Henry, coast pilot, 6492
- Sanford, F. Bruce, fishery industrial research, 2648
- Sanilac County, Mich., North Branch Mill Creek watershed, water conservation, 4686
- Sanitarians, employment outlook, 14672
- Sanitary engineers:
 - Army Medical Department early commissioning program, 9370
 - conference, 1969, report of proceedings and 1969-70 committee programs, 3996
- Sanitary fills, sanitary landfill facts, 15257
- Sanitation:
 - consumer protection programs, sanitation handbook, 3173, 16096
 - equipment, Federal item identification guides for supply cataloging, supplements, 2593
 - inspection of imported livestock products, provide, report, 17684
 - meat plants, weak enforcement of Federal standards by Consumer and Marketing Service, GAO report, 11383
 - poultry establishments, guidelines for implementation of sanitary requirements, 2699
 - sanitary facilities for Indians, need for improved practices for obtaining equitable contributions toward cost of constructing, GAO report, 12577
 - sanitary food service, instructor's guide to be used in training food-service personnel, 4087
 - sanitary landfill—
 - accounting system for operations, 12930
 - facts, 15257
 - sanitary plumbing fixtures, performance characteristics, investigation, 5999

- Sanitation—Continued
 sanitary regulation of fluid milk industry, inspection, cost, and barriers to market expansion, 12990
 Soviet research, 11502
 type A topics, sanitation and safety, 3293
 vessel sanitation and fish handling, recommended practices, 8163
 Sanna, Robert S., neutron spectrometry, Operation Heine (program 6), 3488
 Sanner, William S.:
 conversion of municipal and industrial refuse into useful materials by pyrolysis, 14796
 fluidized-bed, low-temperature carbonization of bituminous coal and thermal cracking of tar vapors, 880
 Sanpete County, Utah, community profile, 6958
 Santa Ana, Calif., area wage survey, 12708
 Santa Ana National Wildlife Refuge, invites you to follow Chachalaca Trail, general information, 2231
 Santa Barbara, Calif.:
 channel region, geology, petroleum development, and seismicity, 731
 offshore oil leasing bills, hearings, 11131, 16063
 oil spillage, hearings, 11131, 16063
 Santa Barbara Channel:
 marine sanctuary, create, message from the President, 13363
 oil exploration leases, terminate, message from the President, 13363
 Santa Barbara County, Calif., Santa Ynez River, Lompoc to Pacific Ocean, flood plain information, 14320
 Santa Clara County, Calif.:
 Coyote Creek—
 floods, how to avoid damage, 17939
 San Francisco Bay to Anderson Reservoir, flood plain information, 16416
 Santa Clara River, Santa Paula vicinity, Ventura County, Calif., flood plain information, 14319
 Santa Cruz County, Ariz.:
 community profile, 6959
 Santa Cruz River, vicinity of Sonoita Creek confluence, flood hazard information, 10003
 Santa Cruz River, vicinity of Sonoita Creek confluence, Santa Cruz County, Ariz., flood hazard information, 10003
 Santa Gertrudis Creek:
 floods, how to avoid damage, Kingsville, Tex., 17932
 Kingsville, Tex., flood plain information, 16432
 Santa Maria River, to Tia Juana River, Pacific slope basins in Calif., surface water supply, 18054
 Santa Monica Bay, aircraft accident, 15039
 Santa Paula, Calif., Santa Clara River, flood plain information, 14319
 Santa Ynez River, Lompoc to Pacific Ocean, Santa Barbara County, Calif., flood plain information, 14320
 Santos, Elmer S., stratigraphy of Morrison formation and structure of Ambrosia Lake district, N. Mex., 11386
 Sanzo, Richard, ratio analysis for small business, 12914
 Sap:
 maple—
 concentration, reverse osmosis plant, 10680
 ultraviolet irradiation techniques for preserving, 7904
 sugar maple trees, xylem age effect on volume yield and sugar content, 4203
 Saprolegnia, fish disease, 8206
 Saprophytes, saprophytic microbes in etiology of experimental neuroparalytic diseases, role of toxins, USSR study, 12622
 Sapsuckers, *see* Woodpeckers.
 Sapwood:
 sugar maple, variation in density, 12554
 thickness of Douglas-fir and 5 other western softwoods, 5507
 Sarasota County, Fla.:
 Lido Key, engineers report—
 departmental edition, 10006
 document edition, 9625
 Saratoga County, N.Y., community profile, 14182
 Saravis, Calvin, conference on natural and synthetic membranes, 980
 Sardines, Mediterranean, experimental production of fish protein concentrate (FPC) from, 3710
 Sargent, K. A., Bates Mountain Tuff in northern Nye County, Nev., 1910
 Sargent, Thomas R., nomination, hearings, 13719
 Sargent County, N. Dak., community profile, 14183
 Sarles, Frank B., jr., Harpers Ferry National Historical Park, social and economic history of Virginus Island, 6062
 Sarpy County, Nebr., community profile, 17870
 Sartwell, Bruce D.:
 computer program for plotting data points from multichannel analyzer via remote teletype, 8902
 range in metals and metal oxide systems of heavy ions in energy range 60 to 400 KEV, 12746
 Sartz, Richard S., effect of watershed cover on overland flow from major storm in southwestern Wisconsin, 5492
 Sasser, Ga., Tamiami Trail Tours, Inc., accident, investigation report, 14802
 Satellite triangulation, *see* Triangulation.
 Satellites:
 Alouette-2, topside sounder—
 oblique echoes from large-scale horizontal gradients observed, 4512
 observation of characteristics of magnetospheric ducts, 12805
 artificial earth satellite—
 integration of relativistic equations of motion, 14894
 motion in eccentric gravitation field, 11697
 atmospheric circulation research—
 examples of usefulness, 10383
 usefulness of satellite data, 14845
 ATS (applications technology satellite)—
 ATS-1 VHF communications experimentation, 18370
 program, supplemental review, hearings, 437
 Brouwer's artificial-satellite theory, application to computation of state transition matrix, 14875
 communications—
 FCC rules and regulations, 2584
 foreign policy implications, hearings, 11033
 transmission of SECAM color television signals with sound portion via Molniya-1 communication satellite, USSR study, 16789
 Communications Act of 1962, annual report of activities, etc., 6569
 cooperative satellite research project, agreement with Italy, 6248
 ERTS (earth resources technology satellite) program, supplemental review, hearings, 437
 Explorer 17 density gauges, atmospheric densities measured, 904
 Galilean, photometry of their eclipses used to infer physical properties of Jovian atmosphere, 17009
 global navigation and traffic control using satellites, 14895

- Satellites—Continued
- GRARR MADGAR site location, determination and comparison, 899
 - gravity-stabilized, influence of thermal distortion on performance, 902
 - infrared radiation data, estimating cloud amount and height from, 17948
 - intercomparison of minitrack and optical tracking networks using GEOS I long arc orbital solutions, 5019
 - Intercosmos-1 satellite in orbit, USSR study, 11495
 - ionospheric research, agreement with Canada, 15317
 - ITOS night-day meteorological satellite, general information, 11600
 - Kosmos-243 thermal radio emissions obtained, determining geophysical parameters, USSR study, 4328
 - libration-point, control and use, 18223
 - meteorological—
 - temperature observations of ocean current and sea surface, 4507
 - errata, 10377
 - views of cloud growth associated with development of secondary cyclones, 12771
 - meteorological satellite data—
 - application in analysis and forecasting, 14346
 - television cloud photography, catalog, 10030-31, 11277, 17954
 - minimum fuel attitude control of non-linear satellite system with bounded control by method based on linear programming, 892
 - NASA bioscience program, future, report, 9767
 - Navy navigation system, computing aids, TRACAL and SNAP, 7677
 - Nimbus II, accuracy of high resolution infrared radiometer for mapping, 10380
 - one-dimensional time dependent interaction with ionospheric plasma, 8954
 - optical artificial earth satellite tracking stations, bulletin, USSR study, 7352
 - Orbiting Astronomical Observatory thermal test program, 16961
 - polar-orbit satellites, inclination perturbations, 1030
 - Radio Astronomy Explorer, camera operability status considering dynamic solar conflict, analytic determination, 10384
 - S²-A small scientific satellite, magnetic attitude and spin control, 925
 - satellite meteorology, 12827
 - satellite situation report (periodical), 3174
 - Soyuz spaceships converse via satellite, USSR study, 10266
 - thin-walled cylinder of open section, coupled thermally-induced transverse plus torsional vibrations, 12826
 - TIROS operational satellite, improved, description, 605
 - TIROS VII, monthly global atmospheric circulation characteristics as reflected from radiometric measurements, 14845
 - West African oceanic front, feasibility of monitoring, 3709
 - see also Launching facilities.—Spacecraft.
- Saturation:
- distributed saturation characteristics in integrated devices—
 - design, evaluation, 14858
 - model, 14857
- Saturn (rocket), see Rockets.
- Saudi Arabia:
- central, some Jurassic ammonites, 5558
 - cultural relations, agreement, 1149
 - desalination, agreement, 7821
 - economic trends and their implications for United States, 5700, 11463
 - establishing business in, 13228
 - Kuwait-Saudi Arabia boundary, study, 17335
- Saudi Arabia—Continued
- mineral industry, minerals yearbook chapter, Kuwait-Saudi Arabia Neutral Zone, 18155
- Sauer, Mary L., personnel management, 13029
- Saugers, population estimates in Lake Sharpe, S. Dak., 7792
- Saunders, LeRoy, welfare and pension plan statistics, 14656
- Saunders County, Nebr., community profile, 17871
- Saury:
- Pacific—
 - California current region 2, seasonal and geographic characteristics of fishery resources, 13240
 - Cololabis saira, annotated references, list, 13244
- Sausage, products, USDA institutional purchase specifications, 6829
- Savannah, Ga.:
- area wage survey, 14736
 - Public Health Service hospitals, closing, hearings, 514
- Savannah, Ga. to Apalachicola, Fla., marine weather services chart, 6280
- Savannah National Wildlife Refuge, birds, list, 11884
- Savannah (nuclear ship):
- costs of operating, GAO report, 11371
- Savannah River:
- basin inspection, hearing, 1597
 - lower, pollution of interstate waters, and its estuaries, tributaries and connecting waters, Georgia, South Carolina, conference proceedings, 10094
- Saville, Thorndike, Jr., coastal regime, recent U.S. experience, 12508
- Saving and thrift, sharing benefits of credit union membership, guidelines, 4131
- Savings accounts, see Banks and banking—Deposits (solders, etc.).
- Savings and home financing source book, 17973
- Savings and loan associations:
- savings and home financing, 1969, source book, 17973
 - savings and loan industry, study, 14368
 - savings and mortgage lending activity selected balance sheet items, FSLIC insured associations, 2681
 - trends, 637
 - see also Federal savings and loan associations.
- Savings and thrift, thrift institution development in Latin America, study, 10939
- Savings banks, see Banks and banking.
- Savings bonds:
- bond tips from your U.S. savings bond reporter, 2374
 - interest rate increase—
 - laws, 1395, 15778
 - report, 1648
 - issued and redeemed, 3313
 - 1970 campaign (remarks), 6269
 - payroll savings program (remarks), 6272
 - series A-E, tables of redemption values, 3251, 4642, 10514
 - revised pages, 2204
 - series E, tables of redemption values, revised, 18303
- Savitt, Harry L., health insurance for the aged, number of persons insured, 9113
- Sawdust, shavings, and waste chips, uses, 5490
- Sawflies, see Flies.
- Sawlogs, see Logs.
- Sawmills:
- census of manufactures, 1967, industry report, 12001
 - simulation, concepts and computer use for sawing logs, 4182
- Saws, bow and bar, equip tips, 7194
- Sawtimber, see Timber.

- Sawtooth primitive Area, Idaho, mineral resources, 14525
- Sawyer, James W., effects of pressure distributions on bluff tension-shell shapes, 5944
- Saylor, James H., bottom stability and sedimentary processes at Little Lake Harbor, Lake Superior, 18135
- SBA, *see* Small Business Administration.
- Scabies:
cattle, eradicating, etc., 3419
sheep and cattle, eradication, cooperative State-Federal progress report and epidemiology, 7907
- Scaffolding, prefabricated, Federal item identification guides for supply cataloging, supplements, 2593
- Scajaquada Creek:
and tributaries, N.Y., engineers report—departmental edition, 14331
document edition, 13369
- Scale (corrosion):
prescaling deposition of scale forming compounds on controlled surfaces, tracer study, 5629
scale control in high temperature distillation utilization fluidized bed heat exchangers, 18068
- Scale insects, generic names, annotated list, additions and corrections, 15439
- Scales (measures):
crater scaling in granite for small charges, 11594
- Scales (weighing instruments):
cantilever scales for measuring weight changes, 18018
industrial plant equipment handbook, 13778
- Scaling of VTOL recirculation effects, 14827
- Scallops, calico, fishery of southeastern U.S., photoreview of latest developments, 9536
- Scandinavia:
nautical charts and publications, catalog, 4603
special study mission, report, 3864
- Scandinavian Airlines System, accident report, 15039
- Scanlon, Robert J., relief, 9639
- Scanners:
flying-spot, frequency responses and other characteristics of 6 fast-decay phosphors, 18215
optical-mechanical scanner as imaging system for planetary landers, performance analysis, 2098
6 fast-decay phosphors, frequency responses and other characteristics applicable to flying-spot scanners, 18215
spar aerospace hotspotter, equip tips, 10117
- Scanning:
automatic scanning, USSR study, 16812
display scanning, sampling and reconstruction using separate main and secondary tracking tasks, research, 14814
phase interpolation circuits for scanning phased arrays, 14854
pilot scanning and control behavior during simulated instrument approaches, measurement and analysis, 12759
- Scaridae, *see* Parrotfish.
- Scattering:
angular scattering functions for spherical water droplets, 15062
elastic scattering analyses, expanded FORTRAN IV program, 16997
electron-electron scattering effects in low-temperature Lorenz numbers of dilute Pd-Ni alloys, 1032
electron scattering—
experimental techniques for investigations, 8994
radiative corrections from complex nuclei, 17189
- Scattering—Continued
exhaustive search for best cyclic (20,8) code, for low power (VHF) ionospheric scatter communications, 16459
42-MeV alpha particles interaction with particles of helium-3, 928
interaction of intermediate energy protons with light nuclei, 14888
light scattering in atmosphere, 2129
multiple, corrections for associated-particle neutron time-of-flight technique, 963
neutron scattering study of water and ionic solutions, 1952
photonic nuclear reactions, 17032
polarized light by polydisperse systems of irregular particles, 2083
scattering by spherically symmetric inhomogeneities, 2180
semiclassical elastic scattering cross sections for central field potential function, 4504
theory of scatter of HF radio ground waves from period sea waves, 5392
- Scenopinidae, *see* Flies.
- Schaefer, Karl E.:
displacement of oxygen dissociation curves and red cell cation exchange in chronic hypercapnia, 11567
effect of intermittent exposure to 3% CO₂ on respiration, 11570
pulmonary gas exchange and urinary electrolyte excretion during saturation-excision diving to pressures equivalent to 800 and 1000 feet of seawater, 12735
- Schaeffer, Harry G., Newton-Raphson-conjugate-gradient technique for calculation of axisymmetric buckling of shallow, spherical shells with variable edge constraint, 5957
- Schaeffer, R. E., gap-filling adhesives in finger joints, 16574
- Schale, K. Warner, school achievement of children 6-11 years as measured by reading and arithmetic subtests of wide range achievement test, 14935
- Schallau, Con H., economic analysis of accelerated road construction on Tillamook Resource Area, 16580
- Schalock, H. Del, plan for managing development, implementation and operation of model elementary teacher education program, 11226
- Schapiro, Leonard, testimony, hearings, 12365
- Scharpf, Robert F., seed viability, germination and radicle growth of dwarf mistletoe, in California, 18028
- Schedules, *see* names of departments, etc., issuing schedules.
- Scheele, Carl H., neither snow, nor rain . . . story of U.S. mails, 17270
- Scheffer, Paul M., trout farming, could trout farming be profitable for you?, 24
- Scheiderer, Edward D., nomination, hearing, 13719
- Scheiner, B. J., electrolytic oxidation of clinobar ores for mercury recovery, 12750
- Scheldt, R. Steve, pocket gopher control, 17300
- Schell, E. M., stratigraphic sections and chemical analyses of phosphatic rocks of Permian and Mississippian age in Weber County, Utah, 18040
- Schenectady, N.Y.:
area wage survey, 10298
census of transportation, 1967, commodity transportation survey, production, area series, 6423
small businessmen's problems, hearings, 13544
- Schenectady County, N.Y., community profile, 14184
- Schepartz, A. I., improved pen mechanism for certain strip-chart recorders, 1189

INDEX 1970

- Scherrer, Victor E.:
kinetic electron temperature measurement techniques for helium, 12806
laser breakdown of copper vapor, 11679
laser heating of ionized helium, 12792
- Schertler, Ronald J., experimental investigation of single particle behavior in axisymmetric magnetic field, 18221
- Schliermeyer, Francis A., large power plant effluent study [LAPPE], instrumentation, procedures, and data tabulations, 14903
- Schilling, Benford L., calculated wind-tunnel-boundary-lift-interference factors for rectangular perforated test sections, 5943
- Schimke, Harry E., perennial grasses reduce woody plant seedlings on mixed conifer fuel-break, 18016
- Schindler, A. I., electron-paramagnon interaction effects in nearly ferromagnetic metals, 12897
- Schizophrenia, bulletin, 4566
- Schlee, John, Atlantic Continental Shelf and slope of United States, gravels of northeastern part, 18042
- Schlegel, Earl S., study of failure modes of multilevel large scale integrated circuits, 12763
- Schlesinger, James R., testimony, hearings, 3977
- Schlick, Donald P.:
respirable dust control in mines of West Germany, 16897
respirable dust sampling requirements under Federal coal mine health and safety act of 1969, 12742
- Schlieren photography, *see* Photography.
- Schlieren system, laser schlieren signals, direct measurement of most probable preferred angular velocity of turbulent structures by optical correlation, 17006
- Schmidt, Dwight L., quaternary geology of Long and Bear Valleys, west-central Idaho, 14521
- Schmidt, Fred H., Spanish surnamed American employment in Southwest, 10037
- Schmidt, Stanley F., motion drive signals for piloted flight simulators, 11617
- Schmidt, W. A., Zn doping of GaAs films using coevaporation of elements, 15089
- Schmidtling, Ronald C., reproductive maturity related to height of loblolly pine, 4195
- Schmitt, Dan, sycamore variation in lower Mississippi Valley, 690
- Schmude, Douglas F., occupational employment statistics, 14667
- Schneider, Jesse, investigation of high speed turbulent boundary layer with heat transfer and arbitrary pressure gradient, computer program manual, 18190
- Schneider, William J., water for cities, outlook, 4233
- Schnellbacher, E. E.:
addresses—
Feb. 19, 1970, 5716
Apr. 23, 1970, 8826
Apr. 28, 1970, 10243
Apr. 30, 1970, 10241
May 20, 1970, 10244
May 27, 1970, 11460
June 13, 1970, 11461
Sept. 16, 1970, 16716
Sept. 16, 1970, 16715
Sept. 17, 1970, 16714
- Schnetzler, E., potassium turboalternator, preliminary design study, 12765, 16934
- Schoen, Alan H., infinite periodic minimal surfaces without self-intersections, 11628
- Schoettger, Richard A.:
effects of Antimycin A on tissue respiration of rainbow trout and channel catfish, 11878
toxicology of thiodan in several fish and aquatic invertebrates, 7788
- Schoff, Stuart L., ground-water resources of Lambayeque Valley, Department of Lambayeque, northern Peru, 735
- Schoharie County, N.Y., community profile, 14185
- Scholars:
American, abroad, tax information, 5670
foreign scholars and educational and cultural exchange visitors, tax information, 5463
Presidential, 1970 selection, 10511
Soviet—
scholars discuss problems of information systems, 16772
visited by French journalists, 4338
- Scholarships:
Army ROTC scholarship program, 17460
educational trust funds, employer contributions, law, 302
family physician program, establish, hearing, 16075
higher education aid for minority business, directory, 9503
nursing—
career information, 5581
information for schools, 5582
scholarship program, education of handicapped children, summer 1970, 1970-71 academic year, 7025
tax information, 5687
- School attendance:
submarine, school attrition, relationship of background variables, 8891
they don't have to drop out, trouble in high schools, 7027
- School boards, *see* Educational boards and departments.
- School buildings:
federally affected areas, construction assistance—
1969 annual report, 5342
final report, 13506
- School buses, safety report, 8287
- School children, *see* Children.
- School credits, noncredit activities in institutions of higher education, institutional distribution, 7018
- School districts, hitching up small school districts, 9988
- School dropouts, *see* School attendance.
- School finance, *see* Education.
- School Finance Commission, establish, message from the President, 5094
- School lunches:
food for children, in pre-school centers, in summer programs, 7178, 16530
national program, hearings, 13756
National school lunch act, amend—
laws, 6539, 10909
reports, 5200, 5251, 9666
national school lunch program, sanitation and safety, 3298
type A topics, sanitation and safety, 3296
- School of Aerospace Medicine, technical reports, 55-57
- Schools:
American, 1971-72 foreign curriculum consultant program, 16394
appropriations, 1971, supplemental, proposal, 13563
aviation maintenance technician, Federal aviation regulations, 8599, 17959
construct elementary and secondary schools adjoining or in proximity of Indian reservations, appropriation of funds, provide, report, 9870
construction grants, nursing schools, 5574, 16654
delinquency and crime in District of Columbia schools, hearings, 501
desegregation—
emergency school assistance program, 14283
Federal enforcement, 243
free and open society, statement by the President, 7711

Schools—Continued

- District of Columbia, protective eye devices to be worn by students and teachers for certain courses, require—
hearing, 8389
reports, 1500, 9840
- education professions, 1968, report on people who serve, 1789
- Elementary and secondary schools—
construction act, hearings, 5156
science and mathematics books, 11241
- elementary program in compensatory education, New York City, 11213, 11216
- Emergency school aid act of 1970, hearings, 17638, 17710
- enrollment—
1969 population characteristics, advance data, 10814
Oct. 1969 population characteristics, 15647
- equal educational opportunities, annual report, 16392
- federally affected areas—
impact aid, amend law, hearings, 15894, 16073
operation assistance—
1969 annual report, 5342
final report, 13506
- federally impacted areas, emergency school payments by HEW, 1970, law, 9602
- fluoridation program, new protection for child's smile, 8770
- food service, preliminary report, 572
- integrating the desegregated school, planning educational change, 16401
- learning opportunities for schools, Smithsonian Institution tours, 1093
- local public school systems, 1968 statistics, schools, pupils, and staff, 11245
- Morgan follows through, program succeeds, etc., 4057
- nonpublic, elementary and secondary day schools, 1968-69 directory, 8512
- nonteaching employees, industry wage survey, 11547
- off-campus study centers for Federal employees, 3671, 12049
- pilot, Federal aviation regulations, 10044
- preprimary enrollment, 14293
- trends of children under six, 8522
- private, good training, good job, through MDTA, 12502
- program of Federal assistance for local educational agencies in areas affected by Federal activities, revise and reform, hearings, 15894, 16073
- public—
bond sales, 8510
buildings, repair and maintenance, improved management by District of Columbia Government, GAO report, 718
offering technical education programs, directory, 7010
tax-sheltered annuity plans for employees, 5689
- public elementary and secondary day schools—
1968-69 directory—
Great Lakes and Plains region, 9983
North Atlantic region, 11204
Southeast region, 8513
West and Southwest region, 11205
- pupils, teachers, instruction rooms, and expenditures, fall 1969, statistics, 9993
- selected districts, directory, enrollment and staff by racial/ethnic group, 14562
- public health schools—
formula program grants, extend, report, 395
grants, extend program—
hearings, 426, 516
law, 6540
reports, 1667, 5139

Schools—Continued

- public systems, education, directory, 9984
- school and home program, Flint, Mich., compensatory program in elementary education, 11218
- schools with financial problems, provide financial assistance, message from the President, 9633
- special milk program extend—
law, 12121
report, 9844
- State systems, 1967-68 preliminary statistics, 12503
- statistics of local public school systems, 1967-68 finances, 14297
- study of our Nation's schools, working paper, 4064
- see also Education—Elementary education—Junior High schools—Naval education—Nurses and Nursing—School lunches—also names of schools.
- Schools of forestry, see Forests and forestry.
- Schooner Project, see Project Schooner (plowshare program).
- Schopf, J. M., Foerstia zone of Ohio and Chattanooga shales, 16806
- Schrieumpf, J. T., electron-electron scattering effects in low-temperature Lorenz numbers of dilute Pd-Ni alloys, 1032
- Schrock, Joann L., minority groups in Thailand, ethnographic study series, 6355
- Schroeder, Mark J., fire weather, meteorological information to forest fire control operations, 12976
- Schubert, Dale W., vibration isolation of commercial jet transport pilots during turbulent air penetration, 14811
- Schubert, Gilbert H., artificial reforestation practices for Southwest, 10682
- Schuller, Frederick T., experiments on stability of water-lubricated three-sector hydrodynamic journal bearings at zero load, 11642
- Schultz, Larry D., survey and analysis of normal ionospheric absorption measurements obtained from radio and pulse reflections, 16453
- Schultz, Leonard P., taxonomic status of controversial genera and species of parrotfishes with descriptive list (family Scaridae), 1094
- Schultz, Vincent, ecological techniques utilizing radionuclides and ionizing radiation, selected bibliography, 3499
- Schultz, W. C., relationships between aircraft system performance and pilot ratings, 14833
- Schulz, Gerald L., sealing through contaminated pouch surfaces, 13043
- Schuster, J. C.:
discharge measurements using radioisotopes—
high-head turbines and pumps at Flat-Iron Power and Pumping Plant, Colorado-Big Thompson project, 3504
velocity, integrated sample, dilution, and total count methods at Flat-Iron Power and Pumping Plant, Colorado-Big Thompson Project, 6389
- Schutz, Robert H., respiratory protective devices approved by Mines Bureau, 4407
- Schuyler, William B., jr.:
address—
Feb. 4, 1970, 6117
Mar. 19, 1970, 7696
Aug. 8, 1970, 15104
Oct. 15, 1970, 18300
- Schuyler County, Mo., community profile, 17872
- Schuyler County, N.Y., community profile, 14186
- Schuylkill County, Pa., community profile, 16339

INDEX 1970

Schwaneke, Alfred E.:
 improved maximum-bubble-pressure system
 for measuring surface tension of molten
 metals, 4480
 surface tension and density of liquid tin,
 7495
 Schwartz, Cecil H., design and construction
 of radiation probe, 16918
 Schwartz, Charles M., agricultural produc-
 tion trends, Sakon Nakhon, Thailand,
 16412
 Schwartz, Ellen J., Georgetown architecture,
 15029
 Schwartz, Ira R., basic aerodynamic noise
 research, conference proceedings, 7526
 Schwarz, Francis C., series capacitor in-
 verter-converter for multikilowatt power
 conversion, 11696, 12336
 Schwerdt, Richard W., mariners weather log
 (periodical), 2869
 Schwob, Harlan H., floods in upper Des
 Moines River basin, Iowa, 14527
 Science:
 Academy of Sciences—
 Armenian SSR, after 25 years, 1985
 Kirgiz SSR, development, 16740
 Moldavian SSR, general information,
 8337
 USSR, vestnik (periodical), 3329
 aerospace science review, 7949, 13010
 agricultural science review, 2308
 American manpower, 1968, report of Na-
 tional Register of Scientific and Tech-
 nical Personnel, 7649
 center for scientific ideas discussed, USSR
 study, 7358
 centers, rise in Siberia, Far East terri-
 tory traced, USSR study, 16785
 Clearinghouse announcements in science
 and technology, 2408
 cold regions, bibliography, 596
 index, 597
 cold regions science and engineering
 monographs—
 engineering, 1803, 4073-74, 14306
 environment, 4072
 physical science, 599
 Communist Chinese scientific abstracts,
 2430
 congressional organization for science and
 technology, inventory, 15939
 course and curriculum improvement proj-
 ects, 12878
 cybernetics and scientific-technical revolu-
 tion, USSR study, 4349
 defense, cooperative technical and scien-
 tific projects, agreement with Argen-
 tina, 15315
 doctorate supply and utilization, 2165
 earth sciences, East European abstracts,
 2519
 East European abstracts, 2516-23
 education and educational establishments,
 USSR study, 5731
 education and research, development,
 USSR study, 5789
 effectiveness, USSR study, 1988
 environmental science centers at institu-
 tions of higher education, survey, 9766
 exchanges, agreement with Union of So-
 viet Socialist Republics, 15312
 facilities, bibliography, supplement, 17165
 FDA's science project series, 12543
 Federal activities, centralization, hear-
 ings, 438
 Federal funds for research, development,
 and other scientific activities, 6067
 Federal jobs in engineering, physical sci-
 ences and related professions, 17549
 Federal responsibilities, recommendation
 for centralization, 13540
 forecasting systems, USSR study, 5748,
 7351
 forensic, bibliography of activation analy-
 sis papers, 7578
 gnosological principles of scientific prog-
 nosis and V. I. Lenin, USSR study, 5734

Science—Continued
 graduate enrollment and Ph.D. output in
 scientific fields 1960-61 through 1967-
 68, trends, 7625
 graduate students, full time, fall 1967,
 support, 4592
 international notes (periodical), 2764
 Latvian and Estonian progress, 5749
 Leninist principles of management in
 age of scientific and technical revolu-
 tion, 11505
 management of information and knowl-
 edge, Panel on Science and Technology,
 11th meeting, proceedings, 8322
 NASA scientific reports and publications
 for 1969, selected listing, 14843
 1970 Lenin prize competition, USSR study,
 11519
 Panel on Science and Technology, 11th
 meeting, proceedings, 8322
 physical sciences—
 AEC research contracts, 15536
 college students as trainees, vacation
 work-study programs, opportunities,
 15691
 critical evaluation of data, 14927
 report, 6071
 trainees in vacation work-study pro-
 gram, examination announcement,
 4963
 positive power (remarks), 8031
 relations of science and engineering ana-
 lyzed, USSR study, 1984
 reviews of data on resources, 4591
 science and cancer, 984
 science and industry, plans to aid rela-
 tions, USSR study, 5758
 science and institutes in Belorussia, USSR
 study, 5804
 science and mathematics books for ele-
 mentary and secondary schools, 11241
 science and sea, 7676
 science and service, career in ESSA Com-
 missioned Officer Corps, 10033
 science and technology rededicated (ad-
 dress), 10778
 science and technology, tools for progress,
 report of President's Task Force on
 Science Policy, 9070
 science and your career, facts about train-
 ing, 16865
 science in service of production, USSR
 study, 10264
 science resources studies highlights,
 11797-798, 15034-35, 18274
 science study aids (series), 7941
 science, technology and American diplo-
 macy, 13514
 scientific affairs, Eastern Europe, trans-
 lations, 3273
 scientific and technical information, fore-
 casting, USSR study, 7391
 scientific and technical revolution, USSR
 study, 4335, 5788, 11511
 scientific education, developments, USSR
 study, 4339
 scientific missions, sensitive elements and
 sensors used on spacecraft, USSR study,
 7367
 scientific tests, publications, price list,
 18306
 secondary school teachers, NSF programs,
 summer institutes, in-service institutes,
 etc., 18273
 service, history and tribute (remarks),
 8033
 Siberia develops its science, 10257
 Smithsonian contributions to earth sci-
 ences, 17271-272
 Soviet education, USSR study, 7373
 Soviet prizes, 12630
 special foreign currency science informa-
 tion program, 1970 list in process, 17167
 strategy and science, toward a national
 security policy for 1970's, hearings, 343
 surveys of science resources series, 8067

Science—Continued

- Tadzhik, Lenin days in Moscow, 5747
technical assistant, examination announcement, 15699
technicians, employment outlook, 14675
USSR—
1969 state prizes, 5767
scientific abstracts, 3317-23
scientific, technical developments discussed, 7365
see also Dental science—Nuclear science—
also names of sciences.
Science and Astronautics Committee, House:
calendar, 2811
committee prints, 8321, 9766-68, 13540.
13543, 15935, 15937-939
hearings, 437-438, 3894, 5180-82, 672*,
8323-24, 9769, 11058-59, 12282-283,
13541-542, 15936
investigations and studies, expenses, report, 8234
Panel on Science and Technology, 11th
meeting, papers, 15935
publications, list, 12284
reports, 5140, 6642, 6644, 13417, 13422,
13478, 15860, 15869
Science and Technology Office:
appropriations, 1971, hearings, 8271,
11105
Director, nomination of Edward E. David,
Jr., hearing, 16077
Science fairs, *see* Fairs.
Science Policy, President's Task Force on,
see President's Task Force on Science
Policy.
Science Policy Research Division, Library of
Congress, technology assessment, hearings,
5181
Science, Research, and Development Subcommittee, activities, summary, 15938
Scientific and technical aerospace reports,
3177
indexes, 3176
semiannual, 14899
Scientific and Technical Information Committee, annual report, 16483
Scientific and Technical Personnel, National
Register, *see* National Register of Scientific
and Technical Personnel.
Scientific and Technical Society of Radio
Engineering, Electronics, and Communications,
session, report, USSR study, 7357
Scientific apparatus and instruments, scientific
and professional instruments, trade
and tariff information summaries, 10639
Scientific Institute of Fertilizers and Insecto-
Fungicides, USSR, half century, 1919-69,
USSR study, 5770
Scientific institutions, *see* Institutions—
Nonprofit institutions—Scientific societies.
Scientific research:
Air Force research, bibliography, 47
directory of Federal R & D installations,
report to Federal Council for Science
and Technology, 12879
emotions and conflicts, USSR study, 4352
Federal funds for research and development,
6067
impact of changes in Federal science funding
patterns on academic institutions, 18274
NSF program guide, 12880
OAR index of research results, 54
reform and change for scientific institutions,
USSR study, 7354
research and development in industry,
funds, 1967, scientists and engineers,
Jan. 1968, report, 4590
research grants of PHS, 1969, index, 11782
scientific center for study of dolphins created,
USSR study, 5733
scientific research and development, Federal
funds for R&D continue to remain level,
15034
Soviet agricultural institutes, USSR study,
7353
see also subjects.

Scientific satellites, *see* Satellites.

Scientific societies:

- reform and change for scientific institutions,
USSR study, 7354
traumatologists and orthopedists societies,
report on work, USSR study, 2011
USSR, Republic academies of sciences hold
annual meetings, 10267
Scientists:
and engineer employment, Federal spending
and its impact, study in measurement,
16853
compensation, 1969 national survey, 4897
environmental, employment outlook, 14673
Federal Government, bibliography, 9476
life scientists, employment outlook, 14674
Ph.D. scientists and engineers in private
industry, 10292
research and development in industry,
1967, funds, 1967 scientists, Jan. 1968
report, 4590
role in developing public policy (address),
8151
scientific and technical personnel in industry,
14741
scientists and creativity (remarks), 1278
scientists and related professions, examination
announcement, amendment, 6471
scientists from abroad, 1968 fiscal year,
reviews of data on science resources,
4591
scientists in various specialties, average
age at death, 10317
self-sacrificing young scientists doing research,
USSR, 7385
Soviet cooperation with foreign scientists,
12634
Soviet scientists discuss social obligations,
7364
space, aid given by Data Reduction
Laboratory, 7532
training medical and scientific cadres,
USSR study, 1982
Ukrainian SSR higher educational institutions,
16807
see also Research scientists.
Scintillation:
and correlation analysis for 15-GHz line-of-
sight propagation channels, 10382
laser-beam scintillation—
measurement of 0.63 μ m, in strong atmospheric
turbulence, 3576
wavelength dependence, 2090
Scioto County, Ohio, community profile,
14187
Sclerosis, *see* Multiple sclerosis.
Scoggins, James R., investigation of small-
scale motions and forecasting of wind profiles
over short periods of time at Cape
Kennedy, Fla., 12758
Scombrids, fishes from southeast Florida,
size, seasonal abundance and length-weight
relation, 10896
Scotland County, Mo., community profile,
17873
Scotland County, N.C., community profile,
14188
Scott, Forrest E., major statistical series of
Department of Agriculture, how they are
constructed and used, agricultural marketing
costs and charges, 11946
Scott, Frank T., soil survey, Tallahatchie
County, Miss., 7777
Scott, H., evaluation of pyrrones as membranes,
16940
Scott, Harold B., address, Oct. 8, 1970, 15720
Scott, Hugh, all things are changing and we
are changing with them, Republican report,
91st Congress, 1st session, 3900
Scott, Ronald F., freezing process and mechanics
of frozen ground, 599
Scott County, Iowa, community profile, 14189
Scott County, Miss., community profile,
16340
Scott County, Mo., community profile, 17874

INDEX 1970

- Scotts Bluff County, Nebr., community profile, 17875
- Seranton, Pa.:
area wage survey, 4382, 18126
principal electric facilities, map, 8622
- Scrap:
automobile scrap with nonmagnetic taconites, reduction roasting, 8912
automobile scrapping processes and needs for Maryland, 10576
quality, dismantling typical junk automobile to produce, 2059
secondary gold in United States, 5852, 11574
steel, pretreating to speed oxidation, 4476
superalloy, chemical reclaiming, 874
- Screening tests, near-real-time screening performance, scale, resolution, and presentation rate, study, 9361
- Screens:
and fencing, mesh, Federal item identification guide, 6863
rotary vibratory fine screening of combined sewer overflows, 16520
traveling screens—
diversion and collection of juvenile fish, 9539
to collect juvenile fish, preliminary designs, 18246
wave damping effect of screens, hydraulic model investigation, errata, 10017
- Screw threads, standards for Federal services, 8980
- Screws:
machine products, census of manufactures, 1967, industry statistics, 17526
rocket and missile structures, preparation for and installation of, military standard, notice, 4021
- Screwworms:
barrier program, facts, 3376
keeping screwworms out of United States, questions and answers, 1192
- Scribner, practical aspects, 10411
- Scribner, Burdon F., activities of NBS Spectrochemical Analysis Section, July 1968—June 1969, 964
- SCS, *see* Soil Conservation Service.
- SDL, *see* Space Disturbances Laboratory.
- SDR (Special Drawing Rights), *see* International Monetary Fund.
- SDS, *see* Students for a Democratic Society.
- Sea, *see* Ocean.
- Sea food:
food from the sea, nutrition and private industry, national nutrition survey, hearings, 1743
pasteurization, effect of irradiation on microbial flora surviving irradiation, 131
technology's role in seafood industry, 12066
- Sea, Freedom of the, *see* Freedom of the seas.
- Sea grant colleges, *see* Colleges and universities.
- Sea ice:
flexural strength of sea ice and dynamic Young's modulus, 14304
fracture, 1801
- Sea nettles, *see* Jellyfish.
- Sea otter, eastern Pacific Ocean, general information, 15269
- Sea transportation, *see* Transportation.
- Sea urchins, cidaroid echinoids of northwestern Atlantic Ocean, Gulf of Mexico and Caribbean Sea, field guide, 6161
- Sea water:
aquarium, experimental, description, etc., 3708
conversion program, appropriations, 1971, authorize—
law, 8180
reports, 6585, 6761
cost analysis of 6 water desalting processes, 4298
- Sea Water—Continued
desalination—
desalting in combination with ammonia and power production, economics, 1948
experimental industrial adiabatic installation, USSR study, 12631
report, 11440
executive summary, 16696
- desalting—
cost calculating procedures, 12610
emergency water supply for New York City, study, 11450
literature 1969, bibliography, 11449
vacuum freezing vapor compression process—
60,000 GPD pilot plant evaluation, 16699
state-of-the-art, 780
desulfating process pilot plant, supervision, construction, and evaluation, 11451
distillation plants, method for evaluation of system and cost effectiveness, 10229
electrosorb process for desalting water, 5627
flash stage analytical model, development, 5619
Freeport Test Facility, annual report, 5613
improved ppb oxygen analyzer, assembly and evaluation, 18069
infrared characteristics, 1-1/2 to 15 microns, 4620
low-cost, iron-base alloy to resist corrosion in hot sea water, development, 772
saline water—
conversion, engineering and economic evaluation study of reverse osmosis, 7304
solar distillation, manual, 12609
saline water conversion program, 1971, review, hearings, 9913
sea water and its concentrates to 200°C, further studies, 7309
simulated deep submarine escape from 495 feet of sea water, 12736
thermosorb process for desalting water, 4302
2.5 million gallon per day universal desalting plant, universal design, report, 5631
water technology, 10227
see also Desalination.
- Seabees, planner's and estimator's handbook, 9041
- Seaboard Coast Line R.R., accident report, 4149
- Seaborg, Glenn T.:
addresses, etc.—
Nov. 11, 1969, 1275
Nov. 17, 1969, 138, 1274
Nov. 20, 1969, 141
Dec. 2, 1969, 139, 143, 146
Dec. 4, 1969, 147
Feb. 24, 1970, 4895
Mar. 10, 1970, 6401
Mar. 25, 1970, 9411
Apr. 20, 1970, 9407
Apr. 22, 1970, 9408
May 1, 1970, 8031
May 15, 1970, 8033
May 25, 1970, 10773, 10776
May 26, 1970, 10779
June 3, 1970, 10752
June 4, 1970, 10775
June 13, 1970, 10778
- Seaburn, G. E.:
effects of urban development on direct runoff to East Meadow Brook, Nassau County, Long Island, N.Y., 5553
preliminary results of hydrologic studies at 2 recharge basins on Long Island, N.Y., 4246
- Seacoke project, *see* Coke.
- Seafaring guide and directory of labor-management affiliations, 7447

- Seafood, *see* Sea food.
- Seago, J. B., soil survey of Wells County, N. Dak., 12928
- Seagran, H. L., guidelines for processing of hot-smoked chub, 6522
- Seal of United States, *see* Seals (numismatics).
- Sealants, *see* Sealing compounds.
- Sealers, Federal item identification guides for supply cataloging, supplements, 2495
- Sealift magazine, 3178
- Sealing:
- air sealing coal mines to reduce water pollution, 5385
 - through contaminated pouch surfaces, 13043
- Sealing compounds:
- coal-tar extended polysulfide canal sealant, laboratory tests, 7723
 - evaluation of concrete and related materials for desalination plants, progress report, 15144
 - Federal item identification guide, 16134
 - infiltration control, improved sealants, 1870
 - polysulfide canal contraction joint sealer, 17245
- Seals (animals):
- fur seal investigations, 8167
 - North Pacific fur seals, agreement between United States, Canada, Japan, and USSR, extending interim convention of Feb. 9, 1957, 4744
 - northern fur seal, history, distribution and movements, etc., 9516
- Seals (impressions, fasteners, etc.):
- flexible package seal defects, use of infrared radiometric microscope in nondestructive determination, 13041
- Seals (numismatics):
- great seal of United States, certain uses of likenesses, prohibit, report, 5124
 - seal of United States, certain uses of likenesses, prohibit, report, 5124
 - seal of Vice President, certain uses of likenesses, prohibit, report, 5124
- Seals and glands:
- ceramic-metal bore seal development, 14816
 - gas turbine face sea thermal deformation and computer program for calculation of axisymmetric temperature field, 2125
 - gaskets, packings, and seals, Federal item identification guide, change, 16127
 - seal parametric design, potassium turboalternator (KTA), preliminary design, study, 10345
 - teflon-clad rubber-gate seals, research investigation, 9093
 - vacuum leakage tests of simulated lightweight spacecraft air lock, 12808
- Seamen, *see* Sailors.
- Seaplanes, STOL air-sea transport model with blowing over canard and wing flaps, ground effects investigation, 18206
- Seapower, *see* Freedom of the seas.
- Searby, Harold W., coastal weather and marine data summary for Gulf of Alaska, Cape Spencer, westward to Kodiak Island, 1817
- Search and rescue, survival, 3435
- training edition, 3434
- Search and seizure, District of Columbia, stop and search procedures, provide, hearings, 3857
- Search for solitude, our wilderness heritage, 19993
- Seas, *see* Ocean.
- Seas, Freedom of, *see* Freedom of the seas.
- Seasonal labor:
- migrant and seasonal farmworker powerlessness, hearings, 9925, 11139, 12378, 16074
 - seasonality and manpower in construction, 14666
- Seasoning of wood, *see* Wood.
- Seat belts, *see* Automobile seat belts.
- Seattle, Wash.:
- area wage survey, 11534
 - census of transportation, 1967, commodity transportation survey, production, area series, 6433
 - principal electric facilities, map, 8625
 - Seattle-Tacoma International Airport, climatological summaries, 7849
- Seawater, *see* Sea water.
- Sebastodes, fecundity, multiple spawning, and description of gonads, 8166
- SEC, *see* Securities and Exchange Commission.
- Seckel, Gunter R.:
- trade wind zone oceanography pilot study, sea level—
 - meteorological properties and heat exchange processes, 15750
 - wind field and wind stress values, 15752
 - vertical sections of temperature and salinity in trade wind zone of Central North Pacific, Feb. 1964–June 1965, 1369
- Seckler-Hudson, Catheryn, our Constitution and Government, Federal textbook on citizenship, 17291
- Secondary education:
- compensatory, programs, 4063, 5351, 5358, 11220, 11242–243
 - current expenditures by local education agencies for free public elementary and secondary education, 17908
 - developments, USSR study, 4339
 - Elementary and secondary education act—amend—
 - hearings, 11032
 - law, 6549, 10920
 - reports, 3932, 6646
 - text, 16391
 - improving education, 12 stories, 8518
 - PACE projects to advance creativity, supplementary centers and services, etc., 4058
 - programs, authorizing, extend, hearing, 17637
 - title I—
 - education of the disadvantaged, evaluation report, 14280
 - neglected and delinquent children, program, questions and answers, 7022
 - free public elementary and secondary education, 1967–68, current expenditures by educational agencies, 578
 - high school self-study program, advanced general education, handbooks, lessons, tests, and answers, 5813
 - needs for 1970's—
 - hearings, 5156
 - policy papers, compendium, 13505
 - PACE report, 3002
 - summer upward bound, Terre Haute, Ind., secondary compensatory program, 4063
 - see also* Education.
- Secondary impacts of public investment in natural resources, 12997
- Secondary mortgage credit act, *see* Mortgages.
- Secondary schools, *see* High schools—Schools.
- Seacrest, Margaret F., improved procedure for determining malathion residues in stored agricultural products, 4800
- Secrecy (law):
- foreign bank secrecy and bank record-keeping, report, 15992
- Secrest, Harry C., public roads, journal of highway research, 3110
- Secret Service, report to the public, 9096
- Secretaries:
- employment outlook, 12694
 - General Accounting Office, careers, general information, 16537
 - see also* for departmental secretaries, names of departments or names of secretaries.

INDEX 1970

- Secretary of Senate, *see* Senate.
Sector income and employment multipliers, their interactions on national economy, 13008
Secunde, Richard R., mercury electrochemical coulometer as battery state-of-charge indicator, 12789
Securities:
act of 1933—
amend, report, 15979
general rules and regulations, 17260
releases, compilation, 9097
releases, SEC, 3179
consumer protection in corporate equity ownership and in corporate takeover bids, reports, 9895, 15985
cost of flotation of registered equity issues, 9098
dealers, relationships under banking act of 1933, regulations, 1859
equity transactions and ownership of directors, etc., of Federal reserve member State banks, monthly summary, 3244
Federal broker-dealer insurance protection act, hearings, 13529
foreign, interest equalization tax act, extend—
law, 1393
reports, 1455, 1481
impact of Federal government on market for State and local securities (remarks), 18388
investment companies and restricted securities problem (address), 9099
investor protection for customers of registered brokers, dealers, and members of national securities exchanges, hearings, 13529
issues, exemptions for small businessmen, increase, hearing, 9895
margin stock, credit by banks for purchasing or carrying, regulations—
amendment, 10084
supplement, 14395
market, effect of institutional investors. study—
extend reporting time—
law, 15795
report, 13480
law, 310
mortgage backed, new easy way to invest in housing, 10213
publications, price list, 15125
registration exemptions, increase, report, 15979
securities salesmen, employment outlook, 14692
traded on exchanges, annual listing, quarterly supplement, 3181
transactions and holdings, 2985
see also Government securities.
Securities and Exchange Commission:
appropriations, 1971, hearings, 8271, 11105
companies filing annual reports, directory, 7731
general rules and regulations under Securities exchange act, 10542, 17260
institutional investor study, extend filing time—
hearing, 13528
laws, 310, 15795
report, 13480
news digest, 2961
registration exemptions, increase, report, 15979
releases, 2454, 2715, 2770-71, 2843, 3179-80, 3228, 3294
report, 1969—
departmental edition, 7730
document edition, 6564
statistical bulletin, 3226
work, 1085
Securities exchanges:
act of 1934—
amend—
hearings, 3872, 3874, 9895, 13528-529
laws, 310, 15795
reports, 15985, 16028
companies filing annual reports, directory, 7731
general rules and regulations, 10542
releases, SEC, 3180
code of Federal regulations, 8640
see also National securities exchanges.
Security, *see* International security—Military security—National security—Social security.
Securities Investor Protection Corporation, establish, report, 16028
Sedges, carices of Rocky Mountains and Colorado basin, manual, 12977
Sedgewick, H. W., sugar and confectionery products, 13146
Sedgewick, Charles H. W., tobacco products, 10795
Sedgwick County, Colo., soil survey report, 6196
Sedimentary rocks:
and marine black shales, minor element content, selected annotated bibliography, 8729
tunnel boring technology, disk cutter experiments, 12743
Sedimentation and deposition:
Arkansas, sources and solutions, 4690
Atlantic Continental Shelf and slope of U.S. heavy minerals from southern Nova Scotia to northern New Jersey, 10175
Bollnas Lagoon, Marin County, Calif., summary of preliminary studies, 10165
deposits of Colorado River on Fort Mojave Indian Reservation, 18613
field measurements of initiation of large bed particle motion in Blue Creek near Klamath, Calif., 4243
field methods for measurement of fluvial sediment, 11400
fluorescent sand as tracer of fluvial sediment, 7243
fluvial sedimentation concepts, 10185
geomorphology and sediments of near-shore Continental Shelf, Miami to Palm Beach, Fla., 4066
Little Lake Harbor, Lake Superior, bottom stability and sedimentary processes, 18135
sediment and erosion control in urban areas of Northeast, guidelines, 9143
sediment discharge, San Juan drainage basin, Orange and Riverside Counties, Calif., preliminary determination, 8738
sediment problems in urban areas, 14526
sediment transport in alluvial channels (series), 4243, 7243, 10177
sediment transport experiments, flume width and water depth effects, 10177
sediment yield, Eel and Mad River basins, 15449
sedimentation activities, 1968, notes, 10670
sedimentation and eutrophication research on 3 small reservoirs, 3872
sedimentation in—
Plum Creek subwatershed No. 4, Shelby County, north-central Kentucky, 5564
small drainage basins (series), 5564
survey of Kajakal Reservoir, Afghanistan, 16641
suspended sediment and water characteristics, 17171
Seebaugh, William R., influence of suction on shock wave turbulent boundary layer interactions for two-dimensional and axially symmetric flows, 16938
Seed crops, *see* Crops—Seeds.
Seeding, *see* Forest planting—Sowing.

Seedlings:

Engelmann spruce, planted, affected by shading and other factors, in central Rocky Mountains, 11353
growth of 8 northwestern tree species over 3 water tables, 8697
juvenile seedlings in southern hardwood forests, identifying, 14480
seedling root growth of 7 northwestern tree species, effects of high soil density, 4187
winterfat, emergence and survival from 4 planting depths, 11352
see also Plants—*also* names of plants or trees.

Seeds:

biology of poor seed production in tephrosia vogelii, 7947
certifying uniform standards and procedures, law, 305
eastern redcedar seed sources in southwest Missouri, survival and growth, 5494
Federal seed act, amend, law, 305
foreign agriculture circulars, 2657
losses to small mammals after fall sowing of pine seed, 695
seed crops—
acreage, yield, production, etc., annual summary, 6258
bumper western hemlock, sitka spruce seed crop in southeast Alaska, ripening and dispersal, 5500
field seed stocks report, 3182
forecast, 3183
prices, 3184
seed orchardist's guide to handling of insecticides and calibration of spray equipment, 8716
seedfall and establishment of Engelmann spruce in clearcut openings, case history, 5515
see also names of plants.

Seepage, investigation on Medina Canal, Bexar-Medina-Atascosa Counties, Tex., Water Improvement District No. 1 Canal System, 10184

Segal, Dorothy B., index-catalogue of medical and veterinary zoology, 12963

Segregation, *see* Race problems.

Selbert, C. G., 1000 LMFBR liquid metal fast breeder reactor, follow-on study, 1267

Seidel, Kenneth W., survival and growth of eastern redcedar seed sources in southwest Missouri, 5494

Selden, Jacob:

OAR progress, 1969, 1210

OAR research review, Office of Aerospace Research, 2978

Seiden, Richard H., suicide among youth, review of literature, 4567

Seidensticker, R. G., final report on investigation of desalination by freezing, 7306

Seldman, David R., family planning service programs, operational analysis, 16852

Seines, *see* Fish nets—Nets.

Seismic measurements, NORSAR microseisms, 16456

Seismicity, *see* Seismology.

Seismographs, portable refraction seismograph survey of gold placer areas near Nome, Alaska, 10160

Seismology:

analysis of seismic data from cratering and contained events, contribution, Project Schooner, 13078

Antarctic seismological bulletin (periodical), 2336

NORSAR microseisms, 16456

seismic activity in Pahute Mesa area, Nevada Test Site, summary, 6383

seismic data on T-waves, review, USSR study, 1991

seismic effects associated with underwater explosive research facility, 10327

Seismology—Continued

seismic measurements, Gasbuggy experiment, 3497

seismicity of Santa Barbara Channel region, Calif., 731

seismological bulletin (periodical), 3185
seismological publications, list, 3677, 15702

Selander, C. E., evaluation of concrete and related materials for desalination plants, 15144

Seldner, Kurt, computer and engine study of generalized parameter fuel control for jet engines, 11689

Select Committee on Small Business, House, investigation and studies expenses, report, 8238

Selected papers from Bureau of Radiological Health Bureau, seminar papers, 5384

Selective service, *see* Conscription.

Selective Service System:

appropriations, 1971, hearings, 8271, 11105
Director, nomination of Curtis W. Tarr, hearing, 6789

local board memoranda, 2848

operation, practices, and procedures—
administrative improvement study, subcommittee recommendations, 9921
hearings, 1738

reform, message from the President, 8224
regulations, 3193

semi-annual report, 17262

Selenium, mineral market report, quarterly, 3194

Self-employed, *see* Employment.

Self employment, *see* Employment.

Self-service food stores, *see* Stores.

Self-study course in FORTRAN programming—

textbook, 12753

workbook, 14808

Selfway River, river plan, 3769

Selig, S. M., naval research logistics quarterly, 2938

Selim, A. Aly, prediction of penetration rate for percussive drilling, 10334

Selim, George D., American doctoral dissertations on Arab world, 10303

Selkirk, N.Y., motor carrier accident, 18176

Sellers, Bach:

design and development of isotopic altimeter setting indicator, 10636

program to evaluate and explore potential applications of radioisotope excited X-ray fluorescence techniques in criminalistics and national security, final report, 9398

Sellers, Walter E., jr., labor used on U.S. farms, 1964 and 1966, 10708

Selling, *see* Markets and marketing—Sales—Salesmen and salesmanship.

Selling to AEC, 1279

Selling to Navy, prime contractors, 2185

Semiconductors:

devices, test methods, military standard, 8484, 17742

electronics, yesterday, today and tomorrow, USSR study, 11518

mercury-transformer and semiconductor substations, USSR study, 11507, 16741

metal-dielectric-semiconductor integrated logic circuits set for automation and telematics systems, USSR study, 16780

methods of measurement for semiconductor materials, process control, and devices, 8996

semiconductor amplifiers and oscillators at microwave frequencies, tabulation of data, 7577

semiconductor device industry, measurement methods, summary of NBS activity, 965

semiconductor devices and associated hardware, Federal item identification guide, 16137

INDEX 1970

- Semiconductors—Continued
 - semiconductor materials, process control, and devices, methods of measurement, 7579, 17042
 - errata, 11736
 - some practical aspects of scribing, 10411
 - switching inverter with sine-wave output, 15088
 - USSR electron devices, tabulation of published data, 18237
- Seminars, *see* Conferences, congresses, etc.
- Seminole Indians:
 - estates of intestate members, disposition—law, 9605
 - reports, 6606, 8368
- Semler, Thor T., DAISY, efficient program for production of neutron pseudo resonance parameter chains in unresolved energy region, 12802
- Semmler, R. A., development of neutron spectrometry for critical facilities, 6380
- Semtner, Albert J., magnetic and bathymetric profile in Pacific from Cocos Ridge to central California, 17949
- Senate:
 - appropriations, 1971, legislative, hearings, 9890
 - calendar—
 - business, 2818
 - executive, 2821
 - candidates, use of television broadcast stations at reduced rates, provide, hearings, 1705
 - committee funds authorized and expended for inquiries and investigations, staff study, 8440
 - committees, fees of witnesses appearing before, increase, report, 1615
 - documents, 442-448, 3897-3900, 5185-91, 6729, 8343-45, 9775-86, 11063-64, 12289-291, 13558-572, 15965-970
 - employees, pay increase, retroactive compensation, authorize, report, 9830
 - executive documents, 3901-2, 5192-93, 6730-31, 9787-89, 13573-574, 15971-973A
 - executive reports, 449-451, 5194, 6732-34, 8346-47, 11066-68, 13575, 15974
 - journal, 91st Cong., 1st sess., 6728
 - majority and minority leaders, history and development of offices of floor leaders, 5189
 - majority leader Mike Mansfield, tributes commemorating longest tenure, 13560
- Members—
 - nomination and election, Federal and State laws, summary, 8343
 - public service broadcasting time, require licensees, hearings, 17694
- nonvoting delegates for District of Columbia, provide, report, 13453
- reports—
 - private bills, 452, 1603-4, 3903-19, 6735, 8348, 9790-9816, 11069, 12292-317, 13576-622, 15975-976, 17657-662
 - public bills, 453-480, 1605-96, 3920-46, 5195-5256, 6736-79, 8349-74, 9817-82, 11070-102, 12318-355, 13623-704, 15977-16031, 17663-685
- Secretary, reports, 5190, 13572
- Secretary for Minority, J. Mark Trice, tributes upon occasion of his golden anniversary of Senate service, 15969
- standing rules, excerpt from manual, 9941
- telephone directory, 5184
- Senate documents, 442-448, 3897-3900, 5185-91, 6729, 8343-45, 9775-86, 11063-64, 12289-291, 13558-572, 15965-970
- Senate executive documents, 3901-2, 5192-93, 6730-31, 9787, 13573-574, 15971-973A
- Senate executive reports, 449-451, 5194, 6732-34, 8346-47, 11066-68, 13575, 15974
- Senate reports:
 - private bills, 452, 1603-4, 3903-19, 6735, 8348, 9790-9816, 11069, 12292-317, 13576-622, 15975-976, 17657-662
 - public bills, 453-480, 1605-96, 3920-46, 5195-5256, 6736-79, 8349-74, 9817-82, 11070-102, 12318-355, 13623-704, 15977-16031, 17663-685
- Senator Wash unit, *see* Colorado River Front Work and Levee System.
- Senatore, S. J., seawater desalting by distillation processes, 1948
- Senators, *see* Senate.
- Seneca County, N.Y., community profile, 14190
- Seneca County, Ohio, community profile, 14191
- Senegal, Guinea-Senegal boundary, study, 7815
- Seney National Wildlife Refuge:
 - birds, list, 12932
 - marshland wildlife drive, description, 15261
- Senfite, F. E., neutron activation techniques for precious metal exploration, 133
- Senior citizens, *see* Aged.
- Senior Personnel Placement Bureau, Inc., Norwalk, Conn., project report on employment referrals, designs for action for older Americans, 5
- Seniority, *see* Labor.
- Sense organs, sensory and neurological disabilities, estimated numbers and cost, 15021
- Sensitivity:
 - differential, for alternate interaural loudness balancing in psychoacoustic calibration of earphones, 5846
 - launch vehicle error study, 5898
- Sensitization, sensitized materials, photographic and copying, Federal item identification guide, 6864
- changes, 8475, 13791
- Sensors:
 - advanced figure, 16944
 - aerial sensing and photographic study of El Verde rain forest, P.R., 4067
 - arrays, some information processes, 18297
 - botanical techniques for on-site inspections of suspected underground nuclear explosions, 16605
 - detection capabilities study, 4234
 - digital electronic normal shock position sensor for mixed-compression inlets, design and performance, 2126
 - ion-selective electrochemical, 4299
 - passive inflatable falling-sphere technology for atmospheric sensing to 100 km, status, symposium, 5913
 - remote sensing of—
 - atmospheric turbulence profiles, feasibility study, 7509
 - wind profiles in boundary layer, 16465
 - SEAL glide-slope receiver, flight evaluation, 4116
 - two-dimensional point resolution, 18293
 - two gas atmosphere sensor system (mass spectrometer), phases 2a and 2b, 8924
 - used on spacecraft for scientific missions, USSR study, 7367
 - winds and temperature, NSSL-WKY meteorological tower, Oklahoma City, Okla., roughness lengths, 17946
- Sensory diseases, *see* Sense organs.
- Sensory evaluation of diesel exhaust odors, 7561
- Separation and Purification Section, National Bureau of Standards, summary of activities, 6007
- Separation of powers, independent agencies, cases and selected readings, 9775
- Separation processes:
 - analysis for Office of Saline Water, 5623
 - boundary layer separation on liquid sphere, 16048

Separation processes—Continued
 combined sewer separation using pressure
 sewers, 10107
 electrophoretic-specific gravity separation
 of pyrite from coal, laboratory studies,
 16924
 heavy liquid separation, continuous heavy
 liquid concentration of spodumene, 8907
 mineral separation in vacuum, factors re-
 lated, 11589
 wedge-induced laminar boundary layer
 separation on flat plate in low-density,
 hypervelocity flow, 10408
 Sephton, Hugo H., vertical tube evaporator
 utilizing vortex flow and interface en-
 hancement, 16700
 Sequential analysis:
 determination of stable barium, strontium,
 calcium, and magnesium in biological
 materials, 6376
 van der Waerden's theorem on arithmetic
 progressions, note, 15082
 Sequoyah County, Okla., soil survey report,
 11872
 Serial set (congressional), 5029-35, 8173-
 75, 9572, 10903-905, 12088-90, 13253-256,
 15763-764, 17574-575
 Serials:
 catalog of copyright entries, 3997
 MARC format, 11556
 new serial titles—
 classed subject arrangement, 2956
 union list, alphabetical arrangement,
 2957
 nuclear science abstracts, titles cited, lists,
 4890, 15528
 Sub-Saharan Africa, guide, 16875
 Serotinin, and antiserotinin preparations,
 effect on development of early stages of
 mice embryos cultivated in vitro, USSR
 study, 5730
 Serpan, Charles Z., jr.:
 analysis of neutron-embrittlement and
 flux-density considerations of Army
 SM-1 reactor pressure vessel, 17191
 damage-function analysis of neutron-
 energy and spectrum effects upon radia-
 tion embrittlement of steels, 6099
 Serpentine, serpentinite in Hunting Hill
 quarry, Montgomery County, Md., 8728
 Serpentine Hot Springs, Alaska, area Se-
 ward Peninsula, geology, mineral deposits,
 and geochemical and radiometric anoma-
 lies, 14522
 Serpentinites, *see* Serpentine.
 Serpulidae, *see* Polychaeta.
 Serum and serumtherapy:
 influenza as anthroponosis, 8830
 serum enzymes, indicators of changes in
 physical condition, 7451
 uric acid levels, effects of Marine Corps
 officer candidate school training, 14762
 Servants:
 do you work in someone's home? social se-
 curity credit you earn today can mean
 cash benefits for you later, 7757
 household help, if only I could get some!,
 6283
 private household workers, employment
 outlook, 16830
 social security and your household em-
 ployee, 15173
 women private household workers, fact
 sheet, 12954
 Service clubs:
 Air Force in Thailand, activities, allega-
 tions of kickbacks and other irregulari-
 ties, hearing, 13714
 military club systems, fraud and corrup-
 tion in management, investigation,
 hearings, 1730, 3975
 Service records, *see* Military records.
 Service station attendants, employment out-
 look, 14704

Service trades:
 census of business, 1967—
 area statistics, 155-164, 1291-99,
 3540-47, 4916-20, 6416, 9431
 subject reports, 15547
 equipment, Federal item identification
 guides for supply cataloging, supple-
 ments, 2592
 personal, apprenticeship schedules, 4844
 selected services, monthly receipts, 2471
 service industry, machines and machine
 shops census of manufactures, 1967, in-
 dustry statistics, 13152
 Service, USDA's report to consumers, 3195
 Servicemen, *see* Armed Forces—Life In-
 surance—Mechanics (persons).
 Servo systems, *see* Servomechanisms.
 Servomechanisms, synchro, servo, and gyro
 fundamentals, rate training manual, 17185
 Servus Rubber Co., Rock Island, Ill., plant,
 certain workers, protective footwear of
 rubber or plastics and plastic-soled foot-
 wear with fabric uppers, Tariff Commis-
 sion report, 15346
 Setup men, *see* Job setters (machine shop).
 Seven Cities of Cibola, historical background
 study, 7638
 Sever, Bruce B., basic data on economy of
 Peru, 4992
 Severance pay, *see* Wages.
 Severe Storms Laboratory, *see* National
 Severe Storms Laboratory.
 Sevier County, Utah, community profile,
 6960
 Sewage:
 activated sludge—
 and activated sludge reaeration in fruit
 cannery waste, aerobic treatment,
 10103
 treatment of chrome tannery wastes,
 pilot study of treating combined
 chrome tannery wastes and domestic
 sewage, 5471
 basic sewer facilities grants, 12601
 combined sewer overflow—
 abatement technology, symposium pro-
 ceedings, 11335
 rotary vibratory fine screening, 16520
 seminar papers, 10106
 strainer/filter treatment, 1869
 stream pollution and abatement, 16522
 combined sewer separation using pressure
 sewers, 10107
 composting dewatered sewage sludge,
 10021
 control of pollution by underwater storage,
 8676
 control of sewage from vessels, law, 8138
 crazed resin filtration of combined sewer
 overflows, self-adjusting and self-clean-
 ing filter, feasibility study, 14416
 dispersal of sewage contaminants in
 ground water and surface water, South
 Farmingdale-Massapequa area, Nassau,
 County, N.Y., 18052
 District of Columbia water and sanitary
 sewer rates, increase, report, 13686
 ground-water infiltration reduced in
 sewers by zone pumping, 14417
 proposed combined sewer control by elec-
 trode potential, 16521
 Roanoke, Va., engineering investigation of
 sewer overflow problem, detailed inves-
 tigation into cause and effect of sanitary
 sewer overflows and recommended
 remedial measures, 18001
 sanitary sewer systems serving rural areas,
 FHA insured loans, general information,
 9315
 sewage and water works construction, con-
 tract awards, 10101, 17999
 sewage sludge fluidized bed incinerator
 capacities and costs, mathematical
 model, 14408
 sewer flow, control with polymers, 1871

INDEX 1970

- Sewage—Continued
 sewer fluidic regulator, combined design, 14418
 sewerage and central water systems, ownership and organization, 10051
 sewerage and sewage disposal in cold regions, 1803
 sewerage systems, civil defense management, industrial civil defense handbook, 4956
 storm and combined sewer demonstration projects, 1863, 7172
 treatment equipment, Federal item identification guides for supply cataloging supplements, 2593
 Sewage-plant operators, waste water treatment plant operator, employment outlook, 16837
 Sewall, John L., analytical vibration study of ring-stiffened conical shell and comparison with experiment, 8940
 Seward County, Nebr., community profile, 17876
 Seward Peninsula, Alaska:
 Hot Springs area, geology, mineral deposits and geochemical and radiometric anomalies, Serpentine, 14522
 Western Alaska central York Mountains, geology and ore deposits, 4230
 Sewerage, *see* Sewage.
 Sewers, *see* Sewage.
 Sewing machines:
 and accessories, Federal item identification guide, 16138
 buying for home use, 19
 Sex:
 and age characteristics of civil service annuitants in relation to social security, 17279
 discrimination in employment, laws, 10673
 sex-oriented mail, protection of minors and right of privacy—
 hearings, 13530
 reports, 6624, 9655, 13439
 Sextants, lunar midcourse navigation system using statistical filter theory and handheld sextant observations, hardware simulation, 927
 Sexton, Patricia C., basic education, 7405
 Sexual dimorphism, *see* Dimorphism (animals).
 Seyer, Philip, reading statistical tables, self-instruction course, 7286
 SFCSI, special foreign currency science information program, 17167
 SF6, *see* Sulfur hexafluoride.
 Shackelford, A. D., determination of bruise rates on broilers before and after handling by live bird pickup crews, 6
 Shacklette, Hansford T.:
 absorption of gold by plants, 10161
 botanical techniques for on-site inspections of suspected underground nuclear explosions, 16605
 geochemical environments and cardiovascular mortality rates in Georgia, 4244
 vegetation of Amchitka Island, Aleutian Islands, Alaska, 4250
 Shacklock, John D., aerospace safety, 2301
 Shacter, Francine E., directory of non-federal statistics for States and local areas, guide to sources, 12037
 Shad, threadfin, identification by gizzard dimensions, 11891
 see also Gizzard shad.
 Shade trees, *see* Trees.
 Shades and shadows:
 all multiple reflections and shading among diffuse, gray surfaces in spacecraft, method for thermal analysis, 12824
 shade cover effects on stream temperature in southeast Alaska, 8695
 Shafer, Elwood L., Jr., average camper, who doesn't exist, 4204
 Shafer, John H., address, Nov. 17, 1969, 7059
 Shaft, J. Burdette, relief, 3911, 6535
 Shafts:
 rotating, dynamics, 16157
 shaft collars and hub clamps, Federal item identification guide, change, 5311
 Shale:
 age of Bedford, and Sunbury shale, etc., in Appalachian and Michigan basins, Pennsylvania, Ohio, and Michigan, 5541
 black, and associated rocks, geochemical investigations, 4232
 marine black, and related sedimentary rocks, minor-element content, selected annotated bibliography, 8729
 Ohio and Chattanooga, Foerstia zone, 16606
 see also Oil shale—Shale oil.
 Shale oil, Mines Bureau publications, 1917-68, list, 848
 Shambon, Arthur, tests of TLD-700 high sensitivity LiF ribbon for low-level environmental radiation measurements, 15514
 Shamanism, *see* Medicine men.
 Shands, W. A., controlling potato insects, 11940
 Shanks, Howard T., 9th conference on thermal conductivity, 8012
 Shannon County, Mo.:
 community profile, 17377
 Ozark National Scenic Riverways, history, basic data, 7640
 Shannon County, S. Dak., community profile, 14192
 Shapes:
 bluff tension-shell shapes, effects of pressure distributions on, 5944
 cables towed in circular path, 15075
 determination of inflated shape and inertial properties of all-flexible parawing, 12821
 Shapes (metal):
 Federal item identification guides for supply cataloging, supplements, 2593
 Shaprio, A., simulated ocean radar impulse responses from lunar radar measurements, 12894
 Shapiro, Harold, visual appearance of polymeric contamination, 11675
 Share-cropping, improvement of life and work of sharecroppers, ILO recommendation, 335
 Sharkey County, Miss., community profile, 16341
 Sharma, D. N., Hindi, active introduction, 11898
 Sharon, David, distribution of longest temperature-duration in a month, 1221
 Sharpe, Lake, northern pike, walleye, and sauger population estimates, 7792
 Shasta-Trinity National Forests, mountain adventures, daylong hikes in Trinity Alps, guide, 16554
 Shattles, D. E., water-level and water-quality trends on Mississippi Gulf Coast, 16627
 Shawe, Daniel R., structure of Slick Rock district and vicinity, San Miguel and Dolores Counties, Colo., 11395
 Shawnee County, Kans., soil survey report, 10571
 Shawnee National Forest:
 Garden of the Gods Recreation Area, general information, 14449
 Illinois iron furnace, general information, 18009
 Shay, Barry P., universal logic blocks, 6101
 Sheaffer, John R., flood-hazard mapping in metropolitan Chicago, 5546
 Shear (mechanics):
 growth due to buoyancy of weak homogeneous turbulence with shear, 17004
 magnetic configurations with shear and minimum B, 4871
 Portland cement pastes and mortars, early strength development, exploratory studies, 14914

Shear (mechanics)—Continued

rail shear test for evaluating edgewise shear properties of wood-base panel products, 5506

shear and sliding resistance tests of rock joints for Forebay Dam, Grand Coulee, 3d powerplant project, 15145

shear layer and jet instability in stratified media, 5941

see also Strains and stresses.

Shedd, Edward S., electrowinning misch metal from treated bastnaesite concentrate, 11585

Sheds:

free-stall, for dairy cattle, farm building plan, 3412

machine shed, tilt-up concrete construction, farm building plan, 30

shed for drying hay, farm building plan, 9310

Sheep:

on feed, 1165, 7845, 9213

sheep and cattle scabies eradication, cooperative State-Federal progress report and epidemiology, 7907

stocker and feeder, shipments, 3197

Sheep ranches, see Ranches.

Sheep ranges, see Range lands.

Sheet glass, see Glass.

Sheet metal:

electronworn tungsten sheet, evaluation, 10325

Federal item identification guides for supply cataloging, supplements, 2593

work, special trade contractors, census of construction industry, 1967, statistics, 13132

Sheet metal workers:

employment outlook 14703

railroad, labor-management dispute, 1970, settlement, hearings, 9753

Sheet Metal Workers' International Association, emergency board report, 1797

Sheeting, polyethylene sheeting, construction, industrial, and agricultural applications, voluntary product standard, 11744

Sheets, Robert C., structure of Hurricane Dora, 1821

Sheffer, Victor J., relationship between changes in wages rates and in hourly earnings, 16863

Sheire, James W., Badlands, basic historical data study, 7631

Shekarchi, E., mineral industry of Sierra Leone, 16906

Shelby County, Ala., community profile, 14193

Shelby County, Iowa, community profile, 14194

Shelby County, Ky., Plum Creek subwatershed no. 4, sedimentation, 5564

Shelby County, Mo., community profile, 17878

Shelby County, Ohio, community profile, 14195

Shelgrin, William O., Ansley Wilcox House National Historic Site, historical data, 15030

Shell, G. L., composting dewatered sewage sludge, 10021

Shellac:

disposal from national and supplemental stockpile—

law, 12147

reports, 6603, 6756, 11000

Shellenberger J. A., study of U.S. wheats as supplements for Western European wheats in breadmaking, 3375

Shellfish:

Alabama landings, 284, 2327

California landings, 2385

Florida landings, 2650

Georgia landings, 1366, 2693, 10882

interstate shippers list, 2769

Louisiana landings, 2867

Maine landings, 2860

Shellfish—Continued

Maryland landings, 2874, 3699, 13232

Massachusetts landings, 2875

Michigan, Ohio, Wisconsin landings, 8157

Mississippi landings, 286, 2891

Mississippi River fisheries annual summary, 3701

New Jersey landings, 2951, 12063

New York landings, 2958

North Carolina landings, 2970

Oregon landings, 12062

Pacific Coast, fisheries, annual summary, 3700

radiation pasteurization, annual report and final summary of total program, 15518

Rhode Island landings, 3157, 10887

situation and outlook (periodical), 3196

South Carolina landings, 3209

Texas landings, 3257, 6519, 10883

United States fisheries, annual summary, 3702

Virginia landings, 3330, 12064

Washington State landings, 10884, 12061

Shells (aircraft):

generalized ring stiffness matrix for ring-stiffened shells of revolution, 12774

shells and plates, vibration responses to fluctuating pressure environments, study, 12755

thermal buckling in supersonic gas flow, USSR study, 2001

Shells (structural):

analytical vibration study of ring-stiffened conical shell and comparison with experiment, 8940

errata, 16956

isotropic conical shells loaded by external pressure, preliminary design procedure for end rings, 16985

sandwich, manual for structural stability analysis, 4489

shallow spherical with variable edge constraint, Newton-Raphson-conjugate-gradient technique for calculation of axisymmetric buckling, 5957

slender thin-walled booms, instability due to thermally induced bending moments, 11646

thin circular conical shells, density of eigen-values, 7510

see also Tension shells.

Shelter belts, tree planters' notes, 3293

Shelters, see Buildings.

Shelters (protective), see Protective shelters.

Shelton, Ella M.:

diesel fuel oils, 14790

motor gasoline, winter 1969-70, petroleum products survey, 14791

Shenandoah (USS):

deployment, maritime matters, agreement with Malta, 15307

Shenango formation, see Mississippian period.

Shenk, Faye, career indications among junior officers, 10711

Shenk, William E., meteorological satellite views of cloud growth associated with development of secondary cyclones, 12771

Shenoy, A. S., measurements of extinction parameters of hot seeded hydrogen at one atmosphere pressure, 5896

Sheppard, Jack G., introduction to learning machines, 8949

Sher, Alvin H., nomographs for use in fabrication and testing of Ge(Li) detectors, 14925

Sheridan, William H.:

legal bibliography for juvenile and family courts, supplement, 9108

legislative guide for drafting family and juvenile court acts, 233

Sheridan County, Nebr., community profile, 17879

Sheridan County, N. Dak., community profile, 14196

INDEX 1970

Sherman, Kenneth, seasonal and areal distribution of zooplankton in coastal waters of Gulf of Maine, 15746

Sherman, May:

immune mechanisms in health and disease, review of research grants supported by National Heart and Lung Institute, 7600

renin-angiotensin mechanisms, review of research grants supported by National Heart and Lung Institute, 17073

Sherman, Robert, simulated performance testing for ship structure components, 10543

Sherman, Windsor L., solid of model universes, 5975

Sherman, Tex., construct barrier in Denison Dam, Lake Texoma, Red River, to provide municipal and industrial water supply, consent of Congress, report, 6683

Sherman antitrust act, *see* Trusts (industrial).

Sherman County, Nebr., community profile, 17880

Sherthill, R. W., photometric properties of selected lunar features, 889

Sherwood, T. K., desalination by freezing, investigation of ice production from brine in continuous crystallizer, 771

Sheva River and Valley, geologic structure of basin in Afgansky Badakhshan (northeast Afghanistan), USSR study, 16766

Sheyenne River:

flood control plan, engineers report—

departmental edition, 10011

document edition, 9628

Shielding:

calculations for broad neutron beams normally incident on slabs of concrete, 9391

fast breeder reactor, development, report, 10756

physics of reactor shielding, problems, USSR study, 5754

problems in physics of reactor shielding, USSR study, 16746

television receiver components, field method for determination of lead in glass used for shielding, 4086

transverse of proton synchrotron, estimating nearby stray photon spectra and dose above 25 MeV, 9395

see also Heat shields.

Shields, William R., Analytical Mass Spectrometry Section, summary of activities, 8993

Shields, spatial capture distributions in resonance absorbers, estimation, 12783

Shigella, surveillance, National Communicable Disease Center reports, 2926

Shigo, Alex L.:

beech bark disease, 14443

some effects of paraformaldehyde on wood surrounding tapholes in sugar maple trees, 12565

Shimkin, Michael B., science and cancer, 984

Ship Structure Committee:

annual report, 4659

SSC series, 1086, 4659, 10543, 11846, 17263-268

Ship terminals, *see* Terminals (transportation).

Shipbuilding:

apprenticeship schedules, building and construction trades, 11967-968

Coast Guard not requiring shipbuilders to buy insurance and performance and payment bonds as means of reducing cost of vessel construction, GAO report, 14510

construction-differential subsidies, extend 55-percent maximum rate, hearings, 18535

Shipbuilding—Continued

effect of flame and mechanical straightening on material properties of weldments, 17264

modernization of design, construction, etc. (remarks), 11561

new program for U.S. merchant marine, recommendations—

hearings, 3882, 8312

message from the President, 1438

new ship construction, oceangoing of 1000 tons and over in U.S. and foreign shipyards, 16879

relative cost in various coastal districts of U.S., annual report to Congress, 12729

safety and health regulations, 10290

ship and boat equipment, census of manufactures, 1967, industry statistics, 12010

ship construction contracts, requirements for performance and payment bonds, waive, report, 5119

Shipments:

approaches to controlled waterborne cargo (remarks), 17979

chemical data guide for bulk shipment by water 6495, 10854

commodities by manufacturers, map, 15661

customs regulations on cargo for U.S. military forces, agreement with Philippines, 4736

defense oriented industries current industrial reports, 220

improving use of cargo space on aircraft operated by contract with Defense Dept., GAO report, 14492

manufacturers—

current industrial reports, 2475

inventories and orders, 15656

marking, military standards, 9960, 17741

military cargo, opportunity for savings by improved selection of air carriers for transporting, GAO report, 11378

1970 domestic and international facilitation programs, 10647

regulating shipment of living pests, pathogens, and vectors, 10697

supplies and equipment, packaging and handling deficiencies, quarterly summary, AMC pamphlet, 3460

see also names or classes of articles shipped.

Shippers:

fruit, export acts, questions and answers, 3421

interstate milk, certification under State-PHS cooperative program, 5473

interstate shellfish list, 2769

shipper groups, commodity transportation survey, 1967 census of transportation, 1309-19, 3601-8, 4824-28, 12013

Shipping:

code of Federal regulations, 5459, 7142-45

container age in world shipping (remarks), 16496

containerization, streamlining of administrative paperwork (remarks), 5424

Federal Maritime Commission, regulation and revolution (remarks), 16494

foreign oceanborne trade of United States container cargo, selected trade routes, 2660

foreign trade reports, 1338, 2668, 2671, 17542-543

Government-owned shipping capacity between New Orleans, La., and Panama Canal Zone, savings through greater use, GAO report, 723

industry outlook, (remarks), 17981

maritime industry—

growth and expansion (remarks), 16495

success depends on Government and railroad cooperation (remarks), 7444

Shipping-Continued

maritime services, radio stations on land, shipboard, etc., FCC rules and regulations, 2581
new maritime program (remarks), 8883
ocean transportation problems (address), 640
role of collective bargaining in shaping working conditions (remarks), 10052
role of Federal Maritime Commission in helping maritime industries (remarks), 17983
through routes, through rates and trade simplification bill (remarks), 7095
trade area, coastal district, customs district, port of lading or unloading and type of service, foreign trade, 17542
see also Water carriers.
Shipping clerks, employment outlook, 14687
Shipping conferences, steamship lines in foreign commerce of U.S., approved conference, rate and interconference agreements, 630, 2341, 7093, 17977
Shipping containers, *see* Containers.
Ships:
AMVER [automated merchant vessel report] system, 13211
bulk carriers in world fleet, oceangoing merchant type ships, list, 8878
cargo and miscellaneous vessels, Coast Guard rules and regulations, 283
Coast Guard, authorization for procurement—
hearings, 5172, 8382
reports, 6605, 6616, 9848
commercial nuclear vessel welds, influence of composition on fracture toughness, 15087
commodity transportation survey, 1967
census of transportation, shipper group, 1319
construction, *see* in main alphabet, Shipbuilding.
control of sewage from vessels, law, 8183
Coast Guard, authorization for procurement, law, 10921
containerships under construction and on order, including conversions, in United States and foreign shipyards, June 30, 1969, list, 5836
designs for U.S. flag merchant fleet, 12730
dry cargo, results from full-scale measurements of midship bending stresses, 17266
electrical systems, Navy, 6096
extension of loan of vessels, agreement with Republic of Korea, 17345
Federal item identification guides for supply cataloging, supplements, 2598
finding probable position fix from error configuration, USSR study, 7390
flag containerships and flag ships with partial capacities for containers and/or vehicles, U.S., June 30, 1969, list, 5839
foreign vessel activities in or near U.S. waters off Florida, Coast Guard policy and operations, hearings, 13744
global expedition, USC&GS ship Oceanographer, 1967, cruise narrative and scientific program, 8575
Government-owned vessels in support of military activities in Southeast Asia, operation improvements needed, Maritime Administration, GAO report, 5531
Lake Michigan, east coast, Sept. 23, 1967
squalls, loss of and damage to vessels and loss of life, marine casualty report, etc., 6073
large and medium-size, modern dock structures USSR study, 7363
loan, extension, agreement with—
Brazil, 4747
Germany, Federal Republic, 6243
Greece, 10615
Italy, 10617
Korea, Republic, 9205

Ships-Continued

loan, extension—continued
Thailand, 1148
Turkey, 1147
loans, now in existence, extension, and new loans, authorize, hearings, 5147
maritime matters, deployment of USS Shenandoah, agreement with Malta, 15307
mechanical vibrations of shipboard equipment, military standard, 1773
merchant fleets of world—
age, size, speed & draft by frequency groupings, Dec. 31, 1968, statistical analysis, 7448
oceangoing steam and motor, 1,000 gross tons and over, 14758
Merchant ship sales act, amend, hearings, 5171
merchant vessels, United States—
monthly supplement, 2911
1968 report, 3683
military cargoes, carry on private vessels when available, hearings, 5171
military procurement appropriations, 1970, authorization—
law, 1386
report, 1450
military procurement appropriations, 1971, authorization—
hearings, 8275, 11107
reports, 9657, 9662, 12352
naval vessel loans, extend—
hearing, 16037
reports, 5123, 6617
nuclear power plant safety on ships, USSR study, 5737
ocean cruise vessels, operating differential subsidy, remove certain restrictions—
hearing, 3967
law, 10611
supplemental report, 360
oceanographic research and survey ships, economies obtainable by increasing days at sea, Environmental Science Services Administration, GAO report, 4218
oceanographic ship operating schedules, 2140, 9002
offshore oil pollution hazard, recommendations for congressional action to reduce risks, message from the President, 9632
overhaul contracts, weakness in award and pricing, Navy Department, GAO report, 7218
passenger list of vessels arriving at—
Baltimore—
city lists, 1833-66, pamphlet to accompany microcopy, 14911
Federal lists, 1820-97, pamphlet to accompany microcopy, 17025
quarterly abstracts, pamphlet to accompany microcopy, 11723
Boston, 1820-91, pamphlet to accompany microcopy, 11719
passenger vessels meeting safety standards, disclosure of construction details, eliminate—
hearing, 3963
law, 1411
report, 1659
passenger vessels, reconstruction subsidies, extend 60-percent maximum rate, hearings, 13535
permissible stresses and their limitations, 17263
repairing, safety and health resolutions, 8860
response instrumentation aboard container vessel S.S. Boston, results from 2 operational seasons in North Atlantic service, 17268
response results from first operational season aboard container vessel S.S. Boston, 17267
routing, north Pacific Ocean, wave climatology aid, 7682

INDEX 1970

Ships—Continued

- ship design and trade promotion (remarks), 10307
- shipbreaking, safety and health regulations, 10289
- ships and marine equipment, Federal item identification guides for supply cataloging, supplements, 2598
- ships, registered under Liberian, Panamanian, and Honduran flags deemed by Navy Dept. under U.S. control, 3198
- shrimp vessels, foreign repairs, exempt from duty, report, 10964
- slamming of ships, critical review of current state of knowledge, 17265
- Soviet, new, description, 4355
- structure components, simulated performance testing, 10543
- two-dimensional point resolution, 18293
- uninspected vessels, Coast Guard rules and regulations, 15705
- vessel at sea, probability density function for future position, 18294
- Vessel bridge-to-bridge radiotelephone act—
 - hearings, 3881
 - report, 3819
- vessel entrances and clearances, foreign trade, summary reports, 1338, 2670, 17543
- vessel security, amend internal security act, hearings, 1586
- vessels for research activities at oceanographic institutions, need for improved administration of Federal support, National Science Foundation, GAO report, 16592
- see also* Fishing vessels—Floating equipment—Merchant marine—Shipbuilding—Warships—*also* names of ships.
- Shipstructure, *see* Shipbuilding.
- Shipyards, maritime safety digest (periodical), 2871
- Shirts:
 - and trousers, Federal item identification guide, 11178
 - men's and boys' shirts (except work shirts) and nightwear, industry wage survey, 7426
- Shivers, James P., full-scale wind tunnel investigation of static longitudinal and lateral characteristics of light single engine low wing airplane, 11681
- Shneidman, Edwin S., bulletin of suicidology, 9014
- Shock (biological):
 - botanical techniques for on-site inspections of suspected nuclear explosions, 16605
- Shock (mechanical):
 - digital electronic normal shock position sensor for mixed-compression inlets, design and performance, 2126
 - inviscid radiating shock layers about spheres traveling at hyperbolic speed in air, 17008
 - reflected shock air plasmas at 12–16,000° K, thermodynamic property measurements, 12766
 - shock and vibration digest, 3199
 - shock and vibration monograph series, 16157
 - shock effects on frozen materials, exploding wire experiments, 11252
 - stagnation-point solutions for inviscid radiating shock layers, 12791
 - thin radiating shock layer about blunt body, 7517
- Shock absorbers, shock cushioning properties of corrugated fiberboard pads, atmospheric moisture effect on, 16572
- Shock-tube flow analysis with dimensionless velocity number, 920

Shock waves:

- diffraction by circular cylindrical cavity in elastic-plastic media, numerical computation, 8535
- externally generated, interacting with laminar and turbulent boundary layers, investigation, 916
- propagation in inhomogeneous elastic-plastic media, stability of difference approximation, 5365
- shapes and surface pressures on hemisphere and cone cylinders in low density hypersonic flow including ablation, 11633
- turbulent boundary layers interactions, influence of suction for two dimensional and axially symmetric flows, 16938
- see also* Sonic boom.
- Shoe repairmen, employment outlook, 14713
- Shoes, *see* Boots and shoes.
- Shofner, F. M., investigation of noise characteristics and amplitude stabilization of plasma lasers, 14826
- Shooting, shooting animals from aircraft, prohibit, provide Federal criminal penalty, hearing, 12280
- Shore, C. Wayne, proficiency differences of pilot and navigators F-4 2d-seat crewmembers, southeast Asia evaluation, 13011
- Shore, Charles P., experimental investigation of flutter at Mach 3 of rotationally restrained panels and comparison with theory, 914
- Shore, John E., fast, flexible, highly parallel associative processor, 15063
- Shore, Moyers S., II, battle for Khe Sanh, 2041
- Shore protection, program, information, 16444
- Shoreline areas, protection, Federal participation in cost, amend act to include privately owned property, hearings, 3891
- Shortleaf pine, *see* Pine.
- Shortridge, John D., Italian harpsichord-building in 16th and 17th centuries, 10465
- Short-term asset management, 5420
- Shoshone project, water resource development proposals, Interior Dept. to investigate feasibility, law, 297
- Shoulders, Eugene, growth and yield of mixed loblolly-slash pine plantation, 11359
- Shovel, crane-shovel attachments, Federal item identification guide, 16121
- Showman, Robert D., experimental investigation of attitude control system that uses star trackers and inertia wheels, 11677
- Shrager, Jack J., altimetry, literature review and bibliography, 18376
- Shreeve, Kenneth H., local-use/gap-filler radar design analysis, 9269
- Shrimps:
 - Alaska shrimp explorations, 9520
 - breaded—
 - annual summary, 8158
 - current fishery statistics, 2647
 - development of shrimp trawl to separate shrimp from fish and bottom-dwelling animals, progress report, 5007
 - Gulf Coast, data, annual summary, 289, 2700
 - juveniles, diagnostic characters, 5014
 - landings, 3200, 6520
 - life histories of several penaeid shrimps (Penaeidae) along south Atlantic Coast of U.S., 13243
 - shrimp vessels, foreign repairs, exempt from duty, report, 10964
 - sun-dried-shrimp industry of north central Gulf of Mexico, survey, 9521
 - world demand, outstripping supply in next decade, 9532
- Shrinkage, in hand sheets during drying, measuring, 14465
- Shrock, John G., research in dental education, 7267

Shrubs:
 improvement, forester's role, conference proceedings, 14457
 selecting for shady areas, list, 9295
Shu-Sum Cheuk, see Cheuk, Shu-Sum.
Shubik, Philippe, survey of compounds which have been tested for carcinogenic activity, 4556
Shuby, Joseph L., oceanographic observations, North Pacific Ocean Station Victor, 262
Shufelt, C. E., 1000 MWe LMFBR liquid metal fast breeder reactor follow-on study, 3509
Shugars, Owen K.:
 commercial tobacco farms, Coastal Plain, N.C., 14269
 commercial tobacco-livestock farms, Bluegrass area, Ky., and Pennyroyal area, Ky.-Tenn. costs and returns, 8498
Shultz, George P.:
 addresses, etc.—
 Nov. 6, 1969, 804
 Jan. 29, 1970, 7406
Shuttle cars, see Mine cars.
Siberia:
 rise of science centers, Far East territory traced, USSR study, 16785
 science and technology development, 10257
 southeast coast, sailing directions, change, 1018
Sica, Louis, thermal defocusing of CO2 laser beam in air doped with SF6, 17193
Siccardi, Frank J., differential diagnosis of lymphoid leukosis and Marek's disease, 9327
Scilliano, Rocco C.:
 addresses, etc.—
 Dec. 4, 1969, 280
 Jan. 26, 1970, 3697
 Feb. 17, 1970, 5004
 Apr. 17, 1970, 8141
 May 21, 1970, 9493
 June 3, 1970, 9491
 June 6, 1970, 9510
 June 16, 1970, 10867
 June 30, 1970, 10881
Sick:
 and injured, training of ambulance personnel and others responsible for emergency care at scene and during transport, 8775
 financial protection for Federal employees, 4969
 income-loss protection against illness, 2222
Sick pay, see Pay, allowances, etc.
Sickle cell anemia, see Anemia.
Siding, asphalt and tar, current industrial reports, 2475
Sidewalks, military installations, geometric design, etc., Army technical manual, 7995
Sidik, Steven M., RAPIER, FORTRAN 4 program for multiple linear regression analysis providing internally evaluated remodeling, 5951
Siebert, Donald L., impact of technology on commercial secondary aluminum industry, 7457
Siegel, Peter V.:
 safety significance of aircraft accident post mortem findings, 8038
 time-zone effects on long-distance air traveler, 6405
Siegel, Robert:
 analysis by conformal mapping of steady frozen-layer configuration inside cold rectangular channels containing warm flowing liquids, 4529
 analytical method for steady heat transfer in two-dimensional porous media, 11693
Stehl, George, how can our physical environment best be controlled and developed? 11063

Sierra County, N. Mex.:
 mineral resources of Black Range Primitive Area, 16607
 White Sands Missile Range test wells, general information, 7251
Sierra Leone:
 background notes, 6216
 economic trends and their implications for United States, 14640
 mineral industry, minerals yearbook chapter, 16906
Sierra National Forest:
 Bass Lake Recreation Area, general information, 18007
 camping the high country, general information, 16537
Sierra, Nevada, central, Kaiser Peak quadrangle, Calif., analytic data, 16616
Slesseger, Frederic W., basic data on economy of Pakistan, 13224
Sietsema, John P., education directory 1969-70 public school systems, 9984
Sigalloniidae, see Polychaeta.
Sight:
 night vision, effect of vibration on performance with electro-optical aids, 2044
 principles of information processing in visual system, USSR study, 16761
 quantitative evaluation of optically induced disorientation, 11979
 significance of visual information in forming spatial perception in weightlessness, USSR study, 12654
 stereoscopic field of vision of healthy individuals, new data, USSR study, 7359
 underwater vision, 16885
 vision screening in your health unit, 1057
 visual activity of children, health, statistics, 6015
 visual and auditory neurophysiology, comparisons between, 8889
 visual detection in spacecraft environment, experimental and analytical study, 14812
 visual illusion problems, 17962
 visual perception under water, effects of diving experience on, 10318
 visual performance, effects of near infrared radiation, preliminary investigation, 7452
 window wavefront deformations, interferograms as measure of angular deviations to line of sight, 10396
see also Optical illusion.
Sight reduction tables for air navigation, 18285-286
Sight reduction tables for marine navigation, 10489
Siglonidae, see Polychaeta.
Sigma phase, formation in nickel-base superalloy (IN-100), further observations, 17003
Signal detection, periodically pulsing signal and periodically gated receiver, interactions probabilistic analysis, 2178
Signal Evaluation Airborne Laboratory, SEAL glide-slope receiver, flight evaluation, 4116
Signal processors, arrays of sensors, some information processes, 18297
Signal systems:
 Federal item identification guide, 16115
 supply cataloging, supplements, 2494
 railroad, installation, inspection, maintenance, and repair of systems, and devices, rules, standards, and instructions, 10530
Signalman, 1 & C, Navy training course, supplement, 9056
Signals:
 accumulator with photo-electronic signal selection, USSR study, 5766
 audibility of impulsive sounds, study, 10381
 battalion, armored, mechanized, and infantry, field manual, change, 81

- Signals—Continued
correlation signal processing for depth sounding, 17172
echolocation differentiation and characteristics of radiated pulses in dolphins, USSR study, 4329
electromagnetic, pulse propagation through solar corona, study, 14815
human operator state, 11705
hybrid phase-lock loop, analysis, 11629
motion drive signals for piloted flight simulators, 11617
phase modulation of visual signal of laser interferometer as means of extending range of measurement of plasma density, 14869
signal processing of underwater acoustic waves, 2184
signal rate effects on monitoring—
dynamic process, methodology in assessment of complex human performance, 3516
static process methodology in assessment of complex performance, 8037
signal-to-noise ratios for HF communication systems, 1839
smooth limiting of 2 signals in narrow-band system, 15094
see also Radio signals—Time signals.
- Signatures (writing):
be sure before you sign, 17215
Signor, D. C., annotated bibliography on artificial recharge of ground water, 4265
- Signs:
fallout shelter signs, requesting and using, 8112
Federal item identification guide, 13780
Signs (advertising):
control on highways, pilot programs, authorize, amend U.S. Code, report, 1620
Signs (road):
field maintenance of routed wood signs, 16540
- Sikand, Harmohan S., supersonic flutter of thermally stressed flat plate with edge stiffeners, 11014
- Sikov, Melvin R., radiation biology of fetal and juvenile mammal, 4886
- Silberman, Laurence H.:
nomination—
hearing, 13754
report, 13575
- Silcox, W. Bruce, world import duties and other entry charges on eggs and egg products, 1873
- Silica:
alumina-to silica mole ratio, role in lime-soda sinter process, 16922
high-silica iron ores for production of metallic concentrates, 873
Silica aerogels, see Aerogels.
- Silicon:
determination of oxygen concentration, by infrared absorption, 10438
microcircuits, fabrication by neutron transmutation doping, final report, 9397
radiation resistant insulating layers for planar silicon technology, development, 10358
3½ percent added to iron, effect on adhesion, friction, and wear in various media, 5958
Silicon diodes, silicon power diode, analysis of forward electrical characteristics, effects of nuclear radiation, 11637
Silicon isotopes, Si(n,p) and Si(n,a) reaction cross sections at 14.5 MeV neutron energy, 18200
Silicone resins, see Resins.
Sillcosis, UHF irradiation for treatment, effect, USSR study, 18748
Silk, and waste and intermediate products of silk, trade and tariff information, summaries, 11908
- Silliman, Ralph R., birectilinear recruitment curves to assess influence of lake size on survival of sockeye salmon (On corhynchus nerka) to Bristol Bay and forecast runs, 8168
- Sills, Morris W., market test of dry whole milk, 9 supermarkets, Lansdale, Pa. area, 4046
- Silos, horizontal, tilt-up construction, farm building plan, 3411
- Silt, straight auger and belled auger footings in sandy silt, uplift resistance, Mead-Liberty transmission line, Pacific Northwest-Pacific Southwest Interlie, 9088
- Silurian period, early graptolites from southeastern Alaska and their correlation with graptolitic sequences in North America and Alaska, 10183
- Silver:
deposits, White Mountain plutonic series in New Hampshire and Maine, 6543
fluorination, kinetic study, 10410
geochemical investigations at Stibnite, Idaho, 11596
gold and silver content manufactured articles, misrepresentation of quality, provide civil remedy—
hearing, 3872
law, 15765
reports, 6641, 12205
mineral industry surveys—
annual, preliminary, 7456
monthly report, 2694
potential and economic aspects of Leadville district, Lake County, Colo., 11576
production and consumption, 1968, report, 10339
silver-dealer claimants, refer to Chief Commissioner of Court of Claims, report, 13376
silver in United States, 847
- Silver (money):
Mint Bureau, report, 10339
- Silver bromide, thermodynamic data, 16918
- Silver certificates, outstanding, adjustment, report, 11095
- Silver chloride, thermodynamic data, 16918
- Silver Jack Dam, spillway stilling basin, Bostwick Park project, Colo., hydraulic model studies, 9092
- Silverfish, how to control, 22, 15430
- Silverman, Leslie J., selected statistics on educational personnel, 7028
- Silverware, census of manufactures, 1967, industry statistics, 12011
- Silvicides, weeding woodland, Georgia, 7786
- Silviculture, see Forests and forestry.
- Simmon, Frederick F., thermocapillary induced breakdown of falling liquid film, 4523
- Simmons, Samuel J.:
addresses, etc.—
Jan. 10, 1970, 4271
Jan. 27, 1970, 4281
Feb. 6, 1970, 5605
Feb. 12, 1970, 5609
Mar. 3, 1970, 7271
- Simmons, Will M., talk, Feb. 18, 1970, 8507
- Simms, Raymond L., supply cooperative as farmers see it, 8586
- Simon, Kenneth A., digest of educational statistics, 1969 edition, 5348
- Simons, J. W.:
housing for migrant agricultural workers, 12978
surface bonding of concrete blocks, technique for erecting block walls without mortar joints, 11947
- Simplified blanket loan guaranty plan, questions and answers, 10644
- Simplified practice recommendation R series, 4552
- SIMPO, see Information storage and retrieval systems.
- Simpson, Richard O., address, Mar. 11, 1970, 6516

- Simpson, W. T., tensile stress-strain behavior of flexibilized epoxy adhesive films, 10127
- Simpson County, Miss., community profile, 16342
- Sims, Eugene M., jr., relief, 9646
- Simson, B. G., accuracy of air tower pressure gages in suburban Washington, D.C., 2139
- Simulation:**
 computer model for evaluation of health care delivery system, 17048
 computer simulated conventional and branching tests, comparison, 15494
 digital of rotational kinematics, 900
 digital simulation of XB-70 inlet and its application to flights-experienced free-stream disturbances at Mach numbers of 2.4-2.6, investigation, 12798
 fixed based visual simulation of obstacle avoidance during terminal descent of advanced Apollo spacecraft with all-flexible parawing, 14879
 Fokker-Planck equation by random walks of test particles in velocity space with application to magnetic mirror systems, 5962
 graphic simulation study of 2 sites for 2d major airport in Atlanta, Ga., area, 18377
 in-flight simulated instrument approaches in general aviation aircraft, pilot heart rates, 13089
 in ground-test facilities of ablation performance of charring ablators during atmospheric entry, 12788
 ionospheric conditions for space vehicles, 14860
 lunar soil simulant study, outgassing characteristics, 4084
 model, basis and application for oceanographic data transmission system using HF radio, 14350
 simulated performance testing for ship structure performance, 10543
 simulation predictions of inlet unstart and buzz compared with XB-70 flight test data, 11625
 simulator study of coupled roll-spiral mode effects on lateral-directional handling qualities, 12769
 study of 3 instrument displays to assist in thrust management, 18205
 wildland fuels to simulate urban conditions, preparation of test plots for fire behavior studies, 10123
- Simulators:**
 control systems for moving-base simulators, quasi-optimum design, 18181
 Federal item identification guide, 542
 fixed base, versus skid pan practice in skid control training, 5378
 ionospheric channel and atmospheric noise, simulators, recommended specifications, 613
 instrument landing approach for heavy subsonic jet transport with external-flow jet-flap system used for additional lift, study, 11686
 large launch vehicles utilizing X-15 airplane and flight simulators, study of display systems for manual guidance, 5940
 materials and defect, simulator for calibrating ultrasonic equipment used in nondestructive testing or inspection, 9059
 reduced-gravity simulators used for studying lunar self-locomotive tasks, comments on several, 8951
 simulated lightweight spacecraft air lock, vacuum leakage tests, 12808
 simulator for HF atmospheric radio noise, 614
see also Flight simulators—Solar simulators.
- Sinclair Oil Companies, wage chronology, supp. 8862
- Sine waves, two-dimensional sinusoidal waves, effects on heat transfer and pressure over plate at Mach 8.0, 14876
see also Radio waves.
- Singapore:**
 country market survey, 4315
 economic trends and their implications for United States, 794, 11477
 market factors, 278
- Singer, Joseph M., radiant heating of coal dust clouds by flames in coal mine galleries, 18168
- Singers, employment outlook, 12687
- Singh, Jag J., Si(n,p) and si(n,a) reaction cross sections at 14.5 MeV neutron energy, 18200
- Single Convention on Narcotic Drugs, 1961, *see* Narcotics.
- Single persons, *see* Unmarried persons.
- Singular extremaloids in optimal control theory and calculus of variations, 10356
- Sinkers, *see* Die sinkers.
- Sinnhuber, R. O., effect of irradiation on microbial flora irradiation pasteurization of seafood, 131
- Sinnott, Richard L., address, Oct. 12, 1970, 16160
- Sino-American Development Fund, *see* Sino-American Fund for Economic Development.
- Sino-American Fund for Economic Development, agreement with Republic of China, 17343
- Sintering, sintered fly ash, turf soil modification, 8909
see also Lime-soda sintering.
- Sinusoids, *see* Sine waves.
- Sioux City, Iowa, and Plattsmouth, Nebr., measurement of mixing characteristics of Missouri River, 10191
- Sioux County, Iowa, community profile, 14197
- Sioux County, Nebr., community profile, 17881
- Sioux County, N. Dak., community profile, 14198
- Sioux Falls, S. Dak., area wage surveys, 4381
- Sioux Falls unit, *see* Missouri River Basin project.
- Sioux Indians:
 Cheyenne River Tribe, lands, hold in trust, law, 320
 Fort Peck Indian Reservation, Sioux Tribe judgment funds, disposition, law, 12111
 Mississippi, judgment funds, disposition, report, 10977
 Rosebud Tribe, sale and exchange of isolated tracts of tribal land, law, 3729
 Standing Rock Tribe, lands, place in trust status, law, 319
see also Fort Peck Reservation.
- SIPC, *see* Securities Investment Protection Corporation.
- Sipple, Lloyd, ultraviolet irradiation techniques for preserving maple sap, 7904
- Siragusa, Charles, testimony, hearings, 17707
- Sires, *see* Bulls.
- Sirois, D. L., evaluation of campground stoves and grills, 672
- Siskiyou National Forest, 1969 stockholders report, 14487
- Sisneros, Thomas E., research and development of single gun color CRT, phase 2, final report, 5900
- Site indexes:**
 preliminary site index curves for noble fir from stem analysis data, 14460
 published curves for Lake States timber species, biological growth functions described, 14471
- Sites:**
 Atlanta, Ga., graphic simulation study of 2 sites for 2d major airport, 18377

INDEX 1970

- Sites—Continued**
 embassy sites, agreement with Union of Soviet Socialist Republics, 1162, 6235, 12942
 how to make industrial site survey, formula for growth, 586
 site evaluation methods, review and comparison, 700
 siting future radar beacons, experimentation and analysis, 7068
 stream dispersion at selected sites, 12589
see also Historic sites.
 Sitka spruce, *see* Spruce.
 Sitka-spruce weevils, *see* Weevils.
 Six-hour retarded child, 9071
 SIXBIT generalized reaction kinetic program, 16463
 Sixes River, placer gold distribution, southwestern Oregon, preliminary report, 8780
 '69 gateway to the seventies, 7773
 Skagit County, Wash., community profile, 6861
 Skamania County, Wash., community profile, 6962
 Skartvedt, Enoch W., foreign trade regulations of Trinidad & Tobago, 10874
 Skerjanec, R. E., rain attenuation study for 15 GHz relay design, 15342
 Ski Northwest, 7202
 Skidding (motor vehicles):
 skid control training, fixed base simulator versus skid pan practice, 5378
 Skiing, *see* Skis and skiing.
 Skilled trades, *see* Occupations.
 Skilled workers, *see* Labor.
 Skin:
 mobile roughness on body surface reduces hydrodynamic resistance, USSR study, 18102
 skinfolts, body girths, biacromial diameter, and selected anthropometric indices of adults, 6013
 Skin diseases, *see* Psoriasis.
 Skin friction (aircraft):
 hypersonic turbulent skin friction, Preston tubes for measuring, 937
 turbulent on nonadiabatic flat plate at Mach number 6.5 and comparisons with 8 theories, direct measurements, 5966
 Skinner, Snider W., Upper Volta's agricultural economy in brief, 8500
 Skipjack tuna, *see* Tuna fish.
 Skis and skiing, ski Northwest, general information, 7202
 Skolnik, Alfred M.:
 age and sex characteristics of civil service annuitants in relation to social security, 17279
 social welfare expenditures, 4872
 workmen's compensation payments and costs, 2221
 Skop, Richard T., shape of cable towed in circular path, 15075
 Skud, Bernard E., size composition, sex ratio, and size at maturity of offshore northern lobsters, 5013
 Skull:
 cranial and bacular variation in populations of spiny rats of Genus *Proechimys* (Rodentia: Echimyidae) from South America, 4663
 cranio-cerebral cooling apparatus, method for improving effectiveness, USSR study, 6755
 Skyhoshish Indians, *see* Enoqualmie Tribal Organization.
 Skyjacking, hearing, 17099
 Skyline logging, *see* Lumbering.
 Skyline tension and deflection handbook, supplement, 8704
 Skywarn, seconds save lives, 5397
 SL series, 3714-16, 10893-895
Slabs:
 plasma slab, theoretical investigation of electromagnetic waves obliquely incident upon, 10414
Slabs—Continued
 reinforced concrete flat slabs, short- and long-term deflections, 8556
 slabs of concrete, shielding calculations for broad neutron beams incident on, 9391
Slag:
 slag-iron and steel, minerals yearbook chapter, 16926
 slagging fixed-base gasification of North Dakota lignite at pressures to 400 psig, 11593
 steel slag disposal, estimated costs, 2051
 Slamming of ships, critical review of current state of knowledge, 17265
 Slash, *see* Forests and forestry.
 Slash pine, *see* Pine.
 Slater, R. L., JAG journal, 2777
 Slatick, Emil, passage of adult salmon and trout through pipes, 6525
 Slatick, Eugene R.:
 mineral industry of—
 Angola, Mozambique, and Portuguese Guinea, 5858, 18150
 Congo (Kinshasa), 857
 Cyprus, 14783
 Kenya, Tanzania, and Uganda, 4437
 Tunisia, 16909
 Slaughter, Charles W., snow albedo modification, review of literature, 1802
Slaughtering:
 commercial slaughter, meat and lard production, etc., 9211
 custom operations—
 hearings, 9887, 13490
 law, 13317
 reports, 11086, 12209
 facilities in frozen food locker cooperatives, production and performance, 12514
 livestock—
 monthly report, 2846
 slaughter plants, Mar. 1, 1970 number, 10634
Slavery:
 slavery to drugs (posters)—
 black version, 15019
 white version, 15020
 Sledge, O. D., study of sea return at normal and near-normal incidence, 12890
Sleep:
 deprivation, physiological responses of men, 17476
 requirements of man-in-the-sea, 4398
 Sleeper, Robert K., stability study and modal analysis of space station centrifuge configuration, 11654
 Sleeping Bear Dunes National Lakeshore:
 establish—
 hearings, 13525
 reports, 13463, 15856
Sleeving (insulating):
 electrical, Federal item identification guide, change, 4011
SLINDER (subroutine), see Computer programs/programming.
Slack Rock district:
 and vicinity, San Miguel and Dolores Counties, Colo., structure, 11395
 geologic investigations in San Miguel and Dolores Counties, Colo. (series), 11395
Slidefilms, see Filmstrips.
Slip laws, see Law.
Slip rings, see Electric slip rings.
Slippers, see Boots and shoes.
Slipstreams, see Propellers.
 Sloat, Harry H., Red Bluff Recreation Area, general recreation development plan, 12874
 Slope County, N. Dak., community profile, 14199
Slopes:
 dynamic and descriptive studies of hillslopes (series), 5569
 forested mountain slope, nocturnal air temperature, 5514

Slopes—Continued

- land-surface tilting near Wheeler Ridge, southern San Joaquin Valley, Calif., 8741
- natural rubble, and their relevance to crater fallback slopes, 5375
- newly shaped—
- mulching as means of erosion control, 15221
- seeding for erosion control, 15230
- overland flow on hillslopes, hydraulics, 5559
- pit slope structures by stiffness matrix method, systematic analysis, 5877
- slope stability analysis by finite element stress analysis and limiting equilibrium method, Mines Bureau investigation, 5876
- stability of west slope of Government Hill port area of Anchorage, Alaska, 725
- Sloshing, fuel slosh damping predictions, effects of vortex shedding, 7541
- Slots:
 - canopy, construction methods, and design details, wind tunnel studies of effects on aerodynamic characteristics of small-scale all-flexible parawings, 16981
 - radiation from slots on cylindrical bodies using geometrical theory of diffraction and creeping wave theory, 5979
- Slovak language, abbreviations in Czechoslovak press, reference aid, English translation, 16737
- Sludge, *see* Sewage.
- Slum clearance, *see* Slums.
- Slums, clearance, local public agency letters, 2850
- Slusher, Gerald R., reciprocating engine and exhaust vibration and temperature levels in general aviation aircraft, 4118
- Small, Hamish, poisoning of ion exchange materials by surface active ions, 14599
- Small, William J., aerodynamic characteristics of hypersonic transport configuration at Mach 6.86, 11695
- Small-area data notes, 3201
- Small astronomy satellites, *see* Satellites.
- Small business, *see* Business.
- Small Business Administration:
 - ACE, Active Corps of Executives, 9100
 - annual reports, 6152, 12913
 - appropriations, 1970—
 - law, 3738
 - reports, 472, 5104
 - appropriations, 1971—
 - hearings, 8270, 13708
 - reports, 9686, 15990
 - valve points of order, report, 9688
- assistance to small business (remarks), 18321
- authority, clarity and extend hearings, 16041
- business loans—
 - analyses of applications need improvements, GAO report, 711
 - lending objectives, etc., 1089, 15157
- financial assistance programs and policies, review, hearings, 5283
- lending programs, key features, 1088
- loan fund ceilings, increase, hearings, 15891
- loan guarantees, clarify authorization—
 - hearing, 3855
 - report, 16011
- loans for veterans, announcement 1087
- organization and operation, hearings, 15943
- press releases, 3088
- publications—
 - for sale, booklets, 9103, 17269
 - free management assistance publications, lists, 4660, 11847
- SBA lease guarantee, Old Dominion Sugar Corp., hearings, 12286
- simplified blanket loan guaranty plan, questions and answers, 10544

- Small Business Administration—Continued
- starting and managing series, 6154, 9104, 15159
- technology program for small business, 10545
- what it is, what it does, 9101
- Small Business, Select Committee on, House:
 - funds for operation, provide, report, 1504
 - hearings, 439, 1600-1, 9770, 11060-61, 12285, 13544, 15940-944, 17652
 - investigations and studies, expenses, report, 13448
 - reports, 1559, 5117, 6678, 10984
- Small Business, Select Committee on, Senate:
 - annual report, 1692
 - committee print, 8441
 - hearings, 524, 5282-83, 6818, 11148-149, 12383, 13761
- investigations and studies—
 - expenses, report, 455
 - small and independent business problems, authorization, report, 5233
 - reports, 1692, 3924-25, 3931
- Small Town Services Office, general information, 5607
- Smart, James R., Sousa Band, discography, 4392
- Smell olfactory coding of noxious substances to assure aversive response in young children, feasibility, 15755
- Smelting:
 - air pollution aspects of brass and bronze smelting and refining industry, 2134
 - electric-furnace smelting processes, methods for studying, improving, and optimizing, 11578
 - high-purity zinc and tin by amalgam electrorefining, 872
 - smelting and refining of nonferrous metals and alloys, census of manufactures, 1967, industry statistics, 15605
- Smelts, otter trawling introduced to Columbia River smelt fishery, 9531
- Smetana, Frederick O., structures, study of NACA and NASA published information of pertinence in design of light aircraft, 7507
- SMI (supplementary medical insurance), *see* Health insurance—Medical care.
- Smidt, Fred A., Jr., dislocation channeling in irradiated metals, 17188
- Smith, Alvin L., Jr.:
 - selected annotated bibliography—environmental studies of Poland, 15461
 - lightning, 51
- Smith, Bruce M., relief, 17672
- Smith, Cameron C., guides for supervisors, 1038
- Smith, Carl B., treating reading difficulties, role of principal, teacher, specialist, administrator, 9997
- Smith, Charles L., pulp, paper, and board, quarterly industry report, 3115
- Smith, Clarence T., Army research and development, newsmagazine, 2349
- Smith, Clark L., kinetic energy balance in developing tropical disturbance, 1822
- Smith, David R., nearctic sawflies, Blenocampinae, adults and larvae (Hymenoptera, Tenthredinidae), 45
- Smith, Frank W., ESSA Research Laboratories programs and resources, 8569
- Smith, H. Clay, bark thickness related to tree diameter in sugar maple (*Acer saccharum* Marsh), 11347
- Smith, Hershel, relief, 15835
- Smith, J. B., and wife, sand and gravel conveyance, 1381, 3783
- Smith, James G., Skolai Group in McCarthy B-4, C-4, and C-5 quadrangles, Wrangell Mountains, Alaska, 4228
- Smith, James K., study of oriented cellulose membranes for reverse osmosis and relationship between morphology and salt rejection, 5622

INDEX 1970

- Smith, James L., shock effects on frozen materials, exploding wire experiments, 11252
- Smith, Kathleen K., Air Force Medical Service digest, 3310
- Smith, Kenneth M., nomination, hearing, 13719
- Smith, Louis C. R., how medical students finance their education, 18267
- Smith, M. Clair, mineral industry of South Dakota, 4460
- Smith, Malcolm E., how to buy fresh fruits, 15427
- Smith, Margaret M., expanded FORTRAN IV program for elastic scattering analyses, 16997
- Smith, Paul F.:
effects of exposure to intense low frequency tones on hearing and performance, 12733
underwater hearing in man, comparison of temporary threshold shifts induced by 3500 Hertz tones in air and underwater, 12732
- Smith, R. H., local and regional variation in monoterpenes of ponderosa pine wood oleoresin, 18027
- Smith, Robert, cost and performance estimates of tertiary waste-water treating processes, 14407
- Smith, Robert G., relief, 13277, 13596
- Smith, Thomas A., relief, 3794, 13276, 13595
- Smith, Thomas B., soybean and cottonseed oils used in shortening and salad and cooking oils, trends, prices, spreads, 12992
- Smith, V. K., Jr., eastern subterranean termite, 14442
- Smith, W. S., temperature, pressure, density, and wind measurements in stratosphere and mesosphere, 947, 14893
- Smith, William R., digital diagnostic techniques, survey and recommendations, 6102
- Smith College, Northampton, Mass., peal of eight bells, duty-free entry, report, 9693
- Smith County, Miss., community profile, 16343
- Smithsonian Institution:
amendments, hearings, 11147
annual report—
departmental edition, 9107
document edition, 8198
appropriations, 1970, law, 314
appropriations, 1970-72, increase, reports, 1527, 6626
appropriations, 1971—
additional, authorize—
hearings, 11147
report, 13680
law, 13335
hearings, 8268
reports, 9702, 12254, 13645
citizen regents of Board of Regents—
additional members, appoint—
hearings, 11147
reports, 1529, 13666
appointment of James Edwin Webb—
law, 10916
reports, 8250, 9823
- Smithsonian contributions to anthropology, 991, 4575, 9025, 10485A-487
- contributions to botany, 11849
- contributions to earth sciences, 17271-272
- contributions to paleobiology, 2216, 7733, 15160
- contributions to zoology, 1094-96, 2217-18, 4663-65, 6155-62, 7734-36, 9106, 10547, 11850-852, 12915-916, 15161-162, 17273-275
- financial management activities, improvement needed, GAO report, 11374
- general information, 11853
- increase and diffusion, brief introduction to Smithsonian Institution, 9105
- learning opportunities for schools, tour programs, 1093
- museum support and depository facilities, construction, authorize, hearing, 11147
- Smithsonian Institution—Continued
publications, price list, 15127
research and advanced study, opportunities, 1097, 18326
sandpaintings of Navaho Shootingway and Walcott Collection, 10467
Smithsonian Institution Press, annual report, 6163
Smithsonian journal of history, 3202
Smithsonian torch (periodical), 3203
storage facilities for museum items, etc., design and construct, authorize, reports, 1526, 13665
studies in history and technology, 4666-67, 7737
- Smoak, W. G., spray systems, method of increasing water evaporation rates to facilitate brine disposal from desalting plants, 774
- Smog, photochemical-smog formation, on function of hydrocarbon and nitrogen oxides, 16921
- Smoke:
measuring smoke from various wood products, determining utility of new optical test procedure, 16573
spectral emittance of soot, 7533
- Smoked fish, *see* Fish and fisheries.
- Smoking:
and health—
bibliographical bulletin, 3204
bibliography, 15131
facts, 18242
and lung cancer, description, etc., 7591
cigarette habits, changes between 1955-66, 10448
even the longest filter doesn't help much! (poster), 17226
if you must smoke, 5 ways to reduce risks, 6147
smoking, health, and you, facts for teenagers, 13183
smoking is nothing to crow about (poster), 17231
use of tobacco, practices, attitudes, knowledge and beliefs, United States, fall 1964 and spring 1966, statistics, 1078
- Snails, edible land snails in United States, 17320
- Snake River and Valley, fish passage report, 14302
- Snakes, catalogue of neotropical squamata, 6057
- SNAP (systems for nuclear auxiliary power), *see* Atomic auxiliary power generators.
- Snapper, western Atlantic, 9529
- Snider, J. B., atmospheric attenuation at 14, 31, and 53 GHz, 10027
- Snieszko, S. F.:
bacterial gill disease of freshwater fishes, 10579
Columnaris disease of fishes, 6204
nutritional (dietary) gill disease, and other gill diseases of fresh-water fishes, 10581
selected fish disease publications in English, 11877
- Snipes, hunting, possession, transportation, importation, 1970-71, in United States, etc., Federal regulations governing, 15276
- Snipes Mountain, Sunnyside, Yakima County, Wash., hydrologic situation north of Snipes Mountain, 8736
- Snodgrass, Jon, Philadelphia student health project, 5588
- Snohomish County, Wash., community profile, 6963
- Snohomish Indians, judgment funds, disposition, report, 15997
- Snoqualmie Indians, *see* Snoqualmie Tribal Organization.
- Snoqualmie National Forest, letter to stockholders, 1969 report, 8717
- Snoqualmie Tribal Organization, Snoqualmie and Skykomish Tribes, judgment funds, disposition, report, 15997

Snow:

- albedo modification, review of literature, 1802
- alpine snow, physical properties, 4068
- conditions, weather and crop bulletin (periodical), 3355
- deformation under rigid plates at constant rate of penetration, 8534
- Federal-State-private cooperative surveys—
 - Arizona, 3337, 18335
 - Colorado and New Mexico, 3338
 - Colorado, 4700-1
 - Idaho, 3339
 - Montana, 1113, 3340, 10558, 18336
 - Nevada, 3341, 18337
 - Oregon, 2227, 3342, 18338
- snow courses and soil moisture stations, Colorado and New Mexico, list and location, 7764
- special snow survey information, 9170
- story, general information, 15235
- Utah, 3343, 9135
- Washington State, 3344
- western United States, including Columbia River drainage in Canada, 1107, 3345, 17291
- Wyoming, 3346
- foundations and subsurface structures in snow, 4073
- Greenland, physical properties and internal structure, 7032
- polar, variation of some mechanical properties, Camp Century, Greenland, 5364
- relation of snowpack accumulation to red pine stocking, 5495
- snow cover density in North America, relationships between climate and regional variations, 5363
- strength tests on newly fallen snow, 682
- surveys, Alaska, 2626
- utilities on permanent snowfields, 4074
- see also Precipitation.
- Snow vehicles, snowmobile, general information, 1284
- Snowmobiles, see Snow vehicles.
- Snyder, N.S., thermal conductance at interface of solid and helium 2 (Kapitza conductance), 2138
- Snyder, Richard G.:
 - experimental comparison of trauma in lateral (+Gy) rearward-facing (+Gx), and forward-facing (-Gx), body orientations when restrained by lap belt only, 10780
 - seat belt injuries in impact, 1283
- Snyder County, Pa., community profile, 16344
- So you want to be a forester? 16584
- So you want to get involved, 11452
- Soap:**
 - census of manufactures, 1967, industry statistics, 15599
 - Federal item identification guide, 6865
 - change, 12394
- Soboba Band of Mission Indians, water supply system, provide, report, 8254
- Social and Rehabilitation Service:
 - appropriations, 1970—
 - hearings, 1700
 - reports, 1563, 1863, 3834
 - appropriations, 1971, hearings, 11021
 - improvement needed in administration of Iowa and Kansas medicaid programs, by fiscal agents, GAO report, 18033
 - mission structure programs, 18327
 - nursing home care—
 - and prescribed drugs under medicaid program in California, continuing problems, GAO report, 14497
 - under medicaid program in California, problem in approving and paying, GAO report, 12588

Social and Rehabilitation Service—Con.

- questionable claims under medicaid program for care of persons in State institutions for mentally retarded in California, GAO report, 10161
- research and demonstration grants, 1955-69, listing, 10550
- research and demonstrations briefs, 3146
- Social Development Institute, Inter-American, see Inter-American Social Development Institute.
- Social insurance, macroeconomic effects on aggregate demand, 6170
- Social interaction, see Behavior.
- Social isolation, alienation, social aspects, annotated bibliography, 1075
- Social life and customs, see Manners and customs.
- Social mobility, see Mobility.
- Social problems, see Society.
- Social processes, see Society.
- Social Report Joint Committee, establish, hearings, 8427
- Social sciences:
 - Afro-Americans studies, fellowships, 967
 - course and curriculum improvement projects, 12878
 - Government in emergency, suggestions for including civil defense principles in social studies curriculum, grades 1-12, 12046
 - research, papers available, listing, 2654
 - social science and your career, 16866
 - social studies in elementary and secondary schools, books, bibliography, 576
 - social studies/social sciences, research directory, 1788
- Social scientists:
 - employment outlook, 12689
 - professional opportunities, examination announcement, 9477
- Social security:
 - act—
 - amend—
 - bill form, 11117
 - hearings, 8319, 9905, 9932
 - revised and resubmitted by Administration, 11118
 - reports, 8227, 8252
 - amendments, summary of decisions, press release, 15951
 - medical assistance financed under public assistance titles, 8999, 11756
 - age and sex characteristics of civil service annuitants, 17279
 - amendments of 1969—
 - law, 12129
 - reports, 1514, 3817
 - amendments of 1970—
 - brief summary, 13549
 - hearings, 16050, 17700
 - reports, 8264, 9706
 - analysis of numbers in SMI actuarial sample, 4668
 - beneficiaries, who reach 100, 7746-47
 - benefit formula, 6165
 - benefits—
 - disability, find out if you are eligible, 11863
 - hospital insurance for railroad retirement beneficiaries, medicare handbook, 10529
 - how you earn them, how much credit you need, 9119, 17282
 - benefits—
 - increase—
 - brief summary, 13549
 - cash benefits, 9116
 - reports, 1514, 3817, 8264, 9706
 - people disabled since childhood, 7752
 - students 18 to 22, cash, 2223
 - bulletin, 3205
 - statistical supplement, 12923

Social security—Continued

clergymen—
and religious workers, tax information, 5666
 explanation, 6173
cooperative research and demonstration projects, 1955-69, listing, 10550
disability evaluation, handbook for physicians, 7753, 17284
do you get cash tips? tips mean bigger social security checks, here's how you get them, 7756
do you know that there are 5 times you should get in touch with your social security office, 9121
do you work in someone's home? social security credit you earn today can mean cash benefits for you later, 7757
employer's tax guide, 10234
health insurance medicare handbook, 2224, 9720, 17283
 higher payments, 4677
 information for young families, 7754
introduction, programmed learning text, 9122
life insurance in force, estimated amount as survivor benefits under social security program, 11855
maximum benefits under social security amendments of 1969, 12920
medical insurance, medicare handbook, 12925
programs—
 fiscal impact, 2220
 throughout world, 15171
 trust fund surpluses and fiscal neutrality, 11861
proposals, hearings, 3895
 press release, 8327
publications, price list, 6132
research and statistics notes, 2220-22, 4672-73, 6171, 7750, 8998, 11859-861, 12921-922, 15170, 18325
right to appeal to Hearings and Appeals Bureau, general information, 10553
rulings on Federal old-age, survivors, disability, and health insurance, 3206, 10554
self-employed, reporting your income, 15174
self-employment taxes, guide for farmers, 1970 edition, 782
social security and cash tips, 15172
social security and your household employee, 15173
social security in your financial planning, 1104
sources in 1934-50 Federal records, 1101
stake of today's workers in retirement security, working paper, 16034
study guide, community based organizations, suggested training guide, 9123
summary guide, 10555
survey of disabled, reports, 6167, 15168-169, 17277
system, reform, message from the President, 334
your earnings record, 7755
your right to representation in social security matters, 1103
your social security, 9117, 11864
see also Disability insurance—Old-age, survivors, and disability insurance—Public welfare.
Social Security Administration:
 actuarial notes, 1100, 4668, 6165-66, 10551, 11855-856
 actuarial study series, 7744-45
 appropriations, 1970—
 hearings, 1700
 reports, 1563, 1683, 3834
 appropriations, 1971, hearings, 11021
 continuous work history sample for population estimation, use, 6442
 disclosure of official records and information, regulation, 17278

Social Security Administration—Continued
Hearings and Appeals Bureau, Social security matters, right to appeal, general information, 10553
regulation, 17278

research reports, 1101, 7751, 15171
SSI series, 1102-4, 2223-24, 4675-77, 7752-59, 9117-23, 10555, 11862-868, 12924, 15172-175, 17282-284, 18329-331
Social service, see Social work and problems.
Social studies, see Social sciences.
Social surveys, survey applications of social psychological questions, report on conference, 1340
Social welfare, see Social work and problems.
Social work and problems:
 business involvement (remarks), 9510
 community service volunteers, volunteer assistance for veteran-patients living in community, 4785
 facing challenge of America's great social and economic issues (address), 3688
Federal programs, progress and effectiveness, annual reports, require—
 hearings, 8427
 report, 12348
Full opportunity act—
 hearings, 8427
 report, 12348
graduate social work education, cost and output, exploratory study, 15163
national social problems, participation gap between business and government (address), 3695
needs to advance the overall well being of our Nation (remarks), 643
social services—
 families and children, 18241
 Federal assistance programs, catalog, 13824
 publications, price list, 6132
 statistical reports, 7589, 14939
social welfare expenditures, 4672
Soviet scientists discuss social obligations, 7364
staff development, public welfare agencies, progress report, 17054
trends in social and economic conditions in metropolitan and nonmetropolitan areas, 15648
Veterans Administration career opportunities in hospitals and clinics, nationwide professional social workers, social work associates, graduate training, 15379
voluntary welfare agencies, fund-raising within Federal service, manuals, 2868, 3666
see also Public welfare.
Social workers:
 Army Medical Department early commissioning program, 9370
 employment outlook, 12690
 public welfare personnel, 1969 annual statistical data, 11759
 using the nonprofessional, experimental and demonstration programs for disadvantaged youth, 7414
Veterans Administration hospitals and clinics, nationwide, career opportunities, 15379
Socialism:
 European Socialist States, economic relations with Southeast Asia, 4348
 role of management and control systems, USSR study, 12651
 socialist monetary circulation, principles, USSR study, 5724
Societies, housing, model State law, 5376
see also Scientific societies.
Society:
 future growth through voluntary action, incentives and law (address), 15709
 half-truths can make us slaves (address), 10869

Society—Continued
 rural, keeping up with change, 5415
 social forecasting, USSR study, 5784
 toward balanced growth, quantity with
 quality, report of National Goals, Re-
 search Staff, 12905
 Society of American Foresters, annual meet-
 ing, Philadelphia, Pa., silviculture of oaks
 and associated species, summary, 8703
 Society of Radio Engineering, Electronics,
 and Communication, *see* Scientific and
 Technical Society of Radio Engineering,
 Electronics, and Communications.
 Socioeconomics:
 socioeconomic aspects of mining in selected
 cities, urbanization and surface mining,
 Atlanta, Ga., 12741
 socioeconomic trends in poverty areas,
 1960-68 consumer income, 1333
 Sociologists, employment outlook, 12689
 Sociology:
 development digest (periodical), 2505
 Eastern Europe, translations, 3272
 social forecasting, USSR study, 5784
 sociological health problems, grades 4-6,
 New York State Education Department,
 Albany, N.Y., 14946
 USSR, political and sociological affairs,
 translations, 3284
 Sockets, socket, plug-in electronic compo-
 nents, Federal item identification guide,
 16139
 Sockeye salmon, *see* Salmon.
 Socks, and bags, Federal item identification
 guide, 16116
 Socorro County, N. Mex., water supply well
 SRC-2, Stallion Range Center, White
 Sands Missile Range, 7256
 Sod, turf soil modification with sintered fly
 ash, 8909
 Soda Springs region, southeastern Idaho,
 gravity and magnetic anomalies, 8746
 Sodium:
 and sodium compounds, minerals yearbook
 chapter, 14797
 concentration in lignite, prediction, 14794
 line laser with Na^+ and H^- recombina-
 tion, USSR study, 18094
 long-term measurements of corrosion of
 mild steel in 580°F NaOH solutions,
 17195
 Sodium aluminate:
 SO_2 sorption-regeneration reactions, with
 alkali alumina, mathematical evalua-
 tion, 14793
 sorption of SO_2 and regeneration of alka-
 lized alumina in fluidized-bed reactors,
 14792
 Sodium chloride, *see* Salt.
 Sodium nitrate, effect on incendiarity of ex-
 plosives in coal dust-gas-air mixtures, 876
 Sodium uranium oxide, NaUO_2 and Na_2UO_4 ,
 preparation and crystal structure, 9380
 Softwoods:
 American softwood lumber, voluntary
 product standard, 8997
 lumber standard and impact on small bus-
 iness, hearing, 15942
 plywood—
 construction and industrial, standard of
 trade, amendments, 11742
 current industrial reports, 15638
 sapwood thickness of Douglas-fir and 5
 other western softwoods, 5507
 Sohn, I. G.:
 nonmarine ostracodes of early Cretaceous
 age from Pine Valley quadrangle, Nev.,
 5557
 pseudoleperditia Schneider, 1956 (Ostro-
 coda, Crustacea), early Mississippian
 genus in southwestern Nevada, 730
 Soil conditioners:
 conditioning rating indices for major irri-
 gated crops grown in western U.S.,
 15232

Soil conditioners—Continued
 soil conditioning rating indices for major
 irrigated and non-irrigated crops grown
 in western United States, 17286
 turf soil modification with sintered fly
 ash, 8909
 Soil conservation:
 Alabama, 1969 highlights, 9144
 Appalachian land stabilization and con-
 servation program, results from incep-
 tion, 3384
 California—
 land and water resources, 7767
 resources, tomorrow's challenge, what's
 ahead for our land and people, 15193
 conservation ranching in Hawaii, good
 grass and water the key, 10557
 conservation research, 1969 report, 9132
 conservation reserve program, history, ac-
 tivities, highlights, etc., 12969
 districts, status of organization, by
 States, etc., 17304
 Georgia, land restored, annual report on
 soil and water conservation, 10561
 glimpses on—
 island of Hawaii, 9137
 Kauai, 9140
 Maui, 9138
 Molokai and Lanai, 9139
 Oahu, 9141
 Great Plains conservation program, prog-
 ress report, 33, 9176
 Indiana needs conservation, summary of
 inventory, 9145
 loans to foster conservation, questions and
 answers, 6309
 Michigan, progress report, 9154
 motion pictures available through SCS
 Motion Picture Library, 6190
 New Hampshire watershed progress re-
 port, 7769
 Oregon soil and water conservation dis-
 tricts law, 17299
 Pennsylvania, 1969 year of progress, 9177
 publications, price list, 2206
 Puerto Rico, summary of 1968 conserva-
 tion needs inventory, 9150
 soil conservation (periodical), 3207
 soils and people—
 California cooperative soil surveys,
 facts about what they can do for
 you, 15237
 facts about Puerto Rico and Virgin Is-
 lands cooperative soil surveys, 7783
 South Carolina, 7774
 storm runoff in Texas Blackland Prairie,
 effects of conservation practices, 3428
 teaching, classroom and field guide, 12998
 Warrenton Dune Soil & Water Conserva-
 tion District, 1935-70, progress, 10574
see also Land—Soil erosion—Waterways.
 Soil Conservation Service:
 activities, Fresno area, Calif., 6180
 appropriations, 1970—
 law, 1392
 report, 1482
 appropriations 1971, hearings, 8266
 conservation highlights, 1969, digest of
 progress, report, 7763
 conservation information CI series, 9131,
 15196
 design hydrographs, SCS national en-
 gineering handbook, 9153
 organization and development, reference
 for employees, 15196
 plant materials program, 4688, 10564
 poster, 17287
 range conservation program, 9151
 safety handbook, 4689
 SCS, investment in better living, annual
 report, 7771
 SCS national engineering handbook, no-
 tice, 10568
 16 mm. movies for TV, list, 7772
 technical releases, 9166-68

Soil Conservation Service—Continued
watershed projects, multiple-purpose, 3420
woodland, general information, 15249

Soil conservationists, examination announcement, discontinuance notice, 6471

Soil erosion:
control of erosion and sediment in urban areas of Northeast, guidelines, 9143
critical area stabilization, guide for landowner in urban areas, western Washington, 15203
erosion control on logging roads in Appalachians, 14473
erosion on newly shaped slopes—
mulching as means of control, 15221
seeding as means of control, 15230
fluvial sedimentation concepts, 10185
publications, price list, 2208
stabilization of newly constructed road backslopes by mulch and grass-legume treatments, 18013
streambank erosion in United States, study, 8317

Soil moisture, *see* Soils.

Soil scientists:
examination announcement, discontinuance notice, 6471
travel notes, together with examples and list of useful items for long journey, 6202

Soils:
and people, California cooperative soil surveys, facts about what they can do, 15237
and soil surveys, publications, price list, 2206
Bernalillo County, N. Mex., samples from 10 profiles, engineering test data, 17290
characteristics and qualities, summary, Ventura area, Calif., 9165
classification system, placement of series, South region, 4691, 15231
conditioning rating indices for irrigated and non-irrigated crops in western U.S., 15232
conservation films for Northeast, list, 10569
Creswell area, Oreg., resource data for land use planning and community development, 15228
Douglas-fir bark tannin decomposition in 2 forest soils, 1883
effects of high soil density on seedling root growth of 7 northwestern tree species, 4187
forest and range, research in Oregon and Washington, bibliography, 8706
frozen soils, phase boundary water, 11251
geochemical environments and cardiovascular mortality rates in Georgia, 4244
growing ground covers, 3406
handbook for soil survey of Fredericksburg, Tex., 15233
Hawaii's soils, what they can do for you, 9134
how tree grows, 11343
hydrologic properties, on 3 small watersheds in western Cascades of Oregon, 4186
know your soils, importance of soil surveys, 12979
Lake County, Fla., classification and correlation, 15194
Lovell, Wyo., area soil map, 7768
lunar soil simulant study, outgassing characteristics, 4084
medium, alkali sacaton seedlings, germination and survival, 5504
mineralogical composition of fines, effect of frost susceptibility, 598
moisture, stations, Colorado, Rio Grande, etc., watersheds list, 7764
Nevada, cooperative soil surveys, 4683
Oklahoma, '69 gateway to the seventies, conservation, etc., 7773

Soils—Continued
SCS, investment in better living, annual report, 7771
shallow till of southeastern Alaska, mechanics of debris avalanching, 18026
soil-cement, effect of polymer on properties, 17244
soil moisture trends under 3 different cover conditions, 8696
soil movements, fluorescent materials index, 677
soil strength at aircraft landing sites, rapid assessment, 10015
soil survey interpretations—
Mahantango Creek Watershed, Pa., 15235
Wayne County, Pa., selected areas, 4695
soil survey interpretations for woodlands—
Cumberland Plateau and Mountains and Southern Appalachian Ridges and Valley of Alabama, Georgia, and Tennessee, 7781
Nashville Basin and Highland Rim areas of Alabama and Tennessee, 7779
progress report W-(series), 7779-82, 9158-59
Sand Mountain area of Alabama and Georgia, 7780
Southern Coastal Plain and associated areas—
Georgia, North Carolina and South Carolina, 9159
Louisiana and Texas, 7782
Southern Coastal Plain and coastal flatwoods of Alabama and Mississippi, 9158
Southern Piedmont area of Alabama, Georgia, North Carolina, and South Carolina, 4696
soil survey investigations report, 11873
soil survey laboratory data and descriptions, Nevada, 11873
soil survey reports—
Aneth area, Utah, special report, 10570
Antelope Valley area, Calif., 1110, 6191
Berks County Pa., 17305
Carroll County, Md., 4692
Clark County, Ohio, 9160
Curry area, Oreg., 6192
Dickens County, Tex., 7775
Fairfield County, Ohio, supp., 4697
Fulton County, Pa., 4693
Grant County, Kans., 4694
Greene County, Ark., 6193
Hillsborough County, Fla., 9161
Hitchcock County, Nebr., 9155
Lake County, Ill., 18333
Las Vegas, N. Mex., 15234
Lincoln County, Minn., 6194
Lincoln County, Okla., 6195
McCreary-Whitley area, Ky., 12927
North Carolina, town and country, 4698
Ozaukee County, Wis., 17306
Randall County, Tex., 11870
Russell County, Tex., 7776
Safford area, Ariz., 11871
St. Mary's Parish, La., supplement, 15236
Sedgwick County, Colo., 6196
Sequoiah County, Okla., 11872
Shawnee County, Kans., 10571
Tallahatchie County, Miss., 7777
Taylor County, Tex., 15241
Teton area, Idaho-Wyoming, 1111
Torrance area, N. Mex., 6197
Ventura area, Calif., 9156
Wells County, N. Dak., 12928
Wicomico County, Md., 6198
errata, 18334
Wool and Wirt Counties, W. Va., 9157
Yuma, Ariz., special report, 7778
soil surveys—
aid land use planning in New York, 9163
technical notes, 9162

Soils—Continued

- soils and people, Clark County, Wash., 6199
- soils from Black mesa in western Colorado, pot tests indicate fertilizers can improve, 685
- Teton County resources, Wyo., 10573
- thermoluminescence in relation to radiation exposure under field conditions, ecological and environmental effects from local fallout from Schooner, 8020
- Tode County, Utah, eastern portion, special soils, report, 7784
- Truckee River subbasin, 15448
- unsurfaced forward-area airfields, evaluation of soil strength by use of ground vehicles, 14335
- Western Regional Technical Work-Planning, Conference of Cooperative Soil Survey, proceedings, 15225
- Western Region Agronomy Workshop, summary, 10572
- window on Wisconsin, annual report, 7787
- see also* Natural Resources.
- Solar batteries:
 - cadmium sulfide thin film photovoltaic cells, effects of bias light and heat treatment on spectral response, 2088
 - shallow-junction solar cells, phosphorus diffusion conditions, 4528
 - Vietnam, An Giang Province, EARI development research report, 5367
 - solar-cell performance at low temperatures and simulated solar intensities, 2095
- Solar cells, *see* Solar batteries.
- Solar energy:
 - concentrator, modified whirling-membrane, geometric properties, 11683
 - optimum solar electric interplanetary trajectory and performance data, 8923
 - solar distillation of saline water, manual, 12609
 - solar evaporation, disposal of brine, design criteria, 14598
 - titanium alloy honeycomb solar absorber having blackened walls, preliminary analysis, errata, 10376
- Solar generators, solar dynamo theory, description, etc., 16455
- Solar power, *see* Solar energy.
- Solar radiation, effect of activity on frequency of functional leukopenias and relative lymphocytoses, 5980
- Solar radio bursts, *see* Solar radio emission.
- Solar radio emission, great radiobursts of sun, USSR study, 5723
- Solar simulators:
 - simulated solar intensities and low temperatures, solar-cell performance, 2095
 - spectral measurements, effect of error on surface response, 16963
- Soldiers:
 - American, 1775-1965, posters showing uniforms, 4850
 - engineer soldier's handbook, Army field manual, 4854
 - first aid, field manual, 10734
 - soldiers in Big Bend, 7647
- Soldiers Home, District of Columbia:
 - appropriations, 1970—
 - hearings, 1700
 - law, 6536
 - reports, 1683, 5254
 - appropriations, 1971—
 - hearings, 12259, 17687
 - reports, 13426, 16031
 - waiving points of order, report, 13429
- Soldiers' Home National Cemetery, 7993
- Solicitor, Interior Dept., appropriations, 1970, law, 314
- Solid of model universes, 5975
- Solid-state welding of TD-nickel bar, 14867
- Solid surface, *see* Surfaces.
- Solid waste management, abstracts and excerpts from literature, 15258

Solid Waste Management Bureau:

- transfer functions to Environmental Protection Agency—
 - hearings, 15911, 16057
 - report, 15874
- Solid wastes, *see* Waste products.
- Solidification:
 - steady frozen-layer configuration inside cold rectangular channels containing warm flowing liquids, analysis by conformal mapping, 4529
 - 2-dimensional solidification of flowing liquid onto cold surface, by transient conformal mapping method, 2113
- Solids:
 - duo-solid systems, mechanics, phase 2, bench-scale research on CSG process, 6487
 - gas-solid suspension, heat transfer to, from externally heated tube, 14775
 - interface of solid and helium 2 thermal conductance (Kapitsa conductance), 2138
 - solidus and liquidus temperatures of UO₂ and ThO₂ systems, 9381
- Soling materials, *see* Boots and shoes.
- Solon, Jerry A., arrangements for physician services to residents in nursing and personal care homes, 7585
- Soltis, Richard F., blade-element performance of tandem-bladed inducer tested in water, 941
- Solubility, apparent solubilities of commercially pure and oxygen-doped tantalum and niobium in liquid potassium, 11691
- Solutes, ionic solvation study, 14601
- Solutions:
 - analytical binary solutions near critical point, two-phase equilibria, 16395
 - diffusion in ternary aqueous saline solutions, 5620
 - dilute, of helium-3 in superfluid helium-4 between 0.1 and 1.2K, viscosity measurements, 945
 - ferric sulfate leach, use in recovery of lead and sulfur from galena concentrate, 7484
 - inorganic, foam fractionation of, final report, 4304
 - liquid metal, in cesium-mercury system, thermodynamic properties, 2112
 - removal of magnesium impurities from phosphate rock concentrates, 7486
 - three-component solution use in desorption of CO₂, 15065
- Solvents, emissions from stationary sources, control techniques, 5991
- see also* Extraction (chemistry).
- Somali Democratic Republic:
 - area handbook, 15486
 - background notes, 7809
- Somay, Ali, relief, 3789, 9589, 9804
- Some free information on inflation (remarks), 8152
- Somerset County, N.J., census of transportation, 1967, commodity transportation survey, 8066
- Somis, Calif., Calleguas Creek, including Conejo Creek and Arroyo Santa Rosa, Ventura County, Calif., flood plain information, 8538
- conferring citizenship posthumously, 12177, 13290, 17660
- Sonar, continuous transmission frequency modulated, studies, 13245
- see* Echolocation (physiology).
- Sonar targets, narrowband ambiguity functions, review, 10496
- Sonderman, David L., American woods, balsam fir, 14425
- Sondermayer, Roman V.:
 - mineral industry of—
 - Austria, 4418
 - Yugoslavia, 863, 16910
- Songbirds, food, feeders, and feeding, 15207

INDEX 1970

- Sonic boom :
 aircraft noise abatement plan, fy 1969-70, Federal programs, 9240
 aircraft noise and sonic boom, bibliography, 4776
 characteristics in extreme near field of complex airplane model at Mach numbers of 1.5, 1.8, and 2.5, 11644
 diffraction and reflection, by buildings, laboratory investigation, 12799
 heat or force fields study of application of minimization problem, 2116
 public reactions, 16947
 simulated, and subsonic aircraft noise, awakening effects on 6 subjects, 7-12 yrs. of age, 10362
 sonic boom and subsonic jet flyover noise, effects on skeletal muscle tension and paced tracing task, 5902
 Sonic equipment, see Sound.
 Sonic listening, see Sonar.
 Soot, spectral emittance, 7533
 Sorbents, see Adsorbents.
 Sorenson, Clara T., annual digest of State and Federal labor legislation, 16824
 Sorenson, Roger A., selling in Republic of Ireland, 9505
 Sorg, Thomas J., sanitary landfill facts, 15257
 Sorghum, Texas, crop insurance coverages and rates, 17967
 Soriano, Frank S.:
 records of Department of State relating to political relations between—
 Peru and other States, 1910-29, pamphlet accompanying microcopy, 14913
 United States and Guatemala and between Guatemala and other States, pamphlet accompanying microcopy, 17026
 United States and Netherlands and between Netherlands and other States, pamphlet accompanying microcopy, 11726
 SOS, see Space Operations Support Division.
 Soto, Mike, testimony, hearings, 13747
 Souders, Sue W., relative geometries of earth, sun, and Mars from year 1973-2000, 7528
 Sound :
 acoustic reflection from sea surface, experiment, 17187
 acoustic sea bed reflectivity from submersible submarines, 15046
 acoustic tests of flexible spacecraft model, 11622
 audibility of impulsive sounds, study, 10361
 auditory sensitivity of goldfish within near acoustic field, 14766
 differential sensitivity for alternate interaural loudness balancing in psychoacoustic calibration of earphones, 5846
 electrical discharges and sounds in some nonelectric fish of Black Sea, USSR study, 12656
 electron-acoustic instability, development during turbulent heating of plasma ions, 4870
 field of model ducted propeller, influence of duct-mounted Helmholtz resonator, investigation, 16941
 hydroacoustic data on T-waves, review, USSR study, 1991
 monaural comparison of 2 circumaural earphones with standard audiometric earphone, 2045
 refraction by jet flow, effect of temperature-profile variation, 10405
 signal processing of underwater acoustic waves, 2184
 surrounding structure effects on sonic fatigue, investigation, 11606
 ultrasonic equipment used in nondestructive testing or inspection, materials and defect simulator for calibrating, 9059
 Sound—Continued
 ultrasonic method for determining—
 attenuation symmetry of materials, 4478
 elastic symmetry of materials, 2057
 ultrasonics for locating lumber defects, 4200
 underwater hearing in man, comparison of temporary threshold shifts induced by 3500 Hertz tones in air and underwater, 12732
 upper and deep sound channel in northeast Atlantic, 15044
 Sound, The, see Oresund.
 Sound recording and reproducing equipment, Federal item identification guide, 16140
 Sound recordings, helium speech unscrambled at depths of 800-and 1000 ft., evaluation of 3 methods, 8894
 Soundermayer, Roman V., mineral industry of Belgium and Luxembourg, 4419
 Sounding (meteorology) :
 Alouette-2 topside sounder, oblique echoes from large-scale horizontal gradients observed, 4512
 atmospheric sensing to 100km, status of passive inflatable falling-sphere technology, symposium, 5913
 oblique-incidence high-frequency backscatter ionograms of midlatitude ionosphere, atlas, 10025
 corrected pages, 16457
 Sounding and soundings :
 correlation signal processing for depth sounding, 17172
 electrical resistivity sounding with L-shaped array, 18039
 meteorological rocket sounding systems, 30MK to 200KM, study, literature, and data review, 11604
 Sounding balloons, see Balloons.
 Sounding rockets, see Rockets.
 Souris-Red-Rainy River Basins Commission, annual report, 13359
 Souris River :
 engineers report—
 departmental edition, 10012
 document edition, 9626
 flood control emergency projects, hearings, 523
 Sousa Band, discography, 4392
 South, Aloha :
 case files of investigations by Levi C. Turner and Lafayette C. Baker, 1861-66, pamphlet accompanying microcopy, 17029
 records of Headquarters of Army, 11718
 South (U.S.) :
 central, home fruit garden, 17441
 crime in America, Midsouth community response, hearings, 6703
 dietary levels of households, 12984
 fig growing for home use, 17437
 forest atlas, 14437
 forest fire occurrence, 11357
 fresh fruit and vegetable unloads in southern cities, by commodities, States, etc., 6823
 fruit tree surveys, regional summary of selected States, 17368
 hardwood distribution maps, 4214
 midsouth, forest research news, 2675
 new South (address), 17540
 pulpwood production, 707
 soil classification system, placement of series, 4691, 15231
 southern forest economy, 1963, input-output analysis, 701
 southern hardwood forests, identifying juvenile seedlings, 14480
 southern hardwood stands, tree-character relations, 11368

South (U.S.)—Continued

trees and forests in crowded world of tomorrow, Southern States and Forest Service cooperative planning, 14488
uranium sources, 1271
errata, 8026
wildflowers, endangered, rare and uncommon, found on southern national forests, 16539
South Africa:
background notes, 15290
economic trends and their implications for United States, 5707, 14641
economy, basic data, 6507
mineral industry, minerals yearbook chapter, 7470
South West Africa, mineral industry, minerals yearbook chapter, 4462
South America:
cranial and bacular variation in spiny rats of Genus *Proechimys* (Rodentia: Echimyidae), 4663
east coast, lights and fog signals, list, 7674
nautical charts and publications, catalog, 15051
tide tables—
east coast, 9482
high and low water predictions, 9483
South Asia, *see* Asia.
South Atlantic slope basins, *see* Atlantic States.
South Bay Union School District, Imperial Beach, Calif., drug abuse education unit, grades K-12, 14943
South Bend, Ind., area wage survey, 11544
South Carolina:
agricultural conservation program handbook, 15411
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 4912
retail trade, merchandise line sales, 11995
selected services, area statistics, 162
wholesale trade, area statistics, 1306
census of construction industries, 1967, statistics, 15562
census of governments, 1967, State reports, 3589
census of manufactures, 1967 statistics, 15585
climate, 11266
climatological data, 2409
countries, estimates of population, July 1, 1967 and 1968, 223
county business patterns, 209, 12032
electric rate book, 4146
landings, fish and shellfish, 1367, 3209
low country, buildings, Historic American Buildings Survey, records, 12872
mineral industry, minerals yearbook chapter, 18160
Piedmont region wildlife food plants on chopped areas, 4193
pollution of interstate waters of lower Savannah River and its estuaries, tributaries and connecting waters, 10094
precipitation data, hourly, 2718
small watershed projects, program, hearing, 12382
soil and water conservation, 7774
southern Coastal Plain and associated areas soil survey interpretations for woodlands, 9159
southern Piedmont area, woodlands, soil survey interpretations, 4696
travel costs less than you think, please come, invitation from people of U.S. 7885
Dutch edition, 7882
German edition, 7880
Japanese edition, 7888
Portuguese edition, 7883
Spanish edition, 7881

tricentennial commemorative postage stamp (poster), 15109
South Central States, *see* Central States.
South China Sea, western shores, sailing directions, change, 10486
South Dakota:
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 4913
retail trade, merchandise line sales, 10793
selected services, area statistics, 1299
census of construction industry, 1967, statistics, 17495
census of governments, 1967, State reports, 3590
census of manufactures, 1967, statistics, 17508
climatological data, 2409
community planning for nursing, source book, 986
county business patterns, 210, 12033
electric rate book, 1857
fishery products, wholesale dealers, list, Mississippi River and tributaries, 9564
land exchanges, remove Federal restrictions, report, 15847
mineral industry, minerals yearbook chapter, 4460
precipitation data, hourly, 2718
water resources data, 14547-548
South Farmingdale, N.Y., dispersal of plating wastes and sewage contaminant in ground water and surface water, 18052
South Fork, Crow River, Hutchinson, Minn., flood plain information, 16431
South Pacific Commission, U.S. participation, increase ceiling, hearing, 12273
South Pass, Mississippi River distributary, suspended sediment and water characteristics, 17171
South Vietnam, *see* Vietnam.
South West Africa, *see* South Africa.
South Yamhill division, *see* Willamette River project.
Southeast (U.S.):
air defense, report of subcommittee, 5143
calico scallop fishery, photoreview of latest developments, 9536
coastal plain—
rural industrialization, case study of new brick factory in Summerville, S.C., 5338
rural poverty, 6991
home fruit garden, 17441
kenaf, cultural and harvesting methods, annual crop source of pulp, 6316
livestock cooperatives, 10039
phosphate industry and its relationship to world minerals fertilizer demand, 8898
principal electric facilities, map, 8628
public elementary and secondary day schools, 1968-69 directory, 8513
travel costs less than you think, please come, invitation from people of U.S., 7885
Dutch edition, 7882
German edition, 7880
Japanese edition, 7886
Portuguese edition, 7883
Spanish edition, 7881
Southeast Asia, *see* Asia.
Southeast Asia, Select Committee on, House: create, report, 12186
funds, report, 13405
Southeastern Carriers' Conference Committee, emergency board report, 1797
Southeastern Forest Experiment Station: hickory task force report, 1718
publications, lists, 4180, 10124
Southeastern Power Administration: appropriations, 1970—
hearings, 486
law, 3734

- Southeastern Power Administration—Con.
 appropriations, 1971—
 hearings, 11022
 public works, hearings, 13709
 Southeastern States, *see* Southeast (U.S.).
 Southern cone rust, 14440
 Southern Forest Experiment Station:
 genetic variation, key to superior trees,
 674
 publications, 'lists, 3130, 7199
 Southern Pacific Co.:
 accident investigation, summary report,
 17237
 land conveyance in California, validate,
 9712, 17595
 Southern pine, *see* Pine.
 Southern Railway, accident report, 7658
 Southern region, *see* South (U.S.).
 Southern Rhodesia, *see* Rhodesia.
 Southern States, *see* South (U.S.).
 Southern Ute Tribe, *see* Ute Indians.
 Southern Utilization Research and Develop-
 ment Division, publications and patents,
 semiannual lists, 9, 11944
 Southern Yemen, *see* Yemen.
 Southington, Conn.:
 floods, how to avoid damage, 8547
 Quinipiac River, flood plain information,
 8544
 Southwest (U.S.):
 artificial reforestation practices, 10682
 fourwing saltbush in Southwest, germina-
 tion and establishment, 11363
 Mexican-Americans and administration of
 justice, 6468
 preemergent herbicides for planting pon-
 derosa pine, 11354
 principal electric facilities, map, 8626
 public elementary and secondary day
 schools, 1968-69 directory, 11205
 Spanish surnamed American employment,
 10037
 Southwest Metropolitan Water and Sanita-
 tion District, Colo., relief, 3923
 Southwestern Power Administration:
 appropriations, 1970—
 hearings, 486
 law, 3734
 appropriations, 1971—
 hearings, 11022
 public works, hearings, 13709
 Sovereign immunity, *see* Sovereignty.
 Sovereignty:
 areas of special sovereignty, countries and
 dependencies, Federal general data
 standard representations and codes,
 14919
 immunity, procedure of judicial review of
 certain administrative agency action,
 hearing, 13750
 Sovereignty of sea, 2239
 Soviet bloc, Soviet-bloc research in geo-
 physics, astronomy, and space (periodical)
 3210
 Soviet literature, *see* Russian literature.
 Soviet public health (USSR periodical):
 translations, 3211
 Soviet specialists discuss control of noise,
 16806
 Soviet threat, 15889
 Soviet Union, *see* Union of Soviet Socialist
 Republics.
 Sowing:
 seeded ranges response to different graz-
 ing intensities in ponderosa pine zone
 of Colorado, 4825
 seeding for erosion control on newly
 shaped slopes, 15230
 Sows, *see* Swine.
 Soybean meal, futures trading and open
 contracts, 2685
 Soybean oil:
 edible, and related studies publications
 and patents, 1962-69 list, 17421
 futures trading and open contracts, 2685
 Soybeans:
 edible, protein and related studies, pub-
 lications and patents, 1962-69 list,
 17422
 edible protein products, 1968 publications,
 list, 1188
 futures—
 commitments of traders, 2428
 trading and open contracts, 2685
 market in Eastern Europe for U.S. soy-
 beans and soybean meal, 8681
 soybean salad oil, effects of storage temp-
 eratures on quality, 10689
 soybeans and cottonseed oils used in
 shortening and salad and cooking oils,
 trends, prices, spreads, 12992
 stocks in all positions, 1166
 Soyuz spaceships converse via satellite,
 USSR study, 10266
 SP series, *see* Federal Maritime Commis-
 sion—FMC SP series—FPC SP series—
 Maritime Administration—MA SP se-
 ries—NASA SP series—National Aero-
 nautics and Space Administration—Naval
 Oceanographic Office.
 Space, measurement of space-time structure
 of high frequency components of wind
 waves, USSR study, 5797
see also Outer space.
 Space batteries, secondary aerospace bat-
 teries and battery materials bibliography,
 7529
 Space biology:
 future of bioscience program, hearings,
 3894
 methodological aspects, USSR study, 8849
 NASA bioscience program, future, report,
 9767
 problems—
 nerve mechanisms of vestibular reac-
 tions, 18225
 prolonged limitation of mobility and in-
 fluence on human organism, 18227
 Space biology and medicine (USSR periodi-
 cal):
 translations, 3212
 Space capsules, *see* Spacecraft.
 Space communications:
 high efficiency parabolic antennas and
 radio astronomy, USSR study, 12655
 joint defense space communications sta-
 tion, agreement with Australia, 6230
 optical, workshop proceedings, 5912
 Soyuz spaceships converse via satellite,
 USSR study, 10266
 technology, assessment—
 hearings, 5180
 report, 5140
 Space Coordination-Computation Center,
 visit, USSR study, 5785
 Space Disturbances Laboratory, ESSA tech-
 nical report, BRL-SDL series, 5394,
 10026, 11275, 16463-464
 Space environment, *see* Environment.
 Space explorations, *see* Outer space.
 Space flight, *see* Astronautics.
 Space hazards, *see* Hazards.
 Space materials handbook, 5916
 Space medicine, *see* Medicine.
 Space missions:
 direct and Venus swingby trajectories to
 Mercury, planetary flight handbook,
 10371
 Impact of Apollo 13 accident on future of
 U.S. space program, hearing, 9803
 mission control at Houston, Tex., Apollo
 13, we've got a problem, 10370
 optimum solar electric interplanetary tra-
 jectory and performance data, 8923
 role of vestibular organs in space explora-
 tion, symposium, 11626
 Space Coordination-Computation Center,
 visit, USSR study, 5785
 spaceborne multiprocessing, phase 1,
 study, 5891

Space navigation, *see* Navigation.
 Space Operations Support Division, ESSA technical memorandum, WBTM SOS series, 11271
 Space perception, significance of visual information in forming spatial perception in weightlessness USSR study, 12654
 Space photography, *see* Photography.
 Space publication SP series, 11810
 Space radiation, *see* Radiation.
 Space Radiation Effects Laboratory, NASA, large-area proton beams established in energy range from 31 to 225 MeV, 5920
 Space relations, spatial relations of outside world in honeybee *Apis mellifera* L., unified system of reflecting, USSR study, 16758
 Space Science and Applications Office, NASA, Viking, ERTS, and ATS programs, supplemental review, hearings, 437
 Space sciences, Data Reduction Laboratory, aid to space scientist, 7532
 Space sensors, *see* Sensors.
 Space stations:
 centrifuge configuration, stability study and modal analysis, 11654
 inhabited orbital stations, USSR study, 10263
 key to future, 10369
 Space structures, *see* Spacecraft.
 Space suits, bending deformations of filamentary tubular shell typical for pressure constraint components, analysis, 2075
 Space Task Group, post-Apollo space program, directions for the future, report, 1045
 Space technology:
 communications, assessment, hearings, 5180
 radiation resistant insulating layers for planar silicon technology, development, 10358
 spacecraft advances find application on earth, USSR study, 4356
 Space trajectories, *see* Trajectories.
 Space vehicles, *see* Spacecraft.
 Spacecraft:
 adaptive controller for space base spin plane orientation, 14878
 advances find application on earth, USSR study, 4356
 adventures in research, history of Ames Research Center, 16953
 aerospace maintenance safety, 2299
 aerospace vehicle structures, metallic materials and elements, military handbook, change, 11179
 Apollo ablator thermal performance at superorbital entry velocities, 16979
 Apollo advanced, with all-flexible parawing, fixed base visual simulation of obstacle avoidance during terminal descent, 14879
 Apollo command module configuration, aerodynamic pressures, wind-tunnel investigation, 917
 Apollo 11, first lunar landing as told by astronauts, 8932
 Apollo landing sites, block and strip solutions involving Lunar Orbiter photographic data used to prepare contour charts, 14872
 Apollo launch escape vehicle configuration, aerodynamic pressures, wind tunnel investigation, 10385
 Apollo lunar module, manned operations in simulated space environment, 10399
 Apollo orbital entries, heat-transfer rate and pressure measurements, obtained, 18211
 Apollo-Saturn V launch vehicle, application of analysis and models to structural dynamic problems, 11672
 Apollo, static electricity, 2114
 Apollo 12, new vista for lunar science, 5909

Spacecraft—Continued

Apollo 13, Houston we've got a problem, 10370
 attitude control of spacecraft with strap-down inertial reference system and on-board computer, 16974
 attitude control system that uses star trackers and intertia wheels, experimental investigation, 11677
 blunt-body reentry, radio blackout alleviation and plasma diagnostic results, 5934
 bumper-hull failure discussion with application to meteoroid hazard, 17007
 compact Co-60 heat source in space, design definition and safety evaluation study, final report, 6374
 components, distribution of neutral propellant from electric thrusters onto spacecraft components, 2111
 control of linear systems with large time delays in control, 7519
 electronic circuit designs for space vehicles, control, 12825
 flexible model, acoustic tests, 11622
 Gemini, missions VII, VIII, IX, AND XII, preflight optical evaluation of right-hand hatch windows, 909
 gravity-gradient control-moment-gyro stabilized spacecraft, attitude reacquisition, 10404
 jimsphere wind profiles as related to space vehicle design and operations, further study, 14832
 landing energy absorption, including effect of penetration by payload into its crushable casing, approximate analytical models, 12801
 large launch vehicles utilizing X-15 airplane and flight simulators, study of display systems for manual guidance, 5940
 launch vehicle—
 error sensitivity study, 5898
 response to winds, analytic calculation and calculation of optimal biased pitch programs, 11667
 limited memory estimators and their application to attitude determination, analysis, 14835
 liquid-propellant launch vehicles—
 evaluation of finite-element analysis for longitudinal vibrations, 11655
 measured and predicted longitudinal vibrations, 14882
 low-thrust spacecraft, calculation of motion, 2130
 Lunar Orbiter—
 calculation of penetration flux for multiwall structure, 905
 flight vibration data and comparisons with environmental specifications, 17000
 views of moon, 10372
 manned exploration of Mars, minimum-energy mission plan, 912
 manned space flight, future and present, staff study, 9768
 manufacturing industry, employment outlook, 14717
 Mariner-Mars 1969, preliminary report, 5914
 materials handbook, 5916
 method for thermal analysis, including all multiple reflections and shading among diffuse gray surfaces, 12824
 NASA spacecraft, American in space, 1st decade, 8931
 optical-mechanical scanner as imaging system for planetary landers, performance analysis, 2098
 optimum solar electric interplanetary trajectory and performance data, 8923
 parawing-lifting-body landing system, model wind-tunnel and flight investigation, 18196
 prevention of electrical breakdown, 5911

Spacecraft—Continued

- radio/optical/strapdown inertial guidance study for advanced kick stage applications, summary, 4497
- radio signals used in probing solar corona, 48184
- Saturn launch vehicle's navigation, guidance, and control system, description and performance, 12809
- sensitive elements and sensors used for scientific missions, USSR study, 7367
- simulated lightweight spacecraft airlock, vacuum leakage tests, 12808
- Soyuz spaceships converse via satellite, USSR study, 10286
- Space Coordination-Computation Center, visit, USSR study, 5785
- space power system 3.50-inch radial turbine, experimental evaluation, 939
- space vehicles, simulation of ionospheric conditions, 14860
- spacecraft applications, extremely thin, omnidirectional, microwave antenna array, 834
- spacecraft power, 18193
- spatial turning maneuver, analytical solution of problem of controlling, USSR study, 16776
- spherical capsule technology program—heat source technical report, 8014
 - addendum, 8015
 - quarterly progress report, 8013
 - summary report, 6379
- spinning slender cone with slight aerodynamic and mass asymmetries (reentry F), angle of attack analysis, 16972
- systems, computerized onboard expedition monitor and maintenance analyst (EMMA), 11634
- trade-off study and conceptual designs of regenerative advanced integrated life support systems (AILSS), 14807
- transfers between close elliptical orbits, 950
- twin-gyro attitude control system including passive compensation and nonlinear control law performance, 14855
- two gas atmosphere sensor system (mass spectrometer), phases 2a and 2b, 8924
- two slowly rotating point-mass vehicles connected by massless tether and in circular orbit, dynamics, 4514
- university role in astronaut life support systems, atmospheres, 8925
- unmanned Viking class Mars landers, lifting entry ($L/D \leq C_2$), 11670
- variable geometry spacecraft, study to determine flight characteristics and handling qualities, high L/D concept with single pivot 2-position skewed wing, 10351
- vehicles, Federal item identification guides for supply cataloging, supplements, 2598
- Viking program, OSSA project, supplemental review, hearings, 437
- visual detection in spacecraft environment, experimental and analytical study, 14812
- wide-angle attitude control system, analysis and verification, 7546
- see also Life support systems—Satellites—Stability of spacecraft.
- Spacecraft accidents:
 - Apollo 13—
 - hearings, 12282
 - mission, problems encountered, hearings, 9883
 - mission review, hearings, 18705
 - report of review board, 11711
- Spacecraft modules, Apollo command module mockup flammability tests, 8939
- Spacecraft recovery, water recovery systems, university role in astronaut life support systems, 11624

Spacing:

- slash pine, quality timber production, 4211
- thinning, and pruning practices for young cottonwood plantations, 16562
- Spady, Amos A., Jr., comments on several reduced-gravity simulators used for studying lunar self-locomotive tasks, 8951
- Spaghetti, cooked, freeze-dried, with meat sauce, effect of processing conditions, 1224
- Spain:
 - canned deciduous fruit industry, 10110
 - capsule facts for Armed Forces, 75
 - country market survey, 16729
 - economic trends and their implications for United States, 791, 8824
 - friendship and cooperation, agreement, 17358
 - military and political problems, subcommittee report, 5144
 - mineral industry, minerals yearbook chapter, 7471
 - notes from Spanish legation in United States to Department of State, 1790—1906, pamphlet accompanying microcopy, 17023
 - plant quarantine import requirements, 6293
 - Spanish base agreement, hearings, 16055
 - U.S. use of military facilities, agreement, hearing, 16055
 - west coast, sailing directions, change, 7672
- Spallation, thin plates of 9 materials under hypervelocity impact, dimple, spall and perforation characteristics, 4524
- Spaniol, Joseph F., Jr., United States courts, their jurisdiction and work, 9761
- Spanish Americans:
 - new era, Spanish speaking people of United States, 17480
 - population, Nov. 1969 sample survey, preliminary data, 4942
 - Spanish speaking organizations in U.S., directory, 13095
 - Spanish surnamed American—
 - college graduates, list, 8051
 - employment in Southwest, 10037
- Spanish language:
 - programmatic course, 15299
 - instructor's manual, 15300
 - Spanish speaking organizations in U.S., directory, 13095
- Spanish Sahara, see Spanish West Africa.
- Spanish Speaking American Affairs Office, reports, 7023, 8526
- Spanish-Speaking Americans, Advisory Council on, see Advisory Council on Spanish-Speaking Americans.
- Spanish-Speaking People, Cabinet Committee on Opportunities for, see Cabinet Committee on Opportunities for Spanish-Speaking People.
- Spanish War Veterans, see United Spanish War Veterans.
- Spanish West Africa:
 - Algeria-Spanish Sahara boundary, study, 16295
 - Spanish Sahara background notes, 6217
 - Spar aerospace hotpotter, see Scanners.
- Spare parts, see Repair parts.
- Spatial bias correction for sporadic meteors photographed in New Mexico, 16958
- Spatial perception, see Space perception.
- Spatial relations, see Space relations.
- Speak up when you buy a car, 17221
- Special current business reports (series), 3215
- Special Drawing Rights, see International Monetary Fund.
- Special groups, see Minorities.
- Special labor force reports, 18188-184
- Special publication SP series, 7677-79

Special reports, Cold Regions Research and Engineering Laboratory, 4070, 16410-411
Special Representative for Trade Negotiations:

- appropriations, 1970—
law, 3738
reports, 472, 5104
- appropriations, 1971—
hearings, 8270, 13708
reports, 9686, 15990
waive points of order, report, 9688

Specific gravity:

- and wood moisture variation of white pine, 5496
- electrophoretic-specific gravity separation of pyrite from coal, preliminary studies, 16924

Specifications, *see* Government supplies—
also names of departments, etc., issuing specifications—also subjects.

Spectacles, goggles, industrial, safety, military standard, 13809

Spectrographs, kinetic electron temperature measurement techniques for helium, 12806

Spectra:

- EBR-II neutron spectra, analysis of Monte Carlo and discrete ordinate methods, 9388

electromagnetic spectrum, chart, 8590
far infrared absorption in liquefied gases, 8988

longitudinal and lateral spectra of turbulence in atmospheric boundary layer, 5927

mass spectra and analytical correlations of some alkylcycloalkyl sulfides, 5882

measurements of solar simulators, effect of error on surface response, 16963

neutron-energy and spectrum effects upon radiation embrittlement of steels, damage-function analysis, 6099

numerical experiments in modifying kinetics of cloud spectrum formation by introducing additional condensation nuclei, USSR study, 10269

opacity probability distribution functions for carbon monoxide at elevated temperatures, 5977

optical, ionization potentials and ionization limits derived from analyses, 17034
radar sea-echo, study of doppler spectra, 4622

spectral analysis applications in water pollution control, 4171

spectral approach to resolution of radar pulses in clutter, experimental verification, 9329

spectral emittance of soot, 7533

spectral response of cadmium sulfide thin film photovoltaic cells, effects of bias light and heat treatment, 2088

spectrum formation in stars with steady-state extended atmospheres, symposium proceedings, 18235

stray photon spectra and dose above 25MeV near transverse shielding of proton synchrotron, estimating, 9395

thermoluminescence spectrum and energy conversion efficiency of lithium fluoride, 9389

Spectral lines:

interpretation of microwave spectral-absorption intensity, measurements on partially saturated lines, 7551

nitrogen 2 and carbon 2 measurement of resonance multiplet line shapes from plasma, 10495

Spectrochemical Analysis Section, NBS, July 1968-June 1969, activities annual report, 964

Spectrochemistry, quantitative direct-current arc analysis of random compositions of microgram residues in silver chloride common matrix, 980

Spectrometers:

cold cathode ion source mass spectrometer employing ion counting techniques, 4491
Fourier, airborne, infrared, USSR study, 16805

gamma ray—

single crystal high resistivity cadmium telluride for use as, research and development, 10763

using single crystal high sensitivity cadmium telluride, research and development, annual summary report, 15526

photoionization mass, application to analysis of contaminant gases, study, 8927

spectrometric oil analysis equipment, savings from joint use by military departments, Defense Dept., GAO report, 18036
time-of-flight mass, for studies of ions produced by simulated micrometeoroid impact, 8950

two gas atmosphere sensor system (mass spectrometer), phases 2a and 2b, 8924

Spectrometry:

experimental study of structure, thermodynamics and kinetic behavior of water, 1955

mass, investigation of vaporization thermodynamics of yttrium-dicarbide carbon system and dissociation energy of yttrium dicarbide and tetracarbide, 8937

mass spectrometric determination of dissociation energy of vanadium and chromium dicarbide and vanadium tetracarbide, 7547

Mossbauer effect spectrometry for analysis of iron compounds, 10760

neutron—

development for critical facilities, quarterly report, 6380

Operation Henre (program 6), 3488

Spectrophotometry:

atomic absorption, used for analysis of cement, 10016

spectrophotometric procedures for determination of ions formed within stress-corrosion cracks, 4625

change, 15061

Spectroradiometry:

detection of effluents, Cabriolet Project, 3495

spectrum engineering measurements frequency management principles, 4109

Spectroscopy:

interpretation of microwave spectral-absorption intensity measurements on partially saturated lines, 7551

laser-generated plasma as spectroscopic light source, 18222

laser heating of ionized helium, 12792

mass, bibliography, 13074, 15516

Mossbauer, Radiochemical Analysis Section, July 1968-June 1969 summary of activities, 4554

pulse height, computational method for photopack location and integration, 9394

spectroscopic analysis of electron-beam-induced fluorescence in hypersonic helium flow, 18207

USSR studies, 8832

Spectrum, *see* Spectra.

Spectrum analyzers, spectrum engineering measurements frequency management principles, 4109

Speculation:

cotton, wool, potatoes, 2427

futures, potato, New York Mercantile Exchange, 13247

futures trading and open contracts—
cotton and frozen concentrated orange juice, wool and wool tops, 2682

frozen concentrated orange juice, 2683

potatoes and hides, 2684

wheat, corn, oats, rye, soybeans, and soybean products, 2685

INDEX 1970

- Speculation—Continued
trading in frozen pork belly futures, 291
wheat, corn, oats, soybeans, soybean oil,
etc., commitments of traders, 2428
- Speech:
helium speech unscrambled at depth of
800 and 1000 ft., evaluation of 3 meth-
ods, 8894
learning to talk, speech, hearing, and
language problems in pre-school child,
6051
pathology, professional careers, examina-
tion announcement, amendment, 8116
perception of speech signals, theory and
methods of research, USSR study, 8848
relation to mental retardation, bibliogra-
phy, 7449
speech and language development program,
Milwaukee, Wis., elementary program
in compensatory education, 11219
zero hearing level, determination for Navy,
2042
- Speech pathologists, employment outlook,
12876
- Speed:
hyperbolic, invisibly radiating shock layers
about spheres traveling at hyperbolic
speeds in air, 17008
parasitic speed controller and voltage regu-
lator, transient characteristics on 14.3
kilovolt-ampere 1200 Hertz modified
Lundell alternator, 18197
see also Air speed.
- Speed brakes, *see* Brakes.
- Sperr, James M., recruiting and career coun-
selling journal, 8135
- Sperr, W. H., hydrology of 3 experimental
watersheds in southern Florida, progress
report, 3371A
- Sperr, Roy D., contact, residue, and vapor
toxicity of new insecticides to stored-
product insects, II, 17442
- Spence, Adolphus, N., II, nomination, hear-
ing, 5281
- Spencer, John D., review of Bureau of Mines
coal program, 11582
- Spencer, John S., Jr., Indiana's timber, 5517
- Spencer, Vivian E., raw materials in United
States economy, 1900-66, 6461
- Spencer, Cape, Gulf of Alaska, westward to
Kodiak Island, coastal weather and ma-
rine data summary, 1817
- Sperry, William C., aircraft noise evaluation,
4120
- Sphecidae, *see* Wasps.
- Sphenosids, Permian, from Antarctica, 7244
- Spheres:
aerodynamic characteristics at Mach num-
bers, 4515
americum-beryllium source enclosed in
beryllium spheres, analysis of 1.4-eV
flux in water, as means of testing evalu-
ated beryllium (n,2m) cross sections,
16993
inflatable falling sphere density data,
evaluation, 13039
liquid, boundary layer separation, 16948
9° hemisphere-cone into hypersonic air-
stream, water injection from, 7553
passive inflatable falling-sphere technology
for atmospheric sensing to 100 km,
status, symposiums, 5913
spherical capsule technology program—
heat source technical report, 8014
addendum, 8015
quarterly progress report, 8013
summary report, 6379
subsonic sphere drag, measurement of non-
continuum and turbulence effects, 11616
traveling at hyperbolic speed in air, in-
viscid radiating shock layers, 17008
see also Balloons.
- Spherical waves, spherical wave functions of
integer order used in theoretical LF, VLF
field calculations, 14348
- Spheroids:
Australian national spheroid (meters)
UTM grid tables for latitude 0°-80°
transformation of coordinates from grid
to geographic, 10741
Clarke 1880 spheroid meters UTM grid
tables for latitudes 0°-80° transforma-
tion of coordinates from grid to geo-
graphic, 10740
oblate, aerodynamic characteristics at
Mach numbers from 1.70-10.49, 4515
spheroidal geodesics, reference systems &
local geometry, 7679
- Spices, foreign agriculture circulars, 2657
- Spiders, brown recluse spider, general in-
formation, 13247A
- Spieker, Andrew M., water in urban plan-
ning, Salt Creek basin, Ill., etc., 11402
- Spikes, *see* Nails and spikes.
- Spillways:
and outlet works—
Rowlesburg Dam, Cheat River, W. Va.,
hydraulic model investigation, 11257
Tocks Island Dam, Pa., N.J., and N.Y.,
hydraulic model investigation, 16451
Copan Dam, Little Caney River, Okla.,
hydraulic model investigation, 16450
Silver Jack Dam Spillway stilling basin,
Bostwick Park Project, Colo., hydraulic
model studies, 9092
- Spillsbury, Calvin C., market for U.S. soy-
beans and soybean meal in Eastern Europe,
8681
- Spin (aircraft):
spin characteristics of fighter airplane
model, effects of pointed nose on, in-
cluding correlation with theoretical cal-
culations, 16967
- Spin (atomic):
hydrogen spin exchange frequency shifts,
10436
- Spin (spacecraft):
adaptive controller for space base spin
plane orientation, 14878
S-A, small scientific satellite, magnetic
attitude and spin control, 5925
spin synchronous clock for spin-stabilized
vehicles, 16975
- Spinach, canned, U.S. standards for grades,
13765
- Spinal cord:
dorsal column system, anatomy, physiol-
ogy, phylogeny, and sensory function,
17142
tumors, hope through research, 17140
- Spinelli, John, new tests assess quality
changes in fish, 9523
- Spingler, George F., experimentation and
analysis of siting criteria, 7068
- Spink County, S. Dak., community profile,
14200
- Spinning, performance, seed cotton, moisture
conditioning in ginning, relationship, 4821
- Spiny rats, *see* Rats.
- Spiral aftereffects:
coupled roll-spiral mode effects on lateral-
directional handling qualities, simulator
study, 12769
flight tests of spiral divergence and bank
angle control of executive jets, 9346
influences of visual angle and retinal speed
on duration and intensity of illusory
motion, 8036
- Spironello, Victor R.:
evaluation of variables in basic oxygen
steelmaking, 5879
methods for studying, improving, and op-
timizing electric-furnace smelting pro-
cesses, 11578
- Spirtas, Robert, characteristics of particulate
patterns, 7562
- Splicers, telephone cable, employment out-
look, 18121
- Splices, electrical, military standard, 13807

Spodumene, continuous heavy liquid concentration, 8907
 Spokane, Wash., area wage survey, 16852
 Spokane County, Wash., community profile, 6964
 Sponagle, Charles E., summaries, solid wastes demonstration grant projects, 1969, for grants awarded June 1, 1966-Dec. 31, 1968 period, 8563
 Sponsors:
 housing, how nonprofit groups can sponsor for low-income tenants, film, 4275
 sponsors of contests and sporting events, tax information, 5671
 sponsorship, Federal Communications Commission reports, 16480
 Spools, *see* Reels.
 Sporadic E, *see* Ionosphere.
 Spores:
 effect of ionizing radiation on resistance, germination and toxin synthesis of *Clostridium botulinum* spores, 1264
 spore flora and Miocene pollen of Eniwetok Atoll, Marshall Islands, 4242
 Sport fisheries, *see* Fish and fisheries.
 Sport Fisheries and Wildlife Bureau:
 appropriations, 1970, law, 314
 marine game fish research program, transfer to National Oceanic and Atmospheric Administration, Commerce Dept.—
 hearings, 16057
 report, 15875
 press releases, 3089
 programs, 1115
 publications list, 3113
 refuge leaflets, 1117-30, 2230, 4705-12, 9179-81, 10586-588, 11880-888, 12931-933, 15271-275
 regulatory announcements, 15276
 research report, 1131
 resource publications (series), 4713, 6208, 9182, 10589, 11889-890, 12934, 17318, 320, 18341
 special scientific reports wildlife series, 1132-33, 7790-91, 9183-84, 17321-322, 18342
 technical papers, 2232, 4714-16, 6209-10, 7792-93, 11891-893, 15277
 wildlife research problems, programs, progress, 11890
 Sporting goods:
 census of manufactures, 1967, industry statistics, 12012
 Federal item identification guides for supply cataloging, supplements, 2597
 recreational and athletic equipment, Federal item identification guide, 16186
 Sports, sponsors of contests and sporting events, tax information, 5671
 Spot welding, *see* Welding.
 Sprayers:
 design of herbicide sprayer for laboratory, 7902
 hand-operated, mobile types, etc., 11951
 Spraying, *see* Sprays and spraying.
 Sprays and spraying:
 calibration of spray equipment and handling of insecticides, seed orchardist's guide, 8716
 foliar spraying of sprouting tanoak plants best in late summer, 18019
 protective chemical sprays, public sale, explore dangers, hearing, 3961
 spray applied polyurethane foam to insulate heated rooms excavated in permafrost, 10330
 spray systems, method of increasing water evaporation rates to facilitate brine disposal from desalting plants, 774
 Spring, H. Charles, wage calendar, 5821
 Springfield, H. W.:
 emergence and survival of winterfat seedlings from 4 planting depths, 11852
 germination and establishment of fourwing saltbush in Southwest, 11363

Springfield, Mass.:
 air quality control region, Federal facilities, air pollution report, 11712
 census of transportation, 1967, commodity transportation survey, production, area series, 6418
 principal electric facilities, map, 8622
 Springfield, Ohio, census of transportation, 1967, commodity transportation survey, production, area series, 6425
 Springs:
 California, southern coast, transverse, and peninsular ranges, data, 7234
 Colorado Desert area of California, data, 7233
 hydrocarbons in thermal areas, northwestern Wyoming, 11398
 inventory of springs in Morey Peak area of central Nevada, 7240
 Sprinkler irrigation, *see* Irrigation.
 Sprouse, Sylvia P., mineral trade notes, monthly inventory, 2890
 Sprouting potential of dormant buds on bole of pole-size sugar maple, 12552
 Spruce:
 Engleman—
 American woods, 8682
 mechanical properties and specific gravity of randomly selected sample, 8702
 planted seedlings affected by shading and factors, in Central Rocky Mountains, 11353
 regeneration practices in Rocky Mountains, 13003
 seedfall and establishment in clearcut openings, case history, 5515
 fir forest in New Mexico with fire stimulated aspen sprouting, 11349
 Picea abies culture of apical meristems and embryonic shoots, approach and techniques, 9326
 Sitka, bumper seed crop in southeast Alaska, ripening and dispersal, 5500
 white spruce, albino seedlings, 16569
 Spurlock, Omer F., optimum trajectories to circular synchronous equatorial orbit for smaller-than-optimum apogee motors, 16995
 Sputtering, ion techniques, proposed method for regeneration within accelerator of neutron producing targets, 4513
 Squamata, *see* Reptiles.
 Squawfish, northern, electrical barrier for controlling predation, laboratory tests, 15749
 Squirrels, general information, 6200
 SRDS, *see* Systems Research and Development Service.
 SRS, *see* Social and Rehabilitation Service—Statistical reporting Service.
 SSA, *see* Social Security Administration.
 SSC, *see* Ship Structure Committee.
 SSI series, 1102-4, 2223-24, 4675-77, 6173-76, 7752-59, 9117-23, 10555, 11862-868, 12924, 15172-175, 17282-284, 18329-331
 SST (supersonic transports), *see* Airplanes.
 Stability:
 and dynamic response of linear induction motor test vehicle, study, 14384
 and equilibrium of current plasma in toroidal systems, 4875
 atmospheric stability and height, how variations affect gust factor, 15476
 boiling-water reactors, studies, 1249
 cavity, during gas jet impingement on liquid surfaces in weightlessness, 16982
 combustion stability of single swirl-can combustion modules using ASTM-A1 liquid fuel, 903
 compressive instability and strength of uniaxial filament-reinforced epoxy tubes, 5974
 earth and rock-fill dams, engineering and design, EM manual, 14307

INDEX 1970

- Stability—Continued**
 electron-acoustics instability, development during turbulent heating of plasma ions, 4870
 electron beam injected into space, 12803
 elevated temperature instability of stellite 6B, 8923
 elevated temperature, of refractory metal alloys, 18178-179
 high frequency instabilities during electron beam interactions with plasma, studies of threshold, AEC translation, 15508
 hydrodynamic journal bearing test and analysis, 12768
 instabilities observed in lower E-layer alkali-plasma-cloud releases and their implications regarding sporadic E, 17192
 long-time temperature stability of refractory metal alloys determined, 18178
 1000 hour-230°C thermocouple stability tests, 9385
 perturbation theory based on Lie transforms and its application to stability of motion near sun-perturbed earth-moon triangular libration points, 14325
 plane Poiseuille flow with heat transfer, 17005
 refractory metal alloys, determination of weldability and elevated temperature stability, 18180
 shear layer and jet instability in stratified media, 5941
 slope stability analysis by finite element stress analysis and limiting equilibrium method, Mines Bureau, investigation, 5676
 stability of difference approximation to shock wave propagation in inhomogeneous elastic-plastic media, 5365
 storage, of aviation turbine fuels, radio-tracer technique for estimating component contribution to thermally induced deposits, 883
 structural stability analysis of sandwich plates and shells, manual, 4489
 thermal stability of modified water, USSR study, 11513
 west slope of Government Hill port area of Anchorage, Alaska, 725
- Stability of aircraft:**
 aerodynamic characteristics of hypersonic transport configuration at Mach 6.86, 11695
 aerolastic, helicopter rotor in forward flight, method for analyzing, errata, 16932
 aeroelastic instabilities, method for determining characteristic functions associated with helicopter rotors in forward flight, 11615
 cropped double-delta wings in subsonic compressible flow, design charts of static and rotary stability derivatives, 5955
 flight tests of spiral divergence and bank angle control of executive jets, 9346
 pilot's weight and balance handbook, 12541
 stability and control, design of light aircraft, NACA and NASA publications, Met, 5894
 static longitudinal and lateral characteristics—
 light single-engine airplane, wind tunnel investigation, 6539
 light single-engine low-wing aircraft, wind tunnel investigation, 11681
 technique for determining airplane aileron effectiveness and roll rate by using aeroelastically scaled model, 933
 tilt wing, V/STOL transport, investigation of lateral-directional dynamic stability, 5945
- Stability of spacecraft:**
 gravity-gradient control-moment-gyro stabilized spacecraft, attitude reacquisition, 10404
- Stability of spacecraft—Continued**
 gravity-stabilized satellites, influence of thermal distortion on performance, 902
 instability of slender thin-walled booms due to thermally induced bending moments, 11646
 nonrigidly supported ballast on slender body descending through atmosphere, effects on dynamics, 4522
 space station, centrifuge configuration, study and modal analysis, 11654
 spacecraft wide-angle attitude control system, analysis and verification, 7546
 spin synchronous clock for spin-stabilized vehicles, 16975
 stability of constant-gain systems with vector feedback, 12777
 thermoelastic instability of open-section booms, 2080
- Stabilization:**
 amplitude and noise characteristics of plasma lasers, investigation, 14826
 coastal dunes of Oregon, 9164
 critical area stabilization, guide for landowner in urban areas, western Washington, 15203
 Economic stabilization act of 1970, hearings, 12267
 national economic stability—
 price-wage guideposts, hearings, 419
 threatened by price and wage behavior, hearing, 11034
 rock movement and subsequent stabilization, Morrow Point underground powerplant (paper), 7728
see also Prices.
- Stackpole, John D., Air Pollution Potential forecast program, 1826**
Staff College, Civil Defense Office, Battle Creek, Mich., catalog, 13192
Staff development, see Administrative management.
Staff papers, Research and Statistics Office, 6170
- Stagnation point:**
 coupled viscous-radiating flow, with massive blowing, analysis, 11610
 heat transfer during hypervelocity atmospheric entry, 5892
 solutions for inviscid radiating shock layers, 12791
- Staining, see Stains and staining.**
- Stainless steel:**
 AISI 304 and 316, relaxation behavior at elevated temperature, analysis, 9377
 austenitic 19-9DL and 12R72HV effect of thermal-mechanical treatments, 10757
 dissimilar thickness stainless-steel T-joints, magnetic force upset welding, 14866
 marking of aircraft and missile propulsion system parts fabricated from critical high temperature alloys, military standard, 547
 polished surface of 347 stainless steel, physical adsorption of nitrogen gas on, at very low pressures, 8944
 table flatware, tariff investigation report, 2263
 tantalum/316 stainless steel bimetallic tubing, evaluation, 8926
 Stains and staining, lignin staining, limited success in identifying koa growth rings, 18017
 Stakem, Eugene P., remarks, Apr. 21, 1970, 8620
- Stall (aircraft):**
 warning equipment, experimentation and evaluation of improved system, 8602
- Stallans, T. J., quarterly abstracts of passenger lists of vessels arriving at Baltimore, 1820-69, pamphlet accompanying microcopy, 11723**
- Stallcop, James R., semiclassical elastic scattering cross sections for central field potential function, 4504**

- Stallings, Robert L., experimental heat-transfer distributions on blunt lifting body at Mach 3.71, 5935
- Stallion Range Center, N. Mex., water supply well SEC-2, 7256
- Stamford, Conn., census of transportation, 1967, commodity transportation survey, production, area series, 6418
- Stamper, John W., aluminum, 12738
- Stamping, *see* Metal stamping.
- Stamping out hog cholera, 37
- Stamps, *see* Food stamps—Postage stamps.
- Standard Reference Data Office, data compilations, annotated list, 17041
- Standard reference data system, *see* National standard reference data system.
- Standard time, *see* Time.
- Standards and Conduct, Select Committee on, Senate, report, 11082
- Standards and standardization: Air Force qualifying test form K. development and standardization, 13014 air pollution, national emission standards study, HEW report, 11717 print as Senate document, report, 12819 Defense Department—Cataloging and standardization program, semiannual report, 5148 specifications and standards, index, 2498, 16145 supplements, 2498 standardization documents, supply classification listing, 2632, 13803 standardization policies, procedures, etc., manual, 3220 Federal general data standard, representations and codes—countries and county equivalents of States of United States, 14918 States and outlying areas of United States, 14917 Federal information processing standards publications, FIPS pubs, 954, 14917-919 Federal motor vehicle safety standards, automobiles imported into United States, 636 Federal specifications and standards, index, 4163 supplements, 2734 Federal standards, 1862, 4161, 5467, 7158, 8663 Federal test method standard, 1863, 8665, 10092, 16515 innovation in measurement (address), 10870 military standards, 544-559, 1772-80, 4018-34, 5318-19, 6876-80, 8482-87, 9859-64, 11180, 12397-398, 13804-810, 16147-153, 17741-745 MILSCAP, military standard contract administration procedures, 9965, 13811 supplements, 560, 16154 National Bureau of Standards—standard reference data systems appropriations, 1970 and 1971, authorization—law, 1396 report, 1631 standard reference materials—analysis of interlaboratory measurements of vapor pressure of gold, 6003 announcements, 2950 boric acid, isotopic, and assay, 6002 calibration of secondary standard magnetic tape (computer amplitude reference) using reference tape measurement process A, 957 catalogs and price lists, 6001, 12842, 14921 news for users, 2963 order of precedence in selection for Defense Dept., military standard, 4018 Standards and standardization—Continued publications, price list, 18306 product standard PS (series), 4551, 7570-72 standard classification system for indirect costs of defense contractors in aircraft industry, 6320 standardization and certification, challenge to industry and Government (address), 6516 standards and the consumer (address), 282 standards dilemma (address), 283 standards laboratories in U.S., directory, 14916 technical standards training guides, 8619 USDA grades for pork carcasses, 7922 voluntary product standard PS (series), 8997, 10440-441, 11742-749, 14928-931, 17044 *see also* Labor standards—also names of departments, etc.—also subjects.
- Standards of Official Conduct Committee, House: hearings, 6675 report, 6647
- Standing Rock Reservation, lands, place in trust status, law, 319
- Standing Rock Sioux Tribe, North Dakota, *see* Sioux Indians.
- Stands, northern hardwood stands, is cull overestimated? 16564
- Stanislaus National Forest perennial grasses reduce woody plant seedlings on mixed conifer fuel-break, 18016
- Stanley, Norman W., relief, 359, 13271, 13589
- Stanley, Roger, relief, 15334
- Stanley County, S. Dak., community profile, 14201
- Stanly County, N.C., community profile, 12471
- Stans, Maurice H.: addresses, etc.—Nov. 12, 1969, 267 Nov. 17, 1969, 265 Nov. 20, 1969, 266 Nov. 21, 1969, 1360 Dec. 8, 1969, 1362 Dec. 9, 1969, 1361 Jan. 22, 1970, 3687 Feb. 24, 1970, 4980 Mar. 3, 1970, 4979 Apr. 13, 1970, 8139 Apr. 21, 1970, 8140 May 8, 1970, 9487 May 13, 1970, 9498 May 14, 1970, 9488 May 19, 1970, 10865 May 21, 1970, 9489 May 25, 1970, 10866 May 27, 1970, 10862 May 31, 1970, 9496 June 3, 1970, 9497 June 9, 1970, 10880 June 11, 1970, 10863 June 16, 1970, 10864 Aug. 24, 1970, 13216 Sept. 15, 1970, 15734 Sept. 18, 1970, 15708 Sept. 18, 1970, 15709 Sept. 28, 1970, 15707 Oct. 3, 1970, 15711 Oct. 9, 1970, 15710 Oct. 14, 1970, 17560
- Stanton, Beryle: farmer cooperatives, farm business tools, 10684 news for farmer cooperatives, 2962
- Stanton, Mearl E., journal of National Cancer Institute, 2783
- Stanton County, Nebr., community profile, 16345

INDEX 1970

- Staphylococcal infection, staphylococcal carriage in hospital population, throat vs. nose carriage and persistence of nasal carriage, 15503
- staphylococci in food products, rate of enterotoxin production by, USSR study, 11509
- STAR, *see* Scientific and technical aerospace reports.
- Star trackers, experimental investigation of attitude control system that uses star trackers and inertia wheels, 11677
- Starch, products used in iron ore flotation, infrared evaluation, 867
- Starfishes:
- crown of thorns starfish, in tropical Pacific Ocean, control program—
 - hearing, 12366
 - law, 15809
 - reports, 8369, 13468
 - Zorocallida, new order, and Doraster constellatus with notes on Zorasteridae (Echinodermata: Asteroidea), 12916
- Stark, Kenneth W., research and development in needle and slit colloid thrusters, 5918
- Stark County, N. Dak., community profile, 14202
- Stark County, Ohio, community profile, 14203
- Starr, Robert B., oceanographic investigation of Cay Sal Bank, Bahama Islands, 14347
- Stars:
- double stars—
 - micrometer measures, 1008
 - photographic measures, 7687
 - photovisual magnitude differences, 7666
 - optimum detection scheme for star-field mapping system, investigation, 14890
 - stars with steady-state extended atmospheres, spectrum formation, symposium proceedings, 18235
 - tables for air navigation, 18285-286
- see also* Air navigation.
- Start at the top, Air Force officer training school, 6335
- Starters, *see* Starting devices.
- Starting and managing series, 6154, 9104, 15159
- Starting devices:
- automatic restart control system for an axisymmetric mixed-compression inlet, 2121
 - ballasts and starters, Federal item identification guide, 11167
 - starter, engine, electrical, Federal item identification guide, 8476
- Startle (psychology):
- recovery of motor performance following startle, 8041
- Starvation, antelopes with stomachs full of feed, 680
- State aid, *see* Grants-in-aid.
- State banks:
- equity security transactions and ownership of directors, etc., of Federal reserve member State banks, monthly summary, 3244
 - member banks of Federal reserve system, list, supplement, 3222
 - membership in Federal reserve system, weekly changes, 2401
- State Department:
- and Continental Congress, 1785-90, foreign letters, microcopy, pamphlet to accompany, 14910
 - appropriations, 1970—
 - law, 3738
 - reports, 472, 5104
 - appropriations, 1971—
 - amendment, proposal, 13566
 - hearings, 8270, 13493, 13708
 - reports, 9686, 15990
 - waive points of order, report, 9688
 - audit report, improvement, GAO proposals, 4224
- State Department—Continued
- background notes, 1134-39, 2235, 2361, 4718-22, 6212-17, 7794-7811, 9186-89, 10591-600, 15278-291, 17323-328, 18343-344
 - biographic register, 15292
 - bulletin, 2500
 - department and foreign service series, 10601, 15292, 17329
 - diplomatic reception rooms, guidebook, 9195
 - general information, 17329
 - indexes, living costs abroad, 7438
 - international information and cultural series, 4729, 11899
 - living quarters allowances, 16868
 - management improvements needed in U.S. financial participation in United Nations development program, GAO report, 7211
 - news letter, 2501
 - notes from Spanish legation to Department of State, 1790-1906, pamphlet accompanying microcopy, 17023
 - press releases, 3090
 - progress and problems in U.S. aid to economic unification of Central America, GAO report, 14511
 - publications and audio-visual materials, selected list, 3189
 - questionable justification and loose administration of special cost of living allowances paid to certain civilian employees in Republic of Vietnam, GAO report, 10152
 - records, microcopy, pamphlet to accompany—
 - internal affairs, 1910-29—
 - Haiti, 11724
 - India and Burma, 11721
 - political relations, 1910-29—
 - Bolivia and other States, 14912
 - China and other States, 11722
 - Guatemala and other States, 17026
 - Netherlands, and between Netherlands and other States, 11725
 - Peru and other States, 14913
 - telephone directory, 6220, 10611
 - U.S. defense activities overseas, questionable payment of taxes to other government, GAO report, 5535
 - U.S. financial participation in Food and Agricultural Organization of United Nations, GAO report, 724
 - Under Secretary for Western Hemisphere Affairs, establish, hearing, 9911
- State governments, *see* Government.
- State of art review on product recovery, 14415
- State of national economy, hearing, 8380
- State of the Union, *see* United States.
- State postal map series, 2196-99, 6122-23
- State Technical Services Office:
- annual report, 6504
 - newsletter, 3223
 - press releases, 3091
- State vector, deciphering automata in absence of upper bound state number, USSR study, 8836
- Statements, *see* Addresses, lectures, etc.
- States:
- abortion laws, 11937
 - aid to local government, 3
 - air quality control regions, manual for development of recommendations, 4535
 - air quality data from State and local networks and National Air Surveillance Networks, 5992
 - all States income tax guide, information for service personnel, 11522
 - benefits of interstate highways, 17968
 - census data interests of local agencies, census use study, 8076
 - certification of interstate milk shippers under State-PHS cooperative program, 5473
 - citrus fruit, production, use, value, 4757

States—Continued

climates, 11264-266, 14340-341
 congressional apportionment, decennial
 population census, report, 13427
 congressional redistricting, availability of
 1970 census data, 13098
 report, 8259
 conservation education in curricula of 50
 States, 7181
 cooperative State-Federal tick eradication
 activities, 1969 fiscal year, 12962
 dental health programs, 1967, digest, 972
 dentist manpower reports, 1965-67, com-
 pilation, 11409
 education agencies, drug abuse education
 programs, support, 7608
 education departments, 1971-72 foreign
 curriculum consultant program, 16394
 employee-retirement systems of State and
 local governments, 1967-68 finances,
 226, 6453
 employment and earnings statistics, 2019
 Federal aid to States and communities,
 simplifying, report of inter agency pro-
 gram, 8045
 Federal civilian employment, by geographic
 area, annual report, 9474
 Federal general data standard repre-
 sentations and codes—
 counties and county equivalents of
 States of United States, 14918
 States and outlying areas of United
 States, 14917
 Federal grants—
 construction of facilities for persons
 affected by mental retardation and
 other developmental disabilities—
 hearings, 3983, 11046
 reports, 12243, 13411
 Joint funding simplification act of 1969,
 report, 393
 nursing homes, etc., for veterans, in-
 crease Federal payments, law, 3748
 occupational health and safety pro-
 gram, hearings, 5157
 Federal revenue sharing, progress report
 (remarks), 10651
 Federal-State cooperation for education,
 Advisory Council on State Departments
 of Education, report, 14284
 FHA homes, insuring operations under
 sec. 203, 1968 data, 8614
 forest fire control—
 cooperative program financing, 12546
 Federal allotments to States for forest
 fire cooperation, 8684, 14428
 laws, analysis, 16535
 forestry schools, list, 8689
 governments—
 construction expenditures, 1336
 employment and payrolls, 3221
 finances, 10829
 correction notice, 12039
 finances and employment, historical
 statistics, 1308
 home study course, 16686
 grant program, meeting critical shortages
 of classroom personnel, education pro-
 fessions development act, 4056
 health agencies, drug abuse information,
 education, and rehabilitation programs
 supported by, 7609
 health authorities, 1970, directory, 16657
 health insurance for the aged—
 amounts reimbursed, lists, 4670, 9111-
 12
 number of hospital and extended care
 facility admissions by State, 18330
 HEW administered formula grant pro-
 grams, catalog, 14559
 interstate commerce, cooperation with re-
 spect to State fish inspection programs,
 hearings, 3960
 juvenile detention care, responsibility,
 15391

States—Continued

labor laws, sex discrimination in employ-
 ment, 10673
 labor legislation—
 annual digest, 16824
 passed, 7419
 land-grant colleges and universities, Ex-
 tension Service review (periodical),
 2555
 legislative program of Advisory Commis-
 sion on Intergovernmental Relations, 2
 livestock associations, resolutions adopted
 in 1969 relating to National Forest Sys-
 tem, Forest Service comments, 1877,
 5488
 local occupational information, reports by
 employment offices, list, 1175
 management of fish and resident wildlife
 on Federal lands, report, 1643
 meat inspection services—
 hearings, 9887, 13490
 law, 13317
 reports, 11086, 12209
 mental retardation, directory of State and
 local resources, 4286
 mentally retarded, directory State and
 local resources, 14563
 merit systems, extend to additional pro-
 grams financed by Federal funds—
 hearings, 17639
 report, 1608
 mineral industries, injury experience and
 worktime, minerals yearbook chapter,
 4411
 model housing societies law, 5376
 national and State livestock-feed rela-
 tionships, 6317
 national estuary study, coordinating State
 and Federal actions for taxing use of
 estuarine resources—
 departmental edition, 15267
 document edition, 13355
 need for subsidized family planning ser-
 vices, 6988
 nomination and election of U.S. Senators,
 laws, guidebook, 8343
 operating budget, National Guard—
 formulation, pamphlets, 9004, 17062
 quarterly review, pamphlets, 9003,
 17061
 population—
 by age, estimates, 3639
 estimates, 1330
 households, estimates, 6444
 postal maps, 2196-99, 6122-23, 7700-5,
 9068, 10503-506, 15114-117, 17212-
 213
 power and equipment on farms in 1964, 48
 States, major items by size and type,
 17447
 private and public ownership of lands, dif-
 ferentiation, Federal reclamation laws,
 acreage limitation amendments—
 law, 12133
 reports, 6611, 10998
 professional workers in agricultural ex-
 periment stations and other cooperating
 institutions list, 6298
 public assistance, costs, of State and local
 administration, services, and training,
 10450, 17055
 publications, monthly checklist, 2901
 right-of-way acquisition activities, obser-
 vations on problems encountered in re-
 solving weaknesses, Federal Highway
 Administration, GAO report, 720
 salary ranges of positions in employment
 security, etc., 743, 11405
 school system, 1967-68 preliminary sta-
 tistics, 12503
 soil and water conservation districts,
 status of organization, etc., 17304
 solid waste management plan, developing,
 planning, etc., 15266

INDEX 1970

States—Continued

- State agencies, guide for establishing cost allocation plans and indirect cost rates for HEW grants and contracts, 1917
- State and areawide comprehensive health planning agencies, directory, 15758
- State and community highway safety programs, local participation, 4563
- State and county mental hospitals, provisional patient movement and administrative data, 6046
- State and local finances, significant features, 3370
- State and local governments—
 - access to capital markets (remarks), 5464
 - special studies, 6457-58
- State and local taxes, national banks, clarify liability—
 - hearing, 492
 - law, 1412
 - reports, 1531, 1628
- State and urban crisis, Air Force Academy Library, bibliography, 3430
- State center for health statistics aid in planning comprehensive health statistics, 1076
- State safety code activity 1967-68, highlights, 16825
- State urban information and technical assistance services, list 6 months, report, 11418
- States and areawide comprehensive health planning agencies, directory, 5018
- States and local areas, directory of non-federal statistics, guide to sources, 12037
- States and their resources, price list, 2207
- States and urban crisis, Air Force Academy Assembly, final report, 15451
- statewide community organization for the aged, project report, 12359
- student aid programs 11064
 - print as Senate document, report, 13628
- supply and demand for energy in United States 1960 and 1965, integrated energy balances and energy flows, 5849
- tax collections, 1969 report, 4949
- tax discrimination against interstate carrier property, hearings, 499, 11047
- tax revenue, quarterly summary, 228, 3648
- tax withholding, for interstate transportation employees, exempt—
 - hearing, 3308
 - reports, 12201, 13474
- taxation, discriminatory, common and contract transportation property, report, 1694
- technical services, designated agencies, officials and working contacts, list, 2842
- tobacco, type and class estimates, acres harvested, yield per acre, pounds produced etc., statistics, 9325
- unemployment insurance laws, comparison, revised series, 4065, 15367
- vocational education, statistics, 17914
- vocational rehabilitation agencies—
 - caseload statistics, 2210
 - major disabling condition of rehabilitated and not rehabilitated clients, 2211
- vocational rehabilitation, Federal-State program—
 - State data book, 17251
 - statistical history, 17252
- workmen's compensation laws, summarization of main provisions, 4368, 5818
- see also Intergovernmental relations—
 - Interstate agreements—Revenue.

Static:

- aerodynamic characteristics, etc., of systematic series of wings determined from subsonic wind-tunnel study, 11866

Static—Continued

- stresses on wide-blade propellers, 15097
- thrust conditions, tests on propellers, 4498
- Static electricity, see Electrostatics.
- Static inverters, see Inverters.
- Static stability, see Stability of aircraft.
- Stationary engineers, employment outlook, 16836
- Stationary firemen, boiler, employment outlook, 16836
- Statistical abstract of United States:
 - departmental edition, 15660
 - document edition, 15827
- Statistical design, see Statistics.
- Statistical processes:
 - estimates based on order statistics and of samples from various populations, order statistics and their use in testing and estimation, 9341
 - optimization of carbon deposition experiments in thermal oil recovery, 18170
 - statistical design and analysis of optimum seeking experiments to develop gamma-prime strengthened cobalt-nickel base alloy, 2118
 - tests based on range and studentized range of samples from normal population, order statistics and their use in testing and estimation, 9340
 - two-dimensional point resolution, 18293
- Statistical publications, see names of departments, etc., issuing publications.
- Statistical Reporting Service:
 - agricultural economics reports, checklist, 2402
 - appropriations, 1970—
 - law, 1392
 - report, 1482
 - appropriations, 1971, hearings, 8266
 - civil rights, management, automation, multiple frame, program evaluation, research, national conference, 17367
 - SRS series, 9214, 10634, 17368
- Statisticians, employment outlook, 14678
- Statistics:
 - conference on Small-Area Statistics, American Statistical Association, papers presented, etc., 4929
 - contract block statistics program, census geography, data access description, 8093
 - economic and statistical terms, dictionary, 1363
 - experimental, engineering design handbook—
 - special topics, 3457
 - tables, 3458
 - experiments, military equipment, basic concepts and analysis of measurement data, engineering design handbook, 4848
 - metropolitan area, 9456
 - non-federal, for States and local areas, directory, guide to sources, 12037
 - order statistics and their use in testing and estimation, 9340-41
 - public health conference, proceedings, 12th annual meeting, 7583
 - reading statistical tables, self-instruction course, programmed, 7266
 - statistical activities of Federal Government, 1969 report, 8263
 - statistical analysis of meteoroid penetration data including effects of cutoff, 5959
 - statistical briefs from around the world (periodical), 3225
 - statistical journals, author and permuted title index, 17036
 - statistical reporter (periodical), 3227
 - statistical series releases, SEC, 3228
 - see also Sampling (statistics)—Vital statistics—also names of departments, etc., issuing statistics—also subjects.

Stators, turbine, thermal feasibility of using methane or hydrogen fuels for direct cooling, 18219

Stats, Jeanette, door to opportunity, title 5, Economic opportunity act, 13249

Statue of Liberty National Monument, general information, 7648

Statutes, *see* names of persons in whose honor statues are erected.

Status de Puerto Rico, Informe de la Comision de los Estados Unidos y de Puerto Rico sobre el status de Puerto Rico, 15370

Status of Federal aviation regulations, 5412

Status of world's nations, 1144

Statutes, *see* Law.

Statutes at large, 90th Congress, 2d session, laws and concurrent resolutions, reorganization plans and proclamations, 651

Staudinger, Konrad L., relief, 12293

Staugaitis, C. L., mechanical properties of advanced gravity gradient booms, 16994

Staylor, W. Frank, flow-field investigation for large-angle cones with short spikes at Mach number of 9.6, 11643

Stayton, Charles L.:
estimating sugar maple bark thickness and volume, 16575
is cull overestimated in northern hardwood stands? 16564

Steady state, *see* Equilibrium.

Stealing, thefts, tax deduction information, 5679

Steam:
investigations on cyclones for steam separation in boiling water reactors, quarterly report, 1251
steamflooding in Venango sands, applying Marx and Langenheim calculations to prediction of oil recovery, 850

Steam boilers, *see* Boilers.

Steam electric plants, *see* Electric power plants.

Steam power plants:
Cumberland Steam Plant, fish monitoring investigations, Cumberland River, Tenn., 17378
equipment, Federal item identification guides for supply cataloging, supplements, 2593

Steamship conferences, *see* Shipping conferences.

Steamships, lines in foreign commerce of U.S., approved conference, rate and inter-conference agreements, 639, 2341, 7093, 17977

Stearns, Charles O., convergence of iterative methods applied to large nondetermined linear and nonlinear equations using least squares, 17950

Stecura, Stephan, apparent solubilities of commercially pure and oxygen-doped tantalum and niobium in liquid potassium, 11691

Steel:
alloys, relationship between fracture toughness and estimated plastic zone size, 6107
basic oxygen steelmaking, evaluation of variables, 5879
chrome plated steel and steel parts heat treated to 180,000 psi or over, grinding, military standard, 1777
corrosion fatigue crack growth, behavior, 15080
fabricated structural steel industry—
piling and stacking, how to inspect chart, 7417
punch press, how to inspect chart, 7416
forgings, commercial 1969, current industrial reports, 15626
foundries, census of manufactures, 1967, industry statistics, 12006
fracture-safe design of structures, evolution of engineering principles, 4628
friction and wear in air and vacuum, 16966

Steel—Continued
heat resistant steels, USSR study, 18107
high strength, stress-corrosion cracking characterization and interpretation to failure-safe design procedures, 9060
import data, by TSUSA number, country of origin, etc., 9415
industry, employment outlook, 14720
mild steel, long-term measurements of corrosion in 580° F NaOH solutions, 17195
minerals yearbook chapter, 4412
neutron-embrittled pressure vessel steels, Charpy-V shelf energy degradation and yield strength increase, trends, 6110
neutron irradiated A537-B and A350-LF2 weldments, Charpy-V notch ductility characteristics, 11819
neutron irradiated 12Ni-5Cr-3Mo maraging steel plate and companion weld metals, behavior of mechanical properties, 6103
new weldable steels of 180- to 210-Ksi yield strengths fracture toughness characteristics, 1033

products—
packaging, marking, and loading methods, recommendations of trade, amdt., 4552
primary census of transportation, 1967, commodity transportation survey, shipper group, 1312
purchased for commercial barge construction program in Vietnam, review, report, 17629
radiation embrittlement, damage-function analysis of neutron energy and spectrum effects, 6099
scrap, pretreating to speed oxidation, 4476
slag disposal, estimated costs, 2051
slag-iron and steel, minerals yearbook chapter, 16926
structural steel erection, special trade contractors, census of construction industry, 1967, statistics, 13135
structural, yield strength and fracture toughness influence on fatigue design procedures, 12891
temper etch inspection, military standard, 5318
thick-section, dynamic tear test investigations of fracture toughness, 15077
12-5-3 maraging steel plate, characterization of TIG welds by application of new scaling method for KIC plasticity corrections, 12895
weldments, effect of flame and mechanical straightening on material properties, 17264
see also Incoloy—Stainless steel—*also* names of manufactured articles.

Steel castings, *see* Castings.

Steel mills:
products—
current industrial reports, 3636, 15640
quantitative, economic analysis and long-run projections of demand, 7461
shapes, inventories, current industrial reports, 2475
Steele, E. Boyd, abortion laws, 11937
Steele, Lendell E., influence of composition on fracture toughness of commercial nuclear vessel welds, 15087
Steele County, N. Dak., community profile, 14204
Steers, choice, commitments of traders, 2428
Steinberg, M., concrete-polymer materials, 2d topical report, 13065
Steinfeld, Jesse L., nomination, hearing, 8432
Steinhart, Carol E., organization and description of complex data through cluster analysis, NIH-supported research in physiological psychology and cell biology, 2148

INDEX 1970

- Steinhilb, H. M., weights and centers of gravity for quaking aspen trees and boles, 12555
- Stellarators:
long-wave perturbations of stellarator magnetic system geometry, 111
uragan, development and construction of magnetic systems for, and studies of magnetic surfaces of large latitude, 15507
- Stellite 6B, elevated temperature instability, 8928
- Stenographers:
employment outlook, 12694
take a giant step, go Government, 1352, 12048
- Stenton, Thomas E., theoretical frequency response functions and power spectra of XR-70 response to atmospheric turbulence, 14824
- Stephenson, George K., genetic variation, key to superior trees, 674
- Stephenson, Samuel R., relief, 12166
- Stereocomparator coordinate reduction, 15137
- Stereographic projections, computer program for analysis of coal fractures and cleats, 7463
- Stereoscopic perspectographs, *see* Perspectographs.
- Stereotypers, employment outlook, 14712
- Sterilization:
heat, and vacuum exposure, effects on some low-density heat-shield materials, 7538
radiation, fish products, development, 1226
- Stern, K. H., high temperature properties and decomposition of inorganic salts, carbonates, 956
- Stern, R. K., atmospheric moisture effect on shock cushioning of corrugated fiberboard pads, 16572
- Steuben County, N.Y., community profile, 14205
- Steubenville, Ohio, census of transportation, 1967, commodity transportation survey, 8068
- Stevens, Mary E.:
automatic indexing, state-of-the-art report, 8982
overall system design considerations, selective literature review, research and development in computer and information sciences, 11730
research and development in computer and information sciences—
information acquisition, sensing, and input, selective literature review, 8983
processing, storage, and output requirements in information-processing systems, selective literature review, 8984
- Stevens, Peter B., BLS information system, systems manual, 14660
- Stevens, Richard F., jr., uranium, 4486
- Stevens, Robert E., lindane spray effective against mountain pine beetle in Rocky Mountains, 14463
- Stevens County, Wash., community profile, 6965
- Stevenson, Henry E., naval training bulletin, 2942
- Stevenson, John R., U.S. military actions in Cambodia, questions of international law, 11895
- Stevick, Earl W., Luganda language, pre-training program, 11900
- Stewardesses, employment outlook, 14723
- Stewards, stewardship report on administration of Federal-aid highway program, 16488
- Stewart, David A., convective heat transfer rates on large-angle conical bodies at hypersonic speeds, 925
- Stewart, Elwood C., adaptive random-search algorithm for implementation of maximum principle, 5947
- Stewart, J. K., modified-atmosphere effects on market quality of lettuce shipped by rail, 9301
- Stewart, Harold A., effect of cutting angle and depth of cut on occurrence of chipped grain sycamore, 12556
- Stewart, John H., upper Precambrian and lower Cambrian strata in southern Great Basin, 14535
- Stewart, Maxine G.:
occupational outlook quarterly, 2980
U.S. economy in 1980, summary of BLS projections, 12718
- Stewart, Thomas L., analysis of hybrid phase-lock loop, 11629
- Stewart, William M., alpha-gamma angular correlations in reaction carbon-12, 2107
- Stewart County, Tenn., appraisal of potentials for outdoor recreational development, 9130
- Stibnite, Idaho, geochemical investigations for gold, antimony, and silver, 11596
- Stickney, Alden P., night lighting for hearing, old technique may have new possibilities, 10892
- Stiffeners (aircraft):
generalized stiffness matrix for ring-stiffened shells of revolution, 12774
stiffened-skin panels for hypersonic aircraft, flutter design, 2101
thermally stressed flat plate with edge stiffeners supersonic flutter, 11614
titanium-alloy skin-stringer panels, influence of salt and elevated-temperature exposure, on massive compressive strength, 5961
- Stiffness:
aircraft tires, vertical and lateral characteristics, 4494
elastically supported corrugation-stiffened panels, natural vibration and flutter, experiment and theory, 16987
flexural properties of glued-laminated southern pine beams with laminations positioned by visual-stiffness criteria, 8701
mount stiffness and damping effects on dynamic behavior of air lubricated pivoted-pad journal bearing-rotor system, 5972
self-acting thrust bearings, optimization for load capacity and stiffness, 14886
stiffness matrix methods, systematic analysis of pit slope structures by, 5877
- Still-birth, fetal mortality and leukemia, relation of radioactive fallout reconsideration, 6375
- Still photography, *see* Photography.
- Stilling basins, Silver Jack Dam spillway stilling basin, Bostwick Park project, hydraulic model studies, 9092
- Stillwater River, flood plain information, 4078
- Stimulants, *see* Drugs.
- Stimulus, clicks and tone pip stimuli, binocular interaction and laterality comparison of cortical evoked potentials produced, 8892
- Stipends, psychiatric-mental health nursing institutions offering stipends, list, 9017
- Stipp, Henry E.:
mineral industry of—
Africa, 7468
Morocco, 4443, 14786
United Arab Republic, 4464, 18162
- Stochl, Robert J., gaseous-helium requirements for discharge of liquid hydrogen from 1.52 meter (5-ft.) diameter spherical tank, 5939
- Stock, John A.:
mineral industry of—
New Zealand, 4449
other South Pacific Islands, 5867
- Stock, Michael S., driver licensing guidelines for medical advisory boards, 1053
- Stock catalogs, *see* Catalogs.

- Stock exchange, transactions, statistical series releases, SEC, 3228
- Stock ranges, see Range lands.
- Stocker, Marion K., child care and guidance, suggested post high school curriculum, 11202
- Stockholders, see Securities.
- Stockmen:
ranchers in Big Bend, 7647
ranchers, recreation, as possible income crop from land use, how and where to get help, 15226
- Stockpiling, see Strategic materials.
- Stocks:
bonus plans, tax exemption, procedures and guide for qualification under Internal revenue code, 11457
dividends, tax reform, summary of recommendations, 1725
see also Securities.
- Stockyards, packers and stockyards resumé, 3007
- Stoddard, D. R., coral islands of western Indian Ocean, 18325
- Stoddard County, Mo., community profile, 17882
- Stohl, Clark E., attitude reacquisition of gravity-gradient control-moment-gyro stabilized spacecraft, 10404
- Stokes County, N.C., community profile, 12472
- STOL (short takeoff and landing), see Aircraft—Seaplanes.
- Stomach:
cancer, health information, 6136
full of feed, starvation in antelope, 680
- Stomatopoda, see Crustaceans.
- Stomiidae, bathypelagic fish genus Stomias (Stomiidae), taxonomy, sexual dimorphism, vertical distribution, and evolutionary zoogeography, 1095
- Stone, James R., tests of single-tube-in-shell water boiler with helical-wire insert, inlet nozzle, and two different inlet-region plugs, 5948
- Stone, Morris, why arbitrators reinstate discharged employees, 821
- Stone, Noble H.:
one-dimensional time-dimensional interaction of satellite with ionospheric plasma, 8954
simulation of ionospheric conditions for space vehicles, 14860
- Stone, William G., Navigation Lock, on Sacramento deepwater ship channel, Calif., designate, report, 13667
- Stone:
census of transportation, 1967, commodity transportation survey, shipper group, 4928
cut-stone products, 1967 census of manufactures, industry statistics, 15603
minerals yearbook chapter, 4484
stone setting and other stone work, special trade contractors, census of construction industry, 1967, statistics, 13127
- Stone County, Miss., community profile, 16346
- Stone County, Mo., community profile, 17883
- Stone Harbor, N.J.:
New Jersey coastal inlets and beaches, Great Egg Harbor Inlet to Stone Harbor, engineers report—
departmental edition, 332
document edition, 600
- Stone Mountain:
commemorative medals, carvings depicting heroes of Confederacy—
law, 10915
reports, 8354, 9658
- Stone Mountain Memorial Foundation:
commemorative medals of carvings on Stone Mountain depicting heroes of Confederacy, authorize—
law, 10915
reports, 8354, 9658
- Stonemasons, see Masons.
- Stoner, D. R., determination of weldability and elevated temperature stability of refractory metal alloys, effects of contamination level on weldability of refractory metal alloys, 18179
- Stonesifer, F. R., characterization of TIG welds in 12-5-3 maraging steel plate with application of new scaling method for KIC plasticity corrections, 12895
- Stopcocks, glass, with polytetrafluoroethylene (PTFE) plugs, voluntary product standard, 14931
- Storage:
Army technical manual, 105, 6365, 17470
effects of storage temperatures on quality of—
cottonseed salad oil, 10688
soybean salad oil, 10689
forage samples crude protein content unaffected by storage, 11350
marking, military standard, 9960, 17741
open areas in military installations, geometric design, Army technical manual, 7995
Reclamation Bureau pumped storage plants (paper), 9079
salmon, effects and tests of substitute ingredients in Abernathy diet, 7793
stability of aviation turbine fuels, radio-tracer technique for estimating component contribution to thermally induced deposits, 883
storing vegetables and fruits in basements, cellars, outbuildings, and pits, 9294
underground, of imported water in San Geronimo Pass area, Calif., 4257
underwater storage—
collection and disposal of pleasurecraft wastes, 10104
control pollution, 8676
see also names or classes of articles stored.
- Storage bins, see Bins.
- Stored-Product Insects Research and Development Laboratory, preliminary evaluation of new candidate materials as toxicants, repellents, and attractants against insects, 12989
- Stored-Product Insects Research Branch, publications available, 7909
- Storekeepers 1 & C, rate training manual, 1029
see also Aviation storekeeper.
- Storer, Norman W., report on conference on survey applications of social psychological questions, 1340
- Stores:
and office fixtures, census of manufactures, 1967, industry statistics, 15595
department stores—
inventory price indexes, 16858
sales, selected areas, special current business reports, 3215
drug, bibliography, 15158
retail, annual sales, year-end inventories, and accounts receivable, by kind of business, 216, 10812
retail sales, current business reports, 2467, 2470-71A
self-service food donation center, how to plan, 41
starting and managing—
pet shop, 9104
retail flower shop, 6154
retail music store, 15159
- Storey, Theodore G.:
INFORMAP, computerized information system for fire planning and fire control, 8712
Project Flambeau, investigation of mass fire (1964-67), final report, appendixes, 10123
- Storm and combined sewer demonstration projects, 1868

INDEX 1970

- Storm-drains, outlets, erosion and riprap requirements, hydraulic laboratory investigation, 8565
- Stormer, Carl D., cold concrete, 8536
- Storms:
- data, monthly, 3234
 - developing tropical, kinetic energy balance, 1822
 - floodwater retarding structures near McKinney, Tex., during Sept. 20-21, 1964, performance, 6187
 - forecasting, horizontal moisture convergence and convective cloud formation relationship, 11287
 - Galveston Bay hurricane surge study, reports, 16447-448
 - hailstorm research, progress, 611
 - major, effect of watershed cover on overland flow in southwestern Wisconsin, 5492
 - meteorology of major storms in western Colorado and eastern Utah, 1827
 - Ohio storm damage inspection, hearings, 5175
 - overflow, control of pollution by under-water storage, 8676
 - severe local storms—
 - occurrences, 606
 - study, 1825
 - warning service and tornado statistics, 9268 - Weather Bureau spotter's guide for identifying and reporting, 5398
 - severe-storm forecasting procedures of Military Weather Warning Center, analysis, notes, change, 9337
 - storm surges, oceanographic phenomena, summary of selected reference material, 14343
 - storm water pollution from urban land activity, concentrations and loads, investigation, 18002
 - tropical storms, hemispheric circulation and anomaly patterns observed when reaching hurricane intensity, 608
 - when you return to storm damaged home, general instructions for reducing loss, etc., 16681
 - see also Hurricanes—Magnetic storms—Tornadoes.
- Story County, Iowa, community profile, 14206
- Stoudt, Howard W., skinfolds, body girths, biacromial diameter, and selected anthropometric indices of adults, 6013
- Stoves, campground stoves and grills, evaluation, 672
- Strack, William C., condensers and boilers for steam-powered cars, parametric analysis of their size, weight, and required fan power, 11660
- Straeter, Terry A., singular extremaloids in optimal control theory and calculus of variations, 10356
- Straightening, flame and mechanical, effect on material properties of weldments, 17264
- Strain gages:
- effect of strain-gage attachment by spot-welding and bonding on fatigue behavior of Ti-6Al-4V, Rene 41, and Inconel X, 18204
 - networks, encasement in epoxy, structural models for design of mining systems, 18169
- Strainer elements, Federal item identification guide, 11173
- Strains and stresses:
- buckle in veneer, 8692
 - buckling coefficients for simply supported, flat rectangular sandwich panels under biaxial compression, 14467
 - buckling of stiffened cylinders in axial compression and bending, review of test data, 2105
- Strains and stresses—Continued
- concentrated loads on plates, 8533
 - corrosion fatigue crack growth behavior, 15080
 - coupled thermally induced transverse plus torsional vibrations of thin-walled cylinder of open section, 12826
 - deformation of snow under rigid plates at constant rate of penetration, 8534
 - dynamic tear energy, practical performance criterion for fracture resistance, 15064
 - dynamic tear test investigations of fracture toughness of thick-section steel, 15077
 - effect of stress level on creep and creep recovery of lean mass concrete, 9089
 - electronic strain-level counter for aircraft structural members, 16971
 - energetics of percussive drills, longitudinal strain energy, 2056
 - fatigue behavior of glass filament-wound pressure vessels at ambient and cryogenic temperatures, 12794
 - fatigue behavior of Ti-6Al-4V, Rene 41 and Inconel X, effect of strain-gage attachment by spotwelding and bonding, 18204
 - fatigue-crack growth under simple variable-amplitude loading, investigation, 12775
 - fatigue design procedures for structural steels, yield strength and fracture toughness influence, 12891
 - fatigue strength of finger joints, 693
 - finite element stress analysis and limiting equilibrium method, slope stability analysis, Mines Bureau investigation, 5876
 - 5/8 inch dynamic tear test, standard method, 18296
 - fracture toughness characteristics of new weldable steels of 180- to 210-Ksi yield strengths, 1033
 - glued-laminated timber beams with 2 grades of tension laminations, 692
 - ground stresses and geologic structure, geometric relationships near Atlanta, Ga., 7489
 - high strength tantalum composite by thermomechanical working, 4530
 - metallic materials and elements for aerospace vehicle structures, military handbook, change, 11179
 - midship bending stresses on 3 dry cargo ships, results from full-scale measurements, 17266
 - near-minimum property values for wood, tables for developing nonparametric estimates, 14466
 - nuclear fuel pin swelling, simplified analysis, 5932
 - penetration flux for multi-wall structure on Lunar Orbiter spacecraft, calculation, 905
 - performance of 75-millimeter-bore bearings to 1.8 million DN with electron-beam-welded hollow balls, 11653
 - errata, 16962
 - permissible stresses and their limitations for ships, 17263
 - pith-associated and non-pith-associated southern pine 2 by 6's, tensile strength of finger joints, 14469
 - plane elastostatic analysis of V-notched plates, 18217
 - plastic fatigue properties of heat-resistant alloys, evaluation, 17473
 - prestressed reinforced concrete in construction of nuclear installations, USSR study, 4331
 - relationship between fracture toughness and estimated plastic zone size in steel, titanium, and aluminum alloys, 6107
 - residual tensile strength in presence of through cracks or surface cracks, 7531

Strains and stresses—Continued

- ship response results from first operational season aboard container vessel SS Boston, 17267
- short-term tensile and low-cycle fatigue studies of incoloy 800, 9379
- stainless steel, AISA 304 and 316, relaxation behavior at elevated temperature, analysis, 9377
- static stresses on wide-blade propellers, 15067
- strength of multiple-member structures, 18022
- strength tests on newly fallen snow, 682
- stress concentration due to hyperboloid cavity in thin plate, 14887
- stress corrosion cracking of titanium alloys at ambient temperature in aqueous solutions, 894
- stress distribution around holes, 18826
- stress intensity and crack-opening displacement for coplanar cracks in thermoelasticity, 15067
- stress-rupture life of discontinuous fiber composites, influence of fiber aspect ratio, 12782
- stress-strain behavior and ductile-brittle transition of tungsten, how affected by reactor irradiation, 16990
- structural instability of beam columns, frames, and arches, finite element approach, 10406
- structural performance evaluation of building system, 2135
- structural problems, accuracy of finite element approximations, 7552
- structures to resist effects of accidental explosions, Army technical manual, 3480
- surrounding structure effects on sonic fatigue investigations, 11606
- tensile strength of 19-9DL and 12R72HV austenitic stainless steels, effect of thermal mechanical treatments, 10757
- tensile stress-strain behavior of flexibilized epoxy adhesive films, 10127
- thermal buckling of plates and curved shells in supersonic gas flow, USSR study, 2001
- thermal distortion influence on performance of gravity-stabilized satellites, 902
- thermal effects of heated pipeline in permafrost, estimates, 4237
- thermal loading effects on composites with constituents with differing thermal expansion, 14869
- thermally stressed flat plate with edge stiffeners, supersonic flutter, 11614
- uniaxial tensile loads applied to lightweight coated fabric with and without prior cycling, air permeability studies, 14873
- wood structures survive Hurricane Camille's winds, 4202
- see also* Prestressing—Shear (mechanics).
- Strand, K. A., photovisual magnitude differences of double stars, 7666
- Stranger in one's land, 9462
- Strapdown, *see* Inertial guidance.
- Strash, Alfred M., thermoluminescence spectrum and energy conversion efficiency of lithium fluoride, 9389
- Strasser, Arnold, compensation in construction industry, etc., 14729
- Strategic Arms Limitation Talks, *see* Disarmament.
- Strategic Bombing Survey, series, 2186
- Strategic briefs, 1211
- Strategic materials:
 - disposal from national and/or supplemental stockpile of—
 - asbestos, chrysotile, reports, 6636, 11012
 - bauxite, Surinam-type metallurgical grade—
 - law, 12149
 - reports, 6633, 6748, 11007

Strategic materials—Continued

- disposal from national and/or supplemental stockpile of—continued
- bismuth—
 - law, 12141
 - reports, 6597, 6751, 11004
- cadmium—
 - hearings, 406
 - law, 12137
 - reports, 1496, 6749, 11002
- castor oil—
 - law, 12142
 - reports, 6598, 6752, 11005
- chromite, refractory grade—
 - law, 12151
 - reports, 6635, 6744, 11011
- chrysotile asbestos—
 - law, 12152
 - report, 6743
- cobalt—
 - law, 12140
 - reports, 6596, 6750, 11010
- corundum—
 - law, 12153
 - reports, 6742, 11003
- excess materials, hearings, 6787
- fluorspar, acid grade—
 - law, 12143
 - reports, 6599, 6753, 11006
- graphite, natural Ceylon amorphous lump—
 - law, 12150
 - reports, 6634, 6745, 11001
- magnesium—
 - law, 12144
 - reports, 6600, 6754
- manganese, natural battery grade—
 - law, 13306
 - reports, 6637, 6747, 12203
- manganese ore, chemical grade—
 - laws, 12145-146
 - reports, 6601-2, 6755, 10999, 11009
- molybdenum—
 - law, 13308
 - reports, 6638, 6746, 12204
- shellac—
 - law, 12147
 - reports, 6603, 6756, 11000
- tungsten—
 - law, 12148
 - reports, 6604, 6757, 11008
- various commodities, hearing, 6701
- Federal stockpile inventories, report, 2293
- stockpile disposal bills, 12265
- stockpile report to Congress, 14299
- various stockpile materials, hearings, 5146
- Strategy, *see* International relations—Military art and science.
- Stratigraphy:
 - and nomenclature of some upper Cretaceous and lower Tertiary rocks in south central Wyoming, 8748
 - Buchia zones in Colyear Springs-Paskenta area, Calif., 4249
 - changes in stratigraphic nomenclature by Geological Survey, 7222
 - contributions to stratigraphy (series), 1909-10, 4228, 4231, 5541, 7222, 10158, 16606, 16610
 - detailed stratigraphic description of JOIDES core on continental margin off Florida, 4245
 - lunar, telescopic observations, summary, 18045
 - mesozoic stratigraphy—
 - Mule and Huachuca Mountains, Ariz., 4252
 - southeastern Arizona (series), 16618
 - mesozoic survey stratigraphy in southeastern Arizona (series), 4252
 - Miocene gastropods and biostratigraphy of Kern River area, Calif., 16615
 - Morrison formation, and structure of Ambrosia Lake district, N. Mex., 11386

INDEX 1970

- Stratigraphy—Continued**
paleozoic, in northwest coastal area of Prince of Wales Island, southeastern Alaska, 11387
Russell Mountain formation, new stratigraphic unit in western Massachusetts, 16610
stratigraphic development of Quadrilatero Ferrifero, Minas Gerais, Brazil, 5568
stratigraphic sections and chemical analyses of phosphatic rocks in Permian and Mississippian age in Weber County, Utah, 18040
upper Precambrian and lower Cambrian strata in southern Great Basin, Calif. and Nev., 14535
uppermost Cretaceous and Tertiary stratigraphy of Fossil basin, southwestern Wyoming, 11397
- Stratosphere:**
stratospheric air sample volumes, calculation of, 123
temperature, pressure, density, and wind measurements, 14893
variability of monthly mean zonal wind, 30–60 km, 13022
see also Atmosphere.
- Strauss, M. B., diving casualty suggesting episode of thoracic squeeze, case report, 5843
- Strawberries:**
diseases, 4809
packed in various containers, market quality and precooling rates, 27
pasteurized, 90-day subacute oral toxicity studies on radiation, 4892
strawberry plants cold storage and transport, 15434
- Stream pollution, *see* Water pollution.
- Streamlining, *see* Aerodynamics.
- Streams, *see* Rivers—*also* names of streams.
- Streets:**
construction contractors, census of construction industry, 1967, industry statistics, final report, 11997
District of Columbia—
rebuiding 7th, 14th streets, NW. and H street, NE., 12849
use of airspace in, on, over, and under, hearing, 8388
Omnibus crime control and safe streets act of 1968, amend—
hearings, 11050
reports, 12189, 12212, 18029
rigid pavements for streets, Army technical manual, change, 6361
Safe streets act, making it work, intergovernmental challenge, 17418
see also Roads and highways.
- Strength of materials:**
aluminum sand casting alloy of high toughness (M-45), report, 16194
compressive instability and strength of uniaxial filament-reinforced epoxy tubes, 5974
durability of insulating glass, seminar proceedings, 5997
errata, 8978
fatigue strength of finger joints, 693
flexural strength of sea ice, and dynamic Young's modulus, 14304
multiple-member structures, 18022
Portland cement pastes and mortars, early strength development, exploratory studies, 14914
residual tensile strength in presence of through cracks or surface cracks, 7531
solid state plasticity and strength, new Soviet booklet, 12641
yield strength and fracture toughness influence on fatigue design procedures for structural steels, 12891
see also names of materials and articles.
- Stress (physiology):**
stress effects of high noise levels on lower body negative pressure experiments, 16978
Stress (psychological), *see* Tension.
Stress corrosion, *see* Corrosion and anticorrosives.
Stresses (mechanical), *see* Strains and stresses.
Stretch your grazing season, use tall fescue, 1112
Stribling, Jimmy C., hydrographic and cartographic efforts in Colombia under harbor survey assistance program, 1010
Strickler, Paul E., power and equipment on farms in 1964, 48 States, major items by size and type, 17447
- Strikes and lockouts:**
nation-wide railroad strike, prevent—
hearings, 9753
law, 8185
reports, 6594, 6740, 6775, 8243–44
railroad strike, legislation, message from the President, 5095
railway labor-management dispute, temporary strike prohibition—
law, 5062
report, 6613
railway shopcraft dispute, hearings, 6814–15
work stoppages—
analysis, 7423
final tabulations, 11550
monthly, 3364
- Stringer, John G., FDA papers, 2569
Stringers (aircraft) *see* Stiffeners (aircraft).
Strip-mined lands, *see* Reclamation of land.
Strip mines, *see* Coal.
Strips (metal, etc.):
preformed polysulfide strips for canal contraction joints, Wahluke Branch Canal, Columbia Basin Project, tests, 9090
- Strishkov, V. V., mineral industry of U.S.S.R., 7473
- Strohlein, James N., selective roll-to-roll printer for producing duplicate microfilm copies, 6009
- Strohm, W. E., jr., engineering and design, stability of earth and rockfill dams, 14307
- Strokes:**
regional medical programs, progress report, 1068
research program, extend and improve—
hearings, 5277, 8428, 12279
reports, 12248, 17627
- Strommen, Norton D., Isle Royale National Park, Mich., climatic summaries of resort areas, 601
- Strontium, sequential determination in biological materials, 6376
- Strontium isotopes:**
odd strontium isotopes with stripping and pickup reactions, study, 10401
Precambrian melasyenite, chemistry, petrology, and strontium isotopes, 5542
strontium 90—
fallout deposition and infant and fetal mortality trends possible causal relationship, evaluation, 8557
problems of distribution and experimental evaluation of permissible levels, USSR study, 8005
- Strontium oxide, implications of substitution for strontium titanate in terrestrial/marine radiisotopic power units, 8027
- Strontium titanate, implications of substitution for, in terrestrial/marine radiisotopic power units, 6027
- Stroud, Raymond B.:
mineral resources and industries of Arkansas, 2047
production potential of copper deposits associated with Permian red bed formations in Texas, Oklahoma, and Kansas, 16912
- Struble, George R., Monterey pine ips, 16541
- Struck, Heinz G., discontinuous flows and free streamline solutions for axisymmetric bodies at zero and small angles of attack, 5942

Structural clay products, *see* Clay.
 Structural designs, *see* Designs (industrial).
 Structural dynamics, *see* Dynamics.
 Structural engineering, *see* Building.
 Structural geology, *see* Geology.
 Structural materials, *see* Construction materials.
 Structural models, *see* Models (structural).
 Structural steel, *see* Steel.
 Structural trends and conditions in automobile insurance industry, 9236
 Structures, *see* Buildings—Earthwork and structures—Strains and stresses—Vibration.
 Strupp, Hans H., research in individual psychotherapy, bibliography, 2147
 Struts (aircraft):
 pylon-mounted dummy ramjet engine on X-15-2 airplane for Mach numbers from 2.0-6.7, 5946
 Stub and frame antennas for flight vehicles, 11499
 Stubble-mulch-farming, residue management, 7770
 Student American Medical Association, views on problems of high cost of drugs, hearings, 524
 Student Conference on United States Affairs, 19th meeting Sputnik decade, proceedings, 2046
 Student Loan Association, National, *see* National Student Loan Association.
 Student Loan Insurance Fund, financial statement, GAO examination, 6557
 Student loan program, *see* Students.
 Student officers, *see* Army.
 Student reference, Department of Labor safety training program, SR LS series, 7420
 Students:
 adult basic education program statistics, 11199
 after college, develop your leadership abilities as commissioned officer, 258
 California student health project, 5587
 career information center, working model, 7007
 Chicago health project, 1968 summer, 8772
 college—
 career directory, etc., guide, 9466
 career opportunities in Interior Department, directory, 14592
 Federal tax information, questions and answers, 4307
 how Education Office assists, 1792, 11232
 opportunities to participate as trainees in vacation work-study programs, engineering, physical sciences, mathematical sciences, examination announcement, amendment, 4963
 trainees in engineering & physical science, vacation work-study programs, opportunities, 15691
 volunteers, guide to action, helping students to help others, 569
 Colorado student health project, 8773
 Denver doesn't quit on problem students, 14276
 do teachers make a difference? 11207
 Emergency insured student loan act of 1969—
 hearings, 413
 law, 311
 lender practices relating to guaranteed student loan program, survey, 15895
 enrolled for advanced degrees, fall 1969, preliminary report, 12506
 environmental education, so you want to get involved, 11452
 Federal and State aid programs, 11064
 print as Senate document, report, 13626
 Federal and State student aid programs, compilation, print as Senate document, report, 12180

Students—Continued

graduate, in the sciences, full-time, fall 1967, support, 4592
 graduate teaching assistants in American universities, recent trends and recommendations, 11229
 guaranteed loan program under Higher education act of 1965, lender practices, survey, 15895
 guide to student assistance, 5078
 print as House document, reports, 1502, 1675
 health professions, loans, repayment, deferment and cancellation, guide, 7263
 health project of Greater New York, 5589
 how medical students finance their education, 1967-68 survey, 18267
 institutionalized, it's hard to come back, 14287
 loan insurance fund, 1968, financial statements, GAO examination, 1889
 loan program, opportunity to reduce Federal interest costs by changing loan disbursement procedures, Education Office, GAO report, 10149
 loans, health professions—
 program, career information, 5577
 repayment, deferment and cancellation, guide, 7263
 educational assistance program for Cuban refugees, 7264
 local public school systems, fall 1968 statistics, 11245
 nursing, student loan program, information, 7265
 nursing, student loans—
 information for schools, 5532
 repayment, deferment, and cancellation, guide, 5575
 occupational therapy, four educational opportunities, 6367
 pathways to military service for college men and women, 564
 Philadelphia student health project, 5588
 public elementary and secondary day schools, fall 1969, statistics, 9993
 social security benefits for students 18 to 22 cash, 2223
 student views toward U.S. policy in Southeast Asia, hearings, 13517
 students and drug abuse, 7618
 subversion in New Left, extent, hearings, 8416, 9920
 summer employment, 1970, Office of Economic Opportunity, 5330
 tax information for students and parents, 5672
 Students for a Democratic Society:
 activities, investigation, hearings—
 Columbus, Ohio, high schools, hearings, 6716
 Fort Dix, N.J., Washington, D.C., and Chicago, Ill., hearings, 9749
 return of prisoners of war, and data concerning Camera News, Inc., newsreel, 8305
 print additional copies, report, 15838
 University of Chicago, Communist Party efforts, hearings, 5163, 8305
 anatomy of a revolutionary movement, report, 15879
 plans for America's high schools, report, 1587
 Studs, *see* Bolts and nuts.
 Study, *see* Curriculum.
 Stuffing, materials, Federal item identification guide, 6866, 11174
 Stump diameter affects sprout development of tropical ash, 4189
 Stumpage, *see* Timber.
 Stutsman County, N. Dak., community profile, 14207
 Styrene, acrylonitrile - butadiene - styrene (ABS) plastic pipe (schedules 40 and 80), voluntary product standard, 11745

INDEX 1970

- Styrene-butadiene rubber, census of manu-
factures, 1967, industry statistics, 16598
- Suarez-Caabro, Jose A., Puerto Rico's com-
mercial marine fisheries, 9535
- Subassemblies, Federal item identification
guide, 1769, 6867
- Subcasky, Wayne J.:
determination of surface and colloidal
conditions which can lead to high salt
rejection reverse osmosis, polymer, mem-
branes, 5614
- improvement of tubular cellulose acetate
membrane by feed additives, 10224
- Subdivision of land, *see* Real estate.
- Subject headings:
children's literature, 826
- ERIC, rules for thesaurus preparation, 590
- Foreign Agricultural Service, document
retrieval subject index, 8678
- key-word descriptors, equilibrium critical
phenomena in fluids and mixtures com-
prehensive bibliography, 12844
- Library of Congress, used in dictionary
catalogs, supp., 3236
- medical, 2732, 10464
- nuclear science abstracts, subject scope,
6837
- Submarine boats:
atomic, habitability, USSR study, 12637
- escape and immersion equipment, open sea
surface, evaluation, 12734
- members of submarine operational command
staffs, incentive pay, amend U.S. Code,
report, 379
- nuclear, chemical research in atmosphere
purification, progress report, 15073
- nuclear powered, on patrol, electrocar-
diography and cardiac monitoring
aboard, 16884
- open-sea escape, experimental training,
12737
- simulated deep submarine escape from 495
feet of sea water, 12736
- submergence rescue vehicles, evaluation
needed of cost-effectiveness of 4 more
before purchase by Navy, GAO report,
5529
- submersible, used as base for acoustic sea
bed reflectivity study, 15046
- Submarine cables, ocean-cable carriers, uni-
form system of accounts, FCC rules and
regulations, 2586
- Submarine canyons, *see* Submarine valleys.
- Submarine crews, renal calcium excretion in
crew members, effects of oral adminis-
tration of magnesium oxide on, during sub-
marine patrol, 8893
- Submarine geology, Atlantic Continental
Shelf and slope of U.S. heavy minerals
from southern Nova Scotia to northern
New Jersey, 10175
- Submarine Medical Center, *see* Naval Sub-
marine Medical Center.
- Submarine research, *see* Oceanography.
- Submarine valleys, submarine basins off
southern California, water quality, 14419
- Submariners:
attrition in basic enlisted submarine
school, relationship of background, vari-
ables, 8891
- blood vessels in retinal photographs of
submariners, measurement, 11571
- enlisted submarine school graduates, fail-
ure to qualify, related factors, 2043
- submarine line officer, characteristics,
factor analytical study, 11569
- Submarines, *see* Submarine boats.
- Submillimeter astronomy, 1996
- Subroutines, *see* Computers programs/pro-
graming.
- Subpenas:
subpoenas, outtakes, and freedom of press,
appeal to media management (remarks),
7079
- unauthorized regulations, Land Manage-
ment Bureau, report, 6631
- Subpoenas, *see* Subpenas.
- Sub-Saharan Africa, guide to serials, 16875
- Subscription television, *see* Television.
- Subsidies, under U.S. sugar program, proce-
dures to be improved for determining what
constitutes a farm for purposes of subsidy
payments, Agricultural Stabilization and
Conservation Service, GAO report, 7216
- see also* Shipbuilding—also names of com-
modities, industries, etc.
- Subsistence, Federal item identification
guide, 8477
- change, 12395
- supplements, 2495
- Subsistence allowances, *see* Pay, allowances,
etc.
- Subsistence stores, operating manual, 15457
- Subsonic aircraft, *see* Aircraft.
- Subsonic airplanes, *see* Airplanes.
- Subsonic flow, *see* Flow.
- Subsonic speed, *see* Air speed.
- Substation observations, 11936
- Suburban and farm vegetables gardens, 11950
- Suburbs, central suburban area, cost-of-living
increase, economics of aging, hearings,
9885
- see also* Cities and towns—also names of
cities.
- Subversion, *see* Un-American activities.
- Subversive Activities Control Board:
annual report, 9215
- appropriations, 1971—
law, 3738
report, 472
- appropriations, 1791—
hearings, 8270, 13708
reports, 9686, 15990
- waive points of order, report, 9688
- Subversion, *see* Un-American activities.
- Successful industrial innovations, 1005
- Suction:
influence on shock wave turbulent bound-
ary layer interactions for two-dimen-
sional and axially symmetric flows,
16938
- laminar boundary layer in presence of,
11703
- Suction and pressure apparatus, sled-
mounted suction sampler for benthic
organisms, 17568
- Sudan, Uganda boundary, study, 17336
- El Sudeste de los E.E.U.U., 7881
- O Sudeste Dos E.U.A., 7883
- Suffolk County, N.Y.:
community profile, 14208
- detergents and contaminants in ground
water at 3 public-supply well fields, in-
vestigated, 8762
- Internal Revenue Service automatic data
processing center, consider amended
lease prospectus to increase authorized
annual rental, hearing, 9940
- Suffrage, *see* Woman suffrage.—Voting.
- Sugar:
content of sugar maple sap, xylem age
effect, 4203
- determination of wage rates, prices, acre-
age credit, etc., 3237
- foreign agriculture circulars, 2657
- products, census of manufactures, 1967,
industry report, 13146
- requirements and quotas, 3238
- statistics, etc., compiled in administration
of sugar acts, 4826
- sugar reports, monthly, 3239
- U.S. sugar program, procedures to be im-
proved for determining what constitutes
a farm for purposes of subsidy payments,
Agricultural Stabilization and Conser-
vation Service, GAO report, 7216
- Sugar beets, aldcarb residues, 9276
- Sugar maple, *see* Maple.
- Sugar River, watershed work plan, Grafton,
Merrimack and Sullivan Counties, N.H.,
15253

- Sugarcane, industry in Puerto Rico, data pertinent to review of minimum wage rates, 4788
- Sugg, W. O.:
selling in—
Greece, 10872
Italy, 6512
- Sugiura, Masahisa, provisional hourly values of equatorial Dst, 10395
- Suicide:
among youth, review of literature, 4567
bulletin of suicidology, 9014, 10455, 11773
Quiet cries, play about suicide prevention, suitable for amateur groups, 6048
- Sukachev, V. N., study on biogeocenosis for creating closed ecological systems, significance, 10279
- Sulfates:
fly ash increases resistance of concrete to sulfate attack, 12910
micron-sized sulfate and water-soluble particles, new method for detecting, and its usage, 15472
sulfide to sulfate reaction mechanism, 11336
see also names of sulfates.
- Sulfides:
alkylcycloalkyl, mass spectra and analytical correlations, 5882
sulfide to sulfate reaction mechanism, 11336
sulfide treatment of acid mine drainage, 10102
- Sulfonates:
radioprotective effect of propanesulfonate ester of dextran, etc., USSR study, 10268
sulfonate polyphenylene oxide membranes, development for reserve osmosis, 11448
- Sulfur:
and ash distribution in coal seams, evaluating by statistical response surface regression analysis, 8906
basalt concretes, strength, 5881
elemental, in Eddy County, N. Mex., 11392
lightweight sulfur foam for use in field applications, investigation, 4071
mineral industry surveys, annual, 8916
minerals yearbook chapter, 8915
native and recovered, mineral industry survey, monthly, 3240
organic compounds, chemical thermodynamic properties, ideal gas state 0° to 1,000°K, 10320
recovery from galena concentrate, using ferric sulfate leach, 7484
surface films, effect on adhesion of clean iron, 7535
- Sulfur dioxide:
SO₂ sorption-regeneration reactions with alkallized alumina, mathematical evaluation, 14793
sorption of SO₂ and regeneration in fluidized-bed reactors, 14792
- Sulfur hexafluoride, air doped with, as condition for thermal defocusing of CO₂ laser beam, 17193
- Sulfur oxide, danger in the air, 17013
- Sullins, R. T., manual for structural stability analysis of sandwich plates and shells, 4489
- Sullivan, Edward G., squirrels, 6200
- Sullivan, G. V., recovery of heavy minerals from Alabama sand and gravel operations, 12749
- Sullivan, Irene S., relief, 12316, 17625
- Sullivan County, Mo., community profile, 17884
- Sullivan County, N.H., Sugar River watershed, work plans, 15253
- Sullivan County, N.Y., community profile, 14209
- Sullivan County, Pa., community profile, 16347
- Sullivan's Island, Fort Moultrie, no. 3, Fort Sumter National Monument, S.C., historic structures report, 7635
- Sully County, S. Dak., community profile, 14210
- Sulphur dioxide, measurement in stack gases, studies, 132
- Sulzer, Richard L., flight test and evaluation of heliport lighting for VFR, 4112
- Sumatra, sailing directions, change, 6084
- Summary guide to social security, 10555
- Summer, foliar spraying of sprouting tan-oak plants best in late summer, 18019
- Summer employment, *see* Employment.
- Summer jobs in Federal agencies, 253, 15698
- Summer upward bound, Terre Haute, Ind., 4063
- Summerville, S.C., new brick factory, case study in rural industrialization, 5338
- Summit County, Colo., mineral resources of Gore Range-Eagles Nest primitive area and vicinity, 14524
- Summit County, Ohio:
community profile, 14211
Cuyahoga River—
flood plain information, 7035
floods, 7040
- Summit County, Utah, community profile, 6966
- Summonses for jury duty, report, 1465
- Summer, Eric, boundary layer separation on liquid sphere, 16948
- Sumter County, Ala., community profile, 14212
- Sun:
dynamic solar conflict for Radio Astronomy Explorer satellite, analytic determination of camera operability status considering, 10384
earth, and Mars, relative geometries, 1973-2000, 7528
perturbation theory based on Lie transforms and its application of stability of motion near sun-perturbed earth-moon triangular libration points, 14825
pulse propagation of electromagnetic signals through solar corona, study, 14815
solar corona, probing with spacecraft radio signals, 18184
solar evaporation, disposal of brine—
data, 11445
field experiments, 14597
solar-geophysical data (periodical), 3208
solar radio bursts, great radiobursts of sun, USSR study, 5723
temperature distribution in solar chromosphere, 946
- Sunbury shale, *see* Shale.
- Sundberg, Gale R., voltage breakdown in low-temperature cesium-vapor diode, 14852
- Sunfishes:
green sunfish, redear sunfish, general information, 15239
methoxychlor chronic effects on, 11892
- Sunflower County, Miss., community profile, 16348
- Sunflowers, literature survey, Hist, 951
- Sunnyside, Wash., Yakima County, hydrologic situation north of Snipes Mountain, 8736
- Sunset Crater National Monument, general information, 10475
- Suos, Someth, Cambodian, basic course, 12935
- Superalloys, *see* Alloys.
- Superconductivity:
applications of Josephson effect, 960
1969 spring superconducting symposia, proceedings of symposiums, 2183, 6105, 15066, 15071
superconducting devices, quarterly literature survey, 8248

INDEX 1970

- Superconductors, thermal conductivity, report, 7978
- Supergrade positions, *see* Civil service.
- Superior, Lake:
 - Little Lake Harbor bottom stability and sedimentary processes, 18135
 - pollution, Lake Superior and its tributary basin, Minnesota, Wisconsin, Michigan, conference proceedings, 10095 17996
 - pollution of interstate waters conference proceedings, 7164
- Superior National Forest, wildlife esthetics & auto campers, 5509
- Superphosphates *see* Phosphates
- Supersonic aircraft, *see* Aircraft.
- Supersonic airplanes, *see* Airplanes.
- Supersonic cones, *see* Cones.
- Supersonic flow, *see* Flow.
- Supersonic flutter of thermally stressed flat plate with edge stiffeners, 11614
- Supersonic speed, *see* Calibration.
- Supervision, *see* Supervisors.
- Supervisors:
 - activities supervisor's guide, for long-term care facilities, 5016
 - Air Force Department supervisors appointment book, 58
 - guide for Naval Reserve functional individual training system DC 3 & 2, 18290
 - guides, 1038
 - introduction to supervision, guide for instructors, 4972
 - introduction to supervision, participant print-outs for use with course guide for instructors, 6476
 - job grading standard for trades and labor occupations, civil service, 13199
 - supervision for Navy civilians, fundamentals, home study course, 4594
 - quiz booklet, 4596
 - supervisor and personnel administration (series), 9065
 - supervisors and administrative management suggested curriculum guide, 8530
 - supervisory grade-evaluation guide and qualification standard, 13206
- Supplies, *see* Farm supplies—Government supplies—Military supplies—Office supplies.
- Supply accounting, *see* Accounts and accounting.
- Supply and demand:
 - demand and price situation, 2497
 - energy in United States by States and regions, 1960 and 1965, integrated energy balances and energy flows, 5849
 - forest products, 1969-70 demand and price situation, 7926
 - growth in world demand for feed grains related to meat and livestock products and human consumption of grain, 12496
 - molybdenum in U.S., 7458
 - steel mill products, quantitative economic analysis and long-run projections of demand, 7461
 - world demand—
 - mineral fertilizer and phosphate industry in southeastern U.S., relationship, 8898
 - shrimp & prawns may outstrip supply in next decade, 9532
 - tuna forecasting to year 1990, 9527
 - world demand prospects in 1980—
 - agricultural exports of less developed countries, 9979
 - wheat, with emphasis on trade by less developed countries, 11197
 - see also* subjects.
- Supply catalog, *see* Military supplies.
- Supply cataloging, *see* Military supplies.
- Supply Corps, Navy, *see* Navy Supply Corps.
- Support of full-time graduate students in the sciences, 4592
- Supports:
 - porous, membranes for reverse osmosis by direct casting, 7308
 - steel tunnel, model tests, 16446
- Supreme Court:
 - Associate Justice, nomination of—
 - Blackmun, Harry A.—
 - hearing, 8418
 - report, 8347
 - Carswell, George Harrold—
 - hearings, 5272
 - report, 5194
 - Haynsworth, Clement F., jr., report, 451
 - cases adjudged—
 - official reports, 294
 - United States reports, 1167, 2250, 4761
 - Federal rules of appellate procedure—
 - amendments, proposal, 8206
 - with forms, 11052
 - general information, 17372
 - journal, 3249
 - Members, 18366
- SURBAL, computerized metes and bounds surveying, 12559
- Surendralah, Makam, experimental study of rotor blade-vortex interaction, 11613
- Sureties, *see* Bonds of officers, etc.
- Surf clams, *see* Clams.
- Surface active agents:
 - poisoning of ion exchange materials by surface active ions, 14599
 - production and sales, 10641
 - surface active media, effect on friction, deformation and fracture of calcium fluoride, 2115
- Surface area measurements, *see* Surfaces.
- Surface chemistry, char formation and surface recession of composite ablation material with silicone-resin base, investigation, 16999
- Surface mining, *see* Mines and mining.
- Surface observations, 272
- Surface tension:
 - liquid tin, 7495
 - molten metals, improved maximum-bubble-pressure system for measuring, 4480
 - see also* Surface active agents.
- Surface water, *see* Water.
- Surface water supply *see* Water.
- Surface wave transmission line for vehicular communications, technical report, 16466
- Surfaces:
 - clean iron (001) and (011), LEED and Auger studies of effect of oxygen on adhesion of, 8943
 - controlled, prescaling deposition of scale forming compounds on, tracer study, 5629
 - determination of surface and colloidal conditions which can lead to high salt rejection, reverse osmosis, polymer membranes, 5614
 - diffuse, gray surfaces in spacecraft, method for thermal analysis including all multiple reflections and shading, 12824
 - effect of sulfur, oxygen, and hydrogen sulfide films on adhesion of clean iron, 7535
 - films spread on liquid surfaces, compressibility, modulus of compressibility, and perpendicular component of molecular dipole moment, CDC3800 computer program to calculate and plot, 15070
 - free-surface displacement pulses and crater dimensions, effects of explosive properties, 11592
 - heat-transfer distributions in deep cavities in hypersonic separated flow, experimental investigation, 16964
 - hypervelocity impact problems of free-surface discontinuities, method for solving, 924
 - infinite periodic minimal surfaces without self-intersections, 11628
 - liquid surfaces, gas jet impingement on, during weightlessness, 7548

Surfaces—Continued

magnetic, of large "latitude," studies, and development and construction of magnetic systems for uragan stellarator, 15507
plane, first-order effects on kinetic behavior of gases, 14864
polished surface of 347 stainless steel, physical adsorption of nitrogen gas on, at very low pressures, 8944
residual tensile strength in presence of through cracks or surface cracks, 7531
rough, nominally flat surfaces, simplified method for calculating thermal conductance in high vacuum, 4526
sea surface, experiment on acoustic reflection, 17187
sealing through contaminated pouch surfaces, 13043
solid surface influence on relaxation cross-linking processes in polymer boundary layers, USSR study, 18111
surface finishing, effect on structural-ceramic failure, 4624
surface-motion and vented-gas temperature measurements, Cabriolet Project, 8021
surface pressure on hemisphere- and cone cylinders in low-density hypersonic flow, 11633
surface properties of water, effects on evaporation and condensation, 18072
surface protuberances, effect on impact limiters for spherical hard-landing payloads, 10386
surficial geology of Mount Rainier National Park, 5540
wall roughness, effect on damping of liquid oscillations in rectangular tanks, 5973
Surfacing materials, surface bonding of concrete blocks, technique for erecting block walls without mortar joints, 11947
Surfactants, *see* Surface active agents.
Surgeon General, Army, *see* Army Medical Service.
Surgeon General, Public Health Service, *see* Public Health Service.
Surgeons, surgical service guide, 11930
Surgery:
activities of U.S. Army Surgical Research Team, WRAIR, in Vietnam, study, 4868
hemorrhagic insults, mathematical prognosis of outcomes for possible surgical intervention, USSR study, 18797
lower-extremity amputations, immediate postsurgical prosthetic fitting, patient care, management, 4786
surgical operations, cryogenic unit applicable, USSR study, 12647
surgical service guide, 11930
Surgical dressings, *see* Bandages and bandaging.
Surgical instruments and apparatus, census of manufactures, 1967, industry statistics, 17532
Surgical needles, Federal item identification guide, 9954
Surgical supplies:
catheters, drains, and tubes, Federal item identification guide, 8888
surgical sutures, Federal item identification guide, 11176
Surname:
economic trends and their implications for United States, 5712
foreign trade regulations, 13229
mineral industry, minerals yearbook chapter, 4423
Surplus military property, *see* Surplus property.
Surplus property:
agreement with Indonesia, 7832
airport property, release from restrictions, Federal aviation regulations, 2574

Surplus property—Continued

defense disposal manual, change, 1760, 4004, 8460, 16110
donable program, hearings, 509
excess property program—
Agency for International Development, 1969, hearing, 1582
Kenya and Pakistan, AID's administration, GAO observations, 1898
Federal, disposal for park and recreational purposes—
hearing, 13520
report, 15841
Federal property and administrative services act, amend—
hearings, 509
report, 15841
foreign excess property, donate to foreign nonprofit medical organizations, law, 15508
Military Affiliate Radio System, management of excess property transferred to Defense Dept., GAO report, 5533
surplus property study, Rock Island Lighthouse Station, Orleans, N.Y., 17161
see also Personal property.
Surry County, N.C., community profile, 12473
Surveillance (military):
Behavioral Science Research Laboratory, surveillance research, summary, 13060
large numbers of image interpretation errors, method for quantifying subjective costs, 15495
maintaining target detection proficiency through team consensus feedback, 15496
radiation surveillance networks, 6391
Survey of current business (periodical), 3250
Surveying, SURBAL, computerized metes and bounds, 12559
see also Hydrography.
Surveyor OSS 32 (USC&GSS):
welcome aboard, general information, 10036
Surveyors, employment outlook, 12691
Surveys, *see* Aerial surveys—Educational surveys—*also* subjects of surveys.
Survival:
bluegills and largemouth bass, effect of acids and alkalies, 4716
humane society, environmental, ecological education (remarks), 8518
hurricanes, general information, 10035
search and rescue, Air Force manual, 3435
training edition, 3434
sockeye salmon (*Oncorhynchus nerka*), birectilinear recruitment curves to assess influence of lake size on survival, Bristol Bay and forecast runs, 8168
uses of parachute, 1207
Survival kits, *see* Aircraft survival equipment.
Survivor annuities, hearings, 13538
Survivors, *see* Civil service pensions.
Survivor's benefits:
Foreign Service retirement and disability system, increases and adjustments—
law, 5060
reports, 1525, 5245
inquiry into programs for active and retired military personnel—
hearings, 15888
special subcommittee report, 15887
life insurance in force under social security program, estimated amount, 11855
social security statistics, monthly, 2897, 18328
social security rulings, 3206, 10554
your social security, 8117, 11864
see also Old age, survivors, and disability insurance.

INDEX 1970

- Susquehanna County, Pa., community profile, 16349
- Sutton, Doris C., sequential determination of stable barium strontium calcium, and magnesium in biological materials, 6376
- Sutton, Kenneth, experimental study of carbon-phenolic ablation material, 16968
- Sutton, Ottilie K., Malthusian spectre, challenges of food and population, 15450
- Sutton (U.S.S.):
loan to Korea, Republic, extension, agreement, 9205
- Sutures, surgical sutures, Federal item identification guide, 11176
- Suydam, Marilyn N., continuing math revolution, 5347
- Sveida, George J.:
Black Maria site study, Edison National Historic Site, West Orange, N.J., 993
historical research management plan, Edison National Historic Site, West Orange, N.J., 998
- Irish immigrant participation in construction of Erie Canal, 2161
- quartering, disciplining and supplying Army at Morristown, 1779-80, 18272
- Swab, Charles F., jr., freon 113 as test material for chemical cartridge respirators, 8908
- Swages and swaging, planetary swager summary of tube fabrication studies, 10758
- Swain County, N.C., community profile, 14213
- Swamplands:
our water and wetlands, how Engineers Corps can help prevent destruction and pollution, report, 8229
wetlands, preserve, restore and improve, report, 12250
- Swannack, Jervis D., jr., Wetherhill Mesa excavations, Big Juniper House, Mesa, Verde National Park, Colo., 7630
- Swanson, Bruce L.:
major statistical series of U.S. Department of Agriculture, how they are constructed and used, farmer cooperatives, 15412
statistics of farmer cooperatives, 8585
- Swanson, Howard E., standard X-ray diffraction powder patterns, 18233
- Swanson, Roger W., mineral resources in Permian rocks of southwest Montana, 10170
- Swanston, Douglas N., mechanics of debris avalanching in shallow till soils of southeast Alaska, 18026
- Swaziland:
economy, basic data, 6507
extradition, continued application of United States-United Kingdom, treaty of Dec. 22, 1931, agreement, 18348
investment guarantees, agreement, 18353
special study mission, report, 390
print additional copies, reports, 9696, 13634
- Swearingen, J. J., determination of centers of gravity of infants, 11977
- Sweden:
economic trends and their implications for United States, 5713, 14638
foreign trade regulations, 4996
mineral industry, minerals yearbook chapter, 7472
plant quarantine import requirements, 15409
- Sweeney, John W.:
mineral industry of Florida, 4425
phosphate industry in southeastern United States and its relationship to world mineral fertilizer demand, 8898
phosphate rock, 16911
- Sweepstakes, *see* Lotteries.
- Sweeteners, cyclamate, hearings, 13519
- Sweetfern rust on hard pines, 14445
- Sweetpotatoes:
acreage marketing guide, 5285
sold in fresh markets, prices and spreads, 12983
- Sweetwater Creek, watershed work plan, Monroe, Loudon and McMinn Counties, Tenn., 4703
- Swick, David A.:
review of narrowband ambiguity functions, 10496
review of wideband ambiguity functions, 6108
some information processes for arrays of sensors, 18297
- Swift, Calvin T., theoretical investigation of electromagnetic waves obliquely incident upon plasma slab, 10414
- Swimming pools, minimum property standards, HUD handbook, 12603
- Swindel, Benes F., some applications of principle of conditional analysis, 14479
- Swindles, *see* Fraud.
- Swine:
brucellosis, how to eradicate it and validate herd and area, 15445
garbage-feeding, national status on control, 2933
hog house—
farrowing, and farrowing and finishing, farm building plan, 9311
for gestating sows, farm building plan, 7927
hogs and pigs—
10 cornbelt States, 7843, 17366
U.S. and 10 corn belt States, 2248, 11906
internal parasites of hogs, preventing and controlling, 4811
live hogs, commitments of traders, 2428
predicting summer production losses, 10703
red oak lumber makes good shade-shelter for hogs, 16565
USDA grades for slaughter swine and feeder pigs, 15433
- Swinnerton, John R., land resource inventory and engineering surveys using photogrammetry, 8685
- Switchboards:
apparatus, current industrial reports, 8089
Federal item identification guide, 16120
- Switches, *see* Electric switchgear—Electronic switches.
- Switzerland:
background notes, 7810
economic trends and their implications for United States, 11474
selling in Switzerland, 6511
- Swofford, Doyle P., method for thermal analysis of spacecraft, including all multiple reflections and shading among diffuse gray surfaces, 12824
- Sycamore:
cutting angle and depth of cut, effect on occurrence of chipped grain, 12556
plantations, establishment and early care, 14481
variation in lower Mississippi Valley, 690
- Sycamore Canyon Wilderness, designate as wilderness area, proposal, report, 12322
- Sycamore Flat quadrangle, Calif., geology, 14520
- Sykes, George F., jr.:
effects of heat sterilization and vacuum exposure on some low-density heat shield materials, 7538
thermal cracking of phenolic nylon pyrolysis products on passing through heated char, 8952
- Symbols:
American libraries, used in national union catalog, Library of Congress, 4393
letter, for electrical and electronic quantities, military standards, 1774
military, field manual, 83

Symbols—Continued

symbols for packages and containers of hazardous industrial chemicals and materials, military standard, 16152

Symmetry:

attenuation, of materials, ultrasonic method for determining, 4478
axisymmetric mixed-compression inlet, automatic restart control system, 2121
elastic, of materials, ultrasonic method for determining, 2057
single particle behavior in axisymmetric magnetic field, experimental investigation, 18221

Symons, James M., water quality behavior in reservoirs, 8565

Symposiums:

AEC symposium series, 13066, 13068
analysis of jet in subsonic crosswind, 897
avifauna of northern Latin America, 7734
birch, proceedings, 669
CO₂, chemical, biochemical, and physiological aspects, 7525
ion-selective electrodes, 2137
1969 spring superconducting symposia, proceedings, 2183, 6105, 15066, 15071
public health aspects of peaceful uses of nuclear explosives, proceedings, 1067, 7045
range and wildlife habitat evaluation, research symposium, 10693
spectrum formation in stars with steady-state extended atmospheres, proceedings, 18235
see also subjects.

Symptoms, *see* Diagnosis.

Synchrocyclotrons, NASA Space Radiation Effects Laboratory, external proton beam characteristics, 5921

Synchronizers:

dual-PRF, dual-pulse-frequency synchronizer for two-frequency Randle Cliff radar, 15095
spin synchronous clock for spin-stabilized vehicles, 16975

Synchros:

Federal item identification guide, 5312, 8478
synchro, servo, and gyro fundamentals, rate training manual, 17185

Synchrotrons, proton, estimating stray photon spectra and dose above 25 MeV near transverse shielding, 9395

Synoptic meteorology, *see* Meteorology.

Synthesis:

aperture, in radio astronomy, USSR study, 8845
cascade impedance, using extension of Flalkow-Gerst theorem, 943
complex signal synthesis of radio systems, USSR study, 16759
controlled thermonuclear research 1957-68, development in Ukraine, 5777
heavy transuranium elements, search, USSR study, 5776
modified Loab membranes, synthesis by grafting, 10232
problems of adaptive system synthesis, application of finitely converging algorithms and their use in solution of systems of inequalities, USSR study, 5729

pyrrone polymers, 12761

Synthetic fibers, *see* Fibers.

Synthetic filament yarns, *see* Yarn.

Synthetic fuels, *see* Fuel oil.

Synthetic organic chemicals, *see* Organic compounds.

Synthetic organic compounds, *see* Organic compounds.

Synthetic resins, *see* Resins.

Synthetic rubber, *see* Polysulfides—Rubber—Styrene-butadiene rubber.

Synthetic woven goods, *see* Textiles.

Syphilis, about syphilis and gonorrhea, general information, 16130

Syracuse, N.Y.:

area wage survey, 2034
census of transportation, 1967, commodity transportation survey, production, area series, 6428

Clarence E. Hancock Airport, climatological summaries, 7849

soil surveys aid land use planning, 9163

Syracuse University, elementary teacher education feasibility study for comprehensive undergraduate and inservice education program, 11227

Syria:

environmental studies, bibliography, 10723

Iraq-Syria boundary study, 15297

Systematic method of calculating reduced matrix elements of single-particle operators, 12811

Systems:

active vibration isolation systems for severe ground transportation environments, study, 893

aeronautical and space systems, equipment and associated components, packaging, handling, and transportation requirements, 5982

analysis, educational program, long term educational opportunities, and other programs, 251

automated procurement system for small purchases, opportunities for more effective use, Navy Dept., GAO report, 1399

binary and multicomponent, phase behavior at elevated pressures, n-pentane and methane-n-pentane, 11732

constant-gain systems with vector feedback, stability, 12777

control and game theory, USSR study, 16755

denumerable systems for inequalities, finitely converging algorithms for solution, their application in problems of adaptive system synthesis, USSR study, 5729

farm credit system, functions & organization, 4099

Goddard Space Flight Center test philosophy and resultant record, 11659

Loran-C/D airborne systems, evaluation, 18369

Lyapunov stability criteria for randomly sampled systems, 5970

methods of controlling large systems, USSR study, 16802

microwave systems using terminal invariant parameters, description and evaluation, errata, 4548

modern network theory application to analysis of—

complex systems, 915
manned systems, 18213

oil tagging system study, 14412

regional solid waste handling, analysis, 17311

shipboard electrical systems, 6096

systems for deflection of jet streams of turbo-jet engines, 14896

Systems, *see* names or types of systems, e.g., Control systems.

Systems analysts, *see* Computer specialists.

Systems Development Office: reports, 9269

Weather Bureau, 1969, programs and accomplishments, 17413

Systems engineers, systems analysts data processing career opportunities in Veterans Administration, 7894

Systems reliability, *see* Reliability (mechanics).

Systems Research and Development Service: reports RD (series), 2251-61, 4763-84, 7849-50, 10636, 15339-342, 18869-377

scientific and technical reports, list, 9216

SRDS program, goals, achievements, trends, 9217

Szabo, Robert C., relief, 3801, 3910, 5048

INDEX 1970

- Szent-Gyorgyi, Albert, lecture, Sept. 10, 1969, 7908
- Szuwalski, Andre, littoral environment observation program in California, preliminary report, 10000
- T**
- T.V.A., *see* Tennessee Valley Authority.
- T.W.O., *see* The Woodlawn Organization.
- Tabban, Rogelio, relief, 9808, 13257
- Ta Cheng Li, *see* Li, Ta cheng.
- Tabasco, Mexico, despatches from U.S. consuls, 1832-74, pamphlet to accompany microcopy, 4538
- Tables (compilation), *see* Technical, scientific and economic subjects
- Tables (mathematics), *see* Mathematics—Periodic systems.
- Tablets (medicine):
Federal standard, amendment, 16512
- Tableware:
Federal item identification guide, 16141
melamine, alpha-cellulose-filled—
dinnerware for household use, product standard, 14928
heavy-duty product standard, 14929
stainless-steel flatware, tariff investigation report, 2263
- Tabor, Elgie L., relief, 13279, 13602
- Tabulation, *see* subject of tabulation.
- Tacoma, Wash.:
census of transportation, 1967, commodity transportation survey, production, area series, 6433
principal electric facilities, map, 8625
Seattle-Tacoma International Airport, climatological summaries, 7349
Tacoma Public Schools, curriculum for drug education, grades 6-12, guide, 14941
- Toconite:
iron ores of Mesabi Range, evaluating economic availability with computerized models, 14777
nonmagnetic, reduction roasting with automobile scrap, 8912
- Tactical Air Command:
military airlift—
hearings, 9731
subcommittee report, 11024
- Tactical communications doctrine, 3467
- Tactical operations system, *see* Information storage and retrieval systems.
- Tactical vehicles, *see* Vehicles.
- Tadzhik Soviet Socialist Republic, Lenin days of Tadzhik science in Moscow, 5747
- Tae Pung, *see* Hills, Tae P.
- Taft, Robert A., Water Research Center, *see* Robert A. Taft Water Research Center.
- Taft, W. H., National Historic Site, *see* William Howard Taft National Historic Site.
- Tahoe, Lake:
basin, Calif.-Nev., general information, 14556
national lakeshore, establish, study—
law, 15807
reports, 12320, 13465
regional planning compact, consent of Congress—
hearings, 1590
law, 1408
reports, 473, 1476
- Tolyabe National Forest boundary extension—
law, 15771
reports, 9820, 12241
- Tahoe National Forest, general information, 18030
- Tai Tai Pang, *see* Pang, Tai Tai.
- Tailings (metallurgy), *see* Hydraulic mine fillings.
- Tailoring, Navy uniform regulations, concept of fit guide for naval personnel, 6092
- Taiwan, mineral industries, minerals year-book chapter, 16907
- Take a giant step, go Government, 1352, 12048
- Take-off (aircraft):
XB-70-1 inlet pressure fluctuations during take off and prior to compressor stall at Mach 2.5, dynamic analysis, 11669
- Talbert, S. G., manual on solar distillation of saline water, 12609
- Talbot, Janet B., list of Bureau of Reclamation bibliographies, 17238
- Talbot, Kathryn, relief, 12295, 13391, 17590
- Talk, talkin' blues, television, corporate greed, and women's liberation (remarks), 7080
- Talking book machines, general information, 11557
- Talking books:
and multiple sclerosis, 181137
for very young readers, 14756
- Talladega County, Ala.:
community profile, 14214
outdoor recreational development, appraisal of potential, 15240
- Tallaseehatchie Creek watershed, work plan, 9172
- Tallahatchie County, Miss.:
community profile, 16350
soil survey report, 7777
- Tallapoosa County, Ala., community profile, 14215
- Tallaseehatchie Creek, watershed work plan, Clay and Talladega Counties, Ala., 9172
- Tama County, Iowa, community profile, 14216
- Tamanini, F. J., designing fail-safe structures for highway safety, 10523
- Tamarins, *see* Monkeys.
- Tamiami Trail Tours, Inc., motor carrier accident, 14802
- TAMMS (The Army maintenance management system), *see* Army.
- Tampa, Fla., area wage survey, 2031
- Tampico, Mexico, despatches from U.S. consuls, 1824-1906, pamphlet to accompany microcopy, 11720
- Tan-O-Quil-QM treatment for feathers and down, 1222
- Tanaka, H. H., hydrologic situation north of Snipes Mountain near Sunnyside, Yakima County, Wash., 8736
- Tananarive, Madagascar, GRARR MADGAR site location, determination and comparison, 899
- Tanck, James, college volunteers, guide to action, helping students to help others, 569
- Tandoc-Juarez, Jocelyn relief, 17865
- Taney County, Mo., community profile, 17885
- Tankers, tanker utilization and petroleum, estimated international flow, 15101
- Tanks (combat vehicle):
Project Tank Trap, field evaluation of nuclear terrain barriers, 8018
tank units, platoon, company, and battalion, Army field manual, 6347
- Tanks (containers):
cylindrical tank partly filled with liquid, head to base transfer function characteristics, 12804
hemispherically bottomed, in normal gravity and in weightlessness, effect on vapor ingestion phenomenon, 12776
insulated liquid methane wing tanks for supersonic cruise aircraft, analytical heat transfer investigation, 4531
1.52-meter-(5-ft.) diameter spherical tank, gaseous-helium requirements for discharge of liquid hydrogen, 5939
rectangular, effect of wall roughness on damping of liquid oscillations, 5973
- Tanneries, chrome tannery wastes activated sludge treatment, pilot study of treating combined chrome tannery wastes and domestic sewage, 5471
- Tanning and tanning materials, *see* Leather, hides and skins.

Tannins, Douglas-fir bark tannin decomposition in 2 forest soils, 1883
Tanoak, sprouting plants best in late summer, foliar spraying, 1819

Tantalum:

alloy, T-111 (tantalum-8 tungsten-2 hafnium), survey of properties, 12810
aluminide-coated Ta-10W for heat-shield applications, 923
commercially pure and oxygen-doped, apparent solubilities in liquid potassium, 11691
effective resonance integrals, 4527
high-strength composite, by thermomechanical working, 4530
minerals yearbook chapter, 18144
wire filaments, effect of various gases on thermionic emission, 12807

Tantalum isotopes, tantalum/316 stainless steel bimetallic tubing, evaluation, 8926

Tanzania:

cotton, 11342
economic trends and their implications for United States, 11471
foreign trade regulations, 4998
mineral industry, minerals yearbook chapter, 4437
special study mission, report, 390
print additional copies, reports, 9696, 13634

Taos Indians, Blue Lake area land conveyance, hearings, 16064

Taos Pueblo, Blue Lake area land conveyance, hearings, 16064

Tape (magnetic), *see* Magnetic tape.

Tapes, *see* Electronic data processing systems.

Taps and dies:

and chasers, hand and machine, Federal item identification guide, 11177, 16142
tapping machines, industrial plant equipment handbook, 6850
tool and die industry, problems—
hearings, 439
report, 5117

Tar:

and nicotine content of cigarettes, by brand names, list, 7592
and tar crudes, production and sales, 11910
coal tar extended polysulfide canal sealant, laboratory tests, 7723
vapors, thermal cracking and fluidized-bed, low-temperature carbonization of bituminous coal, 880

Tar roofing, *see* Roofing.

Tar sands, *see* Bituminous sand.

Tar siding, *see* Siding.

Tarapur, India, atomic power project, dedication (remarks), 4899

Targets:

change detection in aerial photo coverage as influenced by methods of comparison, 106
echo location process in oxygnathous bats in free flight, USSR study, 11496
maintaining target detection proficiency through team consensus feedback, 15496
moving target selection systems, effectiveness analysis by computer modeling, USSR study, 11492
regeneration of neutron producing targets, proposed method within an accelerator, by ion sputtering techniques, 4513
SDTS [moving target selection] system with internal coherence, investigation of effects, USSR study, 5771
see also Radar targets.

Tariff:

act of 1930, as amended, special and administrative provisions under titles 3 and 4, text, 3213
agricultural products, U.S. import duties, 3393
communications carriers, FCC rules and regulations, 2685

Tariff—Continued

customs—

bulletin—

bound volume, 1176, 17383

weekly, 2480

cases adjudged, 9947

duties, code of Federal regulations, 8641

hints for—

nonresidents, visitors, 6831

returning U.S. residents, know before you go, 8452

trademark information, 534

year later and look into 1970's (remarks), 6267

Customs Court, judicial machinery, improve in customs matters—

hearings, 6722

law, 10931

reports, 1661, 1732, 8261

customs laws, enforcement, provide better facilities—

hearing, 434

report, 3826

customs regulations, 2481, 4000

cargo for U.S. military forces, agreement with Philippines, 4736

guide for private flyers, 16104

revised pages, 533, 4001-2, 6830, 9949, 11157, 16105

decisions under customs laws, Customs Court, 535, 6832

duty-free entry of gifts from servicemen in combat zones—

law, 3750

report, 1519

economic factors affecting use of items 807.00 and 806.30 of tariff schedules of U.S., report, 18380

foreign trade and tariffs, proposals, written statements, other material submitted by administration witnesses, and letter of the President, 13552

a gift, are you sure? customs regulations, 5297

popular tourist items, 1970 rates of duty, 532

publications, price list, 2205

reduction, proposed legislation, message from the President, 1443

reimported articles, duty free entry, report, 9708

schedules, annotated, 2265, 3252

supplements, 7854, 9221, 12947, 17376

schedules of United States, amend to extend exemption for gifts from servicemen in combat areas—

law, 3750

report, 1519

shrimp vessels, foreign repairs, exempt from duty, report, 10964

summaries of trade and tariff information, 4766, 6262, 7853, 10639, 17375

tariff and trade proposals, hearings, 12287

see also names or classes of articles imported or exported.

Tariff Commission:

appropriations, 1970—

law, 3738

report, 472

appropriations, 1971—

hearings, 8270

reports, 9686, 15990

wave points of order, report, 9688

notices of hearings, investigations, etc., 3251A

press releases, 3092

report, 1969—

departmental edition, 6260

document edition, 5086

Tariffs and trade, general agreement on, *see* General agreement on tariffs and trade.

Tarkington Bayou:

Cleveland, Tex., flood plain information, 16418

floods, how to avoid damage, Cleveland, Tex., 17928

INDEX 1970

- Tarpaulins, Federal item identification guide, 13794
- Tarpon, juvenile, ecology and effects of dieldrin on 2 associated species, 4715
- Tarr, Curtis W., nomination, hearing, 6789
- Tashjian, Howard, computation of potential function of compressible fluid near Mach number, 8941
- Task Force on Research Planning in Environmental Health Science, report, 15010
- Task scheduling for real time multiprocessor, 12790
- Tate County, Miss., community profile, 16351
- Taub, Jesse J., study of quasi-optical circuit techniques in varactor multipliers, 2060
- Taube, Carl A.:
 - community mental health center data systems, description of existing programs, 4565
 - general hospital inpatient psychiatric services, 4564
 - outpatient psychiatric services, 1063
- Tawil, Aaron, confer citizenship posthumously, 3791, 9582, 9797
- Taylor, Eileen F., food prices before and after distribution of welfare checks, low-income areas, 7 cities, 1969, 15438
- Tax, *see* Taxation.
- Tax auditors, *see* Auditors.
- Tax Court:
 - appropriations, 1971—
 - hearings, 6693, 13710
 - law, 17608
 - report, 16009
 - Federal rules of appellate procedure, with forms, 11052
 - judges, increase salaries, report, 1645
 - reports (decisions)—
 - bound volume, 7857, 17377
 - consolidated pamphlets, 3253
- Tax credits:
 - foreign tax credit for U.S. citizens and resident aliens, 5644
 - foreign, tax reform, summary of recommendations, 1725
 - investment credits, 5641
 - retirement income credit, 5662
- Tax equity and tax incentives (remarks), 2275
- Tax exemptions:
 - cemetery corporations, tax-exempt status, extend report, 9717
 - District of Columbia International Telecommunications Satellite Consortium—
 - hearing, 9904
 - report, 5130
 - organizations, how to apply for exemption, 5645
 - pension trust procedures, etc., under Internal revenue code, 11457
 - tax-exempt organizations, tax reform hearings, summary of recommendations, 8398
 - your exemptions and exemptions for dependents, 5697
- Tax guide for small business, 7318
- Tax law specialist, 787
- Tax refunds:
 - appeal rights and claims for refund, 5633
 - floor stock refunds, manufacturers claims, extend time for filing, report, 9721
 - internal revenue taxes, refunds and credits, report, 8204
- Tax returns, *see* Income tax—Taxation.
- Tax-sheltered annuity plans for employees of public schools and certain tax-exempt organizations, 5689
- Taxation:
 - Administration fiscal and taxation policies as means of curbing inflation (remarks), 2270
 - assessed valuations and sales ratios, 1956-66 trends, 6457
 - automobiles and communications services, excise taxes, extend, tax recommendations of the President, etc., 15955
- Taxation—Continued
 - career opportunities, Internal Revenue Service, 12615
 - clergymen and religious workers, social security information, 5666
 - college students, Federal tax information, questions and answers, 4307
 - common and contract carrier property, assessments, hearing, 11047
 - common carrier property, assessments—
 - hearing, 499
 - report, 1694
 - distilled spirits, amend Internal revenue code, report, 10982
 - double, convention with—
 - Belgium, text, etc., 13573
 - Finland, message from the President, 9787
 - Trinidad and Tobago, message from the President, 6731
 - employer's tax guide, 10234
 - explorative freeway cost earnings study, 18311
 - farm real estate taxes, recent trends and developments, 9977
 - form, form letters, notices, Internal Revenue Service catalogue, 10233
 - gasoline lead additives tax (remarks), 15365
 - interest equalization tax, 5681
 - extend, proposal, written comments, 8332
 - natural resources percentage depletion rates, tax reform recommendations, summary, 8397
 - new dimension, career with Internal Revenue Service, 16708
 - our Federal tax system, 10239
 - personal property taxes levied on farmers, 1950-67, 7942
 - publications, price list, 2205
 - quarterly tax report, 229, 3648
 - Railroad retirement tax act, amend, law, 6547
 - real property transferred by RFC to other Govt. departments, payments in lieu of taxes, extend, hearings, 6713
 - reform in taxation of foreign source income (remarks), 2269
 - road user and property taxes on selected motor vehicles 1970, 7720
 - sale of a business, 5686
 - self-employed individuals, retirement plans, 5663
 - selling your home, 5688
 - small business 1969 tax guide, 7318
 - State and local revenue, quarterly summary, 229
 - State and local taxes, national banks, clarify liability—
 - hearing, 492
 - law, 1412
 - reports, 1531, 1626
 - State tax collections, 1969 report, 4949
 - tax advice on civil service disability retirement payments, 4311
 - tax calendar and check list, 5668
 - tax equity and tax incentives (remarks), 2275
 - tax reform—
 - hearings, testimony, summary, corporate mergers, 1602
 - subjects, recommendations, summary, charitable contributions, 1726
 - subjects, with summary of subsequent principal decisions, press releases, 8328
 - Tax reform act of 1969—
 - accumulation trusts, multiple corporations, corporate mergers, stock dividends, and foreign tax credit, summary of recommendations, 1725
 - farm losses and cooperatives, summary of recommendation, 8395
 - financial institutions, summary of recommendations, 1727
 - law, 1423

Taxation—Continued

- Tax reform act of 1939—continued
- limit on tax preferences and allocation of deductions, summary of recommendations, 8396
- oral and written testimony, hearings, 505, 13729
- print additional copies, report, 1636
- private foundations, summary of recommendations, 8399
- provisions of significance to farmers, 9973
- real estate depreciation, regulated industries and corporate earnings and profits, summary of recommendations, 8400
- reports, 478, 1564
- revenue estimates relating to House, Senate, and conference versions, 8333, 8392
- Senate debate opening statement, 8402
- summary, 504
- summary of Senate amendments, 8334-35
- table of contents for committee amendment to H.R. 13270, 13730
- tax-exempt organizations, summary of recommendations, 8368
- testimony and additional statements, staff summary, 1709-24, 8391
- tax treatment of export income, Domestic International Sales Corporation proposal of Treasury Department, 13551
- teaching taxes program (series), 1963
- tobacco tax guide, 1964
- U.S. defense activities overseas, questionable payment of taxes to other governments, by Defense Dept. and State Dept., GAO report, 5535
- wagering tax amendments of 1969, report, 9842
- see also Employment taxes—Excise taxes—Income tax—Inheritance and transfer tax—Internal Revenue—Revenue—Tax credits—Tax refunds—also names of articles, etc., subject to tax.
- Taxes, see Employment taxes—Taxation.
- Taxicab drivers, employment outlook, 14709
- Taxiways (aeronautics):
- design standards, airports served by air carriers, 14356
- three-track runway and taxiway profiles measured at international airports C and D, 7540
- Taxonomy:
- bathypelagic fish genus *Stomias* (Stomiatidae), 1095
- generic names of fossil plants, 1820-1965
- index, 10159
- new world species of *Anthrax* (Diptera: Bombyliida, other than *Anthrax albofasciatus* group, revision, 11850
- taxonomic status—
- and reproduction of striped bass, *Morone saxatilis*, in Florida, 6210
- of controversial genera and species of parrotfishes with descriptive list (family scaridae), 1094
- Taylor, Eileen F., food prices before and after distribution of welfare checks, low-income areas, 7 cities, 1969, statistical summary, 17445
- Taylor, Hannibal B., relief, 9596, 9815
- Taylor, James H., airman, official magazine of Air Force, 2323
- Taylor, James J., minimum-energy mission plan for manned exploration of Mars, 912
- Taylor, John N., graduate education of Air Force line officers, 10712
- Taylor, Kent, computer applications in psychotherapy, 9015
- Taylor, Paul S., Communist strategy and tactics of employing peasant dissatisfaction over land tenure for revolutionary ends in Vietnam, 17646

- Taylor, T. M., application of imperfect, reduced state relay control to model-reference systems, 14834
- Taylor, William R., revision of catfish genus *Noturus* Rafinesque with analysis of higher groups in Ictaluridae, 2152
- Taylor, Wm. Randolph, marine algae of Dominica, 11849
- Taylor County, Iowa, community profile, 14217
- Taylor County, Tex., soil survey, 15241
- Taylor Highway, Alaska, geology, 1908
- Tea, foreign agriculture circulars, 2657
- Teach them to lift, 14657
- Teacher Corps:
- futures in education, 584
- 1969 national conference, report, 14294
- your child and Teacher Corps, 9998
- Teachers:
- classroom personnel meeting critical short-ages, education professions development act, State grants program, 4066
- come out from under the ivy, 7008
- District of Columbia—
- retirement amendments of 1970—
- law, 10923
- reports, 5133, 9481
- salaries increase—
- hearings, 502, 8283
- law, 13304
- reports, 1693, 9876, 12199
- do teachers make a difference? 11207
- education, elementary teacher education project, 581
- elementary—
- specifications for model education program, analytic summaries, 5343
- Wisconsin University education project, 5361
- elementary teacher education program, feasibility study—
- behavioral science teacher education program, final report, 11221
- Florida State University model, 11224
- Georgia model—
- basic report, 11223
- job descriptions, 11223
- technical report, 14282
- Ohio Consortium, 11222
- Oregon, plan for managing development, implementation and operation, project report, 11226
- Syracuse University specifications for comprehensive undergraduate and inservice program, 11227
- University of Massachusetts study, 11225
- (Wisconsin—
- pricing and economic analysis, 11228
- program and support systems, 11228
- Federal income taxes program, general and farm, guide, 1963
- graduate teaching assistants in American universities, recent trends and recommendations, 11229
- Indian Affairs Bureau, service time required, when travel and transportation expenses are paid to 1st post of duty, reduce, report, 1653
- kindergarten, elementary and secondary schools, college and university, employment outlook, 14683
- opportunities abroad, teaching, short-term seminars, 14291
- preparation of personnel in education of the handicapped guidelines for obtaining grants by State agencies, universities, etc., manual, 16402-404
- public elementary and secondary day schools, fall 1969, statistics, 9993
- science and mathematics, secondary schools NSF programs, 1971, summer institutes, inservice institutes, etc., 18273
- teacher education, short summary of 10 model programs, 5859

INDEX 1970

- Teaching:
 conservation—
 in high schools, outline, 3417
 teaching aid (series), 11343
 through outdoor education areas, 9318
 directory of social studies/social sciences,
 research, 1788
 emergency medical technician-ambulance
 basic training program, instructor's les-
 son plans, 14968
 evaluation as a teaching tool, naval train-
 ing program, 4617
 Federal income taxes, general informa-
 tion, 14616
 instructor institute, safety in industry, in-
 structor outline, 7415
 introduction to supervision—
 guide for instructors, 4972
 participant print-out for use with course
 guide for instructors, 6476
 migrant education—
 advanced level, 6984
 intermediate level, 6983
 systems analysis and learning systems in
 development of elementary teacher edu-
 cation models, 5360
 teaching-learning process and educational
 technology, bibliography, 16655
see also subjects.
 Teaching machines, learning machines, in-
 troduction, 8949
 Tear-gas arms, use in war, U.S. international
 negotiations, policy and practice, sub-
 committee report, 15898
 Technical assistance, EDA program, what it
 is, how to apply, 16166
see also Foreign aid.
 Technical assistance aid (series), 8857
 Technical assistant, examination announce-
 ment, 16699
 Technical bulletins:
 Agriculture Department, 45, 1204, 3428,
 4828-29, 6319, 7946-47, 9326-28,
 10709, 13008, 15447
 Army Department, 13054, 17465
 Land Management Bureau, 16871
 National Oceanographic Instrumentation
 Center, 17175-176
 Technical cooperation, *see* Foreign aid.
 Technical education:
 annual report, 14298
 facts about Bureau of Adult, Vocational,
 and Technical Education, 12499
 public schools offering programs, direc-
 tory, 7010
 Technical information:
 Army, points of contact, directory, 15500
 in-house and contractor data, NASA data
 requirements descriptions (DRD) for
 acquisition, 8930
 technical and management information
 specifications for use on NASA pro-
 grams, NASA data requirement descrip-
 tions index, 10366
 technical and scientific information, fore-
 casting, USSR study, 7391
 Technical manuals:
 Army Department, 100-105, 1238, 3480-
 83, 4805-67, 6358-65, 7994-97, 9357,
 10740-747, 11973, 13055-58, 15490-
 492, 17466-470
 price list, 6131
 Army Strategic Communications Com-
 mand, 15478
 Coast and Geodetic Survey, 3676
 Technical memorandums:
 Coastal Engineering Research Center,
 4066, 11249
 Environmental Science Services Admin-
 istration, 604-610, 1817-38, 7049, 8570,
 11267-271, 14343-344, 16454, 17946-
 947
 National Aeronautics and Space Adminis-
 tration, 18195
 Technical news bulletin, National Bureau of
 Standards, 3264
- Technical news from Department of Com-
 merce, National Bureau of Standards, 3255
 Technical notes:
 Air Force Cambridge Research Laborato-
 ries, 9329
 Census Bureau, 8100
 Environmental Technical Applications
 Center, 51-52, 7962-63, 10723, 15461
 National Aeronautics and Space Admin-
 istration, 899-945, 2080-2127, 4507-31,
 5917-75, 7530-48, 7550-53, 8933-52,
 10376-412, 11628-695, 12770-825,
 14846-891, 16956-17007, 18196-222
 National Bureau of Standards, 960-965,
 2138-39, 4553-55, 6007-10, 7574-81,
 8986-96, 10436-438, 11736-741, 14924-
 927, 17038-43, 18236-238
 soil survey, 9162
 Technical orders, *see* names of departments,
 etc., issuing orders.
 Technical papers:
 Census Bureau, 8101-2
 Sport Fisheries and Wildlife Bureau,
 2232, 4714-16, 6209-10, 7792-93,
 11891-893, 15277
 Technical papers of United States, compila-
 tion, 8977
 Technical progress reports, Mines Bureau,
 4485, 7500, 10337-338, 12749-750, 14798-
 800
 Technical progress reviews, 2776, 2974,
 3127-28
 Technical publications, Natick Laboratories,
 Natick, Mass. July 1967-June 1968, bib-
 liography, 1217
 Technical reports:
 Air Force Human Resources Laboratory,
 3431, 7952-55, 9330-32, 10710-712,
 13011-14, 15452
 Air Weather Service, 50, 3442, 9337-38,
 13022-24, 17450
 Civil Defense Office, 4960, 9461, 15682
 Coastal Engineering Research Center,
 1802, 4071, 5366
 Cold Regions Research and Engineering
 Laboratory, 596-598, 8536, 14304-5
 Computer Research and Technology Divi-
 sion, 971, 11779
 Engineers Corps, Army, Honolulu District,
 12510
 Environmental Science Services Admin-
 istration, 611-615, 1839-40, 4088-93,
 5386-94, 7050-51, 8571-76, 10022-27,
 11272-276, 12513, 14345-350, 16455-
 465, 1748-952
 Forest Service, ETR (series), 8685, 10113,
 14431
 highway planning, 15134
 Natick Laboratories, 85, 1216-26, 6348-
 49, 7986, 13041-47
 National Aeronautics and Space Adminis-
 tration, 946-948, 2128, 5976-79, 7554-
 55, 8953-54, 10413-414, 11696, 12828,
 14892-895, 17008-10, 18223-224
 Naval Oceanographic Office, 7680-82, 9049
 Ohio River Division Laboratories, 16454
 School of Aerospace Medicine, 55-57
 submitted by USAMRDC contractors/
 grantees, abstracts, 8000
 technical publications acquisition manage-
 ment, 6332
 Veterans Administration, 4786
 Waterways Experiment Station, 5375,
 8556, 10018-20, 11255-258, 14336,
 16447-452
 Technical research notes:
 Behavior and Systems Research Labora-
 tory, 15494, 15497-498
 Behavioral Science Research Laboratory,
 108-108, 9358-63, 15493, 15495-496
 Technical research reports, Behavioral Sci-
 ence Research Laboratory, 9364-65,
 13059-60
 Technical services, State designated agencies,
 officials and working contacts, list, 2842

Technical translations, National Aeronautics and Space Administration, 949-950, 2129-31, 4532, 5980, 8955, 10415-417, 11697-708, 12827-831, 14896-898, 18225-227

Technical writers, *see* Authors.

Technical writing, *see* Writing.

Technicians:

- Army National Guard performance data, 17063
- ARNG technicians, financial administration, report on man-year and personnel costs, NGB pamphlet, 2144
- broadcast, employment outlook, 16841
- engineering and science, employment outlook, 14675
- engineering, pay, national survey, 5822
- incentive awards plan, National Guard Bureau, 17064
- manpower need, 1966-80 projected outlook, 8864
- scientific and technical personnel in industry, 14741
- time and attendance procedures, National Guard Bureau, 17065
- see also* Aviation support equipment technicians—Computer technicians—Data processing technicians—Dental technicians—Medical technicians—Radio broadcast technicians—Radio service technicians—Television service technicians.

Techniques Development Laboratory, ESSA technical memorandum, WBTM TDL series, 609, 1834, 7049, 14343-344

Techniques of scheme study, 4638

Techniques of work simplification, 13048

Technological innovations:

- developing new communities, application, 8780
- education for innovation (address), 1364
- industrial, factors underlying innovation in selected firms, 1005

Technological Laboratory, Gloucester, Mass., general information, 13235

Technological Laboratory, Pascagoula, Miss., report, 3707

Technological Laboratory, Seattle, Wash., report, 3706

Technologists, *see* Medical technologists.

Technology:

- and educational renewal (address), 592
- and science, tools for progress, report of President's Task Force on Science Policy, 9070
- and the marketplace (remarks), 10439
- assessment—
 - and environment, hearings, 13541
 - annotated bibliography, 15939
 - hearings, 5181, 12283, 15938
 - system for Executive Branch, report, 13543
- Clearinghouse announcements in science and technology, 2408
- cold regions, bibliography, 596
- index, 597
- complex systems analysis, modern network theory application, 915
- congressional organization inventory, 15939
- cybernetics and scientific-technical revolution, USSR study, 4349
- cybernetics and technical progress, USSR study, 2006
- cybernetics technology in Ukraine, USSR study, 16750
- defense, cooperative technical and scientific projects, agreement with Argentina, 15315
- educational technology and teaching-learning process, bibliography, 16655
- exchanges, agreement with Union of Soviet Socialist Republics, 15312
- financing new technological enterprise, report, 15714
- for small business, program of Small Business Administration, 10545

Technology—Continued

- forecasting systems, USSR study, 5748, 7351
- getting more mileage out of technology (address), 18300
- Government and technology, challenge of '70's (address), 15715
- half-truths can make us slaves (address), 10869
- impact on commercial secondary aluminum industry, 7457
- informational technology and ergonomics, USSR study, 16753
- international transfer, among developing countries, factors affecting, report 9502
- Leninist principles of management in age of scientific and technical revolution, 11505
- management of information and knowledge, Panel on Science and Technology, 11th meeting, proceedings, 8322
- metalworking, selected advances in, 9102
- NASA awards for new technology, 16931
- 1970 Lenin prize competition, USSR study, 11519
- Panel on Science and Technology, 11th meeting, proceedings, 8322
- physics and technological progress, USSR study, 16774
- power technology and the future (remarks), 10777
- role in seafood industry, 12066
- science and technology rededicated (address), 10778
- science, technology and American diplomacy, 13514
- scientific and technical revolution—
 - characteristics, USSR study, 5788
 - relationship to management, USSR study, 11511
 - USSR study, 4335
- Siberia develops its technology, 10257
- Smithsonian studies in history and technology, 4666-67
- Soviet prizes, 12630
- space communications, assessment, report, 5140
- spherical capsule program—
 - heat source technical report, 8014
 - addendum, 8015
 - quarterly progress report, 8013
 - summary report, 6379
- technical publications acquisition management, Air Force manual, 6332
- technical standards training guides, 8619
- technological advance requires reform in vocational education (address), 10867
- titanium alloys for modern technology, 11701
- transfer programs administered by various executive departments and agencies, review, hearings, 6818

USSR—

- 1969 State prizes, 5767
- scientific, technical developments discussed, 7365
- utilization (series), 1090, 10375, 16954, 18194, 18322
- see also* names of departments etc., developing technology—*also* subjects.

Technology and Environment, National Advisory Commission on, *see* National Advisory Commission on Technology and Environment.

Technology Assessment Office:

- establish—
 - hearings, 12283
 - report, 15860
- Technology utilization (series), 9102

Tectonics:

- Alaska earthquake, Mar. 27, 1964, 7242
- zoning in Afghanistan, USSR study, 16762

Teenagers, *see* Youth.

INDEX 1970

Teeth:

- beware of plaque, it causes tooth loss through periodontal disease (poster), 10458
- dental disease, research explores plaque, combat zone in dental disease, 8038
- dental health, State programs, 1967, digest, 972
- nutrition and dental health, research explores, 6037
- see also* Dentistry.

Teetsel, Dorothy A., literature survey on thermal degradation, thermal oxidation, and thermal analysis of high polymers, 13814

Teflon, *see* Polytetrafluoroethylene.

Telecommunication:

- atmospheric and man-made radio noise, amplitude and time statistics, 10024
- code of Federal regulations, 7146-47, 8656-57
- engineering, installation practices, CCTM technical manual, 15478
- systems, high-frequency sky-wave, long-term operational parameters, predicting, errata, 7051, 17952
- see also* special method of communication.

Telecommunications Policy Office:

- establish—
- hearings, 8300
- disapproval, report, 6643
- proposal, 5079

Telecommunications Science Institute, *see* Institute for Telecommunications Science.

Telegraph:

- carriers, quarterly operating data, 3121
- franks, FCC rules and regulations, 2587
- radiotelegraph carriers, uniform system of accounts, FCC rules and regulations, 2586
- wire, classification of employees, FCC rules and regulations, 2585
- wire-telegraph and ocean-cable carriers, uniform system of accounts, FCC rules and regulations, 2586

Telemechanics, systems, and automation, set of metal-dielectric-semiconductor integrated logic circuits for, USSR study, 16780

Telemeters, Zeiss telemeter teletop modification for precision dendrometry, 4196

Telemetry, rectal temperatures, evaluation of prototype unit, 3888

Teleoperators, teleoperator systems, advancements, colloquium proceedings, 10375

Telephone:

- carriers, quarterly operating data, 3120
- companies—
- class A and class B, classification and compensation of employees, FCC rules and regulations, 2585
- consolidation, acquisition or control applications, FCC rules and regulations, 2585
- uniform system of accounts, FCC rules and regulations, 2585

directories—

- Agriculture Department, 7948
- Atomic Energy Commission, 8034
- Commerce Department, 3698
- Defense Department, 2499
- Health, Education, and Welfare Department, 5571, 14560
- Interior Department, 11453
- NASA headquarters, 2919
- Senate, 5184
- State Department, International Development Agency, Arms Control and Disarmament Agency, 6220, 10611
- Transportation Department, 2502
- interim directory, services and classified, 11917
- Treasury Department, 8256
- franks, FCC rules and regulations, 2587

Telephone—Continued

industry, occupations, employment outlook, 18121

interstate and intrastate total service, uniform separation procedures, hearing, 18042

materials acceptable on systems of REA borrowers, list, 2840, 17253

multilingual telephone information (remarks), 280

rural construction contract—

- labor and materials, 17257
- specifications and drawings, open wire construction, 17256

rural program—

- statistical report, 2213
- supplemental financing, hearing, 484
- statistical bulletin, 3124

Telephone installers, central office equipment and PBX installers and repairmen, employment outlook, 18121

Telephone lines:

- extension, etc., FCC rules and regulations, 2585
- the other wire, ESSA weather wire, general information, 11278

Telephone operators, employment outlook, 12695

Telephone poles, *see* Poles.

Telescopes:

- optical, technology, workshop symposium, 14840
- soft-gimballed orbiting telescope, fine-pointing control system, investigation, 11671

see also Radio telescopes.

Teletype, remote, used in computer program for plotting data points from multichannel analyzers, 8902

Teletype operators, teletypists, employment outlook, 14723

Television:

- broadcast actions, reports, 2576
- broadcast licenses, applications for renewal, establish orderly procedures, hearings, 5258
- broadcast stations, use by congressional candidates at reduced rates, provide, hearings, 1705
- broadcasting, employment outlook, 16841
- broadcasting of advertising of cigarettes, prohibit—

- hearing, 496
- law, 8181
- reports, 1652, 6614

broadcasting stations of the world—

- amplitude modulation—
- indexed by country and city, 1874
- indexed by frequency, 1875
- frequency modulation indexed by country and city, and by frequency, 4177
- indexed by country, city, frequency, 5478

CATV—

- actions, reports, 2576
- copyright problems (address), 11293
- program origination (address), 4127

cloud photography, meteorological satellite data, catalogs, 4095, 10031-32, 11277, 17964

communication equipment, Federal item identification guide, 8474

coverage of Democratic National Convention, Chicago, Ill., 1968, report, 9759

drug abuse information-education materials available, 9016

equal time for—

- candidates for congressional office, purchase requirements—
- hearings, 11043
- report, 15855
- presidential and vice presidential candidates, purchase requirements, report, 15977

instructional television facilities, planning guide, 1798

Television—Continued

major market CATV requests filed under FCC rules, reports, 2576
 Moscow programs listed, 4348
 obscene programs, Federal Communications Commission regulations (address), 4125
 political broadcasting, revise provisions, reports, 13436, 15853
 programming for children (address), 16478
 Public broadcasting act of 1967, amend, law, 313
 Public broadcasting financing act of 1970, hearings, 9758
 public service broadcasting time for members of legislative branch, require licensees, hearings, 17694
 receiver components, field method for determination of lead in glass used for shielding, 4086
 SECAM color television signals with sound portion via Molniya-1 communication satellite, transmission, USSR study, 16789
 sets, current industrial reports, 17537
 16 mm. movies for TV, list, Soil Conservation Service, 7772
 state of fairness doctrine (address), 16479
 subscription, authority to broadcast programs, prohibit, hearings, 3876
 subscription, regulate, report, 9714
 talkin' blues, corporate greed, and women's liberation (remarks), 7080
 U.S. developmental in Latin America, reports of special study mission, 9738
 USSR television broadcasting outlined, development, 11508
 visual acuity in viewing scaled objects on television, compared with that in direct viewing, 931
 Television announcers, employment outlook, 16341
 Television receivers, *see* Television.
 Television service technicians employment outlook, 14707
 Telling it like it really is (remarks), 18391
 Tellurides, single crystal high resistivity cadmium telluride for use as gamma ray spectrometer, research and development, 10763
 Temper (metallurgy):
 temper etch inspection, military standard, 5318
 Temperature:
 ambient, titanium alloys in aqueous solutions, stress corrosion cracking, 894
 atmospheric, profiles from planetary limb radiance profiles, 5899
 axisymmetric temperature field, and gas turbine face seal thermal deformation, computer program for calculating, 2125
 Columbia basin States, climatological handbook, 2189-90
 compact portable recorder, 604
 cyclic and constant temperature aging effects on magnetic materials for inverters and converters, 10344
 daily maximum, relationship of hourly durations, 1226
 dependence of self-diffusion coefficients for gaseous ammonia, 2110
 direct reading humidity-temperature indicator, equip tips, 10114
 effects of concrete members, multiaxial prestressing, USSR study, 16804
 effects of storage temperatures on quality of—
 cottonseed salad oil, 10688
 soybean salad oil, 10689
 elevated temperature—
 instability of stellite 6B, 8928
 stability of refractory metal alloys, 18178-179
 stainless steel, AISI 304-316 relaxation behavior analysis, 9377
 fluctuating temperature, effect on growth of *Fusarium solani*, 8698

Temperature—Continued

gradients in plasma as result of weak electric fields, 7550
 helium at temperature range—5°C 80°C and at pressures to 800 atmospheres, compressibility data, 5883
 high—
 complex performance during exposure, 6408
 enthalpies and entropies of chalcopyrite and bornite, 16023
 inorganic salts, properties and decomposition, 956
 temperature thermodynamics of uranium carbides, USSR study, 16777
 temperature transient pressure transducer for use in liquid-metal systems, 2120
 increases in maximum stream temperatures after slash burning in small experimental watershed, 4185
 irradiated Atlantic cod and flounder at low storage temperatures, toxicogenesis, 1968 report, 3507
 kinetic electron temperature measurement techniques for helium, 12806
 level heights, and dew points for Northern Hemisphere, 10484
 lodgepole pine clearcut size affects minimum temperatures near soil surface, 1884
 long-time temperature stability of refractory metal alloys determined, 18178
 longest duration in a month, distribution, 1221
 low-temperature cesium-vapor diode, voltage breakdown, 14852
 minimum, objective forecasting for Helena, Mont., 1838
 nocturnal air, on forested mountain slope, 5514
 ocean current and sea surface observations from meteorological satellites, 4507
 errata, 10377
 Pacific Northwest, monthly, 3004
 probabilities of hot and cold days sequences and hot spells in Nevada, Markov chain models, 14345
 river temperatures, Pacific Northwest, 3162-63
 sensors, roughness lengths at NSSL-WKY meteorological tower, Oklahoma City, Okla., evaluation, 17946
 stored tobacco, temperature, moisture, and relative humidity, 10678
 stratosphere and mesosphere, 14893
 stream temperature in southeast Alaska, some effects of shade cover, 8695
 streams on Long Island, NY, urbanization effects, 14536
 substation observations, 11936
 surface waters in Montana, 4256
 temperature-profile variation effects on refraction of sound by jet flow, 10405
 transit, fruit condition, biphenyl content, delayed loading, and biphenyl pad placement, interrelations during tests of overseas shipments of California citrus fruit, 26
 ultraflow symposium proceedings of 1970, 18295
 vented-gas temperature measurement, Cabriolet project, 8021
see also Body temperature—Heat—Heat transfer—Ocean temperature.
 Tenants, *see* Landlords and tenants.
 Tennessee:
 census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 9427
 retail trade, merchandise line sales, 15544
 selected services, area statistics, 163
 wholesale trade, area statistics, 185
 census of construction industries, 1967, statistics, 15568

INDEX 1970

- Tennessee—Continued
 census of governments, 1967, State report, 3591
 census of manufactures, 1967, statistics, 15586
 climatological data, 2409
 county business patterns, 3623, 12034
 Cumberland Plateau and Mountains and Southern Appalachian Ridges and Valley, soil survey interpretations for woodlands, 7781
 mineral industry, minerals yearbook chapter, 4461
 minority construction contractors located in selected cities, list, 8793
 Mississippi River and tributaries, fishery products, wholesale dealers, list, 9555
 Nashville Basin and Highland Rim areas, soil survey interpretations for woodlands, 7779
 Pennyroyal area, commercial tobacco-livestock farms, costs and returns, 8498
 precipitation data, hourly, 2718
 travel costs less than you think, please come, invitation from people of U.S., 7885
 Dutch edition, 7882
 German edition, 7880
 Japanese edition, 7886
 Portuguese edition, 7883
 Spanish edition, 7881
 Tennessee River and Valley:
 fish, bottom fauna, and aquatic habitat of streams, 10643, 15353
 industrial opportunity, soft molded pulp products, 9227
 potentials for expanding agricultural business, 1174
 precipitation in basin, monthly, 3032
 radioactive liquid waste, disposals at low-level in, with relation to composition of water, 8739
 Tennessee Valley perspective (periodical), 17380
 Tennessee Valley Authority:
 act of 1933, amend—
 hearings, 11057, 13759
 reports, 13412, 15843
 annual report, 4770
 appropriations, 1970—
 hearings, 486
 law, 3734
 report, 1512
 appropriations, 1971—
 hearings, 11022, 13709
 reports, 12207, 13697
 bonds to finance powerplant projects, increase amount issued—
 hearings, 11057, 13759
 reports, 13412, 15843
 electricity sales statistics, retail distribution, 2531
 financial statements, 1173, 8216
 GAO examination, 10142
 forestry bulletins, 4771, 9222-23, 17379
 forestry, publications, list, 15352
 indexed bibliography, cumulative supplement, 7858-59
 industrial development in TVA area, 9224
 power, municipal and cooperative distributors, 1969 operations, 4772
 press handbook, 9228
 Tennessee Valley perspective (periodical), 17300
 Tenrecs, study in mammalian behavior and evolution, 6156
 Tensile strength, *see* Strains and stresses.
 Tensile stresses, *see* Strains and stresses.
 Tension:
 performance change and autonomic response consistency function of expressed attitude toward specific stress situation, 3517
 skeletal muscle, and paced tracing task, effects of sonic booms and subsonic jet flyover noise on performance, 5902
 Tension—Continued
 stress and other conditions, effects on higher nervous activity, USSR study, 16742
 see also Strains and stresses.
 Tension shells, bluff-shell shapes, effects of pressure distributions, 5944
 Tent caterpillars, controlling, 17439
 Tenthredinidae, *see* Flies.
 Tents:
 evapotranspiration, modifications and evaluations, 699
 Federal item identification guide, 13794
 Tenure of land, *see* Land tenure.
 Tephrosia vogelii, biology of poor seed production, 7947
 Teplitz, Jerome, flight tests of spiral divergence and bank angle control of executive jets, 9346
 Terlin, Rose, jobfinding techniques for mature women, 6284
 Terminal boards, electrical, military standard, 13807
 Terminal forecasting, *see* Weather forecasts.
 Terminal instrument procedures, TERPS, U.S. standard, 11286
 Terminals (cable):
 electrical, military standard, 13807
 Terminals (transportation):
 air traffic control, handbook, 66, 1212, 4842, 7969
 aircraft collision-hazard system techniques in terminal area, statistical evaluation, 2066
 Ohio River, locations, etc., list, 16443
 regulation (remarks), 8620
 terminal navigational facilities, airport design standards, site requirements, 4103
 Terminology, *see* subjects.
 Termites:
 and decay guide, 8619
 eastern subterranean, description, control, etc., 14442
 Ternary systems, ternary aqueous saline solutions, diffusion, 5620
 Terpenes, monoterpenes of ponderosa pine wood oleoresin local and regional variation, 18027
 Terpolymers, *see* Polymers and polymerization.
 TERPS, *see* Terminal instrument procedures.
 Terraces, level bench systems for forage production in North Dakota, economic analysis, 6291
 Terrain:
 barriers, field evaluation, Project Tank Trap, 8018
 common terrain in comparative cover, effects of image incongruence on location, 15497
 selected level heights, dew points and temperatures for Northern Hemisphere, 10484
 Terrazzo:
 work, special trade contractors, census of construction industry, 1967 statistics, 13129
 workers, employment outlook, 14696
 Terre Haute, Ind., secondary program in compensatory education, summer upward bound, 4063
 Terrell, Edward E., check list of scientific names of introduced agricultural grasses, Triticeae (Hordeae), 9277
 Terrell County, Tex., Sanderson Canyon Watershed, work plan for watershed protection and flood prevention, 15246
 Terrestrial biogeocenosis, *see* Biogeocenosis.
 Terrestrial environment, solid-earth and ocean physics, 10354
 Terrestrial magnetism:
 aeromagnetic data in Pend Orielle area, Idaho and Mont., geologic implications, 18046

Terrestrial magnetism—Continued
geomagnetic data, International Indian Ocean Expedition, 1964, USC&GS ship Pioneer, errata, 17953
long-range forecast of geomagnetic activity, 1970-73, 10026
South Atlantic geomagnetic anomaly, distribution of trapped particles at altitude of 900-km, 9061
Territorial waters, sovereignty of sea, 2239
Territories:
and their resources, price list, 2207
health authorities, 1970, directory, 16657
territorial highway study, Guam, American Samoa, Virgin Islands, 8344
Territories Office:
appropriations, 1970—
amendment, proposal, 443
law, 314
appropriations, 1971, hearings, 8268
Interior Department, highlights of history, 4774
Terrorism, Urban terrorism prevention act, hearings, 17706
Tertiary period:
Cretaceous and lower tertiary stratigraphy in northwestern Puerto Rico, 1909
mollusks (Gastropods, Eulimidae, Marginellidae to Helminthoglyptidae), 14534
upper Cretaceous and lower Tertiary rocks of south-central Wyoming, stratigraphy and nomenclature, 8748
uppermost Cretaceous and Tertiary stratigraphy of Fossil basin, southwestern Wyoming, 11397
Test & Evaluation Laboratory, ESSA technical memorandum, WBMT T&EL series, 1835-36
Test chambers, hyperbaric facilities, general requirements for material certification, 17198
Test equipment, *see* Testing apparatus.
Test sets, *see* Testing apparatus.
Testimony, *see* Evidence.
Testing:
counseling and supportive services in handling disadvantaged youth, 7413
judgment tests of flyover noise from various aircraft, 16936
nondestructive testing techniques, guidance, quality assurance, 15468
open-air testing of lethal chemicals, environmental dangers, report, 392
propellers under static thrust conditions, 4498
reimbursable, and related services, establishing fees for, improvements suggested in accounting methods used by Food and Drug Administration, GAO report, 1891
see also names of departments, etc., doing testing—*also* names of substances or objects tested.
Testing apparatus:
microelectronics, test methods and procedures, military standard, 8485
nondestructive testing—
inspection, materials and defect simulator for calibrating ultrasonic equipment, 9059
techniques, guidance, quality assurance, 15468
test cell for measuring concentration polarization boundary layer in a reverse osmosis system, 8806
test sets, Federal item identification guide, 16143
Tests, *see* types or names of tests—*also* names of departments, etc.—*also* subject of tests.
Tethering, massless tether connecting 2 slowly rotating point-mass vehicles in circular orbit, dynamics, 4514
Teton County, Idaho, area, soil survey report, 1111
Teton County, Wyo., area, soil survey report, 1111

Texas:

bays and lagoons, ostracoda, ecologic study, 6155
Blackland Prairie, effects of conservation practices on storm runoff, 3428
census of business, 1967—
major retail centers, standard metropolitan statistical areas, 9428
retail trade, merchandise line sales, 13118
selected services, area statistics, 4919
wholesale trade, area statistics, 3549
census of construction industries, 1967, statistics, 15564
census of governments, 1967, State report, 3592
census of manufactures, 1967 statistics, 15587
census of transportation, 1967, commodity transportation survey, 9444
climatological data, 2409
cotton varieties planted in early producing section, 9942
county business patterns, 3624, 13170
Federal Crop Insurance Corporation coverages and rates, sorghum, cotton, wheat, 17967
fishery products wholesale dealers list, Mississippi River and tributaries, 9562
hydrologic effects of floodwater-retarding structures on Garza-Little Elm Reservoir, Tex., 16645
land conveyance—
law, 5061
reports, 3825, 3938
landings, fish and shellfish, 3257, 10883
annual summary, 6519
mineral industry, minerals yearbook, chapter, 4463
minority construction contractors located in selected cities, list, 8795
precipitation data, hourly, 2718
production potential of copper deposits associated with Permian red bed formations, 16912
small watershed projects, program, hearing, 12382
Southern Coastal Plain and associated areas, soil survey interpretation for woodlands, 7782
uranium reconnaissance, preliminary, 15519
water resources, 18050
west, cotton gin operating costs, 17444
Yegua formation, geohydrologic significance of lithofacies, 18044
Texas City, Tex.:
census of transportation, 1967, commodity transportation survey, production, area series, 6431
port, Engineers Corps port series, 5372
Texas County, Mo., community profile, 17886
Textbooks, *see* subjects.
Textile fibers, *see* Fibers.
Textile mills, census of transportation, 1967, commodity transportation survey, shipper group, 1311
Textiles:
broadwoven fabrics finished, current industrial reports, 1322
cloth coating imperfections, glossary, military standard, 12398
cloth, Federal item identification guide, 8444
cotton broadwoven goods, current industrial reports, 1323
dyeing and finishing, census of manufactures, 1967, industry statistics, 11999
fabric flammability, bibliographies, 7574, 12845, 17038
Federal item identification guides for supply cataloging, supplements, 2597

INDEX 1970

Textiles—Continued

- flammable fabrics—
 - act amendments of 1970, report, 13672
 - act, decision analysis approach to satisfying requirements (address), 4982
 - Federal consumer safety legislation covering scope and adequacy, 11767
 - program, 7531
 - import problem, progress and prospects (remarks), 9511
 - industry—
 - civil defense preparedness, 6407
 - use of input-output analysis in studying industry problems applied to employment changes, 4828
 - lightweight coated fabrics, subjected to uniaxial tensile loads with and without prior cycling, air permeability studies, 14873
 - man-made fiber—
 - broadwoven goods, current industrial reports, 2476
 - products, trade agreement with Malaysia, 18363
 - miscellaneous fabricated products, census of manufactures, 1967 industry statistics, 17518
 - miscellaneous goods, census of manufactures, 1967, industry statistics, 15593
 - narrow fabrics, current industrial reports, 1324
 - nonwoven fabrics, current industrial reports, 3635
 - outlook (remarks), 4988
 - products, trade and tariff information, summaries, 11908
 - test methods, changes, Federal standards, 16515
 - textile repair shop, mobile, Federal item identification guide, 11169
 - wool, broadwoven goods, current industrial reports, 2476
 - woven fabrics, current industrial reports, 2475
 - see also names of textiles.
- Tezuka Refuse, compression system, preliminary report, 8564
- TFX (Tactical fighter experimental airplanes), see Airplanes.
- Thackray, Richard I.:
 - patterns of physiological activity accompanying performance on perceptual-motor task, 3518
 - recovery of motor performance following startle, 8041
- Thai language, basic course, 11902
- Thailand:
 - Air Force servicemen's clubs, activities, allegations of kickbacks and irregularities, hearing, 13714
 - air transport services, agreement, 7834
 - capsule facts for Armed Forces, 78
 - economic trends and their implications for United States, 18081
 - educational foundations and financing of exchange programs, agreement, 17347
 - loan of vessel U.S.S. Hemminger, extension, agreement, 1148
 - mineral industry, minerals yearbook chapter, 16908
 - minority groups, ethnographic series, 6355
 - northeastern, Nam Yang Project, reconnaissance report, 4654
 - resources atlas project, 16442
 - U.S. security agreements and commitments abroad, hearings, 9912
- Thailand-United States Foundation, establish, agreement, 17347
- Thaller, Lawrence H.:
 - anolyte studies of magnesium electrode in molten mixtures of lithium chloride, potassium chloride, and magnesium chloride, 5952
 - catholyte studies in copper oxide-magnesium thermal cells, 10389

- Thanh Quoi, Vietnam, An Giang Province, Viet-Nam, pilot drainage and irrigation project, feasibility study, 5368
- That special look, 60
- That these people may live, 4295
- Thatcher, John W.:
 - ferroalloys, 4405
 - iron and steel, 4412
 - iron oxide pigments, 853
- Thawing, freeze-thaw cycling effect on vitamin content of meal, ready-to-eat, individual, 6348
- Thayer County, Nebr., community profile, 17887
- Theater of operations, see Combat areas.
- Theft, see Larceny—Stealing.
- Thelen, Judy, Peace Corps volunteer, 3011
- Theodore Roosevelt Birthplace National Historic Site, general information, 17162
- Theodore Roosevelt National Memorial Park, Badlands ranch house, furnishing plan 15027
- Theology of the earth (lecture), 11854
- Therapeutics:
 - military field therapy, teaching in Soviet medical institutes, 16810
 - pulsed microwave therapy, USSR study, 18108
- Therapists, rehabilitation, in Veterans Administration, career opportunities, 1183
- Therapy, see Therapeutics.
- Thermal analysis, see Differential thermal analysis—Heat.
- Thermal batteries, see Electric batteries.
- Thermal conductivity, see Heat transfer.
- Thermal contraction of Mercury, 11688
- Thermal cycling:
 - thermal radiative property measurements using cyclic radiation, 7534
 - see also cycling.
- Thermal decomposition, see Decomposition.
- Thermal energy, thermal inclusion and dielectric heating created for rock fragmentation, 16914
- Thermal expansion, see Expansion (thermal).
- Thermal feasibility of using methane or hydrogen fuels for direct cooling of turbine stator, 18219
- Thermal properties:
 - Apollo ablator thermal performance at superorbital entry velocities, 16979
 - flash X-ray technique for recession measurements in ablative materials, evaluation, 5960
 - gas turbine face seal thermal deformation and computer program for calculation of axisymmetric temperature field, 2125
 - thermal cracking of phenolic-nylon pyrolysis products on passing through heated char, 8952
 - thermal defocusing of CO₂ laser beam in air doped with SF₆, 17193
 - thermal degradation of wood components, literature review, 14464
 - thermal loading effects on composites with constituents with differing thermal expansion, 14869
 - thermal oil recovery, optimization of carbon deposition experiments by statistical analysis, 18170
 - thermal-vacuum testing of high-temperature electrical components, 14817
 - transient thermal response and ablation of non-charring heat shields and nose tips, coupled computer code, 18183
- Thermal protection, ablation performance of charring ablators during atmospheric entry, simulation in ground-test facilities, 12788

- Thermal radiation :**
 from dust structures, 10347
 instability due to thermally induced bending moments in slender thin-walled booms, 11646
 property measurements using cyclic radiation, 7534
 Thermal radio emission, *see* Radio emission.
 Thermal stability, *see* Stability.
 Thermal stresses, *see* Strains and stresses—Thermoelasticity.
 Thermal waters, *see* Springs.
 Thermionic converters :
 characteristics of thermionic converter with chloride vapor deposited tungsten emitter (110) and collector of molybdenum deposited on niobium, 18192
 development, status and trends, USSR study, 7372
 operation with (112) to (114) oriented tungsten emitter and niobium collector with oxygen present, 16945
 thermionic topping converter for coal-fired power plant, 4975
 Thermionic emissions, various gases, effect on tantalum wire filament emission, 12807
 Thermistors, radiation errors in air ducts under nonisothermal conditions, using, 2136
 Thermobia domestica, *see* Firebrats.
 Thermocapillary induced breakdown of falling liquid film, 4523
 Thermochemistry, of fluorine, and hydrogen fluoride, 6008
 Thermocouples :
 1000 hour-2300° C thermocouple stability tests, 9385
 ORTC-III in-reactor experiment, 9386
 radiation errors in air ducts under nonisothermal conditions using, 2136
 small diameter, life testing as function of thermal cycling, 9384
Thermodynamics :
 and kinetics of high-temperature gases, conference proceedings, 12768
 chemical thermodynamic properties of hydrocarbons and related substances, organic sulfur compounds, 10320
 data for silver chloride and silver bromide, 16918
 effects of cavitation of 86.0° helical inducer operated in hydrogen, 5933
 experimental study of structure, thermodynamics and kinetic behavior of water, 1955
 high temperature thermodynamics of uranium carbides, USSR study, 16777
 properties of—
 liquid metal solutions in cesium-mercury system, 2112
 Redlich-Kwong fluid in two-phase region, 2055
 skeleton tables for thermodynamic properties of moist air, 5998
 thermodynamic properties—
 seeded coal combustion products, 12739
 measurements in reflected shock air plasmas at 12-16,000° K, 12766
 vaporization, of yttrium dicarbide-carbon system and dissociation energy of yttrium dicarbide and tetracarbide, mass spectrometric investigation, 8937
 see also Entropy—Heat.
Thermoelasticity :
 coupled thermally induced transverse plus torsional vibrations of thin-walled cylinder of open section, 12826
 instability due to thermally induced bending moments in slender thin-walled booms, 11646
 lead telluride thermoelectric elements, inclusions electron microprobe study, 2081
 stress intensity and crack-opening displacement for coplanar cracks, 15067
 thermoelastic instability of open-section booms, 2080
Thermogravimetric analysis :
 differential thermal and thermogravimetric analysis, report, 8803
 simultaneous DTA-TG-EGA for oil shale and solid fuels, Mines Bureau apparatus, for thermal analysis, 16917
 Thermoluminescence, *see* Luminescence.
 Thermomechanical processing of molybdenum-hafnium carbon alloys, 8936
 Thermometers, resistance, radiation errors in air ducts under nonisothermal conditions using, 2136
 Thermometry :
 some applications of Josephson effect, 960
 thermometric determination of oxidant-fuel distribution with rocket combustor, 4525
 Thermonuclear reactors, *see* Reactors (atomic).
 Thermonuclear reactions, *see* Nuclear reactions.
 Thermopiles, heated thermopile anemometer compared with sensitive-cup anemometer in natural airflow, 679
 Thermosorb process for desalting water, 4302
 Thesauruses, ERIC, rules for preparation, 590
 These are yours! 10662
 These, too, must be equal, 2202
 Theses, *see* Dissertations (academic).
 Theta-pinch, *see* Plasma.
 They have power, we have people, 16467
 They labor in vain (remarks), 16507
 Thinning of forests, *see* Forest thinning.
 Thiodan, toxicology in several fish and aquatic invertebrates, 7788
 Third-order contributions to electrical conduction in plasmas, 4509
 Thirkield, Phoebe, labor law and practice in Afghanistan, 814
 Thirumalai, Kuppusamy, rock fragmentation by creating thermal inclusion with dielectric heating, 16914
 Thiruvengadam, A., experimental and analytical investigations on multiple liquid impact erosion, 16937
 This is Office of Education, 9995
 This is our flag, be proud of it! 10518
 Thomas, Alun C., numerical control of machine tools, point-to-point system, suggested guide for training course, 17911
 Thomas, D. M., generalization of streamflow characteristics from drainage-basin characteristics, 12593
 Thomas, Harold E. :
 water as urban resource and nuisance, 11389
 water laws and concepts, 10166
 Thomas, Jerrell M., finite element approach to structural instability of beam columns, frames, and arches, 10406
 Thomas, Miriam H., effect of freeze-thaw cycling on vitamin content of meal, ready-to-eat, individual, 6348
 Thomas, P. D., spheroidal geodesics, reference systems, & local geometry, 7679
 Thomas, Prudence J., economics of agriculture, reports and publication issued or sponsored by Economic Research Service, 4045
 Thomas Rex D., use of centrifugal separation to investigate how kerosene is bound to minerals in oil shale, 7499
 Thomas, Robert J., testimony, hearings, 8416
 Thomas County, Nebr., community profile, 17888
 Thomas Pate House, Colonial National Historical Park, Yorktown, Va., historic data, 12875
 Thompson, Clark S., effect of flow on performance and behavior of chinook salmon in fishways, 8169
 Thompson, Conrad O., pharmaceutical communications in clinical environment, 17049
 Thompson, Erwin N., Grand Portage, history of sites, people and fur trade, 2160

INDEX 1970

- Thompson, John F., Jr., nomination, hearing, 13719
- Thompson, Kingsley P., cross-sectional plots of plane intersections, adaptation of APT system, 15072
- Thompson, Theos J.:
remarks—
Dec. 2, 1969, 1277
Dec. 3, 1969, 1276
Apr. 10, 1970, 10772
May 21, 1970, 10777
- Thompson, Will F., physical geography and military environment in transect of Utah and Colorado Rockies, 13042
- Thorax, *see* Chest.
- Thorium:
minerals yearbook chapter, 16927
TD-nickel bar, solid-state welding, 14867
use in nuclear power reactors, civilian nuclear power, revised pages, 1270
- Thorium oxide, solidus and liquidus temperatures, 9381
- Thorstream M/V (vessel):
explosion and fire with loss of life, June 2, 1967, marine casualty report, etc., 6075
- Thread mills, census of manufactures, 1967, industry statistics, 12000
- Threaded studs, Federal item identification guide, 13795
- Threads, *see* Screw threads.
- Three Affiliated Tribes of Berthold Reservation, *see* Fort Berthold Reservation.
- Three body problem:
control and use of libration-point satellites, 18223
earth moon field, $X=1.00$, second class of orbits, survey, 2089
three-dimensional transition trips on flat plate at Mach 3 and 4, boundary-layer velocity profiles downstreams, 922
3 leaves mean poison ivy, 11955
- Three-track runway, elevation profiles measured at 2 Government installations, 938 errata, 10379
- Thresholds (perception):
tentative audiometric hearing threshold level standards from 8 through 18 kilohertz, 10315
underwater hearing in man, comparison of temporary threshold shifts induced by 3500 Hertz tones in air and underwater, 12732
- Thrift, *see* Savings and thrift.
- Throat vs. nasal carriage and persistence of nasal carriage staphylococcal carriage in hospital population, 15503
- Thrombolysis, fibrinolysis, thrombolysis, and blood clotting, bibliography, 1969 annual compilation, 9010
- Thrust:
comparative in-flight thrust measurements of SERT II ion thruster, 18208
instrument displays to assist in airplane thrust management, simulation, study, 18205
low-thrust spacecraft, calculation of motion, 2130
self-acting thrust bearings, optimization for load capacity and stiffness, 14886
static thrust conditions, tests on propellers, 4498
- Thrusters, needle and slit colloid thrusters, research and development, 5918
see also Ion thrusters.
- Thunderstorms:
Cape Kennedy, frequency and duration, forecasting, application, 11271
severe thunderstorm radar echo motion and related weather events hazardous to aviation operations, 11268
- Thurber, W. R., determination of oxygen concentration in silicon and germanium by infrared absorption, 10488
- Thurston, Dona R., current Federal workforce data, 9468
- Thurston County, Nebr., community profile, 17889
- Thurston County, Wash., community profile, 8494
- Thursz, Daniel, consumer involvement in rehabilitation, 7738
- Thyroid gland, tumors, 8456
- Tia Juana River, to Santa Maria River, Pacific slope basins in Calif., surface water supply, 18054
- TIAS series, 1147-64, 2242-45, 3292, 4732-54, 6221-52, 7818-37, 9198-9206, 10612-629, 11903, 12939-942, 15301-334, 17338-363, 18346-363
- Ticks:
cooperative State-Federal tick eradication activities, 1969 fiscal year, 12962
national tick surveillance program, 15402
see also Fowl ticks.
- Tidal waves, *see* Tsunami (tidal waves).
- Tidball, R. A., development studies on flash distillation process, 12613
- Tides:
current tables, 1971—
Atlantic Coast of North America, 13208
Pacific Coast of North America and Asia, 13209
Galveston Bay hurricane surge study—effects of plan 2 Alpha and plan 2 Gamma barriers on tides, etc., hydraulic model investigation, report, 16448
effects of proposed barriers on tides, etc., report, 16447
oceanographic phenomena, summary of selected reference material, 14343
- Tables:
central and western Pacific Ocean and Indian Ocean, 13210
Europe, west coast of Africa and Mediterranean Sea, 10853
North and South America, East Coast, 9482
tidal currents, description, etc., 3678
tidle frequency analysis applied to Atlantic City, and Long Beach Island, N.J., joint probability method, 11269
- Tidewater, *see* Tides.
- Tie rods, and rod ends, Federal item identification guide, 13797
- Tierney, Richard K., Army aviation digest, 3311
- Ties (railroad), *see* Railroad ties.
- TIES computer program series, 15137
- Tighe, Michael J.:
industry wage survey—communications, 11546
wood household furniture, except upholstered, 11531
- Tiles:
ceramic floor and wall tile, Tariff Commission report, 7852
clay construction products, current industrial reports, 3631
setters, employment outlook, 14696
tile work, special trade contractors, census of construction industry, 1967, statistics, 13129
- Tillage, mulch, in Corn Belt, 15220
- Tillamook Resource Area, accelerated road construction, economic analysis, 16580
- Tillery, Winston L.:
major collective bargaining agreements, seniority in promotion and transfer provisions, 7421
unaffiliated intrastate and single-employer unions, 2024
- Tilmon, Emogene, sand and gravel conveyance, 1379, 3782
- Tilmon, Wayne, and wife, sand and gravel conveyance, 1382
- Timber:
cutting strategies and timber yields for unbalanced even-aged northern hardwood forests, 2563
damage by Hurricane Camille in Mississippi, 4197

Timber—Continued

Douglas-fir, inland saw timber, new and easier way to estimate quality, 14477
economic implications of manufacturing sawed ties and timbers, 10133
economy of Columbia-North Pacific region, projected developments, 698
flows and utilization patterns, in Douglas-fir region, 14474
growing timber resource of Michigan, 14482
Hawaii timber products, opportunities for marketing, 8714
Indianas timber, 5517
large glued-laminated beams, with 2 grades of tension laminations, 692
mine-timber market in Appalachian bituminous coal region, 10132
national forest—
 buying, 670
 commercial timberlands, development and improved management to establish higher yield—
 hearing, 483
 report, 3839
 sale accomplishments, 1969 fiscal year, 14451
 timber conservation and management act of 1969, reports, 1480, 3339
 national timber supply act of 1969, hearing, 483
 Ohio Hill country, resources, 5518
 Ohio, resources, 14483
 Olympic Peninsula, Wash., timber resources, 8715
 plantation timber on Island of Maui, 5519
 resources, New York, 16583
 sales, processing by computer, 9226
 single-span skyline volume survey, Pacific Northwest region, 14486
 standing timber coefficients for Indiana walnut log production, 5510
 stumpage prices—
 for sawtimber sold from national forests (periodical), 3235
 responses to changes in volume of timber sold, 8707
 TRAS, computer program for projection of timber values, 10683
 windthrown, of northern California, wood borers attracted to turpentine, 4188
 see also Hardwoods—also names of timber trees.

Time:

and frequency transfer via microwave link, 15096
dark adaptation time, effects of varying levels of alcohol on, 15754
dependent one-dimensional interaction of satellite with ionospheric plasma, 8954
dual-rate finite-settling-time discrete systems, 10393
linear time optimal control problem from calculus of variations point of view, 11619
mountain standard time zone, place El Paso and Hudspeth Counties, Tex.—
 hearing, 1588
 law, 8187
 reports, 1523, 8767
near real-time screening performance, scale, resolution, and presentation rate, study, 9361
series analysis, theory and practice, 11779
space-time structure of high frequency components of wind waves, measurement, USSR study, 5797
standard time zone chart of the world, 15055
time history plots of ion-polar molecule collisions computer made motion pictures, 14849
time of flight mass spectrometer for studies of ions produced by simulated micrometeoroid impact, 8950

Time—Continued

time-varying coordinate systems, flow-diagram technique, 17196
timing procedures, information requirements and photo scale, effects on interpreter performance, 9359
zone effects on long-distance air traveler, 6405
 see also Hours of labor.
Time deposits, time and savings deposits, changes, 14386-387, 16505
Time keeping, National Guard Bureau, technician time and attendance procedures, 17065
Time signals, multiple time-related signals recorded by adaptation of slow-speed data acquisition system, 7496
Timers, timing devices, trade and tariff information summaries, 10639
Timetables, see Railroads.
Tin:
 high-purity, by amalgam electrorefining, 872
 liquid, surface tension and density, 7495
 mineral industry surveys, monthly, 3258
Tin isotopes, reaction tin-120 (a,a'y 118MeV), alpha-gamma angular correlations, 2108
Tinamous, crested, of Argentina, study, 9184
Tioga County, N.Y., community profile, 14218
Tioga County, Pa., community profile, 16352
Tippah County, Miss., community profile, 10353
Tippin, Robert B., continuous heavy liquid concentration of spodumene, 8907
Tips (monetary), see Gratuities.
Tipulidae, see Flies.
Tires:
 accuracy of air tower pressure gages in suburban Washington, D.C., errata, 7575
 air tower pressure gages in suburban Washington, D.C., accuracy, 2139
 aircraft—
 tires and rims, methods of dimensioning and determining clearance, military standard, 4027
 vertical and lateral stiffness characteristics, 4494
 bicycle tires and tubes, production and maintenance workers at Indianapolis plant of Uniroyal Tire Co., Tariff Commission report, 11907
 cord and fabrics, current industrial reports, 1325, 2476
 defective, require notification to purchasers—
 law, 10925
 reports, 1647, 8253
 Federal item identification guides for supply cataloging, supplements, 2590
 pneumatic and solid, Federal item identification guide, 13796
 regrooved pneumatic, with removable inserts, disclosure report, 11741
 tire explosion, multidisciplinary accident investigation, 14978
 tire use survey, physical condition, use, and performance of passenger car tires in United States, 10437
 tires and inner tubes, census of transportation, 1967, commodity transportation survey group, 4926
TIROS (television infrared observational satellite), see Satellites.
Tishomingo County, Miss., community profile, 16354
Tishomingo National Wildlife Refuge, general information, 4705
Tissue cultures, black wart of potato tubers, USSR study, 5761
Tissues:
 tissue respiration of rainbow trout and channel catfish, effects of Antimycin A, 11878
 tissue typing antisera, 1970 catalog, 18263
Titanates, see Strontium titanate.

Titaniferous iron ores, *see* Ilmenite.

Titanium:

- alloys—
 - alloy honeycomb solar absorber having blackened walls, preliminary analysis, errata, 10376
 - for modern technology, 11701
 - relationship between fracture toughness and estimated plastic zone size, 6107
 - stress corrosion cracking at ambient temperature in aqueous solutions, 894
 - Ti-6Al-4V in methanol, some factors affecting stress-corrosion cracking, 2103
 - ingot and mill products, current industrial reports, 2475
 - Lincloe prototype titanium helmet system comfort and stability ratings, 1219
 - mechanism of stress-corrosion cracking in Na_2O and aqueous and hot-salt environments, effect of composition, 7514
 - mineral industry survey, quarterly, 3259
 - minerals yearbook chapter, 18175
 - Ti-6Al-4V, effect of strain-gage attachment by spotwelding and bonding on fatigue behavior, 18204
 - titanium-alloy skin-stringer panels, influence of salt and elevated temperature exposure on maximum compressive strength, 5961
 - zinc-titanium-copper alloys, properties and creep influenced by rolling temperature and copper content, 7487
- Titration, *see* Volumetric analysis.
- Tittle, Robert, sand ridge migration, Apalachicola River, Fla., 7668
- Titus, Joan B.:
 - subject index, bibliography, and code description of technical conference papers on plastics, 9967
 - weatherability of polystyrenes and related copolymers and terpolymers, 5321
- Tlingit Indians:
 - judgment funds, disposition—
 - hearings, 8413
 - law, 13310
 - reports, 6607, 8374, 12218
- To benefit women at work, 9271
- To establish justice, to insure domestic tranquility, final report of National Commission on Causes and Prevention of Violence, 2203
- To improve learning, 15897
- To move the mountain, 9906, 12507
- To save succeeding generations . . . , 5122
- To the first Americans, 16658
- Tobacco:
 - acreage allotments—
 - lease and transfer authority, extend—
 - law, 12112
 - reports, 9685, 11084
 - transfer, hearings, 15883
 - burley—
 - allotments, lease and transfer, authorize, report, 13479
 - light air-cured, market review, 1969 crop, 9943
 - census of transportation, 1967, commodity transportation survey, shipper group, 1810
 - chart book on smoking tobacco, & health, 7590
 - commercial tobacco farms, costs and returns, 1969, Coastal Plain, N.C., 14269
 - commercial tobacco-livestock farms, Bluegrass and Pennyroyal areas, costs and returns, 8498
 - crop summary, 3260
 - economic consequences of restricting use of organochlorine insecticides, 6993
 - exports, prospects and problems (remarks), 13004
 - fire-cured and dark air-cured, market review, 1968 crop, 8448

Tobacco—Continued

- flue-cured—
 - inspection, market news and demonstration services, 526
 - market review, 1969 crop, 6827
 - foreign agriculture circulars, 2657
 - import duties in free countries, 1957-69 changes, 16532
 - industries, 1969 statistics, 8809
 - Korea, Republic, production and trade, 11340
 - Maryland, light air-cured, market review, 1969 crop, 13764
 - products, census of manufactures, 1967, industry report, 10795
 - revenue rulings, etc., internal revenue bulletin, cumulative—
 - index-digest supplement system, 2731
 - supp., 7316, 16704
 - statistics, 1969 annual report, 7944
 - stocks report, 3262
 - stored, temperature, moisture, and relative humidity, 10678
 - tax guides, 1964, 3263, 4313, 8816, 11459, 16712
 - tobacco situation (periodical), 3261
 - United States and State estimates, 1866-1965, type and class estimates, 1919-65, acres harvested, yield per acre, etc., 9325
 - use, practices, attitudes, knowledge, and beliefs, United States, fall 1964 and spring 1966, statistics, 1078
 - Wisconsin, cigar binder, official standard grades, 3994
- Tobacco products, *see* Tobacco.
- Tobago, *see* Trinidad and Tobago.
- Tobar, Nev., railroad accident, report, 17233
- Tobesofkee Creek, watershed serving central Georgia, 2229
- Tobias, Leonard, Lyapunov stability criteria for randomly sampled systems, 5970
- Tocks Island Dam, spillway and outlet works, Delaware River, Pa., N.J. and N.Y., hydraulic model investigation, 16451
- Tocopherol, stability of α -tocopherol in alfalfa as affected by pilot-and industrial-scale dehydration, 4829
- Todd, Gary P., decompression patterns developed by interdependent electric analog, 835
- Todd, Ruth:
 - smaller Foraminifera—
 - from Midway drill holes, 16621
 - late Eocene age from Eua, Tonga, 8744
- Todd County, S. Dak., community profile, 14219
- Toftner, Richard O., developing State solid waste management plan, 15256
- Togo:
 - and West African Customs Union, foreign trade regulations, 13219
 - background notes, 7805
 - economic trends and their implications for United States, 14635
- Toilet articles:
 - Federal item identification guides for supply cataloging, supplements, 2597
 - toilet goods, 1967 census of manufactures, industry statistics, 15599
- Toiletries, *see* Toilet articles.
- Toilets:
 - Edson model 117A lever-action hand pump for chemical servicing, equip tips, 14432
 - minimum-water toilet fixtures, equip tips, 10115
- Tolyabe National Forest:
 - Carson Ranger District, general information, 14489
 - existed boundaries—
 - hearing, 13743
 - law, 15771
 - reports, 9820, 12241
- Tokyo Convention on Offenses Committed on Board Aircraft, implement, hearing, 424

- Tole, John R., university role in astronaut life support systems, water recovery systems, 11624
- Toledo, Ohio:
air quality control region, Federal facilities, air pollution report, 14901
area wage survey, 11538
census of transportation, 1967, commodity transportation survey, 8069
Michigan metropolitan interstate air quality control region, report for consultation, 7566
principal electric facilities, map, 8623
- Toler, Raymond M., digest of African countries' economic development plans, 4993
- Tolland County, Conn., community profile, 6967
- Tolls:
Panama Canal, study, hearing, 9762
telephone, interstate and intrastate, uniform separation procedures, hearing, 16042
- Tomato juice, standards for grades, 13767
- Tomato paste, standards for grades, 13768
- Tomato puree, canned, standards for grades, 13766
- Tomatoes:
controlled atmosphere system laboratory studies on storage, etc., 13046
golden nematode, description, control, etc., 9316
marketing orders to include paid advertising—
hearings, 15882
report, 5197
on your table, 10687
- Tomb, Thomas F., evaluation of penetration characteristics of horizontal plate elutriator and of 10-mm nylon cyclone elutriator, 5886
- Tombstones:
Medal of Honor recipient, furnish headstone for unmarked grave at Government expense—
hearings, 405
law, 15785
report, 1490
- Tomlinson, Jack T., burrowing barnacles, *Cirripedia*, order Acrothoracica, 990
- Tomorrow belongs to the leaders, 1239, 15499
- Tompkins, Edythelena, evaluation of possible causal relationship between fallout deposition of strontium 90 and infant and fetal mortality trends, 8557
- Tompkins, Stephen S., simulation in ground-test facilities of ablation performance of charring ablators during atmospheric entry, 12788
- Tompkins County, N.Y., community profile, 14220
- Toms, Douglas W., nomination, hearings, 3965
- Tones:
binaural interaction and laterality comparison of cortical evoked potentials produced by clicks and tone pip stimuli, 3892
intense low frequency, effects of exposure on hearing and performance, 12733
underwater hearing in man, comparison of temporary threshold shifts induced by 3500 Hertz tones in air and underwater, 12732
- Tong Op Park, *see* Park Tong Op.
- Tonga Islands:
Eua—
larger foraminifera of late Eocene age, 5555
smaller foraminifera of late Eocene age, 8744
late Eocene fossils from Eua (series), 5555, 8744
- Tongue of the Ocean:
Bahamas, ambient noise levels—
deep water, 9046
shallow water, 1014
- Tonkawa Indians, history and material culture, notes, 4575
- Tonnage, Panama Canal assessment system, impact of IMCO universal tonnage system, report, hearing, 9762
- Tooele County, Utah:
community profile, 6968
eastern portion, special soils report, 7784
- Toogood, Anna C., Warburton Manor and Digges family of Maryland historic structures, report, 17163
- Tooker, E. W., mineral resources of Emigrant Basin Primitive Area, Calif., 12587
- Tool makers:
employment outlook, 14710
learning tool and die maker trade, 10287
- Tools:
cross-sectional plots of plane intersections, adaptation of APT system, 15072
tool and die industry, problems—
hearings, 439
report, 5117
see also Chippers—Cutting tools—Kitchen utensils—Machine tools—Measuring instruments.
- Topographic surveying, *see* Surveying.
- Topography, land-surface tilting near Wheeler Ridge, southern San Joaquin Valley, Calif., 8741
- Topology, abstract analysis, introduction, 4502
- Topside sounder, *see* Satellites.
- Tornadoes:
and severe local storm warning service, statistics, 1953-68, 9268
equations for vortex motion including effects of buoyancy and sources with applications to tornadoes, 18203
in your keeping, skywarn 70 tornado safety message to administrators of schools, hospitals and other institutions, 5396
safety rules, 14351
size of warning area when issued on basis of radar hook echo, 1830
skywarn—
seconds save lives, 5397
tips for safety, 10034
- Torney, F. L. jr., cold cathode ion source mass spectrometer employing ion counting techniques, 4491
- Toroids, current plasma in toroidal systems, equilibrium and stability, 4875
- Torque:
antiwear and extreme pressure additives in synthetic paraffinic lubricant on ball spinning torque, effects, 12797
ball spinning torque, speed effects, 926
- Torque wrenches, *see* Wrenches.
- Torrance, Stuart W., soil survey, Yuma, Ariz., special report, 7778
- Torrance area, N. Mex., soil survey report, 6197
- Torres-Reyes, Ricardo:
Captain Brown's House, historic data, Minute Man National Historical Park, Concord, Mass., 4577
farming and land uses, general study, Minute Man National Historical Park, 12868
ground cover study, Fort Necessity National Battlefield, Pa., 12869
Potowmack Company canal and locks, historic structures report, Great Falls, Va., 17159
- Torsion, *see* Strains and stresses.
- Tort claims, *see* Claims.
- TOS (Tactical operations system), *see* Information storage and retrieval systems.
- Touchet division, *see* Walla Walla project.
- Tourism, *see* Tourist trade.

- Tourist trade:**
 Federal tourism programs, inventory, Federal agencies, commissions, programs, reviewed, etc., 10658
 inclusive tours by supplemental air carriers and tour operators, CAB special regulations, 10838
 motorist wants to know, information centers and rest areas, 10528
 selling Florida's tourist attractions for profit (remarks), 17395
- Tourists**, popular tourist items, 1970 rates of duty, 532
see also Visitors.
- Tourtlot, Elizabeth B.**, selected annotated bibliography of minor element content of marine black shales and related sedimentary rocks, 8729
- Toward a brighter future for the elderly**, 11832
- Toward peace with justice in Vietnam**, reports, 1469, 1485
- Toward the new**, report on better foods and nutrition from agricultural research, 7913
- Towboats**, *see* Tugboats.
- Tower, Donald B.**, neurochemistry in Soviet Union, report of Neurochemistry Delegation to USSR, Nov. 11-25, 1969, under U.S.-Soviet exchange program in health and medical sciences, 17141
- Towers:**
 air tower pressure gages in suburban Washington, D.C., accuracy, 2139
 errata, 7575
 meteorological tower facilities, analysis of design characteristics, 4762
 USAF tower cabs, in-service improvements, 4115
- Towing**, shape of cable towed in circular path, 15075
- Towner County, N. Dak.**, community profile, 16355
- Towns**, *see* Cities and towns.
- Townsend, Dennis P.:**
 effects of antiwear and extreme-pressure additives in synthetic paraffinic lubricant on ball spinning torque, 12797
 speed effects on ball spinning torque, 926
- Townsend, James C.**, aerodynamic interference effects on half-cone bodies with thin wings at Mach 10.03, 12820
- Towson, Md.**, drug abuse education, 1968, grades 6, 9, 12, curriculum guide, 14942
- Toxicants**, *see* Poisons.
- Toxicity**, *see* Poisons.
- Toxicology:**
 general, information resources in U.S., directory, 2037
 of thiodan in several fish and aquatic invertebrates, 7788
- Toxins:**
 Clostridium botulinum types E, F, etc., growth and toxin production in nonirradiated and irradiated fisheries products, temperature, 38°-50° F., 3506
 role of toxins of certain saprophytic microbes in etiology of experimental neuro-paralytic diseases, USSR study, 12622
 toxicogenesis in irradiated Atlantic cod and flounder at low storage temperatures, 1968, report, 3507
see also Botulism.
- Toys:**
 census of manufactures, 1967, industry statistics, 12012
 Child protection act of 1969, law, 3727
 hazardous, protect children from, under Federal hazardous substances act, law, 3727
- Trace contaminant adsorption and sorbent regeneration**, 16933
- Trace elements**, minor and trace elements in meteoritic minerals, 17271
- Tracer studies:**
 fluorescent sand as tracer of fluvial sediment, 7243
- Tracer studies—Continued**
 prescaling deposition of scale forming compounds on controlled surfaces, 5629
 radioisotopic sand tracer study. RAPLOT, computer program for data processing and graphical display, 16408
 two-well tracer test in fractured crystalline rock, 8757
- Trachtenbert, Isaac**, ion-selective electrochemical sensors, 4299
- Trachyandesite**, pegmatitic trachyandesite plugs and associated volcanic rocks in Saline Range Inyo Mountains region, Calif., 8742
- Tracking:**
 display scanning, sampling, and reconstruction using separate main and secondary tracking tasks, research, 14814
 intercomparison of minitrack and optical tracking networks using GEOS I long-arc orbital solutions, 5919
 systems—
 photoelectric, USSR study, 5791
 with optical couplings, USSR study, 7366
 transmitter for tracking wildlife, 14462
- Tracking stations:**
 agreement with Australia, 15304
 GRARR MADGAR site location, determination and comparison, 899
 Okinawa, agreement with Japan, 4748
 optical artificial earth satellite tracking stations, bulletin, USSR study, 7352
- TRACON** (Terminal radar approach control), *see* Radar.
- Tractors:**
 current industrial reports, 2475, 15643
 Federal item identification guides for supply cataloging, supplements, 2590
 production and shipments, except garden tractors, 1958-68, patterns of industrial growth, 6409
- Trade** *see* Business—Commerce—Occupations—Service trades—Wholesale trade—also names or classes of commodities.
- Trade agreements**, *see* Commercial treaties.
- Trade and industry** publication, 4844, 11966-968, 13034-35
- Trade expansion act of 1962**, *see* Commercial treaties.
- Trade expansion act of 1969**, *see* Commercial treaties.
- Trade fairs**, *see* Fairs.
- Trade marks**, *see* Trademarks.
- Trade Negotiations Office of Special Representative**, *see* Special Representative for Trade Negotiations, Office of.
- Trade policy**, *see* Commercial policy.
- Trade practices**, credit cards, unsolicited mailing constitutes unfair practice, trade regulation rule, 10093
- Trade routes:**
 selected, foreign oceanborne trade of United States container cargo, 2660
 United States foreign, essential, 7443
- Trade unions**, *see* Labor unions.
- Trade wind zone oceanography pilot study**, 15750, 15752
- Trademarks:**
 code of Federal regulations, 8651
 customs information, 534
 goods and services, international classification, Nice agreement, revised, 15973A
 index, 15102
 laws, investigation, expenses, report, 5228
 official gazette of Patent Office, 2982
 protection, extend duration, report, 1619
 trademark section from Official gazette, 2982
- Trades**, *see* Occupations—also names of trades.
- Tradesman, 1 & C**, Navy training course, 6097
- Trading**, *see* Commerce.

Tradition, Ethnic heritage studies centers act, hearings, 11032

Traffic:

- merging control systems, 18313
- operations, urban area improvement program, Transportation Dept. report, 12289
- print as Senate document, report, 12354
- patterns in small manufacturing plants, commodity transportation survey, 13156
- responsibilities of local officials to maintain safety, 17075
- St. Lawrence Seaway, report, 12912
- urban traffic data used to calculate future carbon monoxide emissions and concentrations, 17016
- volume, counting manual, guide, 9077
- see also* Transportation.
- Traffic clerks, traffic agents and clerks, employment outlook, 14723
- Traffic control:
 - and global navigation using satellites, 14895
 - electronic traffic counters, guide to installation, operation, and maintenance, 10113
 - interlocking systems, installation, maintenance and repair, rules, standards and instructions, 10530
 - see also* Air traffic.
- Traffic decisions, *see* Interstate Commerce Commission.
- Traffic managers, *see* Managers.
- Traffic safety, *see* Safety of life.
- Traffic signals, *see* Signal systems.
- Trafficability, seafoor, preliminary study and its prediction, 16452
- Trailblazers, Morrison trailblazer, evaluation, 14435
- Trailer parks:
 - mobile homes—
 - court development guide, 5597
 - parks financing, 14579
 - cargo trailer, $\frac{1}{4}$ ton, rigging for airdrop, Army technical manual, 102
 - Federal item identification guides for supply cataloging, supplements, 2590
 - mobile homes, veterans' home loan program—
 - hearing, 13755
 - report, 15871
 - multi-hitch trailer coupling, equip tips, 14433
 - $1\frac{1}{4}$ -ton trailers, rigging for airdrop, Army technical manual, 103
 - truck, current industrial reports, 2475, 15644
 - view of new Federal Home Loan Bank Board member (address), 638
 - wildlife esthetics & auto campers in Superior National Forest, 5509
- Trail County, N. Dak., community profile, 14221
- Trails:
 - Continental Divide Trail study, progress report, 11822
 - national scenic and recreation, 11824
- Train, Russell E.:
 - nomination, hearing, 11129
 - remarks, Nov. 11, 1969, 766
- Traffic control devices, installation, maintenance, and repair, rules, standards, and instructions, 10530
- Traineeships:
 - allied health professions personnel advanced training—
 - hearing, 11044
 - reports, 13410, 13416
 - college students as trainees in engineering and physical science, vacation work-study programs, 15691
 - nurse, professional traineeships, 5583
 - schools offering full-time academic study, list, 12597
 - short-term training courses, 5585, 11415

Traineeships—Continued

- professional health personnel under public health traineeship program, 9024
- public health traineeship program, awards to individuals, general information, 1920
- registered nurses under Public health traineeship program, 12861
- Training:
 - ambulance personnel and others responsible for emergency care of sick and injured at scene and during transport, 8775
 - apprenticeship coordinators, 15466
 - defense management education, catalog, 16111
 - dental public health research grant programs, 977
 - educational program in systems analysis and other programs, long-term educational opportunities, 253
 - emergency medical technician, ambulance, basic program, concepts and recommendations, 7602
 - employee training in Federal service, 6485
 - Employment and training opportunities act of 1970, report, 13704
 - enactments, 91st Congress, 1st session, 17711
 - FAA training, study, 7072
 - Federal programs for investigative personnel, hearings, 15906
 - flight training, use of tranquilizer chlor-diazepoxide, 11976
 - good training, good jobs, MDTA—
 - through private school, 12502
 - water pollution control operator, 585
 - grants for training in health services, guidelines for applicants, 1077
 - how to train workers on job, 14654
 - Job Corps, residential job training, 5810
 - job, project for inner city Negro youth, 4364
 - job training suggestions for women and girls, 17415
 - manpower development and training program—
 - annual report, 7258
 - numerical control of machine tools, point-to-point system, suggested guide for training course, 17911
 - Marine Corps officer candidate school training, effects on serum uric acid levels, 14762
 - naval diver training, decrease in perceived distortion with repeated exposure, application, 11568
 - Nursing Division research and research training grants, 8769
 - operator training course, tactical and support vehicles, LARC 5, 4858
 - programs—
 - impact on public assistance caseloads, 2726
 - under Economic opportunity act, door to opportunity, 13249
 - sales management training, information sources, selections from Marketing information guide, 4902
 - selected training programs for physician support personnel, 11414
 - skilled craft, apprentice training, sure way, 10728
 - skilled trade, train through apprenticeship, 11969
 - supervisory and administrative management, suggested curriculum guide, 8530
 - technical standards training guides, 8619
 - traineeships for registered nurses under Public health traineeship program, 12861
 - training and education, studies and reports, 1969 fiscal year, 6484
 - training resources, Civil service guide, 9475

INDEX 1970

- Training—Continued
training systems and technology series, 10848
veterans, special training allowances, increase rates—
law, 8178
report, 6632
see also subjects.
- Training aids, see Training devices.
- Training and Employment Service, local occupational information, reports by employment offices, 11st, 1175
- Training devices:
and aids, Federal item identification guides for supply cataloging, supplements, 2598
flight, fidelity of simulation and transfer of training, review of problem, 13088
training device developments (Navy periodical), 3287
- Training schools for nurses, see Nurses and nursing.
- Trains, see Railroads.
- Trajectories:
direct and Venus swingby trajectories to Mercury, planetary flight handbook, 10371
extremal maximum range thrust limited rocket trajectories, method for computing with application to lunar transport, 16986
interplanetary and orbital, parametric design, with examples for Mars, 1973-77, opportunities, 14880
optimum solar electric interplanetary trajectory and performance data, 8923
optimum trajectories to circular synchronous equatorial orbit for smaller-than-optimum apogee motors, 16995
round-trip with stopovers at both Mars and Venus, 10398
statistical trajectory estimation programs, formulation on, 4493
- Tranquilizing drugs, chlorthalidopoxide, use in flight training, 11976
- Tranquilas Creek:
floods, how to avoid damage, Kingsville, Tex., 17932
Kingsville, Tex., flood plain information, 16432
- Trans-American Van Service, Inc., motor carrier accident, 7502
- Trans World Airlines, Inc., accident report, 10478
- Transducers:
high-temperature transient pressure transducer for use in liquid-metal systems, 2120
miniature electromechanical tunnel diode transducer, theory, fabrication, etc., 2082
- Transfer of learning, see Transfer of training.
- Transfer of training, fidelity of simulation and transfer of training, review of problem, 13088
- Transfer unit, head to base transfer function characteristics of cylindrical tank partly filled with liquid, 12804
- Transform operation in TOS, assessment of human component, 9360
- Transformation, transient conformal mapping method for 2 dimensional solidification of flow liquid onto cold surface, 2113
- Transformation temperatures, phase transformation and melting point of beryllium oxide, 9383
- Transformations (mathematics):
fast Fourier transforms, FORTRAN program for fast computation, 15074
Fourier transform representation of ideal lens in coherent optical systems, 5976
high speed turbulent boundary layer with heat transfer and arbitrary pressure gradient compressibility transformation, general considerations, 18189
- Transformations (mathematics)—Continued
polynomial method for determining local emission intensity by Abel inversion, 5968
- Transformers, see Electric transformers.
- Transient characteristics of voltage regulator and parasitic speed controller on 14.3 kilovolt-ampere 1200-Hertz modified Lundell alternator, 18197
- Transient responses, see Responses.
- Transients, census 1970, data access description of items included, 3844-46
- Transients (electricity):
high-temperature transient pressure transducer for use in liquid-metal systems, 2120
- Transistors:
memory subsystem with MOS transistor of single type, calculating parameters, USSR study, 11493
radiation induced nonlinear degradation of transistor gain, 14813
transistor radio research in USSR, 12644
transistorized dynamic elements in digital computers, USSR book, 7380
- Transit circle, Washington meridian observations of moon, 6-inch transit circle results, 11809
- Transit systems, see Local transit.
- Transition elements, transplutonium, bibliography, supplement, 3500
- Transition Project, see Project Transition.
- Transitions:
boundary layer, on flat plates, charts for estimating, 11678
ductile-brittle, and strain-stress behavior of tungsten, how affected by reactor irradiation, 16990
flat plate with deflected trailing edge flap, heat transfer measurements at Mach 8, with effects of transition included, 14861
state transition matrix, application of Brouwer's artificial satellite theory to computation, 14875
three-dimensional transition trips on flat plate at Mach 3 and 4, boundary-layer velocity profiles, 922
- Translations:
National Institutes of Health Library, selected list, 3132
special foreign currency science information program, 1970 list in process, 17167
technical, National Aeronautics and Space Administration, 949-950, 2129-31, 4532, 5980, 8955, 10415-417, 11697-708, 12827-331, 14896-898, 18225-227
- Translog, 9366
- Transmission lines, see Electric lines—Waveguides.
- Transmission loss, see Transmissions.
- Transmissions:
and backscatter coefficients of 1.0 to 3.0-MeV electrons incident on some metals and alloys, 8942
continuous transmission frequency modulated sonar, studies, 13245
IGOSS ocean data HF transmission system, design considerations for development, 8573
interference predictions for VHF/UHF air navigation aids, 4093
propagation data over irregular terrain, North Table Mountain-Golden, tabulations, 17951
- Transmissometers, laser used for transmissometer calibrator, evaluation, 15340
- Transmitters:
communications-radio receiving set AN/PRR-9 and transmitting set NA/PRT-4, operator training course, electronics and communications, 13050
rotary inductosyn, general information and error theory, USSR study, 4337
spaced, observation of traveling ionospheric disturbances by Doppler technique, 5394

Transmitters—Continued
transmitter for tracking wildlife, 14462
use of facilities at Pinetree Radar Site,
Hopedale, Labrador, agreement, 10613
Transmitting equipment, *see* Transmitters.
TRANSOP (Transportation System Optimiza-
tion Program), *see* Computer programs/
programming.
Transparent materials, multicolor micro-
chart/map transparencies, navigation dis-
play, military standard, 4031
Transpiration:
influence of antitranspirants on water use,
growth characteristics, and relative
drought resistance of ponderosa pine
seedlings, 683
thermal transpiration effects in pneumatic
lines, correction of pressure data, 2074
Transpiration cooling, *see* Cooling.
Transplantation (physiology):
kidney transplants and leukemia, USSR
study, 16800
Transplantation and Artificial Organs, Na-
tional Commission on, *see* National Com-
mission on Transplantation and Artificial
Organs.
Transplutonium elements, bibliography, 3500
Transport aircraft, *see* Aircraft.
Transport airplanes, *see* Airplanes.
Transport properties:
atmospheric, energy transfer and trans-
formations, 3502
high temperatures of CO₂-N₂-O₂-Ar gas mix-
tures for planetary entry applications,
2085
Neutron Transport Theory Conference,
proceedings, 129
newly developed ion-exchange membranes,
evaluation for electro dialysis and/or
transport depletion, 775
PERTTRAN, transport-perturbation pro-
gram, 12823
radiation transport in ablation-product
contaminated boundary layers, advanced
methods for calculating, 16942
sources, losses, and transport of magneto-
spherically trapped particles, 16464
Transport vehicles, *see* Vehicles.
Transportation:
aeronautical and space systems, equipment
and associated components, require-
ments, 5982
air—
and highway modes, cost analyses, 8637
military airlift, hearings, 9731
70 symposium (remarks), 8108
transportation problems (remarks),
8109
allowances, uniformed services members
for dependents' schooling, report, 3816
area travel survey, census use study report
to help plan transportation facilities,
15619
Army regulation, 7982
Army sponsored return travel to oversea
duty stations, instructions, Army pam-
phlet, 6351
census, 1967—
commodity transportation survey—
area series, 6417-34, 8065-74, 9433-
45, 10797
commodity groups—
selected major TCC 3-digit classes,
12013
U.S. summary, 10798
shipper group, 1309-19, 3801-8,
4924-28, 10707-798, 12013
final volumes, 13155-156, 15616-617
truck inventory and use survey, 15617
census, 1970, availability of place of work
data access description, 3645
civil, emergency procedures for control,
11916
code of Federal regulations, 5460, 7148-50,
8658

Transportation—Continued
commuter, field trip, report, 3877
comprehensive national system, develop,
hearings, 13724
coordination of regulatory agencies (ad-
dress), 17982
demand projections and forecasts, projec-
tion to 1972 of aggregate ton miles and
modal shares, 7869
economic impact of changes in transpor-
tation networks, report of model studies,
8634
economics, monthly comment, 3288
equipment, except motor vehicles, census
1967, commodity transportation survey,
shipper group, 1319
fatalities and property damage, corrective
measures (remarks), 17169
Federal expenditure, subcommittee report,
15816
Federal policy, hearings, 15813
for the handicapped, selected references,
list, 4775
Great Lakes waterway system iron ore,
limestone, and bituminous coal, 11575
ground, study of active vibration isolation
systems for severe environments, 893
high speed ground—
act of 1965, report, 7868
modes, cost analyses, 8636
research and development extension—
hearings, 11045, 13720
report, 12228, 13669
Transportation act of 1965, extend,
report, 13669
transportation mode service in north-
east corridor, 8631
inland waterways, mineral commodities
of South-Central States, 849
intermodal system, containerization con-
cept for moving shipments (remarks),
14372
interstate employees—
State withholding for income tax pur-
poses, exempt—
hearing, 8308
reports, 12201, 13474
joint agency transportation study, pro-
curing, paying, auditing, and settling
civil agency freight and passenger serv-
ices, recommendations for improve-
ment, 16598
land, radio services, FCC rules and regu-
lations, 8606
marketing and transportation situation,
2872
mass transportation, Federal programs, de-
scription and progress report, 6792
mass transit systems, provide financial as-
sistance, hearings, 9898
migratory birds, 1970-71, in United
States, etc., Federal regulations govern-
ing, 15276
military airlift, progress report, hearings,
6698
military mail from Okinawa to points
in southeast Asia, reductions achieved
in cost, Defense Department, GAO re-
port, 12586
military transportation management jour-
nal, translog (periodical), 9366
MILSTAMP, military standard transpor-
tation and movement procedures,
changes, 6881, 12399, 17746
MILSTEP, military supply and transpor-
tation evaluation procedures, changes,
561, 9966
miscellaneous equipment, census of manu-
factures, 1967, industry statistics, 12010
moving expenses—
deductions, tax reform, summary of rec-
ommendations, 1728
tax information for employees and em-
ployer, 5655

INDEX 1970

Transportation—Continued

National Capital transportation act—
Federal contribution for transit development program—
law, 1407
report, 3812
public buildings and facilities accessible to physically handicapped, provide—
hearings, 3892
law, 6537
reports, 1544, 3940
national planning manual, 1970-90, general instructions, 15364
national system, role of general aviation, hearing, 8381
National transportation act of 1969, hearings, 13724
national transportation policy (statement), 9459
necessity of intermodal transportation (remarks), 11310
1970 domestic and international facilitation programs, 10647
noise control (paper), 7870
noise environments of traveler and spectator (address), 9242
Northeast Corridor—
air traffic and high speed ground transportation, 8604
transportation facts and statistics, 10061
Transportation Project NECTP (series), 8631-37, 10061, 14382
nuclear spent fuel, Southern Governors Conference, proceedings, 13070
overseas air passenger transportation by Defense Department, potential savings by centralized control, GAO report, 12582
passenger demand and modal split models, 7862
physically handicapped, accessibility of public buildings and facilities, insure—
hearing, 3892
law, 6537
reports, 1544, 3940
prevention of accidents in transportation of hazardous materials (remarks), 4593
progress vs. environment (address), 9243
public—
travel barriers to the handicapped, 11918
use of highway funds, hearings, 13760
publications, price list, 10515
regional intercity rail passenger service authority compact, consent of Congress, hearings, 13724
regulatory problems in economic and efficient movement of people and goods (address), 640
resource allocation study (TRANS), summary report, development of prototype model, 15138
safety, everywhere (remarks), 7662
safety, methods of improving (remarks), 10488
statistics in United States, 801-803, 4320-22, 5720, 8828, 16733, 18090
strawberry plants, cold storage and transport, 15434
subsidized, for DHEW employees transferred to Parklawn Building in Rockville, Md.—
hearing, 5165
reports, 6625, 6649
system for National Capital, basic plan policies, 6012
TRANSOP computer program, model methodology, 8832
transportation and America's growth (remarks), 10055
transportation and traffic management, Defense Supply Agency handbook, 8461

Transportation—Continued

transportation and travel, guidelines for stuffing containers, 15482
transportation barriers encountered by disabled, goal is mobility! 7741
transportation proceedings (periodical), 3289
transporting Florida citrus, evaluation of various types of disposable pallets for handling, interim report, 9280
transporting fresh fruits and vegetables overseas, interim reports, 9278
travel pay allowances for HUD employees, handbook, 16865
unit train, of coal, technology and description of 9 representative operations, 5851
urban mass transportation—
act of 1964, amend—
hearings, 490, 8281, 9898, 16085
report, 12233
act of 1969—
hearings, 8281
report, 1696
Assistance act of 1970, report, 12233
funds, increase, hearings, 490
study—
authorization, report, 5242
expenses, report, 3934
expenses, report, 3934
transportation trust fund, establish, hearings, 8281
urban transportation planning system/360—
general information and introduction, 11840
program documentation, 15138
urbanized area planning programs, directory, 17969
see also Automobiles—Freight rates—
Local transit—Roads and highways—
Travel.
Transportation analysts, transportation industry analysts, careers with Civil Aeronautics Board, 15673
Transportation Department:
administration of Natural gas pipeline safety act, annual report, 9230
Air Traffic Control Advisory Committee, report, 7866
appendixes, 7867
annual report, 10645
appropriations, 1970—
amendment, proposal, 339
hearings, 398, 1701
law, 3742
reports, 1468, 1556
waiving points of order, report, 1473
appropriations, 1971—
hearings, 8269, 9726
proposal, 9629
report, 9719
Assistant Secretary—
Advanced Systems Development and Technology, nomination of Robert H. Cannon, Jr., hearing, 13719
Environment and Urban Systems, Office of, general information, 9239
Policy and International Affairs, nomination of Charles D. Baker, hearing, 13719
Public Affairs, nomination of Walter L. Mazan, hearings, 494
bibliographic lists, 4775-76
Federal-aid highway program, administration, stewardship report, hearing, 11144
first three years, why and how it was organized, 18385
General Counsel, nomination of James Aaron Washington, Jr., hearings, 494
motor vehicle accident compensation system, study, review progress, hearing, 497
national plan for navigation, 15363
role in motor vehicle safety standards, special study, 15043

Transportation Department—Continued
 Secretary, to serve as member of National Aeronautics and Space Council—
 law, 15792
 reports, 13417, 16012
 Secretary's Office, regulations, 3138, 18386
 telephone directory, 2502
 interim directory, services and classified, 11917
 urban area traffic operations improvement programs, report, 12289
 print as Senate document, report, 12354
 what, where, how it buys, 7871
 Transportation of persons, *see* Travel.
 Transportation Trust Fund, establish, hearings, 16085
 Transporters, *see* Cargo carriers.
 Transuranium elements:
 elements 95 and 96, 25 years ago (remarks), 138
 heavy, synthesis and search, USSR study, 5776
 Transylvania County, N.C., community profile, 14222
 TRAS, computer program for projection of timber values, 10683
 Traumas, *see* Injuries.
 Traumatology, societies of traumatologists, report on work, USSR study, 2011
 Travel:
 access and demand data, 8633
 air travel clubs using large aircraft, certification and operations, Federal aviation regulations, 16474
 allowances for HUD employees, policy and procedures, handbook, 16665
 allowances, uniform services members for dependents' schooling, report, 3816
 American States, alliance for success (remarks), 7884
 area travel survey, census use study report, 15619
 Army regulation, 7982
 Army sponsored return travel to oversea duty stations, instructions, Army pamphlet, 6351
 authorization, Education and Labor Committee, House report, 1549
 bus and motor coach travel in U.S., 11927
 bus, Defense Department, opportunity for savings by reducing paper work, GAO report, 12581
 expenses, rules for deducting from income tax, 788
 Government employees, per diem allowance, increase, law, 3728
 Government, standardized regulations, 13091
 House Members, mileage, transfer payment from contingent fund, report, 6660
 increase foreign travel to United States—
 hearing, 5259
 reports, 6673, 6764, 9650, 13419
 international, health information, 14950
 International travel act of 1961, amend—
 hearings, 5166, 5259
 reports, 6673, 6764, 9650, 13419
 joint regulations—
 Defense Department civilian personnel, 2781
 uniformed services, 2780, 4017
 long distance air traveler, time-zone effects on, 6405
 major metropolitan market area for foreign visitors, 17394
 national travel survey, 1967 census of transportation, 15616
 notes of soil scientists, together with examples and list of useful items for long journey, 6202
 overseas nationals encouraged to visit U.S. (remarks), 3697
 reports, 2725, 11436

Travel—Continued
 round trip transportation—
 members of uniformed services, provide, amend U.S. Code, law, 6542
 naval service members, provide, amend U.S. Code report, 3946
 safety of air travel (remarks), 7660
 Southeast U.S. trip costs less than you think, please come, invitation from people of U.S., 7885
 Dutch edition, 7882
 German edition, 7880
 Japanese edition, 7886
 Portuguese edition, 7883
 Spanish edition, 7881
 travel and travel dollar flow into and out of United States, 3230
 travel barriers to the handicapped, 11918
 traveling, don't spread plant pests, 11959
 U.S.A.—
 promotion—
 hearings, 5166
 reports, 6674, 9651
 travel bargains, for visitors from overseas, 15373
 Spanish edition, 15372
 uniformed services, transportation and various allowances, reimburse, report, 3809
 visit USA exhibit for Expo '70, new promotion tool (remarks), 4780
 Travelers:
 going abroad? important message from Pestina, 11958
 handicapped, travel barriers, 11918
 long distance air traveler, time-zone effects on, 6405
 so you want to import a pet, regulations, 1755
 young Americans, drug arrests abroad, notice, 11901
 Trawlers, Soviet, observed in Gulf of Alaska, fishing vessel and gear developments, 9518
 Trawling, *see* Trawls and trawling.
 Trawls and trawling:
 bottom trawl explorations, 1963-65, in northern Lake Michigan, 3703
 development of shrimp trawl to separate shrimp from fish and bottom-dwelling animals, progress report, 5007
 experimental trawling and pot fishing for giant Alaskan prawn, 12067
 otter trawling introduced to Columbia River smelt fishery, 9531
 trawl net reels, recent innovations, 9524
 Trays:
 desk, steel, Federal standard, 10090
 pump intake manifold and evaporation trays, San Diego Saline Water Test Facility, Office of Saline Water, hydraulic model studies, 7725
 service, Federal standard, 16513
 Treasury Department:
 annual report—
 departmental edition, 7872
 document edition, 6559
 statistical appendix—
 departmental edition, 11926
 document edition, 10840
 appropriations, 1970, supplemental, proposal, 5187
 appropriations, 1971—
 hearings, 6693, 13710
 law, 17608
 reports, 8247, 15870, 18009
 Assistant Secretary 1876-93, miscellaneous letters sent, pamphlet to accompany microcopy, 4540
 bulletin, 3291
 code of Federal regulations, 7128
 correspondence of Secretary of Treasury relating to administration of trust funds for Chickasaw and other Indian tribes ("S" series), microcopy, pamphlet to accompany, 4541

INDEX 1970

- Treasury Department—Continued
 customs bulletin—
 bound volume, 1176, 17383
 weekly, 2480
 daily statement, 2483
 department circulars, 10649, 11919, 17384
 public debt series, 1177, 7874-75, 10650, 12950
 foreign exchange operations 10087, 16508
 General Counsel, nomination of Samuel R. Pierce, Jr., hearing, 11120
 law enforcement agent, career opportunities, 2276, 15366
 major role in Federal law enforcement (remarks), 11921
 marketing of obligations, participation certificates, study, report, 3833
 press releases, 3093
 sale of U.S. obligations directly to Federal reserve banks, extend authority—
 law, 13334
 report, 11089
 Secretary—
 1870-87, miscellaneous letters sent, pamphlet to accompany microcopy, 4540
 letters sent relating to—
 public lands ("N" series), 1801-78, microcopy, pamphlet to accompany, 11727
 subtreasury system, U series, 1840-78, microcopy, pamphlet to accompany, 17027
 subtreasury system, U series, 1840-78, letters sent by Secretary of Treasury relating to, microcopy, pamphlet to accompany, 17027
 telephone directory, 3256
 Treasurer of United States, financial statements, GAO examination, 12575
 U.S. imports of watch movements duty-free from Virgin Islands, benefit islands' economy, GAO report, 7217
 working capital fund, establish, report, 9691
- Treasury enforcement agents, career opportunities, 2276, 15366
- Treasury notes:
 7% percent, series G-1971, 10650
 8 percent—
 series A-1977, 7875
 series E-1971, 1177
 8% percent, series B-1973, 12950
 8 1/4 percent series F-1971, 7874
- Treaties:
 in force, list, 4756
 multilateral, 1946-49, compilation, 17364
 treaties and other international acts series, 1147-64, 2242-45, 3292, 4732-54, 6221-52, 7818-37, 9198-9206, 10612-629, 11903, 12939-942, 15301-334, 17338-363, 18346-363
 treaties and other international agreements, 6253, 7838, 12943, 18364
 1776-1949, compilation, 4755, 17364
 see also Commercial treaties—also names of countries—also subjects.
- Tree planting:
 does bedding promote pine survival and growth on ditched wet sands? 12558
 forty-year development of Douglas-fir stands planted at various spacings, 16581
 preparing ponderosa pine planting sites in Southwest with premergent herbicides, 11354
 tree planters' notes, 3293
 see also Forest planting.
- Tree seeds, see Seeds.
- Trees:
 and forests in crowded world of tomorrow, Southern States and Forest Service cooperative planning, 14488
 dwarf fruit trees, selection and care, 9299
- Trees—Continued
 exotic, unsatisfactory for forestry in southern Arkansas and northern Louisiana, 4194
 experimental planting of 14 tree species on Pennsylvania's anthracite strip-mine spoils, 14472
 forest trees, their beauty and use, 4823
 germination of several species in plastic greenhouses, 5493
 how tree grows, 11343
 importance of shading to visitors selecting campsite at Indian Boundary Campground, Tenn., 16571
 large, radioisotope technique for measuring water movement in, further development, 15531
 native to forests of Colorado and Wyoming, 7203
 northwestern tree species, effects of high soil density on seedling root growth, 4187
 ornamental, improvement, forester's role, conference proceedings, 14457
 results of field trials of Tree Eater, tree and brush masticator, 8687
 sapsuckers, damage varies with species and seasons, 696
 seed orchardist's guide to handling of insecticides and calibration of spray equipment, 8716
 seedling growth of 8 northwestern tree species over 3 water tables, 8697
 shade and beauty, selection and care, 3403
 superior trees, genetic variation, key to, 674
 tree character relations in southern hardwood stands, 11358
 see also Forest and forestry—Fruit—Hardwoods—tree planting—also names of trees.
- Tremmel, Ernest B., remarks, Dec. 3, 1969, 145
- Trend report, graphic presentation of public assistance and related data, 11762
- Trends in savings and loan field, 637
- Trent, Darrell M., nomination, hearing, 16039
- Trent, Horace M., some labeling theorems for planar linear graphs, contribution to 4-color problem, 4621
- Trenton, N.J.:
 area wage survey, 5826
 census of transportation 1967, commodity transportation survey, production area series, 6419
- Treizise, Philip H., address, Feb. 27, 1970, 9193
- Trials, counsel and defense counsel, military justice handbook, Army pamphlet, 1228
- Triangulation:
 perturbation theory based on Lie transforms and its application to stability of motion near sun-perturbed earth-moon triangular libration points, 14825
 space figures, optimum forms, USSR study, 2010
 stereocomparator coordinate reduction of image points on aerial photographs as aid in highway planning construction, etc., 15137
 see Geodesy.
- Triassic period, upper, upper part of Chinle Formation and related rocks, southwestern Utah and adjacent areas, 10180
- Tribus, Myron:
 addresses—
 Nov. 11, 1969, 282
 Nov. 21, 1969, 283
 Dec. 29, 1969, 1364
 Feb. 12, 1970, 4982
 Feb. 17, 1970, 4985
 Apr. 3, 1970, 8151
 June 8, 1970, 10871
 June 13, 1970, 10869
 June 16, 1970, 10870

- Tribus, Myron—Continued
addresses—Continued
June 25, 1970, 15712
July 14, 1970, 15715
nomination, hearing, 494
Tribute to Carl Hayden, 6786
Trice, J. Mark, tributes to Secretary for Min-
ority upon occasion of his golden anni-
versary of Senate service, 15969
Trichlorophenoxyacetic acid:
hazards of 2,4,5-T in forest environment,
8698
2,4,5-T effects on man and environment,
hearings, 12360
Trimble, George R., jr.:
diameter growth of individual hardwood
trees, 5513
distribution of diameter growth rates and
clear stem lengths as basis for selecting
superior phenotypes, 16578
survival and growth of yellow-poplar seed-
lings depend on date of germination,
4183
20 years of intensive uneven-aged man-
agement and effects, 12564
Trimming, automotive soft trim, how imports
might affect certain workers of American
Motors Corp., Tariff Commission report,
15343
Trinidad and Tobago:
double taxation message from the Presi-
dent, 6731
economic trends and their implications for
United States, 14626
extended validity of passports issued,
agreement, 18352
foreign trade regulations, 10874
Trinity Alps, mountain adventures, daylong
hikes, guide, 16554
Trinity River and Valley:
hydrologic data of basin, compilation—
Elm Fork Trinity River, Tex., 4238
Mountain Creek, 7230
North Creek, 7231
Pin Oak Creek, 7232
Tripp County, S. Dak., community profile,
14223
Trips, slips, and falls, occupational safety
aid, 4370
Tri-State Transportation, Inc., motor carrier
accident, 14803
Tristania conferta, *see* Brushbox.
Triticaceae, check list of scientific names of
introduced agricultural grasses, 9277
Tritium:
biological effects, 10759
reproducibility of repeated total body
water measurements with tritium, 55
Trona, deposits, geochemistry and paleolim-
nology. Green River formation of Wyo-
ming, 727
Tropics:
National Guard Bureau—
Eisenhower trophy to outstanding unit
of company size, announcement of
winners, pamphlet, 14955
indoor rifle and pistol matches, postal,
2143
Tropical disturbances, *see* Storms.
Tropics:
cyclone development, survey of experi-
mental results obtained from numerical
model designed to simulate, 8570
Hawaii, tropical numerical weather pre-
dictions, status, report, 1831
imported tropical woods, properties, 10126
mean-cloudiness and gradient-level-wind
charts, 13023
text on charts, 17450
Troposphere:
comparison of propagation measurements
with predicted values in 20 to 10,000
MHz range, 10023
tropospheric radio-relay communication
lines in centimeter waveband, antenna
system for, USSR study, 8841
Trousers, and shirts, Federal item identifica-
tion guide, 11178
Trout, Otto F., jr., vacuum leakage tests of
simulated lightweight spacecraft airlock,
12808
Trout:
farming, could trout farming be profitable
for you? 24
fish and fish products, determining absence
of infectious pancreatic necrosis (IPN)
virus, approved procedure, 15260
fish management in raceways, animal
guide, 6177
passage of trout through pipes, 6525
raceway management for, 17303
rainbow, effects of Antimycin A on tissue
respiration, 11878
ulcer disease, 10582
Troy, Leo, trade union growth in changing
economy, 2036
Troy, N.Y.:
area wage survey, 10298
census of transportation, 1967, commodity
transportation survey, production, area
series, 6423
Truck drivers, *see* Motortruck drivers.
Truck mechanics, *see* Mechanics (persons).
Truck trailers, *see* Trailers.
Truckee River, subbasin, soils, 15448
Trucks:
accident investigations—
car/truck collision, fire, 14989
median crossover, multivehicle collision,
14981
pickup truck-fixed object impact, 14967
rear end collision, 14984
two vehicle intersection collision, 14979
rigging for airdrop, Army technical man-
ual, 6362
truck dealers under Fair labor standards
act, 17407
see also Motortrucks.
Trudell, Laurence G., Green River formation
lithology and oil shale correlations in
Piceance Creek basin, Colo., 11583
Tritt, Marcus M., mathematical modeling
of solid waste collection policies, 11874
Trullo, John G.:
numerical calculations of viscous compres-
sible fluid flow—
around stationary cylinder, 5893
over flat plate and step geometry, 4490
Truman, Harry S., Dam and Reservoir, *see*
Harry S. Truman Dam and Reservoir.
Truman, Harry S., Library, *see* Harry S.
Truman Library.
Trumbull County, Ohio, community profile,
14224
Trunk, Gerard V., trimmed-mean detector
for noncoherent distributions, 15069
Trust funds, *see* Trusts and trustees.
Trust Territory of Pacific Islands:
administration report to United Nations,
9196
annual report, 7300
appropriations, 1970, law, 314
continue civil government, increase ap-
propriations—
hearing, 12366
report, 11075
improvements needed in financial manage-
ment system, GAO report, 14503
mineral industry, minerals yearbook chap-
ter, 4459, 18159
Trusts (Industrial):
antitrust laws—
administration, investigation, expenses,
reports, 457, 5219
antitrust and monopoly activities, 1989,
report, 9843
newspapers, exempt certain combina-
tions and arrangements necessary for
survival—
hearings, 1592
law, 13328
reports, 1630, 12200, 12231

- Trusts (Industrial)—Continued
 economic concentration, economic report on corporate mergers, staff report of Federal Trade Commission, hearings, 513
 Expediting act, amend, reports, 10958, 16024
 Sherman antitrust act criminal penalties, increase—
 hearings, 11133
 report, 5109
see also Competition.
 Trusts and trustees:
 accumulation trusts—
 effect of new law (remarks), 6273
 tax reform, summary of recommendations, 1725
 administration of trust funds for Chickasaw and other Indian tribes ("S" series), 1931-72, microcopy, pamphlet to accompany, correspondence of Secretary of Treasury, 4541
 airport and airway trust fund, establish—
 law, 10918
 reports, 389, 5250
 summary of recommendations, 9906
 employee benefit plans tax exemption qualification, determination procedures under Internal revenue code, 11457
 general support trust funds, establish to supplement tax base of State and local governments, hearings, 8408
 highway trust fund, financial condition and operations, annual report, 5092
 jointly administered trust funds for product promotion, employer contributions, permit—
 hearings, 517
 reports, 1547, 3837, 5199
 legal investments for trust funds in District of Columbia, lists, 5324, 13818
 trust funds—
 for educational scholarships, etc., employer contributions, law, 302
 surpluses and fiscal neutrality in social security program, 11861
 trust indenture act of 1939, releases, SEC, 3294
 urban mass transportation trust fund, establish, hearings, 8281
 Truth in lending, *see* Credit.
 Tschudy, Bernadine D., species of Aquilapollenites and Fibulapollis from 2 upper Cretaceous localities in Alaska, 4247
 Tschudy, Robert H.:
 illustrations of plant microfossils from Yazoo clay, Jackson Group, Upper Eocene, Mississippi, 8745
 two new pollen genera, late Cretaceous and Paleocene, with possible affinity to Illiciaceae, 7246
 Tsiolkovskiy, K. E., scientific heritage of, transactions of lectures, 10415
 Tsunami (tidal wave):
 earthquake safety rules, 603
 regional warning system in Alaska, 4097
 T-waves, review, seismic and hydroacoustic data, USSR, study, 1991
 Tualatin River:
 Washington County, Oreg.—
 flood plain information, 8545
 floods, how to avoid damage, 8548
 Tuberculosis:
 general information, 18308
 reported data, 6022
 see also Pulmonary diseases.
 Tuberculosis in animals, eradication, State-Federal cooperative program, statistical tables, 3380
 Tubes:
 aluminum tubing with various amounts of unidirectional boron/epoxy reinforcement, compressive and column strengths, 14877
 draft-tube surging, experimental study and analysis, 7726
 Tubes—Continued
 enhanced, for desalination plants, symposium, 18073
 externally heated, heat transfer from, to gas-solid suspension, calculation procedure, 14775
 Federal item identification guides for supply cataloging, supplements, 2593
 filamentary tubular shell typical for pressure constraint components of space suits, analysis of large bending deformations, 2075
 flame, position numbers, military standard, 16149
 frangible-tube energy-absorption system for protection of nuclear aircraft reactor, parametric study, 12781
 hose, pipe and tube fittings, quick disconnect and self-sealing, Federal item identification guide, 13788
 Ludwig tube wind tunnel, theoretical and experimental study of unsteady flow processes, 908
 Preston tubes for measuring hypersonic turbulent skin friction, 937
 reverse osmosis tubular module optimization, 1947
 smooth, fabrication for large multistage flash evaporator desalination plants, 19236
 tube fabrication studies using planetary swager, summary, 10758
 tube fittings, Federal item identification guide, change, 12393
 vertical tube evaporator utilizing vortex flow and interface enhancement, 16700
 see also Cathode ray tubes—Electron tubes—names of metals of which tubes are made.
 Tubes (inner), *see* Inner tubes.
 Tubing, *see* Tubes.
 Tubular structures, *see* Tubes.
 Tucker, Gardiner L., nomination, hearing, 3954
 Tucker, Richard K., handbook of toxicity of pesticides to wildlife, 10589
 Tucson, Ariz., intrastate air quality control region, Federal facilities, 12838
 Tucumcari, N. Mex., interstate 40 highway location, realignment, hearing, 3990
 Tugboats:
 crew, provide for licensing, etc., hearing, 5169
 inspection, require, hearings, 5169
 Tulalip Reservation:
 allotted lands, partition or sale, amend act—
 law, 10934
 reports, 1551, 8357
 Tulane University:
 U.S. Public Health Service hospital lands and buildings, exchange—
 hearing, 1589
 law, 8186
 reports, 1530, 6765
 Tularosa Basin, N. Mex., saline ground water resources, 18067
 Tule Lake National Wildlife Refuge, birds, list, 1120
 Tululake, Calif.:
 durum wheat acreage allotments, increase—
 law, 8179
 reports, 3835, 6615
 Tuliptree:
 insect enemies of yellow-poplar, 16577
 value increase for yellow-poplar and beech, rate, 5511
 yellow poplar—
 distributing value gain from 3 growth factors, 5499
 seedlings, survival and growth depend on date of germination, 4183
 tree valuation, 10129

- Tull, Ann H., staphylococcal carriage in hospital population, throat vs. nasal carriage and persistence of nasal carriage, 15503
- Tully, Philip C.:
 bellum, bibliography of technical and scientific literature—
 1963, including papers on alpha-particles, 11577
 1964, including papers on alpha particles, 16896
- Tulsa, Okla.:
 Arkansas River basin, comprehensive development plan, hearings, 433
 Mingo Creek, flood plain information, 16423
- Tumors:
 atlas of tumor pathology, 8455
 brain and spinal cord, hope through research, 17140
 peripheral nervous system, 8455
 thyroid gland, 8456
- Tuna fish:
 albacore of Hawaiian waters, Thunnus alalunga, 12070
 Atlantic albacore fishery, 13239
 Central and western Pacific tuna fishery development act, report, 11077
 food in Atlantic Ocean, review of studies, 3718
 forecasting world demand for tuna to year 1990, 9527
 purse seine fishery in eastern tropical Atlantic, 5008
 rearing larval tunas in laboratory, 9528
 skipjack tuna, Katsuwonus pelamis, in Hawaiian waters, distribution of fishing effort and catches, 1948-65, by quarters of year, 15751
 surface tuna schools located and fished in equatorial eastern Pacific, 10891
 tropical Atlantic tuna larvae collected during EQUALANT surveys, 5010
- Tunas, Atlantic, International Convention for Conservation, *see* International Convention for Conservation of Atlantic Tunas.
- Tungsten:
 alloy—
 fiber-nickel-base alloy composites for turbojet engine applications, preliminary evaluation, 5926
 T-111 (tantalum-8 tungsten-2 hafnium), survey of properties, 12810
 columbium alloy development, 10328
 disposal from national and supplemental stockpiles, reports, 6604, 6757, 11008, 12148
 electrowon tungsten sheet, evaluation, 10325
 metal, electrolytic preparation from wolframite, 5878
 mineral industry survey monthly, 3296
 reactor irradiation effects on ductile-brittle transition and stress-strain behavior, 16990
 thermionic converter with chloride vapor deposited tungsten emitter (110), characteristics, 18192
 tungsten (112) to (114) oriented, and niobium collector with oxygen present, used in operation of thermionic converter, 16945
 weldability of tungsten base alloys, 18180
- Tungsten carbide, electrolytic preparation from wolframite, 5878
- Tunica County, Miss., community profile, 16356
- Tunisia:
 agricultural commodities, agreement, 6249
 area handbook, 15488
 background notes, 4721
 economic trends and their implications for United States, 1971
 extending declaration on provisional accession to GATT, 6227, 9200
- Tunisia—Continued
 mineral industry, minerals yearbook chapter, 16909
- Tunnels:
 boring technology, disk cutter experiments in sedimentary and metamorphic rocks, 12743
 Mach 6 axisymmetric tunnel, preliminary surveys of wall boundary layer, 5938
 steel tunnel supports, model tests, 16446
- Tuomy, J. M.:
 effect of—
 headspace oxygen on quality of freeze-dried raw beef patties, 1223
 processing conditions on cooked, freeze-dried spaghetti with meat sauce, 1224
 freeze-drying food for Armed Services, 13045
 response of cooked freeze-dried combination meat items to oxygen, 13047
- Tupelo, water, butt swells for pulp and paper, 4199
- Tupes, Ernest C.:
 equivalence of AFQQT scores for different educational levels, 10710
 1969 updating of data file for AFROTC management control system, 13013
- Turbine blades, *see* Blades.
- Turbine fans:
 6-foot-diameter for turbofan engines, acoustic and aerodynamic performance, design of facility and QF-1 fan, 14856
 V/STOL transport model with 4 pod-mounted lift fans, wind tunnel investigation, 14881
 errata, 18199
- Turbine fuel:
 aviation—
 petroleum products survey, 7477
 storage stability, radiotracer, technique for estimating component contribution to thermally induced deposits, 883
 methane fuel used in turbines of turbojet powered Mach 3 transport turbine, aerodynamic and cooling requirement, 14871
- Turbine nozzles, *see* Nozzles.
- Turbines:
 and components, Federal item identification guides for supply cataloging, supplements, 2590
 axial-flow, using specified meridional velocity gradients, analysis of geometry and design-point performance, 2062
 census of manufactures, 1967, industry statistics, 15609
 condensing vapor, component parametric data and initial integrated turboalternator analyses, 16934
 foil gas-bearing test rig design, fabrication, and testing, 10353
 gas, face seal thermal deformation and computer program for calculation of axisymmetric temperature field, 2125
 high-head, discharge measurements using radioisotopes, Flatiron Power and Pumping Plant, Colorado, Big Thompson project, 3504
- hydraulic—
 turbine industry, price indexes for materials, quarterly, 2738
 turbine operations, index of hourly earnings, selected establishments, 2736
- hydroelectric units, governors for, 7721
 performance in gas-bearing Brayton cycle turboalternator, 4519
 potassium turboalternator (KTA), preliminary design study, 10345
 radial-inflow turbine, 6.02 inch, varying blade-shroud clearance, experimental results, 4510
 six-inch radial bladed centrifugal compressor, effect of Reynolds number on overall performance, 11645

Turbines—Continued

- stators, thermal feasibility of using methane or hydrogen fuel for direct cooling, 18219
- three-stage potassium test program, performance test summary, 2072
- 3.50 inch radial, designed for 10-kilowatt space power plant, experimental evaluation, 939
- turbine—
 - aerodynamic and cooling requirement for turbojet powered Mach 3 transport using methane fuel, 14871
 - air cooling methods, analysis of capabilities and limitations, 16991
 - area effects on subsonic cruise performance of turbojets designed for supersonic application, 16976
 - two-phase flow in turbines and reaction nozzles, 11706

Turboalternators:

- component parametric data and initial integrated turboalternator analyses, 16934
- 400-hertz Brayton cycle turboalternator and controls, steady-state electrical performance, 5953
- gas-bearing Brayton cycle-turboalternator, turbine performance, 4519
- gas-bearing system performance at steady state conditions, 2093
- potassium—
 - (KTA), phase 2 final design, 8921
 - phase 2 refinement of selected layout, 12765
 - preliminary design study, 16934
- turboalternators (KTA) preliminary design study, 10345, 12754
- with multiple load phase-controlled parasitic speed controller, experimental evaluation for volt-ampere loading and output distortion, 4518

Turbofan engines, *see* Engines (aircraft).

Turbojet aircraft, *see* Airplanes.

Turbojet engines, *see* Engines (aircraft).

Turbomachines, *see* Turbines.

Turbulence:

- aircraft turbulence-penetration performance, procedure for assessing, 7513
- atmospheric—
 - flight-experienced free-stream disturbances at Mach numbers of 2.4–2.6, investigation of digital simulation of XB-70 inlet and its application, 12798
 - theoretical frequency response functions and power spectra of XB-70, 14824
 - turbulence profiles, remote sensing, feasibility study, 7509
- boundary layer—
 - fluctuating properties for Mach numbers, 910
 - intensity measurements of accelerated flow, 18220
- clear air—
 - Federal plan, 4094
 - turbulence, research associated with instabilities in atmospheric flow system, 10364
- growth due to buoyancy of weak homogeneous turbulence with shear, 17004
- longitudinal and lateral spectra of turbulence in atmospheric boundary layer, 5927
- low-frequency electromagnetic properties of turbulent plasma, theory, 112
- measurements of supersonic, shock-free jets by optical crossed beam method, 5917
- non-continuum and turbulence effects on subsonic sphere drag, measurement, 11616
- severe, analytical study of effects, on flight motions of typical subsonic jet-transport airplane, 2109

Turbulence—Continued

- shock wave-turbulent boundary layer interactions for two-dimensional and axially symmetric flows, influence of suction, 16938
- single turbulent air jet impinging on flat plate, survey of literature on flow characteristics, 5949
- some statistical aspects of power law profiles, 15473
- strong atmospheric, measurements of 0.63 μ m laser-beam scintillation, 8576
- turbulent heating of plasma ions during development of electron-acoustic instability, 4870
- turbulent skin friction on nonadiabatic flat plate at Mach number 6.5 and comparisons with 8 theories, direct measurements, 5966
- vibration isolation of commercial jet transport pilots during turbulent air penetration, 14811
- Turbulent boundary layer, *see* Boundary layer.
- Turbulent flow, *see* Flow.
- Turelle, J. W., soil conditioning rating indices for major irrigated and non-irrigated crops grown in western United States, 17286
- Turf, *see* Sod.
- Turk, Amos, sensory evaluation of diesel exhaust odors, 7561
- Turkey:
 - agricultural commodities, agreements, 1151, 4752, 6240, 10627
 - area handbook, 9354
 - background notes, 10598
 - cotton textiles, trade, agreement, 15327
 - economy, basic data, 3690
 - loan of vessels—
 - U.S.S. Guitarro and U.S.S. Hammerhead, extension, agreement, 1147
 - U.S.S. Mapiro and U.S.S. Mero, extension, agreement, 17357
 - military and political problems, subcommittee report, 5144
 - naval vessel loans, extend—
 - hearing, 16037
 - reports, 5123, 6617
 - U.S. security agreements and commitments abroad, hearings, 16056
- Turkeys:
 - breeder hens, 1971 hatching season intentions, 17370
 - habitat management, 15217
 - mycoplasma gallisepticum infection, control and eradication, guidelines, 3377
 - national improvement plan, hatcheries, dealers and independent flocks participating, 6287
 - 1970 marketing guide, 1749
 - number raised, 17371
 - 1970 intentions, 6259
 - production, disposition, etc., 10635
 - monthly report, 2527A
 - tested by official State agencies, monthly report, 8297
 - wild, on southeastern farms and woodlands, general information, 7921
- Turkish language, Foreign Service Institute basic course, graded reader, 11904
- Turnbuckles, Federal item identification guide, 13797
- Turner, Bruce D., workbook of atmospheric dispersion estimates, 8567
- Turner, Levi C., case files of investigations, 1861–66, microcopy pamphlet to accompany, 17029
- Turner, Philip A., RAPLOT, computer program for data processing and graphical display for radioisotopes and tracer study, 16408
- Turner, Richard E., method for solving hypervelocity impact problems with consideration of free-surface discontinuities, 924

Turner County, S. Dak., community profile, 14225
 Turnkey program, *see* Housing.
 Turpentine, wood borers attracted to, in windthrown timber in northern California, 4188
see also Naval stores.
 Turtle Creek, floods, how to avoid damage, 1799
 Tuscaloosa County, Ala., community profile, 14226
 Tuscarawas County, Ohio, community profile, 14227
 Tussock moths, impact, color aerial photography evaluates mortality, 16582
 Tutorial method in education, *see* Tutors and tutoring.
 Tutors and tutoring:
 homework helper program, New York City, compensatory education, 5351
 tutorial assistance for veterans and servicemen under GI bill, 17399
 Tuttle, D.E.I., Navy management review, 2945
 TV, *see* Television.
 TVA, *see* Tennessee Valley Authority.
 Twenty-five eventful years, entering nuclear age (remarks), 10779
 20545 (remarks), 147
 Tweto, Ogden, mineral resources of Gore Range-Eagles Nest Primitive Area and vicinity, Summit and Eagle Counties, Colo., 14524
 Two aspects of search for peace (address), 9194
 Two-dimensional point resolution, 18293
 2, 4, 5-T, *see* Trichlorophenoxyacetic acid.
 Two keys for appraising forest fire fuels, 14476
 Two years of outreach, 10665
 Typesetting, automatic typesetting of computer printout, edit-insertion programs for, 8992
 Typewriters:
 current industrial reports, 2475
 ribbons, typewriter, changeable type style, etc. Federal standard, 10091
 Typists:
 employment outlook, 12694
 take a giant step, go Government, 1352, 12048
 Tyrrell County, N.C., community profile, 14228

U

Uberall, H., radiative corrections to electron scattering from complex nuclei, 17189
 Uchida, Richard N., distribution of fishing effort and catches of skipjack tuna, *Katsuwonus pelamis*, in Hawaiian waters, 15751
 Uchupl, Elazar, Atlantic Continental Shelf and slope of U.S. shallow structure, 5548
 UDEAO, *see* West African Customs Union.
 Udell, Gilman G., Federal food, drug, and cosmetic act, with amendments, 6551
 Ueda, Herbert T., core drilling through Antarctic ice sheet, 5366
 Uganda:
 background notes, 7806
 cotton, 8679
 economy, basic data, 12060
 farmers' enterprises, agricultural cooperatives, etc., building with AID assistance, 10250
 foreign trade regulations, 4998
 mineral industry, minerals yearbook chapter, 4487
 Sudan boundary, study, 17336
 UH-1, *see* Helicopters.
 UHV (ultrahigh vacuum), *see* Vacuum.
 Uintah County, Utah, community profile, 6969

Ukraine, *see* Ukrainian Soviet Socialist Republic.
 Ukrainian Soviet Socialist Republic:
 Academy of Sciences—
 holds special session, summary, 16747
 Lenin Centennial, statements by Ukrainian academicians, 12648
 research, mathematics, past 50 years, 5778
 controlled thermonuclear synthesis research, 1957-68, development, 5777
 cybernetics in Ukraine, 12636
 cybernetics technology in Ukraine, 16750
 scientists of higher educational institutions, 16807
 Ulam, Adam B., international negotiation, Communist doctrine and Soviet diplomacy, some observations, 5265
 Ulcers:
 chronic gastric ulceration relationship to experimental cerebellar vermal lesions, 56
 ulcer disease in trout, 10582
 Ulom, Judith C., folklore of North American Indians, bibliography, 825
 Ulster County, N.Y., community profile, 14229
 Ultrahigh frequency, UHF irradiation on silicosis, effect, 16748
 Ultrashort-wave antenna, 16768
 Ultrasonic waves, *see* Sound.
 Ultrasonics, *see* Sound.
 Ultraviolet rays:
 improved ultraviolet interferometer, 18187
 irradiation techniques to preserve maple sap, 7904
 Umatilla Reservation:
 Confederated Tribes of Umatilla Indian Reservation, judgment funds, disposition—
 hearing, 6808
 law, 10919
 report, 9852
 Umatilla River and Valley:
 flood plain information, Mission-Riverside area, Pendleton, Oreg., 7036
 floods in Mission-Riverside area, 7043
 Umbrellas, and metal parts thereof, (Tariff Commission report, 15348
 Umiat area, northern Alaska, review of water resources, 16611
 Umpqua River and Valley, chemical quality of surface water in basin, 7229
 UMWA, *see* United Mine Workers of America.
 UN, *see* United Nations.
 Un-American activities:
 Black Panther Party, investigation, hearings, 9748
 campus disorders, extent of subversion, hearings, 3980
 case files of investigations by Levi C. Turner and Lafayette C. Baker, 1861-66, microcopy, pamphlet to accompany, 17029
 New Mobilization Committee to End War in Vietnam, subversive involvement in origin, leadership, and activities, study 12277
 Students for a Democratic Society, hearings, 5163, 6716, 8305, 9749
 print additional copies, report, 15838
 subversion in New Left—
 extent, hearings, 8416, 9920, 13747, 17707
 subversive activities, investigation, expenses, report, 5226
 Subversive activities control act of 1950, amend, report, 3838
 subversive involvement in disruption of 1968 Democratic Party National Convention, hearings, 6717
 see also Communism.
 Un-American Activities Committee, House, hearings, 423

INDEX 1970

- Uncompahgre Indians:
 - disposition of funds—
 - law, 15804
 - reports, 13483, 15994
- Underdeveloped areas:
 - agricultural exports of less developed countries, 1980 world demand prospects, 9979
 - developing countries, family in hospital, 8045
 - developing countries and U.S., economic trends (remarks), 14388
 - developing nations, economic progress of agriculture, 9978
 - international transfer of technology among developing countries, factors affecting, report, 9502
 - less developed countries, economic data, 12618
 - population program assistance, aid to developing nations by United States, other nations, and international and private agencies, 7346
 - U.S. foreign assistance in 1970s, new approach, 7712
 - wheat, world demand prospects in 1980, with emphasis on trade by less developed countries, 11197
 - wheat and rice, high-yield varieties, imports and plantings and less developed nations, 4175
 - see also* Development (economics).
- Undergraduates, *see* Students.
- Underground nuclear testing, report, 3505
- Underground structures, Morrow Point powerplant, rock movement and subsequent stabilization (paper), 7728
- Underground uses of nuclear energy, hearings, 6817
- Underhill, Vt., Army Materiel Command Firing Range, adjust legislative jurisdiction, report, 3824
- Understanding America, 4557
- Underwater research, *see* Oceanography.
- Underwater sound, *see* Sound.
- Underwater vision, *see* Sight.
- Underwear, women's and children's, census of manufactures, 1967, industry statistics, 17516
- Underwriting, *see* American Institute of Marine Underwriters.
- Unemployed:
 - employment security programs, Federal-State funds to finance cost of administering, hearings, 8403
 - hard-to-employ, special job creation in Western Europe, 8855
 - pensions and severance pay for displaced defense workers, 4845
 - underemployment estimates by county, United States, 4041
 - youth unemployment and minimum wage, relationship, 8865, 10293
- Unemployment, *see* Unemployed.
- Unemployment compensation, *see* Unemployment insurance.
- Unemployment insurance:
 - benefit appeals, principles and procedures guide, 9256
 - District of Columbia act, public international organization, exempt, law, 296
 - employer's tax guide, 10234
 - employment security amendments—
 - 1969, 8326
 - reports, 391, 3807
 - summary and explanation, 8331
 - 1970—
 - hearings, 6770, 8403
 - law, 13340
 - major features, 17281
 - questions and answers, 15368
 - report, 9670
 - Federal-State unemployment compensation program, extend, hearings, 8403
- Unemployment insurance—Continued
 - Federal unemployment compensation statutes, administration proposal to amend, including Labor Department data, tables, and the President's message, 8328
 - financial protection for Federal employees, 4969
 - program, Railroad Retirement Board, benefit statistics, monthly, 2898
 - State laws, comparison, revised series, 4065, 15367
 - State laws, employment and wages of workers covered, 2533
 - State salary ranges of positions in employment security, etc., 743, 11405
 - tax rates by industry, 15369
 - unemployment insurance statistics (periodical), 3306
 - UNESCO, *see* United Nations Educational, Scientific and Cultural Organization.
 - UNESCOPE, 3207
 - Unger, Sherman, remarks, Dec. 8, 1969, 4283
 - Union County, Tenn., appraisal of potentials for outdoor recreational development, 15191
 - UNIDROIT, *see* International Institute for Unification of Private Law.
 - Uniformed services, *see* Armed Forces—Pay, allowances, etc.
 - Uniforms:
 - allowances for Armed Forces officers, payment, report, 3808
 - American soldier, 1775-1965, posters, 4850
 - Marine Corps regulations, 7442
 - Navy regulations, 7690, 17186
 - concept of fit guide for naval personnel, 6092
 - Union County, Iowa, community profile, 14230
 - Union County, Miss., community profile, 16357
 - Union County, N.C., community profile, 12474
 - Union County, Ohio, community profile, 12475
 - Union County, Pa., community profile, 16358
 - Union County, S.D., community profile, 14231
 - Union Douaniere des Etats de l'Afrique de l'Ouest, *see* West African Customs Union.
 - Union Gap, Wash.:
 - floods, how to avoid damage, 17937
 - Yakima and Naches River, Wash., flood plain information, 16436
 - Union of Soviet Socialist Republics:
 - Academy of Agricultural Sciences, meeting, 5741
 - Academy of Medical Sciences—
 - vestnik (periodical), 3328
 - work reviewed, 7361
 - Academy of Sciences, vestnik (periodical), 3329
 - accumulation fund, structure and effectiveness, 5786
 - agriculture—
 - statistical comparison with United States, study, 8501
 - translations, 3280
 - all-Union conferences and congresses—
 - botany, work between 3d and 4th delegates' congresses, 5725
 - neurocybernetics, 16769
 - All-Union Scientific Research Institute of Plant Growing, world collection of wheat, immunity to Puccinia tritici-na, 1998
 - American shortcomings in negotiating with Communist powers, 13738
 - antenna studies, 10253
 - biophysics studies, translation, 12645
 - cetacean morphology research outlined, 8843
 - communications, herald (periodical), 2710

Union of Soviet Socialist Republics—Con.
 Communist doctrine and Soviet diplomacy, observations on international negotiation, 5265
 cooperation with foreign scientists, 12634
 CPR, Chinese People's Republic, hostility toward USSR, 16809
 cultural relations, exchanges agreement, 15312
 economic affairs, translations, 3281
 economic geography of heavy industry, 2000
 economic performance and military burden in Soviet Union, compendium of papers, 15814
 economy and industry, USSR republic gosplans, 1969-70, reports on economy, finance, and planning at Republic Supreme Soviet sessions, 7360
 electron devices, tabulation of published data, 18237
 embassy sites, agreement, 1162, 6235, 12942
 French journalists visit Soviet scholars, 4338
 gazetteer, official standard names, 14517, 16599-602, 18038
 geographical societies, meetings, 5743
 human cost of Soviet communism, 17708
 industrial affairs, translations, 3282
 international negotiation, process and problems, hearings, 3976, 12365
 medical institutes, 7356
 teaching of military-field therapy, 16810
 military affairs, translations, 3283
 mineral industry, minerals yearbook chapter, 7473
 national economy—
 interbranch balance and proportions, 10275
 1967 statistical yearbook, 5750-52
 state plan for development, guidelines on methods pertaining to compilation, 2002
 national income, dynamics, 4346
 nautical charts and publications, catalog, 4603
 neurochemistry in Soviet Union, report, 17141
 1970 Lenin prize competition in science and technology, 11519
 North Pacific fur seals, extending interim convention of Feb. 9, 1957, agreement, 4744
 nuclear power developments, 7387
 peaceful applications of nuclear explosions in national economy, review, 6373
 political and sociological affairs, translations, 3284
 population, by age and sex, 1969-90, projections, 4950
 prizes in science and technology, 12630
 public health—
 anatomy of East-West cooperation, exchange program with U.S., 969
 comments, 5803
 draft of new law, 5796
 public health and economics, 8834
 public health reports, 7381
 Republic academies of sciences hold annual meetings, 10267
 resources, translations, 3285
 results of half a century of combatting infections and certain urgent problems of modern epidemiology, 10265
 Russian military challenge to United States economic basis, hearings, 328
 scientific abstracts, 3317-23
 scientific education, 7373
 Scientific Institute of Fertilizers and Insecto-Fungicides, half century, brief account, 5770
 scientific, technical development discussed, 7365
 selection and dissemination of information, 5774

Union of Soviet Socialist Republics—Con.
 self-sacrificing young scientists doing research, 7385
 ships, new description, 4355
 Sino-Soviet stepped-up hostilities poses threat to U.S. security, hearing, 11134
 Soviet-American space race described, 2005
 Soviet approach to negotiation, selected writings, print additional copies, report, 9827
 Soviet 5-year plan for public health, 16734
 Soviet geodesists and cartographers, international relations, 12642
 Soviet missiles in Cuba and Caribbean region, U.S. security posture, hearings, 13510
 Soviet power transformers, USSR study, 2009
 Soviet scholars discuss problems of information systems, 16772
 Soviet threat, 15889
 Soviet trawlers observed in Gulf of Alaska, fishing vessel and gear developments, 9518
 space topics, Soviet studies, USSR study, 16751
 special study mission, report, 3864
 specialized manpower, 1950-75 and projections, 8099
 standard units of physical variables, draft, 10285
 State prizes awarded, 1969, for science and technology, 5767
 strategic arms limitation talks, public review of issues, hearings, 6788, 11108
 studies of universe, 7383
 television broadcasting, outlined, development, 11508
 trade and services, translations, 3286
 transistor radio research, 12644
 U.S.-Soviet relations in era of negotiation (address), 4726
 U.S.-USSR political exchange program, report, 8353
 U.S.S.R. and United States officials, exchanges, to promote greater understanding, hearing, 6800
 upper atmosphere and space research, 16796
 Union Station, Washington, D.C., construction history, 12865
 Union wages, *see* Wages.
 Unions, *see* Labor unions.
 Uniroyal, Inc.:
 Mishawaka, Inc., plant, certain workers, protective footwear of rubber or plastics and rubber-or plastic-soled footwear with fabric uppers, Tariff Commission report, 15346
 Woonsocket Plant, production and maintenance workers and salaried employees, plastic-or rubber-soled footwear with fabric uppers, Tariff Commission report, 9220
 Uniroyal Tire Co., Indianapolis, Ind., bicycle tires and tubes, production and maintenance workers, Tariff Commission report, 11907
 Unit heaters, current industrial reports, 3633
 Unit personnel officer's guide, 3475
 United Air Lines, Inc., accident report, 10479
 United Arab Republic (Egypt):
 cotton textiles, trade, agreement, 1157
 foreign trade regulations, 4999
 mineral industry, minerals yearbook chapter, 4464, 18162
 protocol for accession to general agreement on tariffs and trade, 15334
 United Kingdom of Great Britain and Northern Ireland, *see* Great Britain.
 United Mine Workers of America, 1969 election, and pension and welfare funds investigation and study report, 5252

INDEX 1970

- United Nations:
action agency for peace and progress, 15298
American prisoners of war in Viet-Nam, an appeal to U.N. (statement), 2241
conference, single convention on narcotic drugs, 1961, amendments of schedules, notification, 6234
convention on privileges and immunities—report, 8734
text, 3902, 17341
development program, State Department management improvements needed in U.S. financial participation, GAO report, 7211
General Assembly, 24th session, report, 5122
headquarters, agreement, office space leases, supplemental, 1150
headquarters expansion in New York, grant to defray portion of cost—
hearings, 6802, 12270
report, 9882
membership, organization, etc., 12937
6-cent commemorative postage stamp (poster), 18392
suboceanic lands policy, special study, hearings, 18725
to save succeeding generations, report, 5122
25th anniversary, hearings, 6710, 13518
United States participation, report—
departmental edition, 4730
document edition, 3767
United Nations Conference on Human Environment:
U.S. participation in 1972—
hearing, 5159
reports, 1621, 6677
United Nations Economic Commission for Africa, useful market surveys and industry reports issue, supplement, 13227
United Nations Educational Scientific, and cultural Organization:
questions and answers, 17337
UNESCOPE, general information about worldwide programs, 9207
United Seamen's Service:
Government assistance to promote seamen's welfare, authorize—
hearings, 13535
report, 13466
United Spanish War Veterans, convention, proceedings, 13353
United States:
Note.—For all subjects pertaining to the United States, except its government, general history, and description, see such subjects.
and the world, introduction to our foreign relations, 17365
area measurement reports, 11985
becoming a citizen series—
our American way of life, 10216
our Government, 16684
our United States, 764
teacher's guide, 1945
boundaries of counties and county equivalents, map, 8103
Constitution and Government, Federal textbook on citizenship, 16687
islands of America, inventory of recreational, scenic, natural and historical values, 17203
Revolutionary War, historic places, report of Secretary of Interior to American Revolution Bicentennial Commission, 16695
state of the Union address of President Nixon, 3775
statistical abstract, 1970—
department edition, 15660
document edition, 15827
understanding our history, 4557
what is right with America (remarks), 645
- United States Arms Control and Disarmament Agency, biographic register, 15292
United States coast pilot, see Coast pilots.
United States Code, see Codes of law.
United States Educational Foundation, New Zealand, see New Zealand-United States Educational Foundation.
United States Information Agency:
appropriations, 1970—
law, 3738
reports, 472, 5104
appropriations, 1971—
hearings, 8270, 13708
reports, 9658, 15990
waive points of order, report, 9688
biographic register, 15292
careers in cross-cultural communication, 2278
field staff, Foreign Service list, 2662
magazine reprint MR series, 2859
report to Congress, semiannual, 6274
United States Involvement in Southeast Asia, Select Committee on, House, report, 12238
United States-Mexico Commission for Border Development and Friendship:
appropriations, 1970
law, 3738
report, 472
United States Mission to United Nations, biographic register, 15292
United States National Commission for UNESCO, memo, 15335
United States National Committee on Vital and Health Statistics:
annual report, 11754
needs for national studies of population dynamics, report, 10447
report on 20th anniversary conference, 18240
United States Postal Service:
facilities handbook series, 18394
postal service manual, 18396
poster, commemorative stamps, 18392
United States-Puerto Rico Commission on Status of Puerto Rico, report, Spanish edition, 15370
United States reports, see Supreme Court.
United States-Thailand Foundation, see Thailand-States Foundation.
United States Travel Service:
appropriations, 1970-72, increase, report, 5168
appropriations, 1971-72, increase, reports, 6674, 9651
press releases, 3094
Universe:
on cosmic hydromagnetic dynamo theory, 5389
solid of model universes, 5975
Soviet studies, 7383
Universities, see Colleges and universities.
University of Chicago, Students for a Democratic Society, Communist Party efforts, hearings, 5163, 8305
University of Dubuque, men's residence halls, buildings with fallout protection, design case study, 13187
University of Massachusetts, elementary teacher education, feasibility of model program, 11225
University of Michigan, management of federally financed research, case study, GAO report, 16591
University of Wisconsin, elementary teacher education project, 5361
Unloading and lading:
delayed loading, fruit condition, biphenyl content, transit temperature, and biphenyl pad placement, interrelations during tests of overseas shipments of California citrus fruit, 26

Unlading and lading—Continued
 fresh fruit and vegetable unloads—
 eastern cities, 6820
 midwestern cities, 6822
 southern cities, 6823
 totals for 41 cities, 6824
 western cities, 6821
 palletized and containerized unit loads,
 instructions for loading, military stand-
 ard, 13804
 steel products, recommendations of trade,
 amendment, 4552
 Unloading, *see* Unlading and lading.
 Unmarried persons, taxation of single per-
 sons, tax reform hearings, summary of
 recommendations, 8393
 Untold wealth of nations (remarks), 10513
 Upholsterers:
 automobile trimmers and installation men,
 employment outlook, 14704
 furniture, employment outlook, 12704
 Upholstery, *see* Furniture.
 Upland, Calif., aircraft accident, 15036
 Upland cotton, *see* Cotton.
 Uplift resistance of straight auger and
 belled auger footings in sandy silt, Mead-
 Liberty transmission line, Pacific North-
 west-Pacific Southwest Power Intertie,
 9088
 Upper atmosphere, *see* Atmosphere.
 Upper Eocene period, *see* Eocene period.
 Upper Great Lakes Regional Commission:
 economic development programs, evalua-
 tion, hearings, 3890
 press releases, 3095
 Upper Iowa River, wild and scenic river
 study, 18299
 Upper Klamath National Wildlife Refuge,
 birds, list, 1120
 Upper Mill Creek:
 Jefferson County, Ky.—
 flood plain information, 14309
 floods, how to avoid damage, 14325
 Upper Mississippi River Wildlife and Fish
 Refuge, birds, list, 15271
 Upper Skagit Indians, judgment funds, dis-
 position, report, 15997
 Upper Souris National Wildlife Refuge,
 birds, list, 4706
 Upper Volta:
 agricultural economy in brief, 8500
 economic trends and their implications
 for United States, 7333
 Upswing in southwest Missouri, 4699
 Upward bound—
 general information, 594
 ideas and techniques, reference manual,
 7028
 program to help youth from low-income
 families achieve college education, 1796
 Upward mobility for lower level employees,
 suggested goals and actions, 15700
 Uranium:
 AEC uranium policies (remarks), 187
 Appalachian mobile belt, deposits, descrip-
 tions, etc., 8024
 employee exposure to alpha radiation in
 underground uranium mines, control-
 ling, 11573
 enrichment, AEC's gaseous diffusion
 plants, future ownership, hearings,
 1426
 enrichment pricing criteria, hearings,
 13349
 irradiations of UO_2 - PuO_2 ceramic fuels
 with high burn-up ratios, 1250
 minerals yearbook chapter, 4486
 reconnaissance, preliminary—
 Apache and Cochise Counties, Ariz.,
 15520
 Coconino County, Ariz., 15521
 Gila County, Ariz., 15522
 Graham, Grant, Greenlee and Maricopa
 Counties, Ariz., 15523
 Mohave County, Ariz., 15524

Uranium—Continued
 reconnaissance, preliminary—Continued
 Pima and Pinal Counties, Ariz., 15525
 Texas, 15519
 resources, northwestern New Mexico, 728
 southern United States, errata, 8026
 titrimetric determination in product, fuel,
 and scrap materials after ferrous ion
 reduction in phosphoric acid, 13075
 uranium in Southern United States, 1271
 uranium mine atmospheres, investigation
 of radiological characteristics, 9390
 Uranium carbide, high temperature thermo-
 dynamics of uranium carbides, USSR
 study, 16777
 Uranium mononitride, compacts, fabrica-
 tion, 11692
 Uranium oxides:
 clad UO_2 under reactor accident condi-
 tions, physical-chemical studies, 9378
 solidus and liquidus temperatures, 9381
 URAT-1 bladder-stone crusher, 4353
 Urban, Walter M., radiation pasteurization
 of fresh meats and poultry, 10755
 Urban, Francis S., agricultural prospects in
 Chile, 8502
 Urban areas, *see* Cities and towns.
 Urban families, *see* Families.
 Urban Growth Council, create, report, 15878
 Urban life, *see* Cities and towns.
 Urban Mass Transportation Administration:
 appropriations, 1970—
 hearings, 1701
 law, 3742
 reports, 1468, 1556
 appropriations, 1971—
 hearings, 9726
 report, 9719
 Urban planners, *see* City planners.
 Urban planning, *see* Redevelopment (city
 planning, etc.).
 Urban policy, *see* Redevelopment (city plan-
 ning, etc.).
 Urban poverty, *see* Poverty.
 Urban Problems, National Commission on,
see National Commission on Urban Prob-
 lems.
 Urban renewal, *see* Redevelopment (city
 planning, etc.).
 Urban series, 3657, 6467
 Urban sprawl and flooding in southern Cali-
 fornia, 5545
 Urbanization:
 effects on temperature of streams on Long
 Island, N.Y., 14536
 hydrology and some effects of urbaniza-
 tion on Long Island, N.Y. (series),
 14536
 urban development effects on floods in
 northern Virginia, 18055
 Urethanes, uncured slab urethane foam for
 bedding and furniture cushioning, 4551
 Urgency of excellence, 6401
 Uric acid, serum levels, effects of Marine
 Corps officer candidate school training
 14762
 Urinary organs:
 bladder-stone crusher, URAT-1 apparatus,
 USSR study, 4353
 cancer, health information, 10521
 kidney disease and related diseases of uri-
 nary system, economic costs, 6146
 Urine:
 human, magnesium and calcium content
 determined using atomic absorption in-
 struments, spectrum-1 and SPTA, USSR
 study, 8833
 renal calcium excretion in crew members,
 effects of oral administration of mag-
 nesium oxide during submarine patrol,
 8893
 urinary electrolyte excretion during sat-
 uration-exursion diving to pressures
 equivalent to 800 and 1000 feet of sea-
 water, 12735

INDEX 1970

- Urgic, S. J.:
hydrologic effects of prescribed burning—
and deadening upland hardwoods in
northern Mississippi, 11366
on abandoned fields in northern Mis-
sissippi, 704
- Uruguay:
agricultural commodities, agreement,
15306
agriculture, survey, 7002
background notes, 15287
economic trends and their implications for
United States, 7334, 16727
mineral industry, minerals yearbook chap-
ter, 4423
- USAF, *see* Air Force.
- USAFI, *see* Armed Forces Institute.
- USAMRDC, *see* Army Medical Research and
Development Command.
- USDA, *see* Agriculture Department.
- Use tax, air user tax, increase, summary of
recommendations, 9906
- USIA, *see* United States Information
Agency.
- Using the nonprofessional, 7414
- USS Shenandoah, *see* Shenandoah (USS).
- USSR, *see* Union of Soviet Socialist Re-
publics.
- Utah:
apples, marketing order authority, ex-
tend—
law, 13316
report, 12223
census of business, 1967—
major retail centers, standard metropol-
itan statistical areas, 154
retail trade, merchandise line sales,
13119
census of governments, 1967, State re-
ports, 3593
census of manufactures, 1967, statistics,
17509
climatological data, 2409
county business patterns, 211, 10809
eastern, meteorology of major storms, 1827
habitat management for—
blue grouse, 15208
California quail, 15209
Canada goose, 15210
chukars, 15211
Gambel's quail, 17293
gray partridges, 15212
mourning doves, 17294
mule deer, 17295
pronghorn antelope, 17296
ring-necked pheasants, 15215
ruffed grouse, 15216
sage grouse, 17297
wood duck, 17298
mineral industry, minerals yearbook chap-
ter, 4465
pond management for largemouth bass and
bluegill, 15224
postal map, 7702
precipitation data, hourly, 2718
Rockies, transect, physical geography and
military environment, 13042
snow survey measurements, 1924-68, sum-
mary, 9135
southeastern, upper part of upper Triassic
Chinle Formation and related rocks, and
adjacent areas, 10180
southwestern, floods of Dec. 1966, 10189
sunfish, green sunfish, redear sunfish, gen-
eral information, 15239
water supply outlook and snow surveys,
3343
- Utah County, Utah, community profile, 6970
- Utah (U.S.S.):
memorial at Pearl Harbor, erection and
maintenance, report, 13657
- Ute Creek, Precambrian melasyenite, chemi-
stry, petrology, and strontium isotopes,
5542
- Ute Indians:
Southern Ute Tribe, lands, hold in trust—
law, 3736
report, 1458, 1854
- Uintah and Ouray Reservation—
disposition of funds—
law, 15804
reports, 13483, 15994
tribal funds used to construct, etc.,
Uintah Indian irrigation project,
reimburse—
law, 15790
reports, 10979, 16001
- Ute Tribe of Uintah and Ouray Reservation,
see Ute Indians.
- Uterus, cancer, 6134
- Utica, N.Y.:
area wage survey, 2026
census of transportation, 1967, commodity
transportation survey, 6423
- Utilities, on permanent snowfields, 4074
- Utility companies, *see* Electric utilities—
Public utilities.
- Utilization review in ECF, report of program
in Montgomery County, Md., 15758
- Utt, James B., memorial services, 15762
- Uyeda, H. K.:
coal-tar extended polysulfide canal sealant,
7723
polysulfide canal contraction, joint sealer,
17245
- Uyemura, Tomosuke, and wife, relief of
heirs at law, 3912, 9580
- V
- VA, *see* Veterans Administration.
- Vaccination:
aerosol revaccination of experimental ani-
mals, USSR study, 12640
assistance, provide grants—
hearing, 8307
reports, 470, 9718, 12242
- Vaccine:
licensing requirements under Public Health
Service act, include, hearings, 8307
rubella vaccine, 983
- Vacuum:
beryllium in vacuum, friction and contact
resistance for low-speed gallium-lubri-
cated sliding electrical contacts, 7542
distillation of alloys and electrodeposition,
use for preparation of rare earth metals,
868
exposure, and heat sterilization, effects on
some low-density heat shield materials,
7533
freezing, vapor-compression process, evalu-
ation on brackish water, 14593
friction and contact resistance in vacuum
for gallium-lubricated low-speed copper
sliprings, 16989
friction and wear of steels in vacuum,
16966
high, calculating thermal conductance of
rough, nominally flat surfaces, 4526
instrument bearing performance in space
and laboratory vacuum, 18214
mineral separation in vacuum, factors re-
lated, 11589
thermal-vacuum testing of high tempera-
ture electrical components, 14817
UHV measurements, development, 10363
vacuum-freezing, vapor compression, de-
salting, state-of-the-art, 780
vacuum freezing, vapor compression pro-
cess, 60,000 GPD pilot plant evaluation,
16699
- Vacuum gases:
cold cathode magnetron ultrahigh vacuum
gase, research and development program,
2070
orbitron ultrahigh vacuum gauge, research
and development program, 2069

- Vadeboncoeur, J. R., TRANSOP, model methodology, 8632
- Vakil, Hassan C., relief, 17664
- Valdivia phase, *see* Culture.
- Valence, bond dissociation energies in simple molecules, 4550, 10428
- Valenzuela, G. R., study of doppler spectra of radar sea-echo, 4622
- Valero, Francisco P. J., laser-generated plasma as spectroscopic light source, 18222
- Valgora, Martin E., steady-state electrical performance of 400-hertz Brayton cycle turboalternator and controls, 5953
- Validity (psychology):
aptitude area composites improved for enlisted classification, development, 13059
- Vallejo, Calif., census of transportation, 1967
- commodity transportation survey, production, area series, 6434
- Valley County, Nebr., community profile, 17390
- Valley of Fire State Park:
land conveyance—
law, 1418
report, 1532
- Valleys, alluvial, in western Mora County, N. Mex., geophysical study, 10168
- Valuation:
donated property, tax information, 5694
land appraisals for large cooperative housing communities, questions regarding, Housing and Urban Development Dept., GAO report, 5536
- Value engineering:
effect of value engineering changes on reliability of equipment in service, 5301
seminar, Joint Government-Industry, proceedings, 5322
- Values, *see* Worth.
- Values:
Federal item identification guides for supply cataloging, supplements, 2593
general purpose, and drain cocks, Federal item identification guide, change, 13798
valve seats, Federal item identification guide, 4015
- Vanadium
Co-Ni-V alloys, reaction with O_2 at 1,351°-1,429° K, 7494
geology and resources, bibliography, 10162
high temperature vanadium-base alloy, development, 10331
mineral industry survey, monthly, 3324
minerals yearbook chapter, 16928
- Vanadium carbide, mass spectrometric determination of dissociation energy of vanadium dicarbide and vanadium tetracarbide, 7547
- Van Alstine, Ralph E., geology and mineral deposits of Poncha Springs NE quadrangle, Chaffee County, Colo., 5552
- Van Buren County, Iowa, community profile, 14232
- Van Buskirk, Frank, county veteran population, Dec. 1969, estimates, 15378
- Vance County, N.C., community profile, 12477
- Van der Waerden's theorem, *see* Equations.
- Van Doren, Kenneth R., on estimating virial coefficients from experimental data, 2050
- Van Dusen, Richard C.:
addresses, etc.—
Nov. 21, 1969, 747
Dec. 3, 1969, 4284
Dec. 13, 1969, 1943
Jan. 14, 1970, 4289
Feb. 12, 1970, 5593
Feb. 16, 1970, 5594
- Vanes:
inlet-guide-vane configuration and relative blade velocity, effects on noise from axial flow compressors, 5922
velocity fluctuations behind oscillating vanes, experimental investigation, 936
- Van Hooser, Dwayne D., timber damage by Hurricane Camille in Mississippi, 4197
- Van Houten, Robert, fast breeder reactor control, shield, and reflector materials development, summary report, 10756
- Van Keulen, Gail, selling in Yugoslavia, 15723
- Van Pelt, W. F., laser fundamentals and experiments, 18314
- Van Sickle, Charles C., forest resources of Mississippi, 4213
- Van Sickle, Dale E., radiation-initiated emulsion oxidation, 4893
- Van Wert County, Ohio, community profile, 12476
- Van Wyen, Adrian O., naval aviation in World War I, 1022
- Vapor generators, use with dichlorvos to control drosophila in wineries, 6288
- Vapor-phase deposition, *see* Vapor plating.
- Vapor plating, thermionic converter with chloride vapor deposited tungsten emitter (110) and collector of molybdenum deposited on niobium, characteristics, 18192
- Vapor pressure:
gold, interlaboratory measurements, analysis, 6003
relationship of water vapor pressure on concentration of anomalous component in modified water, USSR study, 7400
vapor-compression vacuum freezing process evaluation on brackish water, 14593
- Vaporization, thermodynamics of yttrium dicarbide-carbon system and dissociation energy of yttrium dicarbide and tetracarbide, mass spectrometric investigation, 8937
- Vapors:
copper vapor, laser breakdown of, 11679
ingestion phenomenon in hemispherically bottomed tanks in normal gravity and in weightlessness, 12776
low gravity liquid-vapor interface configurations in spherical containers, 8938
low-temperature cesium-vapor diode, voltage breakdown, 14862
vacuum-freezing, vapor compression, desalting, state-of-the-art, 780
vacuum freezing vapor compression process, 60,000 GPD pilot plant evaluation, 16699
- Varactors, *see* Crystal diodes.
- Variables (mathematics):
evaluation of variables in basic oxygen steelmaking, 5879
separation of variables for linear partial differential equations of 2nd order in 2 independent variables, theory, 11650
USSR State standard units of physical variables, draft, 10285
- Variances analysis:
automated fault diagnostics for frequency-dependent circuits, 5978
variational principle for magnetohydrodynamic channel flow, 2122
- Variation (biology):
genetic variation, key to superior trees, 674
- Varnes, David J., stability of west slope of Government Hill port area of Anchorage, Alaska, 725
- Varnish and varnishing, current industrial reports, 218, 2475
- Vary, Alex, X-ray observations of flow patterns in mercury boiler, 11631
- Vascular system, *see* Blood vessels.
- Vaughan, Richard D.:
paper, Apr. 22-24, 1969, 15259
solid waste management, Federal role, 15259
- VAWS, *see* Veterans Administration Voluntary Service.
- Veal, in family meals, guide for consumers, 12981
- Veatch, Fred M., analysis of 24-year photographic record of Nisqually Glacier, Mount Rainier National Park, Wash., 5564

Vector analog computers, *see* Electronic computers.

Vector analysis, constant-gain systems with vector feedback, stability, 12777

Vectors (biological):
regulating shipment, 10697

Vectors (mathematics):
velocity vector azimuth angles for unguided rockets, wind-weighting techniques to predict, 13038
zero-rank effects in non-singular vectorial elements of planetary motion, determination, discussion and potential application of Hills method of secular perturbations, 11632

Vedros, Philip J.
criteria for inspection, evaluation, classification, and reuse of used airfield landing mat, 11254

Vega Dam, vibration following Rulison subsurface nuclear blast, 16147

Vegetable gardens, *see* Gardens.

Vegetable oils, *see* Oils.

Vegetable products, *see* Agricultural products.

Vegetables:
acreage marketing guide, 5285
commercial processing, acreage marketing guides, 5284
culture, etc., publications, price list, 7713
fresh—
market news, wholesale market prices, 1968 summary, 5287
shipments by States, etc., 11151-152
transporting overseas, interim report, 9278
unloads—
eastern cities, by commodities, States, etc., 6820
41 cities, 6824
midwestern cities by commodities, States, etc., 6822
southern cities, by commodities, States, etc., 6823
western cities, by commodities, States, etc., 6821
fresh market—
acreage and estimated production, monthly report, 3326
acreage, production, etc., annual report, 2249
market news, weekly summary, 2677
irradiation, annual report, 121
minigardens for vegetables, 9296
perishable agricultural commodities act, fair trading in vegetable industry, 4824
prices, 1969, Chicago and New York City, 10707
processed—
plants under USDA continuous inspection, list, 16094
standards for grades, 9946
processing—
1969 annual summary, 4760
statistical report, 3327
publications, list, 7714
seeds, foreign agriculture circulars, 2657
selected, sold in fresh markets, prices and spreads, 12993
spring, acreage marketing guides, 525
storing in basement, cellars, outbuildings, and pits, 9294
vegetables in family meals, guide for consumers, 10686
vegetable situation, 3325
winter, acreage marketing guide, 13762

Vegetation:
Amchitka Island, Alaska, 4250
control, use of soil-applied herbicides evaluation, 9094
recovering after fire on Hanalei Watershed, little erosion, 1880

Vehicles:
administrative wheeled, treatment, painting, etc., military standard, 549

Vehicles—Continued

Defense Dept. vehicle maintenance in Europe, reduction of cost by improving management, GAO report, 14514
equipment components, Federal item identification guides for supply cataloging, supplements, 2590
ground, use to evaluate soil strength of unsurfaced forward area airfield, 14335
linear induction motor test vehicle, stability and dynamic response, study, 14394
maintenance at nonpersonnel offices, facilities handbook, Post Office Dept., 2195
size and weights increased, safety and economic aspects, review, 8612
tactical and support vehicles, LARC 5—operator, training course, 4858
organizational mechanic/repairman course, 17463
vehicle bodies at crosswind conditions in ground proximity, aerodynamic characteristics, 16970
vehicle emissions, influence of volatile fuel components, 5871
vehicular communications, surface wave transmission line to facilitate, technical report, 16466
see also Motor vehicles—Parking of vehicles—Spacecraft.

Velez, C. E.:
derivation of Newtonian-type integration coefficients and some applications to orbit calculations, 18201
numerical integration of orbits in multi-revolution steps, 16965

Velocity:
directional, measuring in water waves with acoustic flowmeter, 11249
discharge measurements using radioisotope velocity, integrated sample dilution, and total count methods at Flatiron Power and Pumping Plant, Colorado-Big Thompson Project, 6389
fluctuations behind oscillating vanes, experimental investigations, 936
high velocity explosively driven guns, 11605
hypervelocity impact problems, method for solving with consideration of free-surface discontinuities, 924
hypervelocity microparticles with selected kinematic properties, electrostatic acceleration system, 8946
liquid jet atomization, effect of steady velocities on dynamic response, 2106
measurements, effect of object motion in Fraunhofer holography, 918
measurements in boundary layer of accelerated flow, 18220
modulated phase velocity, wave channel type antenna with, USSR study, 18105
opacity probability distribution functions for carbon monoxide at elevated temperatures, 5977
power-law velocity-profile exponent variations with Reynolds number, wall cooling, and Mach number in turbulent boundary layer, 10397
randomly oriented armor thickness for meteoroid protection, 10400
relative blade velocity and inlet-guide-vane configuration, effects on noise from axial-flow compressors, 5922
shock-tube flow analysis with dimensionless velocity number, 920
simulation of meteoroid-velocity impact by use of dense projectiles, 10390
space, random walks of test particles in, with application to magnetic mirror systems, simulation of Fokker-Planck equation, 5962
specified meridional velocity gradients, use in analysis of geometry and design point performance of axial flow turbines, 2062
superorbital entry velocities, Apollo ablator thermal performance, 16979

Velocity—Continued

- three-dimensional transition trips on flat plate at Mach 3 and 4, boundary-layer velocity profiles downstream, 922
- unaccelerated, and mass distributions of photographic meteors, empirical analysis, 10388
- wind-weighting technique to predict velocity vector azimuth angles for unguided rockets, 13038
- Velvet, and tapestry, carpets and rugs, Tariff Commission report, 2266
- Venango County, Pa.:
 - community profile, 16359
 - oil, prediction of recovery by steamflooding in Venango sands, applying Marx and Langehelm calculations, 850
- Vending machine mechanics, *see* Mechanics (Persons)
- Venditti, John M., cancer chemotherapy reports part 2, 2387
- Vendors and purchasers, licensed vendor listing, Post Office Dept., uniform allowance program, 6120
- Veneer logs, *see* Logs.
- Veneer mills, veneer industry in Northeast, 5-year data on veneer-log production, 14484
- Veneers:
 - buckle in veneer, 8692
 - Federal item identification guides for supply cataloging, supplements, 2593
 - U.S. exports, 4907
 - U.S. imports, 3529
- Veneral diseases, current literature, abstracts and bibliography, 2477
- Venezuela:
 - atomic energy, cooperation for civil uses, agreement, 18354
 - background notes, 7807
 - economic trends and their implications for United States, 7324, 16720
 - establishing business in, 4991
 - foreign trade regulations, 276
 - mineral industry, minerals yearbook chapter, 5868
- Venn, Grant, paper, Dec. 5, 1969, 11239
- Venolia, A. W., thermosorb process for desalting water, 4302
- Ventilation, laminar flow ventilation to operating rooms, study of application, 1070
- Ventura, Calif.:
 - soil—
 - characteristics and qualities, summary, 9165
 - survey report of area, 9156
- Ventura County, Calif.:
 - Calleguas Creek, vicinity of Camarillo, flood hazard, 8532
 - Santa Paula vicinity, Santa Clara River flood plain information, 14319
 - Somis to Pacific Ocean, Calleguas Creek, including Conejo Creek and Arroyo Santa Rosa flood plain information, 8536
- Venturi tube, potassium flowing adiabatically through venturi sized boiler inlet, experimental cavitation and flashing, 11639
- Venus (planet):
 - round-trip trajectories with stopovers at both Mars and Venus, 10398
- Venus swingby and direct trajectories to Mercury, planetary flight handbook, 10371
- Verbal learning, *see* Learning.
- Verde River, water supply outlook and snow survey, 3337
- Verdigris River, lock and dam no. 18, name Newt Graham Lock and Dam, report, 9881
- Vermiculite, minerals yearbook chapter, 886
- Vermillion, Ohio, harbor, wave action and breakwater location, 11256
- Vermis, *see* Pests.

Vermont:

- census of business, retail trade, merchandise line sales, 15545
- census of governments, 1967, State report, 3594
- census of manufactures, 1967, statistics, 17510
- census of population, 1970, number of inhabitants, 17535
- county business patterns, 212, 10810
- mineral industry, minerals yearbook chapter, 4466
- postal map, 15115
- Vernick, Joel J., selected bibliography on death and dying, 11771
- Vernon County, Mo., community profile, 17891
- Verret, Lake, watershed work plan for flood prevention, Ascension, Assumption, and Iberville Parishes, La., 9173
- Vertebrates, inner ear, development of receptor structures, 11707
- Vertical sections of temperature and salinity in trade wind zone of Central North Pacific, Feb. 1964 to June 1965, 1369
- Vessels, *see* Fishing vessels—Shipbuilding—Ships.
- Vesta (asteroid):
 - heliocentric coordinates, 1928-2000, list, 9042
- Vestal, Annie L., procedures for isolation and identification of mycobacteria, 7593
- Vestibular apparatus:
 - adaptation to vestibular disorientation, influence of specific and nonspecific gravireceptors on nystagmic responses to angular acceleration, 8040
 - vestibular analyzer, physiology, 11708
- Vestibular system:
 - nerve mechanism of vestibular reactions, problems of space biology, 18225
 - role of vestibular organs in space exploration, symposium, 11626
- Vestnik of USSR Academy of Medical Sciences (periodical), 3328
- Vestnik of USSR Academy of Sciences (periodical), 3329
- Veterans:
 - Administration views on S. 3008, bill to increase availability of guaranteed home loan financing for veterans, etc., (statement), 2274
 - adopted child, amend definition of term—law, 10922
 - report, 8365
 - benefits—
 - available for veterans and dependents, fact sheet, 9259
 - educational assistance benefits for veterans with service since Jan. 31, 1955, summary, 11931
 - best bets for returning veterans in Washington, D.C. area, 2366
 - care and treatment in State homes, increase Federal payments, law, 3748
 - county veteran population, Dec. 1969, estimates, 15378
 - deceased or disabled, educational assistance information for their sons and daughters, 11933
 - disability compensation rates, increase—
 - hearings, 6798
 - law, 13343
 - report, 10988
 - disability severance pay, recoupment of, liberalize—
 - law, 9606
 - reports, 363, 8364
 - disabled—
 - nursing home care, extend, law, 317
 - outpatient care, amend U.S. Code, law, 318
 - service-connected loss of one or both hands of feet, or vision, automobile allowance, increase, report, 10986

INDEX 1970

Veterans—Continued

dying in VA nursing home care units and community contract nursing homes, duration of stay, analysis, 15945

Education and training—

amendments act of 1970—

law, 8178

report, 6632

and home loan programs, amendments

of 1970, hearings, 13755

educational benefits, hearings, 17653

educational assistance allowances, increase

rates—

law, 8718

report, 6632

home-buying guide, 2279

hospitalized, writing contest news, 4782

housing, specially adapted, questions and

answers, 1184

job rights, facts, 12952

legislative recommendations of organiza-

tions, hearings, 6726

loans—

guarantee or insurance, VA lenders

handbook, 9262, 15380, 17403

guaranteed and direct, questions and

answers, 9261

guaranty benefits for veterans with serv-

ice since Jan. 31, 1955, summary,

9260

national service life insurance, regular

dividend schedules, 7892

opportunities in Federal service, 13201

paraplegic and quadriplegic, mortgage

protection life insurance, provide, re-

port, 17628

paraplegics, housing program, direct loans,

authorize, report, 15988

prosthetics services available, 1182

publications, price list, 4646

reemployment rights—

Army National Guard and Army Re-

serve, briefing session and program,

3471

handbook, 11934

relief, code of Federal regulations, 8652

SBA business loans for veterans, announce-

ment, 1087

scarce medical services, 1969-70 informa-

tion, etc., 8325, 13546

service connected disabilities, creating re-

butable presumption under certain cir-

cumstances, report, 1606

service-disabled, national service life in-

surance information and premium rates

for RH policies, 2281

servicemen's group life insurance—

conversion, 17405

protect you as a veteran, 17404

train for skilled trade through appren-

ticeship, 11969

two years of outreach, VA promotes

greater participation of Vietnam era vet-

eran in benefit programs, 10665

tutorial assistance under GI bill, 17399

veteran-patients living in community, com-

munity service volunteers to help in ad-

justment, 4785

Vietnam, commend for his efforts and

sacrifices, report, 3811

Vietnam veterans assistance act of 1970,

hearings, 17653

wounded in Vietnam, problems and over-

sight of medical care—

hearings, 6812, 12379

see also Amputees—Armed Forces—Life

insurance — Pensions — Rehabilitation

of the disabled.

Veterans Administration:

alcohol, alcoholism and drug abuse re-

search projects and published articles,

VA sponsored, review, 4784

Veterans Administration—Continued

annual report—

departmental edition, 6275

document edition, 5084

statistical supplement—

departmental edition, 7887

document edition, 6560

appropriations, 1970, supplemental, pro-

posal, 8208, 8218

appropriations, 1971—

amendment, proposal, 8219

hearings, 8271, 11105

requests, amendment, 8209

bridge to future, special employment and

training for youth, 6278

career opportunities—

count your benefits as an employee, 7893

data processing, programmers, systems

analysts, computer operators, 7894

medical technology and related biologi-

cal sciences, 17398

nurse, VA hospitals and clinics, nation-

wide, 17397

rehabilitation therapists, 1183

continue loss of revenue because of low

rents charged for personnel quarters,

GAO report, 16589

Contract Appeals Board, decisions, index-

digest, 17406

dentists, opportunities, 10664

dictating is an easier way, handbook,

10659

handbook series, 10659

home loan program, mobile homes, provide

for purchase—

hearings, 13546

report, 15871

hospitals and medical programs, funding

and personnel needs, hearings, 13547

information bulletin, IB series, 1181,

4784-85, 6276-77, 7890-91, 9257,

10660-661, 12951, 15377, 17396

land conveyed to Milwaukee County, Wis.,

use for civic and recreational purposes,

authorize, report, 10987

librarian, examination announcement, dis-

continuance, 3665

manual M (series), 7892

medical research, report, 9258

mortgage financing, use of NSLI invest-

ment funds—

hearing, 3973

report, 1545

national service life insurance—

policies, information and premium

rates, 10667, 15381

total disability income provision, pre-

miums rates, 15382

need for specific criteria for adjusting in-

terest rate charge on insurance policy

loans by Veterans Administration, GAO

report, 12579

need to obtain most economical method for

obtaining maintenance and repair of

office machines, GAO report, 16593

non-service-connected pension program,

amendments, report, 364

Philippine regional office, operate and

maintain, extend authority—

law, 13813

report, 9660, 11099

psychiatry, cooperative studies conference,

7891

highlights, 1181

psychologists, clinical or counseling, and

psychology technicians and aids, gradu-

ate student trainees, professional op-

portunities, 10663

publications, index, 4783

recoupment procedures for veterans' dis-

ability severance pay, liberalize—

law, 9606

reports, 363, 8364

research monographs, 15378

safety and fire protection bulletin, 3167

Veterans Administration—Continued
technical, clerical & trade careers, opportunities at high school and junior college levels, 18399
technical reports, TR series, 4788
these are yours! salary, life insurance, etc., employee information, 10662
two years of outreach, VA promotes greater participation of Vietnam era veterans in benefit programs, 10665
VA Armed Forces Pulmonary Disease Research Conference, transactions, 18398
VA fact sheet IS (series), 2259
VA pamphlets, 1182-84, 2278-81, 6278, 7893-94, 9260-62, 10662-667, 11931-933, 15379-382, 17397-405, 18399-400
veterans dying in VA nursing home care units and community contract nursing homes, duration of stay, analysis, 15945
Veterans Administration Voluntary Service:
National Advisory Committee, report of 1970 meeting, 15383
25th anniversary observance, competitions and awards, 10660
Veterans Affairs Committee, House:
calendar, 2812
committee prints, 8325, 13546
hearings, 440, 6726, 9771, 13545, 13547, 17653
investigations and studies expenses, report, 6856
proceedings, print, reports, 9701, 13633
reports, 363-364, 1545, 9659-60, 10986-988, 12187, 13402, 15871, 17628
Veterans Canteen Service, Veterans Administration, financial statements, 1969, GAO audit, 4216
Veterans hospitals:
career information, nurses, 17397, 15379
career opportunities, professional social workers, social work associates, graduate training, 15379
surgical service guide, 11930
technical, clerical, & trades careers, opportunities at high school and junior college levels, 18399
VA medical and hospital program, funding and personnel needs, hearings, 13547
VAVS-sponsored competitions in photography, essay writing, arts and crafts, 10660
Veterans Administration, chaplain service, general information, 12951
veterans benefits, for service since Jan. 31, 1955, 11932
Veterans of Foreign Wars of United States:
convention proceedings, 15825
legislative recommendations, 1970, hearings, 6726
Veterans of World War I of United States, Inc.:
convention proceedings, 6558
legislative recommendations, 1970, hearings, 6726
Veterans organizations, legislative recommendations, hearings, 6726
Veterans pensions, *see* Pensions.
Veterinarians:
accredited, guide to animal diseases, 15400
Army Medical Department early commissioning program for students, 8002
employment outlook, 12678
trainee, examination announcement, 17557
Veterinary Biologics Division, notice, 15410
Veterinary instruments and apparatus, equipment and supplies, Federal item identification guides for supply cataloging, supplements, 2495
Veterinary medicine:
CDC veterinary public health notes, 2394
Health training improvement act of 1970—
hearings, 9924
report, 13651

Veterinary medicine—Continued
summer employment for juniors, examination announcement, 17557
Veterinary supplies, *see* Veterinary instruments and apparatus.
Veterinary zoology, *see* Zoology.
Veto messages, *see* President of United States.
VFR, *see* Visual flying rules.
VHF, *see* Frequency band—Omniranges.
Viability of present international system, 2277
Vibration:
active vibration isolation systems for severe ground transportation environments, study, 893
analytical vibration study of ring-stiffened conical shell and comparison with experiment, 8940, 16956
characteristics of cylinder partially filled with liquid with attached elastic drain pipe, 4495
coupled thermally-induced transverse plus torsional vibrations of thin-walled cylinder of open section, 12828
effect on performance with electro-optical aids to night vision, 2044
evaluation of aircraft propellers, 7074
floating ice sheet, 16409
lateral, characteristics of 1/10 scale Apollo/Saturn V replica model, 8945
longitudinal—
and torsional vibrations, pile driving by means of, 16410
liquid-propellant launch vehicles, evaluations of finite-element analysis, 11655
measured and predicted of liquid propellant two-stage launch vehicle, 14882
Lunar Orbiter flight vibration data and comparisons with environmental specifications, 17000
mechanical vibrations of shipboard equipment, military standard, 1773
mine roof, from underground blasts, 5872
modal density estimates for sandwich panels, theory and experiment, 16960
natural, of elastically supported corrugation-stiffened panels, experiment and theory, 16987
plates, 5910
reciprocating engine and exhaust vibration and temperature levels in general aviation aircraft, 4118
responses of shells and plates to fluctuating pressure environments, study, 12755
shock and vibration digest, 3199
shock and vibration monograph series, 16157
surrounding structure effects on sonic fatigue, investigation, 11606
turbulent structures, measurement of most probable preferred angular velocity 1
optical correlation of laser schlieren signals, 17006
vibration isolation of commercial jet transport pilots during turbulent air penetration, 14811
vibration of Vega Dam following Rulison subsurface nuclear blast, 15147
see also Oscillations.
Vibrators, rotary vibratory fine screening of combined sewer overflows, 16520
Vibrio cholerae, *see* Cholera.
Vibriosis in fish, 17316
Vice President of United States:
campaign, repeal equal time requirement of Communications act, reports, 15855, 15977
election, amend Constitution relating to electoral college reform, hearings, 12370
election by direct popular vote, amend U.S. Constitution, proposal, report, 13700
Vicksburg, Miss., Mississippi River and tributaries in district, stages and discharges, 8551

INDEX 1970

- Vicksburg National Military Park, general information, 1003
- Victor (Ocean station), *see* Weather stations.
- Vidal, C. R., hydrogen Stark broadening calculations with unified classical path theory, 10427
- Video recording system, low cost video tape recorder, evaluation, 4114
- Viegas, John R., collision integrals for non-elastic processes in plasma kinetic theory, 2096
- Vienna convention on consular relations and optimal protocol on disputes, 7825
- Vietnam:
- activities of U.S. Army Surgical Research Team, WRAIR studies, 4868
 - American prisoners of war—
 - an appeal to U.N. (statement), 2241
 - hearings, 1580, 9733
 - information notes, 9190
 - ammunition production for, impact on southeast Kansas, 10729
 - An Giang Province—
 - program to attain maximum agricultural production, 5373
 - resources inventory, 14301
 - soils, EARI development research report, 5367
 - Thanh Quoi, pilot drainage and irrigation project, feasibility study, 5368
 - Armed Forces members voluntarily extending tour of duty in hostile fire area, special 30-day period of leave, extend authorization—
 - law, 12126
 - reports, 10967, 13637
 - Army aircrew protective armor, evaluation, 13044
 - background information, 13731
 - briefing on Administration's policy, hearings, 506
 - civilian medical program, followup investigation, report, 15881
 - Communist strategy and tactics of employing peasant dissatisfaction over conditions of land tenure for revolutionary ends, 17646
 - conflict—
 - allotments to savings for prisoner of war, etc., Armed Forces savings deposit program, waive \$10,000 limitation—
 - law, 5059
 - reports, 3810, 5209
 - commending American serviceman and veteran for his efforts and sacrifices, report, 3811
 - impact on U.S. economy, hearings, 9909, 13732
 - moral and military aspects of war in southeast Asia, hearings, 11124
 - My Lai incident, investigation, report of subcommittee, 12260
 - policy proposals, hearings, 8407
 - present situation (address), 1039
 - prisoner of war, missing in action or in detained status, family separation allowance, payment, report, 1492
 - prisoners of war and their families, problems, hearings, 6700
 - reserve components in active service retirement benefits, 1488
 - student views toward U.S. policy in southeast Asia, hearings, 13517
 - veterans wounded, problems and oversight of medical care, hearings, 6812, 12379
 - Government, dollar claims, policies covering collection by International Development Agency, GAO report, 1902
 - hostilities, governments participating in treatment of prisoners of war relative to Geneva Convention, with reservations, if any, 13511
- Vietnam—Continued
- inevitable monetary rate of exchange, 15840
 - information notes (series), 4723, 4725, 7812, 9190, 10603
 - Khe Sanh, battle, historical study, 2041
 - land reform, program to speed land distribution, 5369
 - military supply system, management operations, hearings, 3866, 15907
 - new peace initiative (address), 17330
 - North—
 - American prisoners of war held, humane treatment and release, report, 3820, 5249
 - background notes, 4720
 - basic data, 10603
 - capsule facts for Armed Forces, 16689
 - translations, 3278
 - pacification policy, review, 7975
 - perspective (address), 2236
 - Plain of Reeds, accelerated development, 14300
 - Republic—
 - agricultural commodities, agreement, 1156, 4745, 4749, 6241-42, 7823, 9202, 10628, 15310, 15320, 15325
 - background notes, 15291
 - basic data, 7812
 - civilian employees of State Dept., questionable justification and loose administration of special cost of living allowance, GAO report, 10152
 - fishery development survey, 15745
 - illegal currency manipulations, investigation, hearings, 1730, 3975
 - investment guarantees, agreement, 12940
 - local currency made available for support of its military and civil budgets, need for increased control, Defense Dept., and Agency for International Development, GAO report, 12578
 - naval vessel loans, extend—
 - hearings, 16037
 - reports, 5123, 6617
 - pacification program, progress report, 3854
 - hearings, 6698
 - political developments, 4723
 - prices negotiated for rock-crushing plants for use by Army Department, GAO report, 4223
 - rental rates for barges used in, included costs previously recovered by contractor, GAO report, 10153
 - vietnamization assured, Cambodia in perspective, interim report by Richard Nixon, 10605
 - riverine warfare, Navy's operations on inland waters, 1023
 - servicemen in combat zones, duty-free entry of gifts—
 - law, 3750
 - report, 1519
 - seven firefights, 11572
 - South, *see*, above, Republic.
 - steel purchased for commercial barge construction program, review, report, 17629
 - toward peace with justice, reports, 1469, 1485
 - United States involvement in southeast Asia, report, 12238
 - veterans assistance act of 1970, hearings, 17653
 - Viezblicke, P. P., NBS frequency and time broadcast services, radio stations WWV, WWVH, WWVB, and WWVL, 11735
 - Viking, *see* Spacecraft.
 - Viksne, Andris:
 - apparent consumption of industrial explosives and blasting agents in United States, 5847
 - disabling work-injury experience of oil industry and natural gas industry in U.S., 844
 - Villaruel, Cora S., relief, 5098, 9579

- Vincent, John S., interaction of 42-MeV alpha particles with helium-3, 928
- Vincent, Lillie, USDA employee newsletter, 3316
- Vine, James D. :
 geochemical investigations of some black shales and associated rocks, 4232
 geology and coal resources of Cumberland, Hobart, and Maple Valley quadrangles, King County, Wash., 5551
- Vingerhoet, Paul, observation of flow excursions in simulated gas-cooled reactor passage, 5906
- Vinton County, Ohio, community profile, 12478
- Vinyl chloride, and ethylene oxide adsorption on iron surface (O11) and effect of these films on adhesion, 16996
- Viola, Herman J., Prologue, *Journal of National Archives*, 3103
- Violence :
 and the media, staff report to National Commission on Causes and Prevention of Violence, 4641
 campus unrest, report, 18302
 crimes of violence, staff report, 15119-120, 17216
 District of Columbia, crimes of violence, anticrime proposals, hearings, 3857
 law and order reconsidered, 1044
 political and assassination, 1042
see also Assault and battery.
- Violence, National Commission on Causes and Prevention, *see* National Commission on Causes and Prevention of Violence.
- VIR, *see* All-Union Scientific Research Institute of Plant Growing.
- Viral diseases, *see* Virus diseases.
- Virgin Islands :
 air quality control region, report for consultation, 8973
 annual report, 7301
 climate, 14341
 climatological data, 2409
 coast pilot, supplement, 8133
 college, land grant status, amend organic act, reports, 1664, 6741
 cooperative soil survey, soils and people, 7783
 county business patterns, 4933, 13174
 mineral industry, minerals yearbook chapter, 4459, 18159
 nautical chart catalog, 4976
 nonvoting delegate in House of Representatives, hearings, 13524
 organic act, revised, amend, report, 1664, 6741
 principal electric facilities, map, 8629
 territorial highway study, 8344
 print as Senate document, report, 9828
 trade study, 11311
 U.S. imports of watch movements duty-free from Virgin Islands, benefit island's economy, GAO report, 7217
 U.S., our Caribbean gems, description, history, etc., 7860
 voting, lower age, amend revised Organic act, report, 1609
- Virgin Islands Corporation, financial statements, 1969, GAO examination, 6570, 10144
- Virgin Islands National Park, Reef Bay ("Par Force") Estate House and Sugar Factory, historic structures report, 17160
- Virginia :
 agricultural conservation program, 17430
 census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 9429
 retail trade, merchandise line sales, 13120
 selected services, 4920
 wholesale trade, 1307
 census of construction industries, 1967, statistics, 15565
- Virginia—Continued
 census of governments, 1967 statistics, 3595
 census of manufactures, 1967 statistics, 15588
 census of transportation, 1967 commodity transportation survey, 8073
 climatological data, 2409
 county business patterns, 3625, 13171
 electric rate book, 5432
 landings, fish and shellfish, 3330, 12064
 mineral industry, minerals yearbook chapter, 4467
 minority construction contractors, located in selected cities, list, 8792
 northern, effects of urban development on floods, 18055
 northern faunal provinces, ostracode zoogeography, 10174
 postal map, 7703
 Potomac River and tributaries, Washington metropolitan area, pollution control—
 conference proceedings, 1865, 16517
 progress evaluation meeting, proceedings, 8672
 Potomac Valley Conservancy District, compact, amendments—
 hearing, 1598
 law, 17606
 report, 13467
 precipitation data, hourly, 2718
 southwest, archeological survey, 10466
 suburbs, crime spillover from Washington, D.C., regional aspects, hearings, 5264
 travel costs less than you think, please come, invitation from people of U.S., 7885
 Dutch edition, 7882
 German edition, 7880
 Japanese edition, 7886
 Portuguese edition, 7883
 Spanish edition, 7881
- Virginus Island, Harpers Ferry National Historical Park, social and economic history, 6062
- Viral coefficients, *see* Coefficients.
- Virologists, L. A. Zilber, work and life, USSR study, 4336
- Virology, *see* Viruses.
- Virus diseases :
 acute viral disease of channel catfish, 6209
 channel catfish, identification, causes, etc., 1116
 duck virus enteritis—
 old world disease in new world, 9320
 reported in United States, 7906
 neurotropic viral diseases surveillance, National Communicable Disease Center, annual encephalitis summary, 1065
- Viruses :
 antiviral and enzymatic activity of deoxyribonuclease relationship, investigation, USSR study, 1886
 human cancer involving viruses, partial bibliography, 12848
 virology, USSR studies, 4340
 Visa Office, annual report, 6219
 Visas, *see* Passports.
- Viscosity :
 data, molten salts, errata, 4549
 helium-nitrogen system, from 133° to 740° K for pressures between 1 and 240 atmospheres, 11590
 measurements of dilute solutions of helium-3 in superfluid helium-4 between 0.1 and 1.2K, 945
 new eddy viscosity equations in coaxial free-jet computer code, improved data agreement by using, 11673
- Viscous flow, *see* Flow.
- Visibility :
 measurement for aviation use, 18378
 observation methods, analysis, 1836
 prediction, development of base techniques, 18371

INDEX 1970

- Vision, *see* Sight.
- Visitors:
- cultural exchange visitors, tax information, 5643
 - customs hints for nonresidents, 6831
 - foreign visitor arrivals—
 - 1969-69 statistics, 15371
 - statistical summary and analysis, 3230
 - foreign visitors, major metropolitan market area statistics, 17394
 - increase foreign travel to United States—
 - hearing, 5259
 - reports, 6673-74, 9650, 13419
 - tax information for visitors to United States, 4312
 - visit USA exhibit for Expo '70, new promotion tool (remarks), 4780
 - visitor services training series, 11795
 - Visitors Center, National, *see* National Visitor Center.
 - VISTA, *see* Volunteers in Service to America.
 - Visual acuity, *see* Acuity.
 - Visual aids, visual confirmation of magnetic tape, 17175
 - Visual appearance of polymeric contamination, 11875
 - Visual flying rules:
 - aviation air traffic patterns, 11282
 - heliport lighting for VFR, flight test and evaluation, 4112
 - VFR-IFR experimental training program (paper), 6341
 - Visual instruction, *see* Audio-visual education.
 - Visual perception, *see* Perception.
 - Vital and Health Statistics, National Committee on, *see* United States National Committee on Vital and Health Statistics.
 - Vital statistics:
 - annotated bibliography, 17230
 - data evaluation and methods research, 10446, 14934
 - data from national health survey, 6013-16, 7584-85, 10448, 11755, 14935-936, 17050
 - data from National Vital Statistics System, 6017-18, 10449
 - documents and committee reports, 10447, 18240
 - Indians, 1968—
 - Aberdeen, S. Dak., area, 7294
 - Albuquerque, N. Mex., area, 7295
 - Navajo area, 8801
 - Oklahoma area, 7296
 - Phoenix, Ariz., area, 8800
 - Portland, Oreg., area, 7297
 - provisional, monthly report, 2912
 - United States, 1079, 8998, 17051
 - see also* Death—Divorce—Marriage.
 - Vitamins, vitamin content of meal, ready-to-eat, individual, effect of freeze-thaw cycling, 6348
 - Viterbo, Placido, relief, 9584, 9799
 - Vivian, James F., materials in National Archives relating to Rumania, 17080
 - Vlahakis, J. G., second report on hydrate reaction kinetics and ice-crystal growth rates, 4300
 - Vlasov equations, *see* Equations.
 - VLF, *see* Frequency band.
 - Vocational education:
 - act of 1963, amend—
 - hearing, 414
 - report, 1540
 - amendments of 1963—
 - extend—
 - hearing, 414
 - report, 1540
 - learning for earning, new opportunities for paycheck education, 586
 - amendments of 1969, hearing, 414
 - annual report, 14298
 - breakthrough for disadvantaged youth, 2015
 - cooperative day of planning, report of meeting, 14806
 - Vocational education—Continued
 - facts about Bureau of Adult, Vocational, and Technical Education, 12499
 - inventory of statistics available in Federal agencies, 11234
 - Project Transition, need to improve management, GAO report, 1896
 - publications, list, 16545
 - State, statistics, 17914
 - technological advance requires reform in vocational education (address), 10887
 - vocational programs, facts, 582
 - see also* Education.
 - Vocational Education, Advisory Council on, *see* National Advisory Council on Vocational Education.
 - Vocational guidance:
 - employment outlook for tomorrow's jobs, 12663
 - occupational outlook handbook, 11530
 - Vocational rehabilitation, *see* Rehabilitation of the disabled.
 - Voegali, P. T., Jr., geohydrology, Project Rullison, Garfield County, Colo., with section on aquifer response, 8734
 - Voelkl, Hans R., thermal decomposition and explosion of ammonium perchlorate and ammonium perchlorate propellant up to 50 kilobars ($5.0 \times 10^9 \text{ N/m}^2$), 17001
 - Vogler, Raymond D.:
 - ground-effects investigation of STOL air-sea transport model with blowing over canard and wing flaps, 18206
 - wind-tunnel investigation of VTOL jet-transport model with powered lift engines in pods at wing midspan or in-board, 10403
 - Vogt, R. H., iodine filter tests at NRL nuclear reactor, 15078
 - Voice of America, general information, 7879
 - Voidance time for 23 species of fish, 6207
 - Volcanic rocks, *see* Igneous rocks.
 - Volcanoes:
 - and vulcanism, graphic display, 14543
 - Hawaiian Observatory summary, 2706
 - volcanic eruption at Metis Shoal, Tonga, 1967-68, description and petrology, 17272
 - Volcanology, volcanoes and vulcanism, graphic display, 14543
 - Volcker, Paul A.:
 - addresses, etc.—
 - Nov. 14, 1969, 2273
 - Nov. 19, 1969, 2274
 - Mar. 17, 1970, 7877
 - Apr. 20, 1970, 9250
 - Sept. 28, 1970, 17392
 - Vollman, Rudolf F., Down's syndrome (Mongolism), reference bibliography, 4569
 - Volta, Upper, *see* Upper Volta.
 - Voltage, volt-ampere loading and output distortion for turboalternator with multiple load phase-controlled parasitic speed controller, experimental evaluation, 4518
 - Voltage regulators:
 - simplified DC-to-DC converter with constant average output voltage, 1031
 - voltage regulator and parasitic speed controller transient characteristics on 14.3-kilovolt-ampere, 1200-Hertz modified Lundell alternator, 18197
 - voltage regulator-exciter and alternator for Brayton-cycle space power system, unbalanced electromagnetic forces, 10343
 - Voltagages:
 - high-frequency wattage-to-voltage converter, design and performance, 5965
 - high-voltage DC electrical power in aircraft electrical systems, assessment, 17197
 - voltage breakdown in low-temperature cesium-vapor diode, 14852

- Volumetric analysis, titrimetric determination of uranium in product, fuel, and scrap materials after ferrous ion reduction in phosphoric acid, 13075
- Voluntary agency and community mental health services, 17138
- Voluntary foreign aid programs, 7347
- Voluntary organizations, *see* Volunteer workers.
- Volunteer workers:
- child nutrition program, handbook for volunteers, 10109
 - college volunteers, guide to action helping students to help others, 569
 - community service, volunteer assistance for veteran-patients living in community, 4785
 - day care, everybody's problem, volunteer to help in your community, 8105
 - drug abuse information, education, and rehabilitation programs supported by State health agencies and voluntary organizations, 7609
 - food stamp handbook for volunteers, you can help fight hunger in America, 1872
 - national program for voluntary action (address), 1923-24, 7270, 10190
 - right to read, role of volunteer (address), 7024
 - role in community service (remarks), 12902
- VA voluntary service, sponsored competitions, 10660
- VISTA business, opportunities to serve as business consultant to the poor, 6986
- volunteers in education, materials for programs and the volunteer, 5573
- volunteers in park program, establish—law, 13332
- report, 10955, 13659
- volunteers in today's world, 15383
- volunteers start food program, 7938
- you can help fight hunger in America, donated foods, handbook for volunteers, 5475
- Volunteers in Service to America:
- architects and planners, general information, 5333
 - business, opportunities to serve as business consultant to the poor, 6986
 - lawyers, job opportunities, 5332
 - VISTA (periodical), 3331
 - VISTA fact book (periodical), 3332
 - VISTA scene as seen by others, newspaper articles, 14264
 - VISTA serves, 5331
 - who, what, where, how, VISTA, questions and answers, 6985
- Volunteers of America Week:
- designate—law, 1419
 - report, 1663
- Von Ende, Zoe, Denver doesn't quit on problem students, 14276
- von Pragenau, George L., stability of constant-gain systems, with vector feedback, 12777
- VOR, *see* Omnilranges.
- Vortex flow:
- and interface enhancement for vertical tube evaporator, 16700
 - jet-engine exhaust and trailing vortex wakes, introduction, 13024
- Vortex motion:
- equation for, including effects of buoyancy and sources with applications to tornadoes, 18203
 - rotor blade-vortex interaction, experimental study, 11613
 - vortex shedding, effects on fuel slosh damping predictions, 7541
- Vortex tubes, *see* Tubes.
- Vortman, L. J., Project Schooner, close-in airblast from Schooner event, 9399
- Vosloh, Carl J. jr., alfalfa, dehydration, separation, and storage, cost and capital requirements, 9307
- Voting:
- and registration in election of Nov. 1968, current population reports, 222
 - information booklet, 7974
 - lower age in Virgin Islands, amend revised Organic act, report, 1609
 - lowering age to 18, amend U.S. Constitution, hearings, 13748
 - rights act of 1965—amendments, hearings, 5269
 - amendments of 1970, text, 11049
 - extend—
 - hearings, 436
 - law, 13301
 - reports, 1483, 13401
 - text, 427, 11049
- Voyageurs National Park, establish, hearing, 422
- Voyekovo, USSR, liquid precipitation, preliminary results of study of errors in measuring USSR study, 11516
- Vranick, James E., design and performance of high-frequency wattage-to-voltage converter, 5965
- Vroman, Wayne G., macroeconomic effects of social insurance on aggregate demand, 6170
- V/STOL (vertical or short takeoff and landing), *see* Aircraft.
- VTOL (vertical takeoff and landing), *see* Aircraft.
- W**
- W.I.P.O., *see* World Intellectual Property Organization.
- W series, 3353
- Wacker, Paul F., quantifying hazardous microwave fields, analysis, 8989
- Waco, Tex.:
- Brazos and Bosque Rivers—flood plain information, 16413
 - floods, how to avoid damage, 17935
- Wade, George H.:
- higher education, advance statistics on opening fall enrollment, basic information, 14286
 - opening fall enrollment in higher education, 1969, report on preliminary survey, 17912
- Wade, Richard A., ecology of juvenile tarpon and effects of dieltrn on 2 associated species, 4715
- Wadsworth Hospital, VA Center, Los Angeles, Calif., veterans wounded in Vietnam, oversight of patient care, hearings, 12379
- Wage and Hour and Public Contracts Divisions, interpretative bulletin, 6279, 15386
- Wage board employees, 13757, 16008
- Wage chronology, *see* Wages.
- Wage earners, *see* Labor.
- Wagering, *see* Gambling.
- Wages:
- and related benefits, metropolitan areas, U.S. and regional summaries, 4373
- area surveys—
- Akron, Ohio, 2022
 - Albany-Schenectady-Troy, N.Y., 10298
 - Albuquerque, N. Mex., 11537
 - Allentown-Bethlehem-Easton, Pa.-N.J., 16849
 - Atlanta, Ga., 14733
 - Baltimore, Md., 4379
 - Beaumont-Port Arthur-Orange, Tex., 16850
 - Binghamton, N.Y., 2029
 - Birmingham, Ala., 11539
 - Boise City, Idaho, 8866
 - Boston, Mass., 4383
 - Buffalo, N.Y., 6833
 - Burlington, Vt., 11535

INDEX 1970

Wages—Continued

area surveys—continued

Canton, Ohio, 16847
 Charleston, W. Va., 12711
 Charlotte, N.C., 11543
 Chattanooga, Tenn.-Ga., 2033
 Chicago, Ill., 2020
 Cincinnati, Ohio-Ky.-Ind., 11533
 Cleveland, Ohio, 5827
 Columbus, Ohio, 5831
 Dallas, Tex., 5828
 Davenport-Rock Island-Moline, Iowa-Ill., 5825
 Dayton, Ohio, 7434
 Denver, Colo., 8870
 Des Moines, Iowa, 16843
 Detroit, Mich., 11540
 directory, 2035
 Fort Worth, Tex., 5824
 Green Bay, Wis., 2032, 18127
 Greenville, S.C., 14735
 Houston, Tex., 12710
 Indianapolis, Ind., 5829
 Jackson, Miss., 8868
 Jacksonville, Fla., 8867
 Kansas City, Mo.-Kans., 4378
 Lawrence-Haverhill, Mass.-N.H., 16848
 Little Rock-North Little Rock, Ark., 2027, 18124
 Los Angeles, Long Beach and Anaheim-Santa Ana-Garden Grove, Calif., 12708
 Louisville, Ky.-Ind., 5832
 Lubbock, Tex., 10297
 Manchester, N.H., 4377, 18125
 Memphis, Tenn., 7430
 metropolitan areas—
 selected occupational earnings, supplementary provisions, 7422
 U.S. and regional summaries, occupational earnings, interarea pay comparisons, and wage trends, 14665
 Miami, Fla., 7431
 Midland and Odessa, Tex., 10294
 Milwaukee, Wis., 16844
 Minneapolis-St. Paul, Minn., 10295
 Muskegon-Muskegon Heights, Mich., 18851
 New Haven, Conn., 8869
 New Orleans, La., 8871
 New York, N.Y., 2021
 Newark and Jersey City, N.J., 11532
 Norfolk-Portsmouth and Newport News-Hampton, Va., 11541
 Oklahoma City, Okla., 5823, 18128
 Omaha, Nebr.-Iowa, 4380
 Paterson-Clifton-Passaic, N.J., 817
 Philadelphia, Pa.-N.J., 10296
 Phoenix, Ariz., 14732
 Pittsburgh, Pa., 11542
 Portland, Maine, 5830
 Portland, Oreg.-Wash., 16846
 Providence-Pawtucket-Warwick, R.I.-Mass., 12714
 Raleigh, N.C., 2030
 Richmond, Va., 14731
 Rochester, N.Y., 2028
 Rockford, Ill., 16845
 St. Louis, Mo.-Ill., 12709
 Salt Lake City, Utah, 7429
 San Antonio, Tex., 12713
 San Bernardino-Riverside-Ontario, Calif., 8872
 San Diego, Calif., 7433
 San Francisco-Oakland, Calif., 7432
 San Jose, Calif., 7428
 Savannah, Ga., 14736
 Scranton, Pa., 4382, 18126
 Seattle-Everett, Wash., 11534
 Sioux Falls, S.D., 4381
 South Bend, Ind., 11544
 Spokane, Wash., 16852
 Syracuse, N.Y., 2034
 Tampa-St. Petersburg, Fla., 2031
 Toledo, Ohio, 11588

Wages—Continued

area surveys—continued

Trenton, N.J., 5826
 Utica-Rome, N.Y., 2026
 Washington, D.C.-Md.-Va., 7427
 Waterbury, Conn., 11536
 Waterloo, Iowa, 8873
 Wichita, Kans., 12712
 Worcester, Mass., 14734
 York, Pa., 11545
 Youngstown-Warren, Ohio, 7435
 cash and perquisites received by regular hired farmworkers, 15446
 chronology—
 directory, 4387
 International Shoe Co., 1967-69, supp., 10291
 Sinclair Oil Companies, supp., 8862
 combined withholding tables for wages paid on or after July 1, 1970 and Jan. 1, 1971, 10235
 compensation in construction industry, employment patterns, union scales and earnings, 14729
 current developments, 2479
 earnings—
 base under OASDHI, automatic adjustment, 6166
 motor vehicle and parts manufacturing, production workers, 7422
 statistics 1939-68, States and areas, 2019
 employment and earnings (periodical), 2532
 exemption of certain wages and salaries from withholding for tax purposes under laws of States or subdivisions, hearings, 13722
 Fair labor standards act—
 forestry or logging operations, 6279
 handy reference guide, 7896
 farm labor developments, 2565
 Federal wage board employees—
 compensation, adjust—
 hearings, 13757
 report, 16008
 pay rates, uniform system of determining and adjusting, hearings, 431
 Federal wage garnishment law, basic information, 7895
 hourly, index for hydraulic turbine establishments, 2736
 inappropriate minimum wage rate determinations as cause of increased construction costs for certain Federally financed housing projects, Labor Dept., GAO report, 14496
 industry surveys—
 communications, 11546
 contract cleaning services, 4376
 cotton and man-made fiber textiles, 818
 educational institutions, nonteaching employees, 11547
 laundry and cleaning services, 2025
 machinery manufacturing, 14737
 men's and boys' shirts (except work shirts) and nightwear, 7426
 nursing homes and related facilities, 819
 women's and misses' dresses, 7424
 wood household furniture except upholstered, 11531
 intraoccupational wage dispersion in metropolitan areas, 820
 minimum—
 effects on youth unemployment, 8865, 10293
 increase, hearings, 15896
 Puerto Rico—
 food and related products industry, 2282
 general agriculture industry, 4787
 sugarcane industry, 4788
 nineteenth century wage trends, 5820
 occupation and earnings of family heads in 1969, 1965, and 1959, current population reports, 15652

- Wages—Continued**
 prevailing rate pay systems for Government employees, reports, 18408, 15854
 prevailing wage rate determination act of 1969, hearings, 431
 price-wage guideposts, provide, hearing, 11034
 railroad employees, class 1 railroads, 3333
 relationship between changes in wage rates and in hourly earnings, 16863
 retirement test changes on earnings of workers aged 65-72, effects, 9114
 severance pay—
 displaced defense workers, 4845
 what it is, 12051
 spendable earnings and purchasing power, monthly release, 3217
 sugar, harvesting, processing, etc., wage rate determination, 3237
 telephone company employees, FCC rules and regulations, 2585
 union—
 building trades, 12716
 local-transit operating employees, 1969, and 1929-69 trend, 14738
 local truckdrivers and helpers, 12717, 14739
 printing industry, 816, 14740
 wage calendar, 5821
 wage developments in manufacturing, 1969, 1st 6 months, 11549
 wage-price issue, need for guideposts, hearings, 419
 withholding taxes from your employee's wages, 5696
 workers covered by State unemployment insurance laws, 2533
 your social security earnings record, 7755
 see also Salaries.
- Wagley, Henry O., Jr., canned deciduous fruit industry of Spain, 10110
 Wagner, Charles A., frequency responses and other characteristics of 6 fast-decay phosphors applicable to flying-spot scanners, 18215
 Wagner, William E., formulation on statistical trajectory estimation programs, 4493
 Wagner-O'Day act, see Handicapped.
 Wagoner County, Okla., conveying mineral interests to I. Earl Nutter, report, 15862
 Wagons, wagon box for drying hay, farm building plan, 7928
 Wahkiakum County, Wash., community profile, 6971
 Wahluke Branch Canal, Columbia Basin Project, tests on preformed polysulfide strips for canal contraction joints, 9090
 Wait, James R.:
 concerning theory of scatter of HF radio ground waves from periodic sea waves, 5392
 on launching azimuthal surface wave on cylindrical impedance boundary, 7951
 propagation of electromagnetic waves over smooth, multisection curved earth, exact theory, 7950
 Waiters and waitresses:
 employment outlook, 12697
 training course, suggested guide, 595
 Waitresses, see Waiters and waitresses.
 Wake County, N.C., community profile, 12479
 Wake Island, code, civil administration, Federal aviation regulations, 2574
 Wakeley, Philip C., single commercial thinings in variously spaced slash and loblolly pine plantations, 705
Wakes:
 jet-engine exhaust and trailing vortex wakes, introduction, 13024
 wake analysis for supersonic decelerator applications, 7518
 wake effect of panel tip-mounted fan-jet engine on lift-induced vortex, exploratory wind-tunnel investigation, 11636
 Walcott, Mrs. Charles D., collection of sand-paintings of Navaho Shootingway, 10467
 Walden, Harvey, analytic determination of camera operability status considering dynamic solar conflict for Radio Astronomy Explorer satellite, 10384
 Waldman, Saul, national health insurance, comparison of 5 proposals, 15170
 Waldrup, Byron T., progress in watershed development in AWR basins area under USDA programs, 6189
 Walker, Charles E.:
 addresses, etc.—
 Feb. 27, 1970, 7873
 Mar. 23, 1970, 7876
 June 7, 1970, 10648
 June 11, 1970, 11925
 Aug. 9, 1970, 15365
 Oct. 16, 1970, 18387
 Oct. 31, 1970, 18391
 Walker, E. H., Raft River basin, Idaho-Utah, 1966, reappraisal of water resources and ground water development, 14539
 Walker, Elizabeth, diabetes guide for nurses, 6145
 Walker, John G., papers in Library of Congress, register, 16872
 Walker, Martha L., internal and external parasites of deer, checklist, 15406
 Walker, R. L., Jr., micrometer measures of 463 double stars, 1008
 Walker, Richard, provisional patient movement and administrative data, residents in public institutions for mentally retarded, 17249
 Walker, Robert H., establishing business in Belgium, 15731
 Walker County, Ala., community profile, 14233
 Walker Sisters Home, historic structures, report, and furnishing study, 4587
 Walkways, rigid pavement for walks, Army technical manual, change, 6361
 Wall, Brian R., projected developments of timber economy of Columbia-North Pacific region, 698
 Walla Walla County, Wash., community profile, 6972
 Walla Walla Indians, see Umatilla Reservation.
 Walla Walla project:
 Touchet division, construct, operate, and maintain—
 law, 12130
 reports, 6610, 10997
 Wallace, G. T., Jr., foam separation as tool in chemical oceanography, 4629
 Wallace, Sarah L., quarterly journal of Library of Congress, 3119
 Wallace, Idaho:
 Place Creek project, engineers report—
 departmental edition, 14328
 document edition, 13366
 Walleyed pike, walleye population estimates in Lake Sharpe, S. Dak., 7792
 Wallich, Henry C.:
 remarks—
 Nov. 5, 1969, 1179
 Dec. 12, 1969, 2277
 Sept. 10, 1970, 17385
 Wallowa-Whitman National Forest, 1968 annual letter, 708
 Walls, Nancy W., physiological studies on Clostridium botulinum, type F, 127
Walls:
 block walls, without mortar joints, surface bonding of concrete blocks, technique for erecting, 11947
 boundary layer in Mach 6 axisymmetric tunnel, preliminary survey, 5938
 roughness, effect on damping of liquid oscillations in rectangular tanks, 5973
 wall cooling, Reynolds number, and Mach number in relation to power-law velocity-profile-exponent variations in turbulent boundary layer, 10897

INDEX 1970

- Walnuts:**
 black walnuts—
 growing for home use, 23
 on nonforest land in Kentucky, 11367
 standing timber coefficients for Indiana
 walnut log production, 5510
 walnut anthracnose, 14446
 Walsh, John E., establishing business in
 Malaysia, 8148
 Walsh, Thomas M., interferograms of win-
 dow wavefront deformations as measure
 of angular deviations to line of sight,
 10396
 Walsh County, N. Dak., community profile,
 14234
 Walsh-Healy public contracts act, *see* Gov-
 ernment contracts.
 Walter, Robert A., time-of-flight mass spec-
 trometer for studies of ions produced by
 simulated micrometeoroid impact, 8950
 Walter Reed Army Institute of Nursing, pro-
 gram, educational opportunity for stu-
 dents, 3486
 Walter Reed Army Institute of Research:
 Army Surgical Research Team, study of
 activities in Vietnam, 4868
 health data publication series, 1240-41
 Walters, Betty L., king of desks, Wooton's
 patent secretary, 7737
 Walters, Gerald A., direct seeding of brush-
 box, lemon-gum eucalyptus, and cluster
 pine in Hawaii, 4192
 Walters, I. J., results from full-scale meas-
 urement of midship bending stresses on
 three dry cargo ships, 17266
 Walthall County, Miss., community profile,
 16360
 Walton, Barbara A., Data Reduction Labora-
 tory, aid to space scientist, 7532
 Walton, W. W., performance of buildings,
 concept and measurement, 5996
 Walworth County, S. Dak., community pro-
 file, 14235
 Walz, Joseph E., accuracy of finite element
 approximations to structural problems,
 7552
 Wan Nor Kong, *see* Kong Wan Nor.
 Wang, Fun-Den:
 slope stability analysis by finite element
 stress analysis and limiting equilibrium
 method, 5876
 systematic analysis of pit slope structures
 by stiffness matrix method, 5877
 Wang, K. P., mineral industry of mainland
 China, 14785
 Wapanocca National Wildlife Refuge, birds,
 list, 9181
 Wapello County, Idaho, community profile,
 14236
War:
 asphyxiating, poisonous, or other gases,
 and bacteriological methods of warfare,
 prohibit use, protocol, 13574
 Cambodia in perspective, Vietnamization
 assured, Interim report by Richard
 Nixon, 10605
 Cambodia strike, defensive action for peace
 (address), 9192
 general, interdisciplinary conference on se-
 lected effects, proceedings, 6847
 Near East conflict, hearings, 13512
 psychological warfare, attempts at disrup-
 tion in this country (remarks), 16493
 seven firefights in Vietnam, 11572
 tear gas use, U.S. International negotia-
 tions, policy and practice, subcommittee
 report, 15898
 Vietnam conflict, impact on U.S. economy,
 hearings, 9909, 13732
 Vietnam policy proposals, hearings, 8407
 war of ideas, 1870-90, United States Navy,
 13009
 see also Peace.
 War and emergency powers:
 presidential and congressional—
 documents, 18052
 hearings, 15899
 War claims, *see* Claims.
 War on hunger, report from Agency for In-
 ternational Development, 3334
 War risk insurance:
 aircraft coverage, extend time, report,
 15993
 programs, extend—
 hearing, 11041
 law, 15787
 reports, 12217, 12244
 War ships, *see* Warships.
 Warburton Manor and Digges family of
 Maryland, historic structures report, 17163
 Ward County, N. Dak., community profile,
 14237
Warehouses:
 forecasting warehouse produce movement,
 15398
 public warehousing, 1967 census of busi-
 ness, 15548
 refrigerated—
 capacity, 6254
 directory, 9214
 Warfare, *see* Guerrilla warfare—War.
 Warfield, R. S., sampling and coking studies
 of several coalbeds in Kokolik River, Kuk-
 powruk River, and Cape Beaufort areas
 of Arctic Northwestern Alaska, 879
 Warheads, *see* Missiles.
 Warmbrod, John D., theoretical and experi-
 mental study of unsteady flow processes in
 Ludwig tube wind tunnel, 908
 Warneck, Peter, study of application of pho-
 tonization of mass spectrometer to analy-
 sis of contaminant gases, 8927
 Warnecke, Guenter, ocean current and sea
 surface temperature observations from
 meteorological satellites, 4507
 Warner, R. E., p-p and p-t final state inter-
 actions in reaction of ³He(d,tp), 14870
 Warner, Robert W., approximate analytical
 models for landing energy absorption, in-
 cluding effect of penetration by payload
 into its crushable casing, 12801
Warning systems:
 national river and flood forecast and warn-
 ing service plan for improving, 6281
 the other wire, ESSA weather wire, gen-
 eral information, 11278
 severe local storm warning service and
 tornado statistics, 9268
 stall warning equipment for airplanes, ex-
 perimentation and evaluation of im-
 proved system, 8602
 tsunami regional warning system in
 Alaska, 4097
 warning system techniques in terminal
 area for aircraft collision hazard, statis-
 tical evaluation, 2066
Warranties and guarantees:
 consumer products with electrical, me-
 chanical or thermal components, pro-
 vide minimum standards—
 hearings, 8387
 report, 9872
Warren, Earl:
 Chief Justice of United States, tributes to
 commemorate retirement from Supreme
 Court, 13362
 print as House document, reports, 9697,
 13630
 Warren, Forest G., farm mortgage debt, 9976
 Warren, John C., manufacturers' sales rep-
 resentative, 18323
Warren, Ohio:
 area wage survey, 7435
 census of transportation, 1967, commod-
 ity transportation survey, 8067
 Warren County, Iowa, community profile,
 14238

- Warren County, Miss., community profile, 16361
- Warren County, Mo., community profile, 17892
- Warren County, N.Y., community profile, 14240
- Warren County, N.C., community profile, 14239
- Warren County, Ohio, community profile, 12480
- Warren County, Pa.:
community profile, 16362
prediction of oil recovery by streamflooding in Venango sands, applying Marx and Langenheim calculations, 850
- Warrenton Dune Soil & Water Conservation District, 35 years of progress, 10574
- Warsaw, Poland, Warsaw insurrection, Communist version versus facts, 8422
- Warships:
American ships of the line, 4611
battleship in U.S. Navy, 6088
glossary of terms for electronic and weapons control interface functions (naval ship combat systems), military standard, 6879
naval ship combat systems, glossary of terms for electronic and weapons interface functions, 6879
- Warts (plant disease):
tissue culture of black wart of potato tubers, USSR study, 5761
- Warwick, James W., particles and fields near Jupiter, 18191
- Warwick, R.I.:
area wage survey, 12714
census of transportation, 1967, commodity transportation survey, production, area series, 6417
- Wasatch County, Utah, community profile, 6973
- Wasatch Mountain, Wasatch Front intrastate air quality control region, report for consultation, 8974
- Wash, Ellen O., thrift institution development in Latin America, 10939
- Washabaugh County, S. Dak., community profile, 14241
- Washakie County, Wyo., conveyance of real property to, report, 9853
- Washburn, C. Langhorne:
remarks—
Nov. 12, 1969, 7884
Jan. 26, 1970, 4780
June 14, 1970, 11929
Oct. 15, 1970, 17395
- Washers (metal, etc.):
census of manufactures, 1967, industry statistics, 17526
- Washichek, Jack N.:
early season snow report for Colorado, 4700
special early season snow report for Colorado, 4701
special snow survey information, 9170
water supply outlook and Federal-State-private cooperative snow surveys for Colorado and New Mexico, 3338
- Washington, George, Gen. Washington's Headquarters, 1779-80, Morristown National Historical Park (poster), 6065
- Washington, James A., jr., nomination, hearing, 494
- Washington, Sylvia H., bibliography, Labor management relations act, 1949, as amended by Labor management reporting and disclosures act, 1959 supplement, 17145
- Washington, D.C., see Capital of United States—District of Columbia.
- Washington County, Ala.:
community profile, 14242
land conveyance to—
Adelaide Gaines, 13576, 17580
Mrs. Jessie L. Gaines, 8786
- Washington County, Iowa, community profile, 14243
- Washington County, Miss., community profile, 16363
- Washington County, Mo., community profile, 17893
- Washington County, Nebr., community profile, 17894
- Washington County, N.X., community profile, 14244
- Washington County, N.C., community profile, 12481
- Washington County, Ohio, community profile, 12482
- Washington County, Oreg.:
floods, how to avoid damage, 8548
McKay-Rock Creek Watershed, watershed work plan, 15244
Tualatin River and tributaries, flood plain information, 8545
- Washington County, Pa., community profile, 16364
- Washington County, Utah, community profile, 6974
- Washington meridian observations of moon, 6-inch transit circle results, 11809
- Washington Metropolitan Area Transit Authority:
appropriations, 1970—
hearings, 399, 1701
law, 3742
report, 1468
appropriations, 1971—
hearings, 8289, 9727
report, 9719
regulation compact, public buildings and facilities accessible to physically handicapped, provide—
hearings, 3392
law, 6537
reports, 1544, 3940
- Washington National Airport:
air traffic forecasts for 1970-81, fiscal years, 7075
demand for use, excess by air carriers, report, 9238
stretch jets at National Airport, permit use, hearings, 16047
- Washington State:
census of business—
major retail centers, standard metropolitan statistical areas, 4914
retail trade, merchandise line sales, 10794
census of governments, 1967, State reports, 4923
census of transportation, 1967, commodity transportation survey, 8074
climatological data, 2400
coast pilot, supplement, 6490
county business patterns, 213, 10811
electric rate book, 16502
forest and range soils research, bibliography, 8706
habitat management for—
band-tailed pigeons, 6181
black bear, 6182
black-tailed deer, 6183
hares, 15213
rabbits, 15214
turkey, 15217
white-tailed deer, 6184
herons, general information, 15218
laminated root rot of Douglas-fir, 18025
land exchanges, remove Federal restrictions, report, 15847
landings, fish and shellfish, 10884, 12061
management and uses of Russian olive, 6185
mineral industry, minerals yearbook chapter, 4468
minority construction contractors located in selected cities, list, 8796
Pacific slope basins, surface waters, quality, 5567, 16644
postal map, 7704

INDEX 1970

- Washington State—Continued
precipitation data, hourly, 2718
solid waste disposal from coal mining, 2048
water resources data, 4262
water supply outlook and snow surveys, 3344
western—
critical area stabilization, guide for land-owner in urban areas, 15203
hydrology of 4 streams related to Pacific salmon species, 14529
wilderness, designate certain lands, hearings, 5268
Washoe County, Nev., Evans Creek (Block N), watershed work plan, 7785
Washoe Indians:
lands in Alpine County, Calif., hold in trust—
law, 13336
reports, 9859, 10976
Wason, James R., separation of powers and independent agencies, cases and related readings, 9775
Wasps:
controlling, etc., 15424
Floridian solitary wasps (Hymenoptera, specidae), behavioral and life history notes, 9106
Melanesian of genus *Cerceris* Latreille (Hymenoptera, Specidae), revision, 2218
Orgilus Haliday (Hymenoptera, Braconidae), nearctic species, 6157
Wasson, B. E., water resources of Lee County, Miss., 14550
Waste disposal, *see* Radioactive waste disposal—Sewage—Waste products.
Waste products:
aerobic treatment of fruit processing wastes, study of aerated lagoon, activated sludge, and activated sludge reactivation in fruit cannery waste, 10103
America the beautiful, collection of nation's trashiest humor, 17307
animal wastes profile, economics of clean water, 10097
Clinch River, Tennessee River, and Whiteoak Creek, composition of water as related to disposal of low-level radioactive liquid wastes, 8739
coal mining, disposal of solid wastes in Washington, Oregon, and Montana, 2048
combined sewer overflow—
abatement technology, symposium, proceedings, 11335
seminar papers, 10106
community solid waste practices, 1968 national survey—
Delaware, New Jersey, New York, 17308
Pennsylvania, 17309
cost of wastewater treatment processes, 4169
cotton-ginning wastes, control and disposal, 17014
discharge of raw human waste, garbage, etc., from railroad trains, environmental pollution, hearings, 15905
disposal of—
brine by solar evaporation, design, criteria, 14598
liquid wastes by injection underground, neither myth nor millennium, 4236
wastes in Great Lakes and oceans, control, message from the President, 8215
electroplating wastes, recovery of metals by waste-plus-waste method, 14799
Grace Mine iron ore disposal system and estimated costs, 2049
Industrial Pollution Control Branch, projects, 18003
Industrial waste guide on logging practices, 14403
inorganic chemicals industry profile, waste control, economics of clean water, 10098
Waste products—Continued
joint municipal and semichemical pulping waste treatment, 663
Kenilworth Model Sanitary Landfill, interim report on solid waste demonstration project, 8558
metal finishing waste treatment, state-of-the-art, review, 16523
municipal and industrial refuse, conversion into useful materials by pyrolysis, 14796
municipal waste treatment plants—
need for improved operation and maintenance, Federal Water Quality Administration, GAO report, 14505
operation and maintenance, subcommittee report, 9939
Oklahoma Panhandle and adjoining areas, Glorieta sandstone and Ogallala formation, hydrogeologic information as rated to underground waste disposal, 1912
pleasurecraft wastes, collection, underwater storage, and disposal, 10104
potato processing wastes treatment—
current practice, 7169
secondary treatment, 4170
product recovery, state of art review, 14415
proposed combined sewer control by electrode potential, 16521
quad-city solid wastes project, June 1, 1966–May 31, 1967 interim report, 9074
regional solid waste handling systems, analysis, 17311
sawdust, shavings, and waste chips, uses, 5490
solid waste—
collection—
mathematical analysis, 18340
policies, mathematical modeling, 11874
demonstration grant projects—
final report, 10578
1969, summaries, 8563
disposal—
act, amend—
hearings, 1745, 5280, 9754–55, 11145
law, 12139
reports, 10981, 12327, 13403, 13668
Cascade County, Mont., comprehensive study, 10577
disposal and resource recovery facilities, provide financial assistance for construction, hearings, 1745, 5280, 11145
facilities construction grants, reports, 10981, 13403, 13668
facilities serving rural areas, FHA insured loans, general information, 9315
problems—
address, 5593
message from the President, 5082
recovery and reuse, research programs, hearings, 1745, 5280
management—
abstracts and excerpts, 15258
address, 9413
comprehensive studies, annual reports, 15255
Federal role (paper), 15259
needs for chemical research, 17310
policies, 11875
state plan, developing, planning, etc., 15256
processing, state-of-the-art report on unit operations and processes, 8562
radioactive, land burial, study of commercial operations and facilities, 3511
recycling, hearings, 9754–55
utilization, Mines Bureau research and accomplishments, 5856

Waste products—Continued

South Farmingdale-Massapequa area, Nassau County, N.Y. dispersal of plating wastes and sewage contaminants in ground water and surface water, 18052
tertiary wastewater treating processes, cost and performance estimates, 14407
textile, trade and tariff information, summaries, 11908
Tezuka Refuse Compression System, preliminary report, 8564
treatment of waste water—waste oil mixtures, 16524
use of fungi imperfecti in waste control, 16525
waste disposal in coastal waters of New York Harbor, hearing, 8318
waste treatment facilities which benefit industrial users, Federal grants awarded for constructing, Federal Water Quality Administration, GAO report, 10145
waste water treatment with powdered carbons, methods of application, 14414
wastewater, alumina columns for selective removal of phosphorus from operating parameters 14406
Waste water treatment plant operators, *see* Sewageplant operators.
Wastler, T. A., spectral analysis applications in water pollution control, 4171
Watauga County, N.C., community profile, 12483
Watch repairmen, *see* Watchmakers.
Watchcases, census of manufactures, 1967, industry statistics, 17533
Watches, *see* Clocks and watches.
Watchmakers, repairmen, employment outlook, 16882
Water:
and ionic solutions, neutron scattering study, 1952
and land resource accomplishments, Federal reclamation projects, statistics, 18315
anomalous—
discovery or error, USSR study, 5798, 7401
investigation, 12612
atmospheric water resources program, Project Skywater annual report, 10532
bank act—
hearings, 1593
report, 12250
basic facilities grants, 12601
Benbrook Dam, Tex., storage water, municipal use, report, 1471
better water is in the works, fluoridation, etc., 11408
boiling-water reactors, stability studies, 1249
boron removal from irrigation return waters, development of economical methods, 18071
bottom water overflow for fishponds, 17285
brackish—
electrochemical desalination process, evaluation, 4301
test facility, Roswell, N. Mex., annual report, 10221
used to evaluate vacuum-freezing vapor-compression process, 14593
brine disposal by solar evaporation, field experiments, 14597
California undersea aqueduct preconnaissance study, 6141
cavitation damage to high-purity metals and nickel-base superalloys in water, study, 17002
Central Arizona Project, for cities, farms, and factories, 9080
central water and sewerage systems, ownership and organization, 10051

Water—Continued

chemical quality sampling and analysis by Federal Water Pollution Control Administration at selected sites in Pacific Northwest, Sept. 1968-June 1969, results, 1914
chlorine (residual), report of study, 1815
circulation in San Francisco Bay estuary, preliminary study of effects, 11393
clean—
economics, national requirements and cost—
animal wastes profile, 10097
detailed analysis, 10096
inorganic chemicals industry profile, 10098
summary report, 10099
for mid-America, 14400
for 1970's, status report, 11333
conservation—
Alabama, 1969 highlights, 9144
conservation and full utilization, wall chart, 9082
districts, status of organization, by States, etc., 17304
films for Northeast, Nat, 10569
Georgia, land restored, annual report on soil and water conservation, 10561
glimpses of, on—
Island of Hawaii, 9137
Kauai, 9140
Maui, 9138
Molokai and Lanai, 9139
Oahu, 9141
Great Plains program, progress report, 33
Michigan, progress, 9154
motion pictures available through SCS Motion Picture Library, 6190
Oregon soil and water conservation districts law, 17299
Pennsylvania, 1969, year of progress, 9177
South Carolina, 7774
teaching, classroom and field guide, 12998
control, reclaiming mountain strip mine, key, 2267
cost of wastewater treatment processes, 4169
data, catalog of information, index, 7226-28, 10164
demineralization of saline water, research on new ion-adsorption electrodes, 8804
depth effects and flume width in sediment-transport experiments, 10177
desalination, parametric economic and engineering evaluation study of electro-dialysis process, 1954
desalted, for irrigation, value, 778
desalting—
cost calculating procedures, 12610
thermosorb process, 4302
detergents and associated contaminants in ground water at 3 public-supply well fields in southwestern Suffolk County, Long Island, N.Y., 8762
diffusion in ternary aqueous saline solutions, 5620
District of Columbia water and sanitary sewer rates, increase, report, 13686
drainage canals, Beaufort County, S.C., requirements, feasibility study, 15206
effects of surface properties on evaporation and condensation, 18072
emergency aircraft procedures over water, amdt., 259
experimental study of structure, thermodynamics and kinetic behavior of water, 1955
floodwater retarding structures near McKinney, Tex., during storm of Sept. 20-21, 1964, performance, 6187
Florida, sources of pesticides, 18625
fluoridation, search and victory, 9013

INDEX 1970

Water—Continued
 free water surfaces, study of effects of waves on evaporation, 4655
 fresh—
 desalting plants inventory report, 7302
 occurrence in Lee formation in parts of Elliott, Johnson, Lawrence, Magoffin, and Morgan Counties, eastern coal field region, Ky., 8759
 glaciers, water resource, 8735
 gold content, 5547
 ground water—
 Alaska, in permafrost regions, 11399
 artificial recharge, annotated bibliography, 4265
 availability for large-scale use in Malad Valley-Bear River areas of south-eastern Idaho, initial assessment, 7221
 California occurrence, summary, 14541
 California region, 1967 data, 4255
 Clatsop Plains sand-dune area, Clatsop County, Oreg. resources, 18053
 Dera Ismail Khan District, availability for development, water resources and related geology, 10186
 dispersal of plating wastes and sewage contaminants, South Farmingdale-Massapequa area, Nassau County, N.Y., 18052
 general techniques (series), 8757
 infiltration reduced in sewers by zone pumping, 14417
 levels in U.S., 1963-67, Northeastern States, 7255
 Michigan, hydrological data summary, 14540
 Mojave River basin recharge, Jan. and Feb. 1969, California floods, 7241
 recharge basins at Long Island, N.Y., hydrologic studies, 4246
 reconnaissance of Republic of Ghana with description of geohydrologic provinces, 8758
 resources of Lambayeque Valley, northern Peru, 735
 saline, resources of Tularosa Basin, N. Mex., 18067
 stations, catalog of information, index, 10164
 halogen acids in water, electrolytic conductance, 10429
 hydrologic conditions and artificial recharge through well in Salem Heights area of Salem, Oreg., 12590
 hydrologic cycle, 10029
 hydrologic effects of floodwater-retarding structures on Garza-Little Elm Reservoir, Tex., 16645
 hydrology of 4 streams in western Washington related to Pacific salmon species, 14529
 imported, underground storage in San Geronio Pass area, Calif., 4257
 improved application can save water, soil and labor and increase yields, 7766
 in urban planning, Salt Creek basin, Ill., water management as related to alternative land-use practices, 11402
 infiltration control, improved sealants, 1870
 injection from 9° hemisphere-cone into hypersonic airstream, 7553
 ionic solvation study, 14601
 irrigation—
 management study, San Luis Valley, Calif., 10560
 water requirements, technical release, 9166
 kinetics of ice nucleation from water and electrolyte solutions, 5617
 Land and water conservation fund act of 1965, amend—
 hearings, 11039, 12367, 13520
 reports, 12213, 13428
 laws and concepts, 10166

Water—Continued
 loans for development of water supply systems, etc., questions and answers, 6309
 magnetic water, phenomena, USSR study, 7376
 man underwater, USSR study, 10261
 metals, report of study, 8566
 Mississippi embayment, availability of water, 18041
 modified water—
 estimating molecular weight of anomalous component by cryoscopic methods, USSR study, 5794
 relationship of water vapor pressure on concentration of anomalous component, USSR study, 7400
 thermal stability, USSR study, 11513
 water vapor pressure function of concentration of anomalous component in, USSR study, 12626
 municipal and industrial supply, watershed protection and recreation, Upper Ouachita River watershed, Polk County, Ark., 9175
 National Capitol region supply facilities, hearing, 3971
 National water quality standards act of 1970, hearings, 16087, 17719
 natural, chemical characteristics, study and interpretation, 14549
 new water, 16693
 nutrients, report of study, 7046
 optimum operation of desalting plants as supplemental source of safe yield, 8807
 oriented outdoor recreation, Lake Huron basin, Mich., 7695
 our waters and wetlands, how Engineers Corps can help prevent destruction and pollution, report, 8229
 outfall systems for desalting plants, conceptual designs, 14594
 overall performance of tandem-bladed inducer tested in water, 7530
 Pacific Northwest—
 current discharge at selected stations, 2896
 month-end storage in major reservoirs, 2896
 new reports by Geological Survey, 8737, 14533
 water resources—
 summary, 3005
 weekly runoff report, 3006
 pesticides, 11262
 petroleum-associated, from Louisiana, geochemistry, 4473
 phase boundary water in frozen soils, 11251
 polywater, evidence that it is a colloidal silicate sol, 17194
 prospects for treating, from nuclear electric power stations with pulverized ionites, USSR study, 4342
 protection of water supplies, USSR study, 16773
 public works appropriations, 1971—
 hearings, 8272, 11022, 11106, 13709
 reports, 12207, 13697, 15873
 quality—
 behavior in reservoirs, published research papers, 8565
 Chesapeake Bay in legal perspective, 8671
 control study, English Ridge project, Eel River, basin, Calif., 8670
 Improvement act of 1970, report, 6648
 Industrial Pollution Control Branch, projects, 18003
 interior Alaska, effects of large scale forest fires, 10100
 Lake Dicle and West Crooked Lake near Eustis, Fla., reconnaissance, 733
 Orange County Water District, Calif., monitoring, evaluation, 7236
 research, selected summaries, 662, 14409

Water—Continued
quality—continued
standards for—

- interstate waters of Montana summary, 7168
- Mississippi River basin interstate waters, Iowa, conference proceedings, 1867
- Missouri River Basin interstate waters, Iowa, conference proceedings, 661
- stations—
 - index to catalog of information, 7228
 - national reference list, 1970 water year, 14532
- submarine basins off southern California, 14419
- trends and water-level in aquifers along Mississippi Gulf Coast, 16627
- water quality studies of streams, practical guide, 11334
- radioisotope techniques for measuring in large trees, further development, 15531
- reclamation era, water review quarterly, 3133
- Regional water quality act of 1970, hearings, 16087, 17719
- resources—
 - Arizona, 4258, 16628, 18048
 - Arkansas, 7252
 - California, 5563, 8753
 - reports by Geological Survey, 5562
 - Colorado, 16629-630
 - conservation, code of Federal regulations, 7121-22
 - cooperative conservation programs, managing forested watersheds, 35
 - cooperative research and training, 1969 annual report, 4297
 - Dera Ismail Khan District, West Pakistan, and related geology, with reference to availability of ground water for development, 10186
 - development by Army Corps of Engineers, California, 14333
 - development proposals, Interior Dept. to investigate feasibility, law, 297
 - Florida lakes, 16632
 - Florida streams, 16631
 - Garrison Diversion Unit, 9083
 - hydrologic and biologic aspects of Big Cypress Swamp drainage area, southern Florida, 16624
 - Idaho, 8764
 - Illinois, 4259
 - Iowa, 16633
 - Kansas, 16634
 - Kentucky, 4260, 8755
 - Lee County, Miss., 14550
 - Maryland and Delaware, 16635
 - Michigan, 14544
 - Minnesota, 14545
 - Montana, development program by Engineers Corps, status report, hearings, 1599
 - Nebraska, 16636, 18049
 - Nevada, 16637
 - New Jersey, 16638
 - North Dakota, 14546, 16639
 - Ohio, 4261
 - Oregon—
 - 1966-69 investigations, 8756
 - 1968 data, 1915
 - planning act, amend, hearings, 12368, 16062
 - projects—
 - inappropriate source of power used as basis for allocating costs, Corps of Engineers (civil functions), GAO report, 11376
 - relocating railroad facilities, improved guidance needed, Engineers Corps, Army, GAO report, 11373
 - summary analysis of 19 tests of proposed evaluation procedures, report, 17410

Water—Continued
resources—Continued

- Raft River basin Idaho-Utah, 1966, re-appraisal of water resources and ground water development, 14599
- reconnaissance in Haines-Port Chilkoot area, Alaska, 11391
- reports, announcement, 2334
- research and institutes, authorization, increase hearing, 17705
- research catalog, 7311
- research center in States, information retrieval and dissemination activities, establish, report, 16006
- research, 1970 Federal program, 10541
- selected water resources abstracts (periodical), 3191
- soil conservation (periodical), 3207
- South Dakota, 14547-548
- technical publications, 4655, 9094, 10534, 12910, 15142
- Texas, 18050
- Thailand, northeastern, Nam Yang Project, 4654
- Umat area, northern Alaska, review, 16611
- Washington State, 4262
- water resources review (periodical), 3335
- Wyoming, 16640
- river of life, environmental challenge, 16690
- Saline—
 - conversion—
 - contracts and grants for research and development, guides for submission of proposals, 10220
 - executive summary, 16696
 - Freeport test facility and vertical-tube-evaporator test bed-plant, Freeport, Tex., annual report, 16697
 - program, appropriations, 1971—
 - hearings, 9918
 - law, 8180
 - reports, 6585, 6761
 - 1969-70 report, 11440
 - ground-water resources of Rio Grande drainage basin, pilot study, 14596
 - saline water research and development progress reports, 769-780, 1947-56, 4298-4304, 5613-30, 7304-10, 8803-7, 10221-232, 11441-451, 12608-614, 14593-601, 16697-701, 18067-72
 - seedling growth of 8 northwestern tree species over 3 water tables, 8697
 - shallow regions, Black Sea, characteristics of biological noise propagation, 11500
 - soluble particles and micron-sized sulfate, new method for detecting and its usage, 15472
 - spherical droplets, angular, scattering functions, 15062
 - spray systems, increase to facilitate brine disposal from desalting plants, 774
 - streamflow and forest land use in central Oregon, 8708
 - structure, study of specific influence of dissolved ions, 5630
 - supply—
 - Colorado River, watershed conditions affecting, 3247
 - communities in developing countries, guidelines and criteria for establishing, 5377
 - Enrico, N. Mex., in relation to nearby high-energy detonation, investigation, 14530
 - Everglades National Park—
 - hearings, 9338
 - meeting of subcommittee, 8377
 - Federal-State cooperative snow survey Colorado, Rio Grande, Platte and Arkansas River watersheds, list, and location of snow courses and soil moisture stations, 7764

INDEX 1970

Water—Continued supply—continued

Florida, central and southern, meeting of subcommittee, 8377
forecasts conducted by Federal-State-private organizations, story, 15238
Lebanon, increase by precipitation management, report, 7727
Nevada, fall, summary, 18337
New Hampshire watershed progress report for Public law 566 projects, 7769
New York City, seawater desalting as emergency supply, study, 11450
nuclear rocket development station at Atomic Energy Commission's Nevada test site, 7253
outlook—
 Arizona, 3337
 Colorado—
 and New Mexico, 3338
 early season snow report, 4700
 special early season snow report, 4701
 Idaho, 3339
 Montana, 1113, 3340, 18336
 1922-69, summary, 10558
 Nevada, 3341
 Oregon, 3342, 18338
 1928-67, summary, 2227
 special snow survey information, 9170
 Utah, 3343
 1924-68, summary, 9135
 Washington State, 3344
 Western United States—
 including Columbia River drainage in Canada, 1107, 3345, 17291
 water year, 3347
 Wyoming, 3346
 preliminary community and regional data in support of desalting plant projections, 5628
 system for Soboba Band of Mission Indians, provide, report, 8254
 well SRC-2, Stallion Range Center, White Sands Missile Range, Socorro County, N. Mex., 7256
 western United States, fall summary, 18332
surface water—
 chemical quality, in Umpqua River basin, Oreg., 7229
 dispersal of plating wastes and sewage contaminants South Farmingdale-Massapequa area, Nassau County, N.Y., 18062
 Montana, temperature, 4256
 quality, United States, 4264, 5567, 8761, 10194, 14553-555, 16644
 stations, index to catalog of information, 7227
 supply, 1961-65, United States, 736, 1916, 4263, 7254, 10193, 11401, 12592, 14551-552, 16642-643, 18054
 suspended sediment and water characteristics, 17171
 techniques of water-resources investigations, 8751, 10185, 11400, 14542
 technology, 10227
 tertiary wastewater treating processes, cost and performance estimates, 14407
 visual perception under water, effects of diving experience, 10318
 waste water-waste oil mixtures, treatment, 16524
 wastewater, alumina columns for removal of phosphorus from, operating parameters, 14406
 water as urban resource and nuisance, 11389
 water for cities, outlook, 4233
 water in urban environment (series), 5545-46, 8762, 11389, 14526, 18055
 Water resources research act of 1964, amend—
 hearing, 17705
 report, 16006

Water—Continued

water spectrum, issues, choices, actions (periodical), 3336
water supply papers, 735-736, 1916, 4263-65, 5564-67, 7254-55, 8757-62, 10186-194, 11401-402, 12590-593, 14549-556, 16641-646, 18051-55
water use, growth characteristics, and relative drought resistance of ponderosa pine seedlings, influence of antitranspirants, 683
waves, measuring directional velocity with acoustic flowmeter, 11249
well drilling, special trade contractors, census of construction industry, 1967, statistics, 13134
see also Hydrogeology—Hydrology—Ice—Natural resources—Precipitation—Sea water—Seepage—Springs—Steam—also headings beginning Water.
Water additives, see Additives.
Water birds:
 Helminths reported in waterfowl (Anatidae), catalogue, 1133
 hunting, possession, transportation, importation, Federal regulations governing, Alaska, 15276
 migratory waterfowl—
 habitat, preserve and improve, report, 12250
 regulations, 1969-70, hearing, 5170
 waterfowl status report, 7790
Water boiler nuclear reactors, see Reactors (atomic).
Water carriers:
 bulk carriers in world fleet, oceangoing merchant type ships of 1,000 gross tons and over, list, 8878
 chemical data guide for bulk shipment by water, 6495, 10854
 class A and B, revenue and traffic, quarterly, 3152
 mixing rule exemption, modernize certain restrictions upon application and scope, report, 9653
 transport statistics, 801, 16733
Water closets, see Toilets.
Water Commission, National, see National Water Commission.
Water cycle, see Hydrologic cycle.
Water flooding, see Petroleum.
Water fowl, see Water birds.
Water heaters, Federal item identification guide, 5313
Water Hygiene Bureau:
 transfer functions to Environmental Protection Agency—
 hearings, 15911, 16057
 report, 15874
Water levels:
 and water quality trends in aquifers along Mississippi Gulf Coast, 16627
 response of gas-purged manometers to oscillations, 8760
Water pollution:
 abating, controlling and preventing—
 administration of construction grant program, subcommittee report, 9935
 effectiveness of construction grant program, Federal Water Pollution Control Administration, GAO examination, 716
 America the beautiful, collection of America's trashiest humor, 17307
 anti-pollution 6-cent postage stamps (poster), 17207
 biology, practice, 4166
 clean lakes act of 1970, hearings, 16087, 17719
 Clean water commitment act of 1970, hearings, 16087, 17719
 clean water, economics, national requirements and cost—
 animal wastes profile, 10097
 detailed analysis, 10096

Water pollution—Continued

- clean water—continued
- inorganic chemicals industry profile, 10098
- summary report, 10099
- clean waters act program, Federal assistance proposal, 5082
- combined sewer overflow—
- abatement technology, symposium, proceedings, 11335
- seminar papers, 10106
- conservation vs. pollution, 15201
- control—
- act, amend—
- hearings, 16043, 16087, 17719
- law, 8183
- report, 6648
- by underwater storage, 8676
- cooperation by all Federal agencies for, law, 8183
- operator, good training, good jobs, MDTA, 585
- public works appropriations, 1971—
- hearings, 8272, 11022, 11106, 13709
- reports, 12207, 13897, 15873
- research, development, demonstration, and training projects, 1969 grants and contract awards, list, 18000
- sewage disposal from vessels, law, 8183
- wastes disposal in Great Lakes and oceans, message from the President, 8215
- water pollution control and environmental quality laws of U.S., compilation, 15931
- cost of wastewater treatment processes, 4169
- environmental pollution, selective bibliography, 18275
- estuaries, San Francisco Bay and Delta, Calif.—
- hearings, 6714
- protecting, report, 13488
- estuarine pollution study series, 8671
- International Conference on Water Pollution Research, U.S. participation, report, 6762
- interstate waters—
- and intrastate waters of upper Mississippi River and its tributaries, Minnesota and Wisconsin, conference, proceedings, 7166
- Androscoggin River, N.H.-Maine, conference proceedings, 8668
- Chattahoochee River and tributaries, in Georgia and Alabama, conference proceedings, 16519
- Escambia River basin, Alabama-Florida and intrastate portions of Escambia basin within Florida, conference proceedings, 12538, 14401
- Grand Calumet River, Little Calumet River, Calumet River, Wolf Lake, Lake Michigan and tributaries, Ind.-Ill., conference proceedings, 7163
- Hudson River and its tributaries, New York-New Jersey, conference proceedings, 1864, 8669
- Lower Savannah River and its estuaries, tributaries and connecting waters, Georgia, South Carolina, conference proceedings, 10094
- Montana, summary of water quality standards, 7168
- Perido Bay and its tributaries, Florida and Alabama, conference proceedings, 16518
- Potomac River, Washington, D.C. metropolitan area—
- conference proceedings, 1865, 16517
- progress evaluation meeting, proceedings, 8672
- investigations and studies, authorization, report, 5240
- Lake Erie and its tributaries, conference proceedings, 5469-70

Water pollution—Continued

- Lake Michigan and its tributary basin, conference proceedings, 17997
- Lake Superior and its tributary basin, Minn., Wis., Mich., 7164, 10095, 17996
- legislation, 1970, hearings, 16087, 17719
- marine pollution damage, international legal conference, 9789
- mine acids control for better water for America, 7165
- mineral quality problem in Colorado River Basin physical and economic impacts, 14404
- Mobile Bay and its tributaries, navigable waters, conference proceedings, 14402
- National Capital region, hearings, 11116
- national estuarine pollution study, report, 13559
- print as Senate document, report, 6665
- Nation's watersways, quit tam actions and 1899 Refuse act, citizen lawsuits against polluters, 15910
- navigable waters of—
- Boston Harbor and its tributaries, conference proceedings, 1866
- Pearl Harbor, report, 16518
- nuclear energy underground uses, study, hearings, 6817
- oil—
- discharge control in navigable waters, law, 8183
- oil dispersing chemicals, a study of composition, properties, and use of chemicals for dispersing oil spills, 7173
- oil tagging system study, identification methods for oil spills, 14412
- pollution—
- biological effects, bibliography, 7171
- casualties on high seas, international legal conference, 9789
- damage civil liability, international conference, 9789
- offshore, recommendations for congressional action to reduce risks, message from the President, 9632
- sampling techniques, progress report, 8675
- slicks, chemical treatment, status report on use of chemicals and other materials to treat oil spilled on water, 7170
- spillage, Santa Barbara, Calif., hearings, 11131, 16063
- our waters and wetlands, how Engineers Corps can help prevent destruction and pollution, report, 8229
- phosphates in detergents and eutrophication of America's waters—
- hearings, 8296
- report, 6690
- pollution analysis, bibliography of literature of activation analysis, 11738
- potato processing waste treatment, current practice, 7169
- powdered carbons for waste water treatment, methods of application, 14414
- prevent river pollution (remarks), 16694
- prevention, control and abatement at Federal Facilities, Executive order, 8964
- problem (address), 11187
- product recovery, state of art review, 14415
- reduce in coal mines by air sealing, 5885
- research, development, and demonstration projects—
- 1969 fiscal year list, 7167, 8673
- 1970 fiscal year, list, 17998
- Santa Barbara Channel, oil exploration leases, terminate, message from the President, 13363
- spectral analysis applications in control, 4171
- storm and combined sewer demonstration projects, 1868

INDEX 1970

Water pollution—Continued

- storm water pollution from urban land activity, concentrations and loads, investigation, 18002
- stream pollution—
 - and abatement from combined sewer overflows, study, 16522
 - problems in pulp and paper industry, studies on application of radioisotope techniques, 6386
- waste disposal in coastal waters of New York Harbor, hearing, 8318
- waste water—waste oil mixtures, treatment, 16524
- water pollution and its control, boy scout leader's guide, 12540
- water pollution control research series, 663, 1869-71, 5471, 7169-73, 8675-76, 10102-107, 11335-336, 14410-418, 16520-525, 18001-4
- water quality in submarine basins off southern California, 14419
- who should pay for the cleanup? (address), 15740
- Water purification:
 - equipment—
 - Federal item identification guide, 13799
 - Federal item identification guides for supply cataloging, supplements, 2593
 - regeneration of spent granular activated carbon, 14405
 - tertiary wastewater treatment processes, cost and performance estimates, 14407
 - wastewater, alumina columns for selective removal of phosphorus from, operating parameters, 14406
- Water quality act of 1965, *see* Water pollution.
- Water Quality Research Division:
 - research, development and demonstration projects—
 - 1969 fiscal year, list, 8673
 - 1970 fiscal year, list, 17998
- Water Resources Council:
 - appropriations, 1970—
 - hearings, 486
 - law, 3734
 - report, 1512
 - appropriations, 1971—
 - hearings, 11022, 13709
 - reports, 13697, 15873
 - redesignate as Land and Water Resources Planning Council, hearings, 12368, 16062
 - summary analysis of 19 tests of proposed evaluation procedures on selected water and land resources, report, 17410
 - water resources projects, inappropriate source of power used as basis for allocating costs, GAO report, 11376
- Water Resources Division, California district, activities, 1907
- Water Resources Research Office, appropriations, 1970, law, 314
- Water Resources Scientific Information Center:
 - general information, 18074
 - selected water resources abstracts (periodical), 3191
- Water screens, *see* Screens.
- Water softening, Donnan softening as pretreatment to desalination processes, 4303
- Water supply, *see* Water.
- Water systems:
 - Aerofeed hypochlorinator, series WF, evaluation, 14434
 - serving rural areas, FHA insured loans, general information, 9315
 - sewage and water works construction, contract awards, 10101, 17999
- Water tupelo, *see* Tupelo.
- Water vapor:
 - and carbon dioxide, analytical chemical study of effect on hydrogen-air constant pressure combustion, 10402

Water vapor—Continued

- and ozone, concurrent measurements over Washington, D.C. 1967-1968, report, 9058
- contamination of refractory metals, 11607
- effect on LiOH-CO₂ reaction, dynamic isothermal system, 4623
- electrolysis unit, study, 10348
- pressure, function of concentration of anomalous component in modified water, USSR study, 12626
- relationship of water vapor pressure on concentration of anomalous component in modified water, USSR study, 7400
- see also* Steam.
- Waterborne commerce, *see* Commerce.
- Waterbone foreign trade, 1338, 2671, 17542-543
- Waterbury, Conn.:
 - area wage survey, 11536
 - census of transportation, 1967, commodity transportation survey production, area series, 6418
- Waterfowl, *see* Water birds.
- Waterfront facilities, safety, it's importance to U.S. trade and commerce (remarks), 5428
- Waterloo, Iowa:
 - area wage survey, 8873
 - floods, how to avoid damage Cedar River, 17915
- Waters, Andrew W., forecasting gusty surface winds in continental U.S., 9338
- Waters, Carrie W., comparison of computer-simulated conventional and branching tests, 15494
- Waters, Melvin E., development of radiation-sterilized fish products, 1225
- Watersheds:
 - Arkansas-White-Red Basins area development under USDA programs, progress, 6189
 - California watershed phase of 1968, soil and water conservation needs study, 1114
 - development plans, hearings, 5176
 - experimental agricultural, in U.S., hydrologic data, 12996
 - experimental, in southern Florida, hydrology, progress report, 3371A
 - forest waters, George Washington National Forest, 14447
 - forested, in Northeast, hydrologic effects from urbanization, 10131
 - Hanalei, vegetation recovering after fire, little erosion, 1880
 - increases in maximum stream temperatures after slash burning in small experimental watershed, 4185
 - managing forested watersheds, cooperative programs for water resources conservation, 35
 - New Hampshire watershed progress report for Public law 566 projects, 7769
 - Ohio Public law 566, watershed progress report, 10563
 - Plum Creek subwatershed no. 4, Shelby County, Ky., sedimentation, 5564
 - projects—
 - community benefits, 3396
 - miscellaneous, hearings, 8265
 - multiple-purpose, 3420
 - small, development in Arkansas, progress report, 9149
 - small watershed projects, program, hearing, 12382, 17718
 - watershed cover effect on overland flow from major storm in southwestern Wisconsin, 5492
 - watershed work plans, 7785, 9171-75, 10575, 15229, 15244-246, 15250-253
 - western Cascades of Oregon, hydrologic properties of soils on 3 small watersheds, 4186
 - why improve channels?, 15254
 - see also* names of rivers, etc.

- Watervliet Arsenal, N.Y., 1813-1968, history, 15481
- Waterways:
bridge, hydraulics, 15135
grassed waterways or outlets, general information for effective use, 1108
see also Inland waterways—also names of rivers, etc.
- Waterways Experiment Station:
contract reports, 16445
instruction reports, 10015, 11254
miscellaneous papers, 10018, 14335, 16446
research reports, 8555, 10017
technical reports, 5376, 8556, 10018-20, 11255-258, 14336, 16447-452
- Watkins, Phillip L., dual-PRF, dual-pulse-length synchronizer for two-frequency Randle Cliff radar, 15095
- Watson, Deena, directory of narcotic addiction treatment agencies in U.S., 11776
- Watson, Earl C., investigation of laminar and turbulent boundary layers interacting with externally generated shock waves, 916
- Watson, Harold A., evaluation of chemical-cartridge respirator face fit, 16919
- Watson, J. D., high velocity explosively driven guns, 11605
- Watson, John W., relief, 3795
- Watt, Arthur D., catalog of illustrated Paleozoic plant specimens in National Museum of Natural History, 15160
- Watt, Lois B.:
books related to—
English language and literature in elementary and secondary schools, 8511
social studies in elementary and secondary schools, 576
- Watterson, C. C.:
experimental verification of ionospheric channel model, 4090
recommended specifications for ionospheric channel and atmospheric noise simulators, 613
- Wattmeters see Electric meters.
- Wave functions:
long range atomic interaction potentials for nitrogen, 11694
spherical wave functions of integer order used in theoretical LF, VLF field calculations, 14348
wave equation approximating precise solutions for nonlinear electrodynamics and optics II, USSR study, 8007
- Wave guides, see Waveguides.
- Wave Propagation Laboratory, ESSA technical report ERL-WPL series, 1840, 8576, 10027, 16465
- Waveguides:
Federal item identification guide, 543, 5314
precision waveguide sections, method for fabricating, disclosure report, 11741
rectangular, ridged and circular, selection, military standard, 9964
switches, RF transmission line and waveguide, Federal item identification guide, 9955
- Wavelengths, dependence of laser beam scintillation, 2090
- Waves:
and breakers, oceanographic phenomena, summary of selected reference material, 14343
atmospheric disturbances in Antarctica, 1968 observations, 11275
breaker travel and choice of design wave height, 12509
climatology, aid to ship routing, north Pacific Ocean, 7682
creeping wave theory, radiation from slots on cylindrical bodies using geometrical theory of diffraction, 5979
damping effects of screens, hydraulic model investigation, errata, 10017
- Waves—Continued
diffraction and propagation, electromagnetic, etc., problems, 2131
effects of waves on evaporation from free water surfaces, study, 4655
long-wave perturbations of stellarator magnetic system geometry, 111
MCDIT-21, computer code for one-dimensional elastic wave problems, errata, 18177
midship wave bending moments in model of cargo ship, Wolverine State running at oblique headings in regular waves, 1086
propagation, scattering by spherically symmetric inhomogeneities, 2180
sea and swell forecasting, interim report, 609
surface wave transmission line for vehicular communications, technical report, 16466
water, measuring directional velocity with acoustic flowmeter, 11249
wind, high frequency components, measurement of space-time structure, USSR study, 5797
window wavefront deformations, interferograms as measure of angular deviations to line of sight, 10396
see also Breakwaters—Electromagnetic radiation—Radio waves—Sound.
- Wawaset, Pa., floods and flood plain management information, 17917
- Waxes, Federal item identification guides for supply cataloging, supplements, 2495
- Wayne, N.J., quad-city solid wastes project, June 1, 1966-May 31, 1967 interim report, 9074
- Wayne County, Iowa, community profile, 14245
- Wayne County, Miss., community profile, 16365
- Wayne County, Mo., community profile, 17895
- Wayne County, Nebr., community profile, 17896
- Wayne County, N.Y., community profile, 14246
- Wayne County, N.C., community profile, 12484
- Wayne County, Ohio, community profile, 12485
- Wayne County, Pa.:
community profile, 16366
soil survey interpretations, selected areas, 4695
- Wayne County, Utah, community profile, 6975
- Wayne National Forest, general information, 16586
- Ways and Means Committee, House:
calendar, 2813
committee prints, 8326-29, 8331-32, 9778-74, 13548-549, 13551-552, 15947-953, 15955-957
hearings, 3895, 9772, 12287, 13550, 15946, 15954
reports, 1503, 1514, 1518-19, 8227, 8264, 9689-93, 9707-8, 9710, 9715-17, 9721, 10948, 10959, 10964, 10982, 13398, 13406, 15859
revenue estimates, House, Senate and conference versions, Tax reform act of 1969, 8392
- WB, see Weather Bureau.
- WB/TA series, 7054, 8579
- We, the Mexican Americans, 6460
- Weakley County, Tenn., appraisal of potentials for outdoor recreational development, 4662
- Wealth, accumulation in Negro community (address), 12551

INDEX 1970

Weapons:

ABM, MIRV, SALT, and nuclear arms race, hearings, 11122
 automatic, guns series, engineering design handbook, AMC pamphlet, 4849
 cartridges, Federal item identification guide, 18782
 chemical, public sale of protective devices, explore dangers, hearing, 3961
 Federal item identification guides for supply cataloging, supplements, 2598
 glossary of terms for electronic and weapons control interface functions in naval ship combat systems, military standard, 6879
 major weapon systems satisfactory for combat use, need for management improvement in expediting development, Army Department, GAO report, 719
 multiple warhead missiles, diplomatic and strategic impact, report, 8290
 nuclear—
 and NATO, analytical survey of literature, 9351
 employment doctrine and procedures, staff officers' field manual, change, 7985
 firefighting procedures, Army technical bulletin, 13054
 non-proliferation treaty agreement with other governments, 7835
 offensive and defensive strategic systems, suspension of further deployment, expressing sense of Senate, report, 6768
 prohibit in Latin America, additional protocol II to treaty, 15971
 selected major weapon systems, status of acquisition by Defense Department, GAO reports, 5537
 systems—
 acquisition, hearings, 9611, 17611
 limitation of strategic arms public review of issues, hearings, 6788, 11108
 value engineering seminar, joint Government-industry, proceedings, 5322
 Wear, *see* Friction.
 Wear, Jerrold D., tests of full-scale annular ram-induction combustor for Mach 3 cruise turbojet engine, 18218
 Wearing apparel, *see* Clothing.
 Weather:
 all-weather landing, test and evaluation of advanced integrated landing system, 18372
 circulation in equatorial mesosphere in winter, 15469
 coastal, and marine data summary for Gulf of Alaska, Cape Spencer westward to Kodiak Island, 1817
 daily weather and river bulletin, Albuquerque, N. Mex., 2484
 ESSA weather wire, the other wire, general information, 11278
 fire weather—
 and fire behavior at 1968 Canyon fire, 10185
 meteorological information for forest fire control operations, 12976
 key to aviation weather reports, etc., 18401
 maps—
 daily weather maps, weekly series, 2485
 synoptic, Northern Hemisphere, 2482
 mariners weather log (periodical), 2869
 review, monthly, 2913
 service C, schedules, 4111, 16477
 service O, international schedules, changes, 3450, 9845, 17453
 severe thunderstorm radar echo motion and related weather events hazardous to aviation operations, 11263
 weather and crop bulletin (periodical), 8355
 Weather Bureau observing handbook, WBOH series, 11986

Weather—Continued

weather effects on approach and landing systems, 18375
 weather radar—
 manual, national network observing and reporting procedures, change, 10672
 method of reducing blind zone, USSR study, 10270
 weather services 5-cent commemorative postal card (poster), 15107
 weather support for field army tactical operations, Army field manual, 3468
 world weather program, plan for 1971 fiscal year, 8153
see also Climate—Meteorology—Weather forecasts.
 Weather Bureau:
 engineering handbook series, 4790
 equipment and facilities maintenance reporting, 4790
 ESSA technical memorandums—
 WBTM EDL series, 1833
 WBTM FCST series, 606, 1829-30, 11270
 WBTM HYDRO series, 1827-28, 11269
 WBTM NMC series, 1828
 WBTM PR series, 1831
 WBTM SOS series, 11271
 WBTM SR series, 607-608, 1832
 WBTM T&EL series, 1835-36
 WBTM TDL series, 609, 1834, 7049, 14343-344
 WBTM WR series, 610, 1837-38
 ESSA technical report, WB series, 11276
 forecasting service, recent trends in accuracy and quality, 1829
 marine weather services, general information, 7055
 1968-69 forecast verification scores, and performance trends, 11270
 observing handbook, WBOH series, 11936
 operations, annual report, 4789
 spotter's guide for identifying and reporting severe local storms, 5398
 Systems Development Office, 1969 programs and accomplishments, 17413
 Weather control:
 atmospheric water resources program
 Project Skywater annual report, 10532
 weather modification—
 annual report, 1968—
 departmental edition, 2166
 document edition, 1440
 introduction, 50
 Weather forecasts:
 application of meteorological satellite data in analysis and forecasting, 14346
 average monthly weather outlook (periodical), 2360
 Cape Kennedy thunderstorms, frequency and duration, 11271
 catalog of local forecast studies, 7961
 forecasting—
 gusty surface winds in continental U.S., 9338
 hurricane development with real data, experiment, 1823
 wind profiles and investigation of small-scale motions over short periods of time at Cape Kennedy, Fla., study, 12758
 Hawaii, tropical numerical predictions, status report, 1831
 key to aviation weather forecasts, 18401
 marine weather services—
 chart—
 Eastport, Maine to Montauk Point, N.Y., 18402
 Great Lakes, Superior and Michigan, 18403
 Manasquan, N.J. to Cape Hatteras and Chesapeake Bay, 17412
 Mexican border to Point Conception, Calif., 15388
 Montauk Point, N.Y., to Manasquan, N.J., 18404

- Weather forecasts—Continued
marine weather services—Continued
chart—Continued
Savannah, Ga. to Apalachicola, Fla., 6280
general information, 7055
notes to forecasters, 606, 1829-30, 11270
objective minimum temperature forecasting for Helena, Mont., 1838
precipitation probability forecasts, 10032
sea and swell forecasting, interim report, 609
severe-storm forecasting procedures of Military Weather Warning Center, analysis, notes, 9337
size of tornado warning area when issued on basis of radar hook echo, 1830
terminated forecast, worksheets, preparation, 3442
Weather Bureau forecasting service, recent trends in accuracy and quality, 1829
Weather Bureau 1968-69 forecast verification scores, and performance trends, 11270
weather radars and remote displays, Federal plan, 10028
Weather modification, *see* Weather control.
Weather satellites, *see* Satellites.
Weather stations:
cooperative meteorological program—agreement with Mexico, 7833, 15331
Guadeloupe Island, agreement with France, 4751
cooperative program at Guayaquil, reactivate, agreement with Ecuador, 6286
descriptions of local effects on synoptic weather patterns, 1837
IGOSS—
modulation studies, 16458
ocean data HF transmission system design considerations for development, 8573
NODC computer archive ocean station format, 1015
ocean stations, approximating functions and methods as applied to data, critical study, regression analysis, 17174
North Atlantic Ocean Stations—
agreement, amended text of Annex 2, approved by Council of International Civil Aviation Organization, 6250
November, observations, 3684
Victor, observations, 262
Plateau States, precipitation during winter, charts, 1834, 7049
substation observations, 11936
Weathering:
controlled-atmosphere weathering device, disclosure, report, 11741
natural weathering of mineral stabilized asphalt coatings on organic felt, 953
weatherability of polystyrenes and related copolymers and terpolymers, 5321
Weaver, Lewis K., graphite, 16891
Weaver, Robert L., meteorology of major storms in western Colorado and eastern Utah, 1827
Weaver, William L., water injection from 9° hemisphere-cone into hypersonic airstream, 7553
Weaving mills, 1967 census of manufactures, industry statistics, 17514
Webb, James E.:
appointment as citizen regent—
law, 10916
reports, 8250, 9823
Webb, R. T., Division of Fishery Services, annual report, 17819
Webb, Sherman, and others, relief, 12170, 17582, 17674
Webb, Willis L., atmospheric neutral-electrical interactions, 15470
Webster, Raynor, W. H., viscosity measurements of dilute solutions of helium-3 in superfluid helium-4 between 0.1 and 1.2K, 945
Weber, J. Robert, youth involvement, 12918
Weber County, Utah:
community profile, 6976
phosphatic rocks of Permian and Mississippian age, stratigraphic sections and chemical analyses, 18040
Webs (sheets):
wet web, effect of forming conditions on mechanical properties of kraft papers, 10128
Webster, D. S., two-well tracer test in fractured crystalline rock, 8758
Webster, S. Dak., Test Facility and Electrodialysis Test-bed Plant, annual reports, 12614, 14600
Webster County, Iowa, community profile, 14247
Webster County, Miss., community profile, 16387
Webster County, Mo., community profile, 17897
Webster County, Nebr., community profile, 17898
Weddell Sea:
distribution of nutrients in, 1968-69 report, 10857
oceanography, Coast Guard report, 6499, 13215
Wedges, wedge-induced laminar boundary layer separation on flat plate in low density, hypervelocity flow, 10408
Weeds:
selected, of United States, 6301
weeding woodland, Georgia, 7736
Weekly:
NOTE.—For all publications which begin with the word "Weekly", *see* subject, or name of department, etc., issuing publication.
Weeks, George B., generalized stiffness matrix for ring-stiffened shells of revolution, 12774
Weeks, W. F., fracture of lake and sea ice, 1801
Weeks, *see* names of special weeks.
Weems, George W., compressibility factors for helium and carbon dioxide mixtures at -10° and -20° C and pressures to 1,000 PSIA, 12744
Weevils, sitka-spruce weevil, description, etc., 14441
Wegstein, J. H., automated fingerprint identification, 14926
Weilberg, James A., large-scale wind-tunnel tests of airplane model with 4 propellers and rotating cylinder flaps, 10391
Weickmann, Helmut K., progress in hail-storm research, 611
Weidenbaum, Murray L.:
remarks—
Oct. 24, 1969, 1180
Nov. 7, 1969, 2268
Dec. 8, 1969, 4778
Dec. 23, 1969, 4777
Feb. 16, 1970, 6266
Apr. 16, 1970, 9247
May 12, 1970, 9245
May 18, 1970, 10651
June 16, 1970, 11920
June 20, 1970, 11928
Sept. 16, 1970, 17388
Sept. 28, 1970, 17386
Oct. 6, 1970, 17380
Oct. 8, 1970, 17387
Weidman, Deene J., simplified ballistic-limit expressions for thin sheets, 2102
Weighing instruments, *see* Scales (weighing instruments).
Weight control, *see* Obesity.
Weighting functions, *see* Mathematics.

Weightlessness :
 gas jet impingement on liquid surfaces during weightlessness, 7548
 cavity stability, 16982
 hemispherically bottomed tanks in normal gravity and in weightlessness, effect on vapor ingestion phenomenon, 12776
 significance of visual information in forming spatial perception, USSR study, 12654
 unstable bubble motion under low gravitational conditions, 12795
 Weights and measures :
 international system of units, physical constants and conversion factors, 4506
 pilot's weight and balance handbook, 12541
 weighing object in gaseous atmospheres to obtain its true mass and volume, method, 12745
 weights and centers of gravity of quaking aspen trees and boles, 12555
see also Body weight—Metric systems.
 Weights and Measures, National Conference on, *see* National Conference on Weights and Measures.
 Welher, Claudine J. :
 correspondence of Secretary of Treasury relating to administration of trust funds for Chickasaw and other Indian tribes ("S" series), 1834-72, 4541
 internal revenue assessment lists for—
 District of Columbia, 1862-66, 4543
 Florida, 1865-66, 4544
 Georgia, 1865-66, 4545
 Illinois, 1862-66, 17028
 Territory of Idaho 1865-66, 7568
 miscellaneous letters sent by Secretary of Treasury, 1870-87, and by Assistant Secretary, 1876-93, pamphlet to accompany microcopy, 4540
 Well, Thomas E., area handbook for Columbia, 15485
 Weinberger, Caspar W., nomination, hearings, 3965
 Weiner, Tess, California student health project, 5587
 Weinstein, Bernard, test and evaluate runway alignment indicator light (RAIL) for approach guidance, 4113
 Weinstein, Leonard M., effects of two-dimensional sinusoidal waves on heat transfer and pressure over plate at Mach 8.0, 14876
 Weir, David H., measurement and analysis of pilot scanning and control behavior during simulated instrument approaches, 12759
 Weirton, Ohio, census of transportation, 1967, commodity transportation survey, 8068
 Weisman, Herman M., annotated accessions list of data compilations of Office of Standard Reference Data, 17041
 Weiss, Nimet, relief, 17585, 17669
 Weiss, Robert L., chairside psychology in patient education, 7261
 Weitzman, Donald O., effect of stimulus size, duration, and retinal location upon appearance of color, 7453
 Weitzman, Murray S., measures of overlap of income distributions of white and Negro families in U.S., 8101
 Welch, Francine M., relief, 9638
 Welcome aboard! MSS 22, USC&GSS Mt. Mitchell, 616
 Welcome aboard U.S. Coast Guard Cutter Morgenthau, 8138
 Welcome to Washington, 11796
 Weld, Betsy A., reports and maps of Geological Survey released only in open files, 11390
 Weld metal, commercial nuclear vessel welds, influence of composition on fracture toughness, 16087
 Welders, employment outlook, 14714

Welding :
 ceramics, techniques, 15084
 effect of flame and mechanical straightening on material properties of weldments, 17264
 electron-beam-welded hollow balls, performance of 75-millimeter-bore bearings to 1.8 million DN, 11653, 16962
 equipment, safe practices for users, construction industry safe work guide, 4369
 hydrogen in welding of steel hulls, USSR study, 10256
 magnetic force upset welding of dissimilar thickness stainless-steel T-joints, 14866
 metals in space, experiment, USSR study, 16765
 methods tested in space, USSR study, 11494
 neutron-irradiated A537-B and A350-LF2 steel weldments, charpy-V notch ductility characteristics, 11819
 pipe joint, welding, rings-locking, and miscellaneous hardware, Federal Item Identification guide, 17740
 refractory metal alloys—
 contamination level effect on weldability, 18179
 determination of weldability and elevated temperature stability, 18180
 weldability, determination, 18178-179
 solid-state welding of TD-nickel bar, 14867
 spotwelding and bonding, effect of strain-gage attachment on fatigue behavior of Ti-6Al-4V, René 41, and Inconel X, 18204
 TIG welds in 12-5-3 maraging steel plate, characterization with application of new scaling method for KIC plasticity corrections, 12895
 Weldments, *see* Welding.
 Welfare, *see* Public welfare.
 Welfare funds :
 source of funds expended for public assistance payments, 7588, 17057
 UMWA's pension and welfare funds, improper administration, investigation and study, report, 5252
 welfare and pension plans—
 disclosure act, administration, 1969, report of Secretary of Labor, 5808
 statistics, 14656
 Welfare in review (periodical), 3356
 Welfare work, *see* Social work and problems.
 Welfare work in industry, *see* Employee benefit plans.
 Well drilling :
 water well drilling, special trade contractors, census of construction industry, 1967, statistics, 13134
 wellbore enlargement test of gas-storage well, 8910
 Wellborn, Thomas L., channel catfish virus disease, 1116
 Wells, J. Robert :
 clays, 4400
 kyanite and related minerals, 14780
 Wells, Jean A., automation and women workers, 6282
 Wells, W., probing solar corona with spacecraft radio signals, 18184
 Wells :
 detergents and associated contaminants in ground water at 3 public-supply well fields in southwestern Suffolk County, Long Island, N.Y., 8762
 gas-storage well, wellbore enlargement test, 8910
 hydrologic conditions and artificial recharge through well in Salem Heights area of Salem, Oreg., 12590
 municipal, and irrigation in San Luis Valley, Colo., 4241
 stream depletion by wells, rate and volume, computation, 14542
 two-well tracer test in fractured crystalline rock, 8757

- Wells—Continued
 water supply well SRC-2, Stallion Range Center, White Sands Missile Range, Socorro County, N. Mex., 7256
see also Artesian wells.
- Wells County, N. Dak.:
 community profile, 14248
 soil survey report, 12928
- Welsh, Harold, Navy civil engineer, 2944
- Welsh, Peter C., *Smithsonian Journal of History*, 3202
- Wenatchee, Wash.:
 flood control improvement, engineers report—
 departmental edition, 14337
 document edition, 13373
- Wendt, Richard P., diffusion in ternary aqueous saline solutions, 5620
- Wenger, Norman C., variational principle for magnetohydrodynamics channel flow, 2122
- Wentworth, Carl M., preliminary geologic environment map of greater Los Angeles area, Calif., study pertinent to nuclear facility and design, 10768
- Wenzel, Richard F., transient radiation effects on ruby lasers, 15079
- Werner, Elliot:
 foreign trade regulations of—
 Chile, 10875
 Paraguay, 5000
- Wert, Steven L., impact of Douglas-fir tussock moth evaluated by aerial photography, 16582
- Wesling, G. C., three-stage potassium turbine performance test summary, 2072
- West, Dorothy B., medicaid and other medical care financed from public assistance funds, 6019
- West, J. M.:
 boron, 16887
 diatomite, 16889
 mercury, 16900
 mineral industry of India, 7467
- West (U.S.):
 Afro-Americans in Far West, handbook for educators, 11200
 fresh fruit and vegetable unloads in western cities, by commodities, States, etc., 6821
 log export restrictions, 4208
 Plateau States, precipitation during winter, charts, 1834, 7049
 public elementary and secondary day schools, 1968-69, directory, 11205
 snow survey and soil moisture measurements, 1107, 17291
 water supply—
 fall summary, 18332
 outlook—
 and snow surveys, 3345
 water year, 3347
 western budworm egg masses, estimating numbers of eggs, 678
 western range and livestock, monthly report, 3357
 Western Region Agromony Workshop, summary, 10572
- West Africa, *see* Africa.
- West African Customs Union, foreign trade regulations, 13219
- West Branch Brandywine Creek, Coatesville to junction of East and West Branches, Chester County, Pa., flood plain information, 16434
- West Carroll Parish, La., work plan for watershed protection, flood prevention and drainage, 9174
- West Crooked Lake, Eustis, Fla., reconnaissance of quality of water, 733
- West Germany, *see* Germany.
- West Indies:
 climatological data, 2409
 lights and fog signals, list, 7674
 sailing directions, changes, 7671
- West Virginia:
 Agricultural Stabilization and Conservation Service, annual report, 12968
 census of business, 1967—
 major retail centers, standard metropolitan statistical areas, 3539
 merchandise line sales, 13121
 selected services, area statistics, 164
 wholesale trade, area statistics, 186
 census of construction industries, 1967 statistics, 15566
 census of governments, 1967, State reports, 3596
 census of manufactures, 1967 statistics, 15589
 climatological data, 2409
 county business patterns, 214, 13172
 electric rate book, 5433
 Federal program of aid to educationally deprived children, opportunities for improving administration by Education Office, GAO report, 7213
 hardwood stands, 20 years of intensive uneven-aged management, and effects, 12564
 mineral industry, minerals yearbook chapter, 4469
 mineral materials for chemical manufacturing, survey of supply and demand in Ohio River Basin, 8897
 northern, methane emission rate studies from mine, 14800
 postal map, 15116
 Potomac Valley Conservancy District, compact, amendments—
 hearing, 1598
 law, 17606
 report, 13467
 precipitation data, hourly, 2718
 travel costs less than you think, please come, invitation from people of U.S., 7885
 Dutch edition, 7882
 German edition, 7880
 Japanese edition, 7886
 Portuguese edition, 7883
 Spanish edition, 7881
 West Virginia-Ohio air pollution control compact, consent of Congress, report, 5203
- West Wind (vessel):
 documentation with coastwise privileges, authorize, 6581, 9577
- Westbrook, Jane H., relationship of hourly durations to daily maximum temperature, 1226
- Westchester County, N.Y.:
 community profile, 14249
 project report on countywide information and referral designs for action for older Americans, 15395
- Wester, Robert E., suburban and farm vegetable gardens, 11950
- Western Carriers' Conference Committee, emergency board report, 1797
- Western Company, improved sealants for infiltration control, 1870
- Western Europe, *see* Europe.
- Western Hemisphere, *see* Hemisphere, Western.
- Western hemlock, *see* Hemlock.
- Western Interstate Nuclear Board, establish, report, 13640
- Western Pacific RR., accident report, 17233
- Western Samoa:
 background notes, 7797
 nautical chart catalog, 9485
- Western States, *see* West (U.S.).
- Western Utilization Research & Development Division:
 laboratories and functions, 15407
 publications & patents, semiannual list, 3381, 15408
- Westerstrom, Leonard, coke and coal chemicals, 4402

INDEX 1970

- Westmoreland County, Pa., community profile, 16368
- Weston, James T.:
multidisciplinary accident investigation, two-car collision, icy pavement, 14982
two vehicle intersection collision, 14966
- Wetherill Mesa, *see* Mesa Verde National Park.
- Wetlands, *see* Swamplands.
- Weybrew, Benjamin B.:
characteristics of submarine line officer, 11569
factors related to failure of enlisted submarine school graduates to qualify, 2043
- Whales, *see* Cetacea.
- Whaley, Bob L.:
Federal-State-private cooperative snow surveys, 1924-68, summary of snow survey measurements for Utah, 9135
water supply outlook and Federal-State-private cooperative snow surveys for Utah, 3343
- Whaling, international convention, schedule, amendments, 6233
- Whaling Commission, *see* International Whaling Commission.
- What can you do to benefit wildlife on your land? 4773
- What happens now? guide to your future after Job Corps, 809
- What is an observation? 6851
- What it's like to be a U.S. Army nurse, 9367
- What makes food prices? 571
- What you should know about paraplegia, 10538
- Whatcom County, Wash., community profile, 6977
- What's ahead (address), 17749
- What's your move? U.S. Coast Guard Auxiliary, 3685
- Wheat:
durum, acreage allotments in Tulelake area, increase—
law, 8179
reports, 3835, 6615
food grain statistics, supplement, 10706
four basic market opportunities (remarks), 7945
futures—
commitments of traders, 2428
trading and open contracts, 2685
high-yield varieties in less developed nations, imports and plantings, 4175
immunity to *Puccinia triticina*, from VIR world collection, USSR study, 1998
malathion, diazinon, silica aerogel, and diatomaceous earth as protectants against lesser grain borer attack in small bins, evaluation, 7925
marketing quota—
program, suspend, reports, 15844, 16007, 17626
referendum for 1971, defer—
law, 13323
reports, 11100, 13425, 15842
1970 voluntary program, 3387
pasture, report, 3358
program, legislative proposals, hearings, 3546
quality, trade agreement with European Economic Community—
extend, 1159
suspend, 1180
research and promotion program, establish—
hearing, 9723
law, 15811
report, 12255
residue management in stubble mulch farming, 7770
Texas, crop insurance coverages and rates, 17967
U.S. wheats as supplements for Western European wheats in breadmaking, study, 3375
- Wheat—Continued
wheat situation, 3359
winter, crop production, 2247
world demand prospects in 1980, for wheat, with emphasis on trade by less developed countries, 11197
world markets, competition, and U.S. exports, 5477
- Wheeler, Ellsworth H., jr., Atlantic deep-sea calanoid copepoda, 15162
- Wheeler County, Nebr., community profile, 17899
- Wheeler National Wildlife Refuge:
birds, list, 4707
accidental species, 11882
- Wheeler Peak Wilderness, Blue Lake area land conveyance, hearings, 16064
- Wheeler Reservoir:
fish—
inventory data, 11912
monitoring investigations, Browns Ferry Nuclear Plant, 2646
- Wheeler Ridge, Calif., southern San Joaquin Valley land surface tilting, 8741
- Wheeling, W. Va., census of transportation, 1967, commodity transportation survey, 8068
- Wheels, rotating, device for radially positioning, disclosure report, 11741
- Whelan, Philip J., electromyographic analysis of biceps muscle following standard air dives using frequency analysis, feasibility study, 18141
- Where the jobs are, 9469
- Where the leaders are, 13062, 15501
- Where to write for birth and death records, U.S. and outlying areas, 12600
- Where world trade is headed, fairer trade or confrontation? (remarks), 15739
- Whisman, Marvin L., storage stability of aviation turbine fuels, radiotracer technique for estimating component contribution to thermally induced deposits, 883
- Whitaker, Thomas W., carrot production in United States, 3395
- White, Dennis, food and agricultural export bibliography, 18008
- White, Doss H., jr., mineral industry of Tennessee, 4461
- White, Emily T., statistical reporter, 3227
- White, G. A., kenaf, cultural and harvesting methods, annual crop source of pulp in Southeast, 6315
- White, Helen W., report number codes used by USAEC Division of Technical Information in cataloging reports, 15527
- White, William F., interpretation of microwave spectral-absorption intensity measurements on partially saturated lines, 7551
- White collar workers:
qualification standards for positions under general schedule, civil service handbook, 13197
white-collar crime, nature, impact, and prosecution, 16815
see also Government officials and employees.
- White fir, *see* Fir.
- White House, *see* Executive mansion.
- White House Conference on Aging, 1971, toward a national policy on aging, fact sheet, 17414
- White House Conference on Education, 1972, authorize, hearings, 17643
- White House Conference on Food, Nutrition, and Health, final report, 7898
- White House Fellows, program, 12906
- White House Police, *see* Police.
- White Mountains, plutonic series in New Hampshire and Maine lead-zinc-silver deposits, 5543
- White pine, *see* Pine.

White River and Valley:

- Arkansas-White-Red basins area-development under USDA programs, progress, 6189
- Mud Mountain Dam, constructed by Seattle District, U.S. Army Corps of Engineers, general information, 5371
- White Sands Missile Range, N. Mex.: test wells, Dona Ana and Sierra Counties, N. Mex., 7251
- water supply well SRC-2, 7256
- White-spot disease of fish eggs and fry, 10580
- White spruce, *see* Spruce.
- White-tailed deer, *see* Deer.
- White-winged doves, *see* Pigeons.
- Whitefish River, flood plain information, 4078
- Whiteman, Marjorie, digest of international law, 10602
- Whiteoak Creek, radioactive liquid waste disposals at low-level, with relation to composition of water, 8739
- Whitley County, Ky., soil survey of McCreary-Whitley area, 12927
- Whitman, Robert A., mineral industry of Peru, 4456
- Whitman County, Wash., community profile, 6678
- Whitson, Milton O., controlled fusion and plasma research, 10766
- Whitten, Bertwell K., comparison of $^{14}\text{CO}_2$ trapping agents used in vitro metabolic study, 15502
- Who are the working mothers? 18405
- Who says men don't listen when a woman talks, women officers in Air Force, 6338
- Who shall reap? film announcement, 3429
- Who should pay for the cleanup?, 15740
- Wholesale prices, *see* Prices.
- Wholesale trades:
 - census of business 1967—
 - area statistics, 165-186, 1301-7, 3548-49, 9432
 - subject reports, 15548, 17482
 - United States, 9432
 - regional wholesale distribution facilities for Blair County, Pa., 4820
 - sales and inventories, current business reports, 2472
 - sales by class of customer, 1967 census of business, 17482
 - wholesalers' services, profit by using, 11848
 - see also* names of commodities and industries.
- Whorton, W. J., Extension Service review, 2555
- Why a cooperative? quick look at what people do through their cooperatives, 5401
- Why improve channels? 15254
- Why not be an urban planner? 17416
- Why not become an apprentice? 12953
- Wichita, Kans., area wage survey, 12712
- Wichita Mountains National Wildlife Refuge:
 - designate certain lands as wilderness area—
 - hearing, 13748
 - report, 8356
- Wichorek, Gregory R., aluminate-coated Ta-10W for heat-shield applications, 923
- Wick, Herbert L.:
 - bark thickness measurements of robusta eucalyptus not biased by position, 4190
 - lignin staining limited success in identifying koa growth rings, 18017
 - stump diameter affects sprout development of tropical ash, 4189
- Wickman, Boyd E., wood borers attracted to turpentine in windthrown timber of northern California, 4188
- Wicomco County, Md., soil survey reports, 6198, 18334
- Wideband, *see* Bandwidth.
- Widows and widowers, *see* Pensions.
- Wiedenfeld, C. C., soil survey, Runnels County, Tex. 7776
- Wieder, Bernard, evaluation of loran tests at Anniston, Ala., and Panama City, Fla., 14349
- Wieder, Samuel, radiological health data and reports, 3126
- Wiendieck, K. W., preliminary study of sea-floor trafficability and its prediction, 16452
- Wiggers, George F., corporate finance model, 9237
- Wiggins, Chester M., Jr., nomination, hearing, 17716
- Wiggins, Emilie, National Library of Medicine, classification, 2150
- Wilcox County, Ala., community profile, 14250
- Wild animals, *see* Wildlife.
- Wild hemp (marijuana), how to control it, 10701
- Wild life, *see* Wildlife.
- Wilderness areas:
 - Agua Tibia Primitive Area, Calif., mineral resources, 12588
 - Alaska, New Mexico, Oregon, and Washington State, designate certain lands, 5268
 - Black Range Primitive Area, Grant, Sierra, and Catron Counties, N. Mex., mineral resources, 16607
 - Craters of Moon National Monument, certain lands, designate, report, 11094
 - designating certain land as wilderness, report, 15844
 - Desolation Wilderness in California, designate, proposal, law, 298
 - Emigrant Basin Primitive Area, Calif., mineral resources, 12587
 - Hart Mountain National Antelope Refuge, etc., designate certain lands, report, 16668
 - Mission Mountains Wilderness, Flathead National Forest, Mont., proposal, 16553
 - Mount Baldy, Pine Mountain, and Sycamore Canyon, designate, proposal, report, 12322
 - Sawtooth Primitive Area, Idaho, mineral resources, 14525
 - search for solitude, our wilderness heritage, 10698
 - studies related to wilderness primitive areas (series), 10163, 12587-588, 14524-525, 16607
 - Wichita Mountains National Wildlife Refuge, certain lands, designate—
 - hearing, 13743
 - report, 8356
- Wildfire, *see* Forest fires.
- Wildlife:
 - code of Federal regulations, 8659
 - conservation—
 - as related to migratory waterfowl regulations, hearing, 5170
 - 6-cent commemorative postage stamp, 11827
 - endangered species, prevent importation and interstate shipment of—
 - law, 1400
 - report, 475
 - esthetics & auto campers in Superior National Forest, 5509
 - Federal aid in wildlife restoration act, amend, report, 12235
 - Fish and wildlife act of 1956, amend—
 - hearing, 3960, 8313, 12280, 13534
 - law, 15777
 - reports, 9860, 12236
 - fish and wildlife restoration, Federal aid, report, 12235
 - food plants on chopped areas in Piedmont of South Carolina, 4193
 - habitat evaluation, research symposium, 10693
 - Hudson River Expressway, impact on wildlife resources, hearings, 430
 - imported into United States, 10590

Wildlife—Continued

- legislation, hearings, 1593-94
- management of resident wildlife on Federal lands, by States, report, 1643
- Paradise strip mine, reclamation brings wildlife back, 6263
- research problems, programs, progress, 11890
- shooting certain birds, fish, and other animals from aircraft, prohibit, provide Federal criminal penalty, hearing, 12280
- special scientific reports, wildlife series, 1132-33, 7790-91, 9183-84, 17321-322, 18342
- toxicity of pesticides to wildlife, handbook, 10589, 11889
- transmitter for tracking, 14462
- water resource projects, cost sharing grants—
 - hearing, 11018
 - law, 13318
 - reports, 6772, 12224
- what can you do to benefit wildlife on your land?, 4773
- wildlife leaflets, 2233-34, 4717, 10590
- wildlife review abstracting service, 3362
- Wildlife management:
 - fish-trout management in raceways, guide, 6177
 - national estuary study—
 - departmental edition, 15264
 - document edition, 13355
 - public management schemes relevant to estuarine resource use—
 - departmental edition, 15268
 - document edition, 13355
- wildlife refuges:
 - Alaskan national wildlife refuges, general information, 1119
 - national—
 - for tule elk, establish, hearings, 9902
 - general information, 9182
 - southeast region 4, general information, 11880
 - refuge leaflets, 1117-30, 2230, 4705-12, 9179-81, 10586-588, 11880-888, 12931-933, 15271-275
- see also names of refuges.
- Wilhelms, Don E., summary of lunar stratigraphy, telescopic observations, 18045
- Wilkerson, J. Worth, Tennessee Valley perspective, 17380
- Wilkes, James W., useful market surveys and industry reports issued by United Nations Economic Commission for Africa, supplement, 13227
- Wilkes-Barre, Pa., principal electric facilities, map, 8622
- Wilkes County, N.C., community profile, 14251
- Wilkinson County, Miss., community profile, 16369
- Willamette National Forest, annual public report, 14490
- Willamette River and Valley:
 - lower basin, resource area, application, 9147
- Milwaukie, Oak Grove, Lake Oswego, Oreg., flood plain information, 16435
- upper basin, Resource Conservation and Development Project—
 - annual work plan, 15243
 - land use planning assistance, 9169
- Willamette Valley national wildlife refuges, mammals, list, 1126
- Willamette River project, Calapooia Division, South Yamhill Division, water resource development proposals, Interior Dept. to investigate feasibility, 297
- Willie, Frank, nomination, hearing, 6791
- William "Bill" Dannelly Reservoir, Alabama River, designate, report, 9878
- William G. Stone Navigation Lock, designate navigation lock on Sacramento deep-water ship channel, Calif., report, 13667

- William Howard Taft National Historic Site, establish, law, 1397
- William L. Finley National Wildlife Refuge, mammals, list, 1126
- Williams, Aubrey W., jr., Navajo political process, 10465A
- Williams, C. Arthur, jr., insurance arrangements under workmen's compensation, 8858
- Williams, Catherine P., welfare in review, 3356
- Williams, D. D., effect of water vapor on $\text{LiOH}-\text{CO}_2$ reaction, dynamic isothermal system, 4623
- Williams, Donald J., sources, losses and transport of magnetospherically trapped particles, 16464
- Williams, Ernest B., Houghton-Higgins Lake recreational area, Mich., climatic summaries of resort areas, 7047
- Williams, Frank E., potential applications for nuclear explosives in shale-oil industry, 4406
- Williams, Frederick W., determination of trace quantities of halogenated hydrocarbons in gas samples, 4631
- Williams, Garnett P., flume width and water depth effects in sediment transport experiments, 10177
- Williams, Glen E., soil survey, Lincoln County, Okla., 6195
- Williams, Grover S., digest of public general bills and selected resolutions, 2508
- Williams, J. R.:
 - conservation laws of linear homogenous systems, 12779
 - theoretical calculations of radiant heat transfer properties of particle-seeded gases, 5897
- Williams, James C., 3d, study of NACA and NASA published information of pertinence to design of light aircraft, aerodynamics and aerodynamic load, 7508
- Williams, James M., jr., field-degradation effects on cotton fiber and yarn quality, 9328
- Williams, John R.:
 - ground water in permafrost regions of Alaska, 11399
 - review of water resources of Umiat area, northern Alaska, 16611
- Williams, Mary J., spiral aftereffect, some influences of visual angle and retinal speed on duration and intensity of illusory motion, 8036
- Williams, Patricia H., relief, 3799, 9588, 9803
- Williams, Phillip, jr., station descriptions of local effects on synoptic weather patterns, 1837
- Williams, Thomas G., on-line parsing of hand-printed mathematical expressions, 2061
- Williams County, N. Dak., community profile, 14252
- Williams County, Ohio, community profile, 12486
- Williamsburg, Va., comprehensive community services for alcoholics, Williamsburg papers for workshop, 11775
- Williamson, E. J., accuracy of high resolution infrared radiometer on Nimbus II, 10380
- Williamson, W. R., investigation of multi-stage flash phenomena in 3-stage test systems, 7310
- Willis, Edward A., jr., round-trip trajectories with stopover at both Mars and Venus, 10398
- Williston, Hamlin L., unmanaged growth in north Mississippi uplands, 689
- Willits, C. O., testing maple sirup for creaming, 7920

- Willott, James F.:
determination for Navy of zero hearing level for speech, 2042
differential sensitivity for alternate interaural loudness balancing in psychoacoustic calibration of earphones, 5846
- Willows, black, thinning, benefits, 688
- Wilmington, Del., census of transportation 1967, commodity transportation survey, production area series, 6419
- Wilmot, Charles A., cotton gin operating in west Texas, 17444
- Wilson, B. J., assessment of high-voltage DC electrical power in aircraft electrical systems, 17197
- Wilson, Cynthia V., climatology of cold regions, Northern Hemisphere, 4072
- Wilson, D., scientific photography, plowshare program, civil, industrial and scientific uses for nuclear explosives, Palanquin project, 13079
- Wilson, F., ground plane printed circuit boards by refracted photographic method, 122
- Wilson, James E., manned space flight, present and future, 9768
- Wilson, John E., sensor detection capabilities study, 4234
- Wilson, K. H., stagnation point analysis of coupled viscous-radiating flow with massive blowing, 11610
- Wilson, V. C.:
characteristics of thermionic converter with chloride vapor deposited tungsten emitter (110) and collector of molybdenum deposited on niobium, 18192
operation of thermionic converter with (112) to (114) oriented tungsten emitter and niobium collector with oxygen present, 16945
- Wilson County, N.C., community profile, 12487
- Wilton, Brussels, velvet and tapestry carpets and rugs, 2266
- Wimmer, Heinz L., transient characteristics of voltage regulator and parasitic speed controller on 14.3-kilovolt-ampere, 1200-Hertz modified Lundell alternator, 18197
- Wind, *see* Winds.
- Wind profiles, *see* Winds.
- Wind River and Valley:
basin, Wyoming, structural geology, 10173
geology of basin, central Wyoming (series), 8740, 10173
- Wind tunnels:
Ames M-50 helium tunnel, 8948
calculated wind-tunnel-boundary lift-interference factors for rectangular perforated test sections, 5943
flutter studies to determine nacelle aerodynamic effects on fan-jet transport model for 2 mount systems and 2 wind tunnels, 16993
full scale wind tunnel investigation of static longitudinal and lateral characteristics of light single engine airplane, 7639, 11681
- Investigations—
aerodynamic characteristics of X-24A lifting body aircraft, 14874, 16969
aerodynamic pressures on Apollo launch escape vehicle configuration, 10385
Apollo command module configuration, aerodynamic pressures, 917
large-scale all-flexible parawings, 7544
low-speed of all-flexible twin-keel structure parawings, 16977
V/STOL transport model with—
4 pod-mounted lift fans, 14881, 18199
6-wing-mounted lift fans, 14848, 16957
VTOL jet-transport model with powered lift engines in pods at wing midspan or inboard, 10403
- Wind tunnels—Continued
investigations—Continued
wake effect of panel tip-mounted fan-jet engine on lift-induced vortex, 11636
large-scale, tests of airplane model with 4 propellers and rotating cylinder flaps, 10391
low-speed wind-tunnel investigation of series of twin-keel all-flexible parawings, 18198
Ludwig tube wind tunnel, theoretical and experimental study of unsteady flow processes, 908
minimal-correction V/STOL wind tunnels, use of variable geometry in design, theoretical study, 948
studies of effects of construction methods, design details, and canopy slots on aerodynamic characteristics of small-scale all-flexible parawings, 16981
subsonic, buffet and static aerodynamic characteristics of a systematic series of wings determined from, study, 11656
wind tunnels with solid floor, conditions limiting V/STOL testing, theoretical study, 11664
- Wind vanes, viscous damped, disclosure report, 11741
- Wind vector component accumulator, 1833
- Wind waves, *see* Waves.
- Windbreaks:
for conservation, 3397
forest and windbarrier planting and seeding in U.S., 1969 report, 11346
- Windham County, Conn., community profile, 6979
- Window on HUD, 8797
- Window on Wisconsin, 1969 annual report of Soil Conservation Service, 7787
- Windows:
interferograms of window wavefront deformations as measure of angular deviations to line of sight, 10396
right-hand hatch windows of Gemini missions VII, VII, IX, and XII, preflight optical evaluation, 909
- Winds:
Atlantic hurricanes, maximum sustained, 1832
behavior of winds in lowest 1500 feet in central Oklahoma, 17947
circulation in equatorial mesosphere in winter, 15469
forecasting wind profiles and investigation of small-scale motions in short periods of time over Cape Kennedy, Fla., 12758
gust-alleviation characteristics and handling qualities of free-wing aircraft, evaluation, 11603
gust factor variations with height and atmospheric stability, 15476
gusty surface winds in continental U.S., forecasting, 9338
Hurricane Camille, survival of wood structures, 4202
jet in subsonic crosswind, analysis, symposium, 897
jimsphere wind profiles as related to space vehicle design and operations, study, 14832
Lake Mead Recreation Area, study, 610
launch vehicle response to winds, analytic calculation and calculation of optimal biased pitch programs, 11667
measurements in stratosphere and mesosphere, 947, 14893
mesospheric, over Ascension Island in January, 15474
monthly mean zonal wind, 30-60km, variability, 13022
sea level meteorological properties and heat exchange processes, trade wind zone oceanography pilot study, 15750

Winds—Continued

- sea-level wind field and wind stress values, trade wind zone oceanographic pilot study, 15752
- sensors, roughness lengths at NSSL-WKY meteorological tower, Oklahoma City, Okla., evaluation, 17946
- statistical aspects of power law profiles, 15473
- strong surface wind gusts at Holloman AFB, climatological study during March-May, 15475
- systems for deflection of jet streams of turbo-jet engines, 14896
- tropics, mean-cloudiness and gradient-level charts—
 - charts, 13023
 - text on charts, 17450
- vector component accumulator, description, 1833
- vehicle bodies at crosswind conditions in ground proximity, aerodynamic characteristics, 16970
- wind-chill chart depicts cooling effect of winter wind, 15242
- wind profiles in boundary layer, remote sensing, 16465
- wind-weighing technique to predict velocity vector azimuth angles for unguided rockets, 13038

Windward Islands:

- Dominica—
 - Bredin-Archbold-Smithsonian biological survey, 15161
 - crane flies (Diptera, Tipulidae), 15161
 - investment guarantees, agreement, 17339
 - marine algae, 11849
 - Odonata, characteristics, 6159

Wine:

- American, remove restriction in law which prevents industry from participating in export promotion activities, reports, 369, 6586
- drosophila control in wineries, use of vapor generator with dichlorvos, 6288
- Winema National Forest, multiple use highlights, 8719

Wings (aircraft):

- all-flexible parawing—
 - advanced Apollo spacecraft, fixed-based visual simulation of obstacle avoidance during terminal descent, 4879
 - determination of inflated shape and inertial properties, 12821
 - large-scale, wind-tunnel investigation, 7544
- buffet and static aerodynamic characteristics of a systematic series of wings determined from subsonic wind-tunnel study, 11656
- calculated wind-tunnel-boundary-lift interference factors for rectangular perforated test sections, 5943
- cropped double-delta wings in subsonic compressible flow, design charts of static and rotary stability derivatives, 5955
- delta-wing X-15 airplane configurations, hypersonic aerodynamic characteristics, 911
- half-cone bodies with thin wings at Mach 10.03, aerodynamic interference effects, 12820
- parawing-lifting body landing system, model wind-tunnel and flight investigation, 18196
- single pivot 2-position skewed wing, high L/D concept, study to determine flight characteristics and handling qualities of variable geometry spacecraft, 10351
- 6 wing-mounted lift fans, wind tunnel investigation of V/STOL transport model, 14848, 16957

Wings (aircraft)—Continued

- small-scale all-flexible parawings, wind-tunnel studies of effects of construction methods, design details and canopy slots on aerodynamic characteristics, 16981
- tilt-wing V/STOL transport, investigation of lateral-directional dynamic stability, 5945
- twin-keel-flexible parawings, low-speed wind-tunnel investigation of series, 16977, 18198
- twin-keel parawing with various amounts and permeability of porous material in outer lobes, performance and deployment characteristics, 11651
- twin-turbopan subsonic transport with nacelles mounted under wings, longitudinal aerodynamic characteristics, 16980
- unswept aspect-ratio-10 wing, effects of ground proximity on longitudinal aerodynamic characteristics, 5956
- VTOL jet-transport model with powered lift engines in pods at wing midspan or inboard, wind-tunnel investigation, 10403
- wing slippstream flow interaction, analysis, 14829
- Winnebago County, Ill., flood plain information, 14318
- Winnebago County, Iowa, community profile, 14253
- Winnemucca, Nev., evapotranspiration by woody phreatophytes in Humboldt River valley, 10172
- Winneshiek County, Iowa, community profile, 14254
- Winston, Matthew M., induced interference effects on aerodynamic characteristics of V/STOL 0.16-scale model in transition, 11635
- Winston County, Ala.:
 - community profile, 14255
 - forest inventory statistics, 9222
- Winston County, Miss., community profile, 16370
- Winter:
 - circulation in equatorial mesosphere, 15469
 - station precipitation in Plateau States, charts giving information, 1834, 7049
 - see also Weather.
- Winter Haven, Fla., railroad accident report, 4149
- Winter wheat. *see* Wheat.
- Winterfat, seedlings, emergence and survival from 4 planting depths, 11352
- Wire:
 - aluminum, foreign free world producers, directory, 13093
 - barbed and concertina, reinforcement for concrete for use in southeast Asia, preliminary tests, 71255
 - field wire and field cable techniques, Army field manual, 7984
 - the other wire, ESSA weather wire, general information, 11278
 - shapes inventories, current industrial reports, 2475
 - see also Electric wire and wiring—Exploding wires.
- Wire mesh, *see* Wire netting.
- Wire mills, shapes, inventories, current industrial reports, 2476
- Wire netting, strainer elements, Federal item identification guide, 11173
- Wire rope:
 - Federal item identification guide, 5303, 12392
 - reinforcement for concrete for use in southeast Asia, preliminary tests, 11255
- Wire screens, *see* Screens.
- Wires, *see* Electric wire and wiring.
- Wiring, *see* Electric wire and wiring.
- Wirt County, W. Va., soil survey, 9157

Wisconsin:

career directory, college level, 9466
 census of business, 1967—
 major retail centers standard metro-
 politan statistical areas, 9430
 retail trade, merchandise line sales,
 11996
 census of governments, 1967, State re-
 ports, 3587
 census of transportation, 1967, commod-
 ity transportation survey, 9445
 cigar binder tobacco, official standard
 grades, 3994
 climatological data, 2409
 county business patterns, 3626, 13173
 electric rate book, 4147
 elementary teacher education, feasibility
 study—
 pricing and economic analysis, 11228
 program and support systems, 11228
 erosion, enemy of the people, 15205
 Federal careers projected vacancies, col-
 lege level, 9469
 Great Lakes area, fishery products, whole-
 sale dealers, list, 9543
 Ice Age National Scientific Reserve, de-
 velopment and operation costs, addition-
 al Federal financial assistance, author-
 ize, report, 6620
 Interstate and intrastate waters of upper
 Mississippi River and tributaries, con-
 ference, proceedings, 7166
 landings, fishery products, 2883, 8157
 mineral industry, minerals yearbook chap-
 ter, 4470
 minority construction contractors located
 in selected cities, list, 8794
 Mississippi River and tributaries, fishery
 products, wholesale dealers, list, 9551
 pollution of Lake Superior and its tribu-
 tary basin, conference proceeding, 7164,
 10095, 17996
 postal map, 7705
 precipitation data, hourly, 2718
 quaking aspen, evaluating for site-quality
 and to wood-quality relationship, 18023
 Soil Conservation Service, annual report,
 window on Wisconsin, 7787
 southeast, rivers basin, planning, 6314
 southwestern, watershed cover effect on
 overland flow from major storm, 5492
 Territorial papers, Executive Journal
 1836-48, 8977
 Wise, John P., tuna purse seine fishery in
 eastern tropical Atlantic, 5008
 Witherspoon, John P., instructional tele-
 vision facilities, planning guide, 1793
 Withholding tax, see Income tax.
 Witnesses:
 Federal immunity of witnesses act—
 hearings, 8309
 reports, 12198, 13421
 fees for appearing before Senate commit-
 tees, increase, report, 1615
 Government and private, conglomerate
 corporations investigation, hearings,
 15921
 WMATA, see Washington Metropolitan Area
 Transit Authority.
 Woerrlein, Hermann H., capture and spuri-
 ous target generation due to hard limiting
 in large time-bandwidth product radars,
 6109
 Wojciechowicz, John J., evaluation of vector
 analog computer, model 5A, area naviga-
 tion equipment, 10637
 Wolf, Erik W., corrugated metal pipe, struc-
 tural design criteria and recommended
 installation practice, 10522
 Wolf, Ken, white-spot disease of fish eggs
 and fry, 10580
 Wolf Lake, pollution of Interstate waters,
 Ind.-Ill., conference proceedings, 7163
 Wolf National Scenic Riverway, classify, es-
 tablish boundaries, and set development
 plans, 338

Wolfe, James W., relationship of chronic
 gastric ulceration to experimental cerebel-
 lar vermal lesions, 56
 Wolfe, Thomas W., testimony, hearings,
 11108
 Wolframite, use in electrolytic preparation
 of tungsten metal and tungsten carbide,
 5878
 Wollerman, E. H., locust borer, 12547
 Wolovich, William A., frequency domain ap-
 proach to design and analysis of linear
 multivariable systems, 10392
 Wolske, Gary D., minimum fuel attitude con-
 trol of nonlinear satellite system with
 bounded control by method based on linear
 programming, 892
 Wolverine State (cargo ship):
 model, midship wave bending moments
 running at oblique headings in regular
 waves, 1086
 Woman suffrage, 6-cent commemorative post-
 age stamp (poster), 15110
 Women:
 adult females, brake pedal force capability,
 18238
 American women at crossroads (address),
 11938
 automation and women workers, 6282
 business community can help hard core
 unemployed (remarks), 15734
 careers, public relations worker, why not
 be one?, 7900
 changing patterns, report on Federal
 women's program, review seminar, 245
 common goals and objectives for future,
 report of consultation of women's orga-
 nizations, 10675
 educational attainment, trends, 1185
 employment, sex discrimination, laws,
 10673
 equal rights amendment to U.S. Consti-
 tution—
 hearings, 13746, 16067
 memorandum, 14591
 expanding opportunities, women in Fed-
 eral Government, 9473
 family and property law, summary, Ohio,
 4792
 in Air Force—
 discover the world, 10722
 that special look, 60
 job patterns in private industry, 14353
 job training suggestions, 17415
 marine officer candidate, recruiting infor-
 mation, 829
 matter of simple justice, report of Presi-
 dent's Task Force on Women's Rights
 and Responsibilities, 10510
 mature, jobfinding techniques, 6284
 private household workers, fact sheet,
 12954
 State labor laws, summary, Ohio 4793,
 15390
 to benefit women at work, 9271
 who says men don't listen when a woman
 talks, women officers in Air Force, 6338
 why not be an urban planner, career
 opportunities, 17416
 women and women's rights (address),
 12657
 women by number of own children under
 5 years old, Mar. 1969 population
 characteristics, 12035
 women's liberation, talkin' blues, tele-
 vision, corporate greed (remarks), 7080
 workers—
 1969 handbook, 4791
 United States, background facts, 11939
 utilization in major industries, Equal
 Employment Opportunity Commission
 hearings, 1841
 women workers today, 11941
 see also Woman suffrage.

INDEX 1970

Women's Bureau:
bulletins, 4791, 11940
50th anniversary celebration (address),
12657
leaflets, 6283, 7899-7900, 9270, 10674,
12953, 17415-416, 18405
pamphlet, 6284
publications, lists, 7899, 10674
to benefit women at work, general infor-
mation about purpose, programs, etc.,
9271
Women's clothing, *see* Clothing—also names
or types of clothing.
Womer, Chester, nomination, hearing, 17716
Wong, Dug Foo, relief, 5042
Wong, Edgar L. activation energies for re-
actions of hydroxyl radicals with hydrogen
and carbon monoxide, 7543
Wong, Robert Y., effects of operating param-
eters on net power output of 2-10-
kilowatt Brayton rotating unit, 11661
Wong, Wesley H. C., jr., plantation timber
of Island of Maui, 5519
Wong, Yui, and wife, relief, 5040
Wood, Allen D., thermodynamic property
measurements in reflected shock air plas-
mas at 12-16,000° K, 12766
Wood, George R., kinetics of ice nucleation
from water and electrolyte solutions, 5617
Wood, Hulton B., vegetation recovering,
little erosion on Hanalei watershed after
fire, 1880
Wood, R. A., new aluminum sand casting
alloy of high toughness (M-45), report,
18194
Wood, Robert E., viscosity of helium-nitrogen
system from 133° to 740° K for pressures
between 1 and 240 atmospheres, 11590
Wood, S. O., jr., mineral industry of
Mississippi, 4441
Wood:
American woods—
balsam fir, 14425
Engelmann spruce, 8682
magnolia, 16534
components, thermal degradation, litera-
ture review, 14464
density survey of yellow pine minor
species in Eastern United States—
sand pine, 4209
table mountain pine, 4210
dividends from research, list of publica-
tions, 7190, 16538
frame house construction, 12974
household furniture, except upholstered,
industry wage survey, 11531
imported tropical woods, properties, 10126
limbwood and green logs, directions for
treatment to prevent splitting and
checking, 14429
moisture content, measurement, military
standard, 17745
moisture variation of white pine, 5496
monoterpenes of Ponderosa pine wood
oleoresin, local and regional variation,
18027
near-minimum property values, tables for
developing nonparametric estimates,
14466
Peruvian woods, natural decay resistance,
18024
physical and mechanical properties of
wood-plastic combinations, investiga-
tion, 125
primary products output in—
New York, 10137
Ohio, 10138
products—
census of transportation, 1967, com-
modity transportation survey, shipper
group, 4927
Hawaii, consumption, production, and
trade, 4191
increase supply, hearing, 483

Wood—Continued
products—Continued
millwork, plywood, and prefabricated
structural, census of manufactures
1967 industry statistics, 10796
miscellaneous, census of manufactures,
1967, industry statistics, 12002
quality relationship in evaluating quaking
aspen of Wisconsin for site-quality,
18023
sound, method for sampling yeasts and
bacteria, 18014
structures survive Hurricane Camille's
winds, 4202
termites and decay guide, 8619
trade and tariff information, summaries,
7853
used for cabins, rustic work, and un-
seasoned, protecting from injurious
insects in eastern U.S., 17434
various wood products, determining utility
of new optical test procedure for mea-
suring smoke from, 16573
wood-boring insects, artificial rearing of
10 species, 5497
wood diameters on major southern pines,
converting dendrometer estimates of
outside-bark stem diameters to, 691
see also Hardwoods—Heartwood—Lum-
ber — Sapwood — Softwoods —
Veneers—also names of articles, etc.,
manufactured from wood.
Wood & Brooks Co., Rockford, Ill., Plant,
production and maintenance workers,
plane actions, Tariff Commission report,
12946
Wood borers attracted to turpentine in wind-
thrown timber in northern California, 4188
Wood chemicals, *see* Chemicals.
Wood County, Ohio, community profile, 12488
Wood ducks, habitat management for, 17298
Wood finishing, blistering, peeling and crack-
ing of house paint from moisture, 14458
Wood preservation, *see* Wood.
Wood pulp:
current industrial reports, 2475
Lake States pulpwood production—
plummetts 413,000 cords, 12550
rises 11 percent, 16567
production in South, 707
pulpwood growing investment in south-
eastern Ohio, opportunities, 11362
pulpwood production—
north central region by county, 12567
Northeast, 4212
southern pine pulpwood prices, determi-
nants, 702
Wood waste, *see* Waste products.
Woodard, Helen Q., biological effects of
tritium, 10759
Woodbury, Gerard E., angle of attack analy-
sis of spinning slender cone with slight
aerodynamic and mass asymmetries (re-
entry F), 16972
Woodbury, Tenn.:
East Fork Stones River, flood plain in-
formation, 17922
floods, how to avoid damage, 17936
Woodbury County, Iowa, community profile,
14256
Woodcocks:
hunting, possession, transportation, im-
portation, 1970-71, Federal regulations
governing, 15276
research and management programs, 1967
and 1968, 1132
status report, 18342
Woodcuts, chiaroscuro woodcuts, "Pembroke"
album, 5835
Woodis, K. W., leak detector for use in space
environment, 11676
Woodlands, *see* Forests and forestry—
Natural resources.
The Woodlawn Organization, T.W.O.'s
model cities plan, 6467

- Woodmansee, Walter C.:
mineral industry of—
Liberia, 4438
Libya, 16905
Republic of South Africa, 7470
South West Africa, 4462
- Woodpeckers, sapsucker, damage varies with tree species and seasons, 696
- Woodring, W. P., geology and paleontology of Canal Zone and adjoining parts of Panama, 14534
- Woodruff, George A., soil survey of Antelope Valley area, Calif., 6191
- Woods, Elaine W., serials, MARC format, 11556
- Woods, W. Fred., Tax reform act of 1969, provisions of significance to farmers, 9973
- Woods, see Forests and forestry—Timber—Wood.
- Woodson, George E., tool forces and chip formation in orthogonal cutting of loblolly pine, 11364
- Woodson, John S.:
deep water ambient noise levels in tongue of ocean, Bahamas, 9046
shallow water ambient noise levels in tongue of ocean, Bahamas, 1014
- Woodworkers, publications, list, 16544
- Woodworking machinery and equipment, Federal item identification guides for supply cataloging, supplements, 2591
- Woody plants, see Plants.
- Wool:
and wool tops, futures trading and open contracts, 2682
broadwoven goods, current industrial reports, 2476
consumption on woolen and worsted systems, current industrial reports, 2475, 4935, 15630
foreign agriculture circulars, 2657
futures, commitments of traders, 2427
market news service, 7923
market news, weekly summary and statistics, 2845
National wool act of 1954, extend, reports, 15844, 16007, 17626
production—
price and value, 12945
shorn wool, statistics, 7848, 15338
program, 1968 marketing year report, 3388
stake in textile import problem (remarks), 9514
statistics and related data, 1930-69, 13007
stocks of wool and related fibers, current industrial reports, 3637
trade agreement with Malaysia, 18363
wool situation, 3363
- Wool County, W. Va., soil survey, 9157
- Woolen cloth, see Wool.
- Woolens, machinery activity, current industrial reports, 15646
- Worcester, Mass.:
area wage survey, 14734
census of transportation, 1967, commodity transportation survey, production, area series, 6417
- Work:
comparative performance of low-ability airmen, 9332
hiring standards and job performance, 11524
history, use of Social Security's continuous sample for population estimation, 6442
job types for low-aptitude airmen, method for determining, 7954
New Jersey graduated incentive experiment, preliminary results, 5334
performance standards for post engineering, facilities engineering, Army pamphlet, change, 10787
potential for work among welfare parents, 2017
- Work—Continued
resources and work force management, civil engineering, Air Force manual, change, 9335
safe work guide, Department of Labor safety training program, SWG LS series, 4369, 8859, 12660
schedules of employees assigned to railway and highway post offices, need to revise, Post Office Department, GAO report, 7212
selecting duty categories, Air Force job inventory procedure, study, 7953
simplification techniques, Army pamphlet, 13048
special job creation for hard-to-employ in Western Europe, 8855
unit codes for aeronautical equipment, uniform numbering system, military standard, 6877
work experience programs under Economic opportunity act, title 5, door to opportunity, 13249
work incentive program—
annual report, 15956
reports, 16049
survey of selected welfare and Employment Service agencies, 15957
work statement preparation, AFSC, 3441
see also Employment—Occupations.
- Work injuries, see Injuries.
- Work stoppages, see Strikes and lockouts.
- Workbooks, see subjects.
- Workers, see Labor—Women—Youth.
- Working capital fund of Department of Treasury, 9691
- Working for U.S.A., 15692
- Working mothers, see Mothers.
- Working with older people, guide to practice, 9568, 17570
- Workmen's compensation, see Employer's liability and workmen's compensation.
- Workshops:
irrigation operator's, 1969, lecture notes, 6143
news and clues for sheltered workshops, 2959
public welfare and statistics, relevant research and statistics to meet today's and tomorrow's challenges in public welfare, proceedings of 9th meeting, 7587
workshop series of Pharmacology Section, N.I.M.H., 1080
- Workweek, see Hours of labor.
- World, see specific subjects.
- World agricultural production and trade, statistical report, 3365, 4176
- World Intellectual Property Organization, convention establishing, report, 6732
- World interest, generation of peace, 18345
- World list of future international meetings, 3366
- World military expenditures, 1969, and related data for 120 countries, 10730
- World motor vehicle production and registration, 10782
- World outlook for nuclear energy (remarks), 9411
- World peace, see Peace.
- World trade, see Commerce.
- World War, 1914-18, see European War, 1914-18.
- World War, 1939-45:
combat squadrons of Air Force, 1209
1st Army in Europe operations, 1943-45, overall picture, 442
Paris Peace Conference, proceedings, 10607
tribute to Allied World War II victory in Europe, report, 3945
veterans, see in main alphabet, Veterans.
- World War II, see World War, 1939-45.
- Worley, Will J., small deflection of class of clamped thin plates using conformal mapping, 16943

INDEX 1970

- Worms and insects harmful to man, animals, and plants, publications, price list, 10516
see also Carpenterworms—Polychaeta—Screwworms.
- Worship, *see* Religious services.
- Worsted:
 machinery activity, current industrial reports, 15646
 systems, consumption, current industrial reports, 2475, 4935, 15630
- Worth:
 distributing value gain from 3 growth factors for yellow-poplar, 5499
 quality index log values, adjusting to represent local and regional commercial sawlog product values, 4205
- Worth County, Iowa, community profile, 14257
- Worth County, Mo., community profile, 17900
- Worthington, John T., cold storage and transport of strawberry plants, 15434
- Woven goods, *see* Textiles.
- WPL, *see* Wave Propagation Laboratory.
- WRAIR (Walter Reed Army Institute of Research), *see* Walter Reed Army Institute of Research.
- Wrangell Mountains, Skolai Group in McCarthy B-4, C-4, and C-5 quadrangles, 4223
- Wrapping, *see* Packing.
- Wrecking:
 and demolition work, special trade contractors, census of construction industry, 1967, statistics, 13139
 demolition materials, Federal item identification guide, 13785
- Wrenches:
 and components, hand, nonpowered, Federal item identification guide, 13801
 safe work guide, 8859
- Wright, Kenneth H., Sitka-spruce weevil, 14441
- Wright, Logan, bibliography on human intelligence, 6041
- Wright, Thelma R., new one-family homes, contractor built, 228
- Wright County, Iowa, community profile, 14258
- Wright County, Mo., community profile, 17901
- Writers, *see* Authors.
- Writing:
 contest news, hospitalized veterans, writing project, 4782
 essay writing, VAVS-sponsored competitions, 10660
 press relations and news writing, helpful information for preparation of news articles, 16555
 writing occupations, newspaper reporters, technical writers, employment outlook, 14685
- WRSIC, *see* Water Resources Scientific Information Center.
- WS series, 2677
- Wu Hip, relief, 5100, 9576
- Wu, William R. K., repeatability of plastometer and dilatometer tests of coal, 10332
- Wullenweber antennas, *see* Antennas.
- Wupatki National Monument, general information, 10475
- Wurster, Cecil R., statistics in mental health programs, selected papers from annual meetings on National Conference on Mental Health Statistics, 9021
- Wyandot County, Ohio, community profile, 12489
- Wykes, John H., XB-70 structural mode control system design and performance analyses, 14810
- Wyman, Leland C., sandpaintings of Navaho Shootingway and Walcott Collection, 10467
- Wyman, P. W., laser radar range equation considerations, 6106
- Wynn, N. A., jr., cost of storing and handling farmers' stock peanuts in commercial facilities, 5340
- Wyoming:
 board-foot volumes to 6-inch top for lodge-pole pines, 5505
 census of business, 1967, retail trade, merchandise line sales, 15546
 census of construction industries, 1967, statistics, 17486
 census of governments, 1967, 3598
 census of manufactures, 1967, statistics, 15590
 central, cenozoic geology of Granite Mountains area, 8740
 climatological data, 2409
 conservation of owls, 15200
 county business patterns, 215, 9451
 electric rate book, 4148
 farmers and ranchers, recreation, an income crop from land use, how and where to get help, 15226
 flood hydrographs for small drainage basins, study, progress report, 734
 Great Plains conservation program, 9176
 irrigation council annual meeting, 9087
 land conveyance to Ferne M. McNeil, report, 15995
 mineral industry, minerals yearbook chapter, 4471
 Minidoka Project, general information, 9084
 non-game birds, ways to attract, 15248
 northwestern, hydrocarbons in thermal areas, 11398
 oil and gas leases, reinstate, report, 8360
 postal map, 15117
 precipitation data, hourly, 2718
 red fox, habitat needs, etc., 15227
 south-central, stratigraphy and nomenclature of some upper Cretaceous and lower Tertiary rocks, 8748
 southwestern—
 new occurrence of Paleocene mammals in Evanston Formation, 2216
 uppermost Cretaceous and Tertiary stratigraphy of Fossil basin, 11397
 trees native to its forests, 7203
 water resources, 1969 data, 16640
 water supply outlook and snow surveys, 3346
- Wyoming County, N.Y., community profile, 14259
- Wyoming County, Pa., community profile, 16371
- X
- X-15, *see* Airplanes.
- X-24A, *see* Aircraft.
- X-ray technicians, radiologic technologists, employment outlook, 14669
- X-rays:
 determination of lead in glass used for shielding television receiver components, field method, 4086
 diffraction, powder patterns, 18233
 flash technique for recession measurements in ablative materials, evaluation, 9560
 medical radiation information for litigation, conference proceedings, 1052
 observations of flow patterns in mercury boiler, 11631
 radiolotope excited x-ray fluorescence techniques, program to evaluate, explore potential applications in criminalistics and national security, final report, 9398
 radiolotope methods for field analysis of wet concrete quality, methodology and conceptual instrument design, 4889
- Xanthophylls, stability in alfalfa as affected by pilot- and industrial-scale dehydration, 4829
- XB-70, *see* Aircraft—Airplanes.
- Xylem, age effect on volume yield & sugar content of sugar maple sap, 4203

Y

- Yachnin, Mara, establishing business in Greece, 15728
- Yachts, merchant vessels of U.S., 1968, 3683
- Yadkin County, N.C., community profile, 12490
- Yakima, Wash. :
floods, how to avoid damage, 17937
- Yakima and Naches Rivers, flood plain information, 16436
- Yakima County, Wash. :
community profile, 6980
- hydrologic situation north of Snipes Mountain near Sunnywide, 8736
- Yakima Indians :
disposition of funds—
law, 15798
reports, 9855, 13481
- trust property, inheritance, repeal restriction, report, 9668
- Yakima River and Valley :
distribution and abundance of fish, Apr. 1957-May 1958, Washington, 13241
- Yakima-Union Gap, Wash., flood plain information, 16436
- Yalobusha County, Miss., community profile, 16372
- Yance, Joseph V., demand for use of Washington National Airport, 9238
- Yancey, Robert M., Atlantic Coast surf clam fishery, 12068
- Yancey County, N.C., community profile, 14260
- Yandle, Carolyn D., population of Panama, estimates and projections, 10826
- Yang, Chung-chun, meromorphic functions and derivatives, 15068
- Yankee power reactor, *see* Reactors (atomic).
- Yankton County, S. Dak., community profile, 14261
- Yards, forklift yard, air drying lumber in, 15658
- Yarn :
field-degradation effects on cotton fiber and yarn quality, 9328
- spun—
for sale current industrial reports, 2475
- production, current industrial reports, 4940, 15639
- textured yarn production, current industrial reports, 3638, 15642
- trade and tariff information, summaries, 11908
- Yarn mills, census of manufactures, 1967, industry statistics, 12000
- Yasuda, H., improved membranes for reverse osmosis, 770
- Yates, Warren G. :
Lao basic course, 12938
- Thai basic course, 11902
- Yates County, N.Y., community profile, 14262
- Yau Ming Chinn, *see* Chinn, Yau Ming.
- Yavapai County, Ariz., community profile, 6981
- Yavapai-Prescott Community Reservation :
lands, longer term leases, authorize—
law, 10935
reports, 6608, 9835
- Yaw, yaw-rate damper, effect on flying qualities of light twin-engine airplane, evaluation, 12817
- Yazoo County, Miss., community profile, 16373
- Yearbooks :
agriculture, food for us all—
departmental edition, 18
document edition, 325
- minerals, 1968—
area reports—
domestic—
departmental edition, 7476
document edition, 6554
- international—
departmental edition, 10323
document edition, 9614
- Yearbooks—Continued
minerals, 1968—Continued
metals, minerals, and fuels—
departmental edition, 7475
document edition, 6553
- national forests in profile, Intermountain region, Forest Service, 10119
- North Korean Central yearbook, excerpts, 8840, 12639
- office mechanization and computer technology, Hungary, 11490
- USSR national economy in 1967, statistical yearbook, 5750-52
- Yeast, method for sampling yeasts and bacteria in sound wood, 18014
- Yegua formation, *see* Claiborne group.
- Yellow birch, *see* Birch.
- Yellow poplar, *see* Tuliptree.
- Yellowstone National Park :
centennial of establishment, commission to commemorate, authorize, hearings, 429
- commemorate 100th anniversary of establishment—
law, 13307
reports, 8258, 12332
- general information, 12877
- Norris Soldier Station, historic structures report, 4582
- Yeloushan, Charles C., mineral industry of Pennsylvania, 4455
- Yemen :
background notes, 10600
- southern, background notes, 10594
- Yergen, Walter E. :
data base of Naval Oceanographic live atlas, 9045
- NODC computer archive ocean station format, 1015
- Yerlington, Albert P. :
effect of oil treatment of raisins on numbers of insects infesting raisin packages, 10679
- use of vapor generator with dichlorvos to control drosophila in wineries, 6288
- Yin, Low, relief, 12174, 13291
- Ying, Low, *see* Yin, Low.
- Yochelson, Ellis L. :
early Cambrian fossil *Salterella conulata* Clark in eastern North America, 18047
- Salterella* from Lower Cambrian of central Nevada, 10179
- Yoho, James G., economics of converting red alder to Douglas-fir, 4207
- Yolles, Stanley F., before your kid tries drugs, 970
- York, Harold F., mineral industry of Vermont, 4466
- York, Pa. :
area wage survey, 11545
- census of transportation, 1967 commodity transportation survey, production, area series, 6422
- York County, Nebr., community profile, 17902
- York County, Pa., community profile, 16374
- York Mountains, geology and ore deposits, 4230
- Yorktown, Va., Thomas Pate House and lot 42, Colonial National Park, 12875
- Yosemite National Park, Calif., general information, 10476
- Yotsukura, Nobuhiro, measurement of mixing characteristic of Missouri River between Sioux City, Iowa and Plattsmouth, Nebr., 10191
- You & food stamps, 5476
- You and PL 480, how small business can benefit, 5399
- Young, C. W., jr., review of microwave switching schemes and variable power-division networks using phase shifters, 15083
- Young, Frank N., checklist of American Bl-dessini (Coleoptera, Dytiscidae-Hydoropri-nae), 1096

INDEX 1970

Young, Gary D.:

- air pollution report, Federal facilities—metropolitan Cleveland intrastate air quality control region, 10420
- Phoenix-Tucson intrastate air quality control region, 12838
- Young, Neil B., dawsonite and nahcolite analyses of Green River formation oil-shale sections, Piceance Creek, Colo., 18172
- Young, R. A., water supply for nuclear rocket development station, Nevada test site, 7253
- Young, Stanley G., study of cavitation damage to high-purity metals and nickel-base superalloy, in water, 17002
- Young, W. H., coal, bituminous and lignite, 4401
- Young people, *see* Youth.
- Young workers, *see* Youth.
- Younger, Charles L., effects of reactor irradiation on ductile-brittle transition and stress-strain behavior of tungsten, 16990
- Young's modulus, *see* Elasticity.
- Youngstown, Ohio:
 - area wage survey, 7435
 - census of transportation, 1967, commodity transportation survey, 8067
 - principal electric facilities, map, 8623
- Your Federal income tax for individuals, 1965
- Your future in U.S. Army Medical Corps, 6368
- Your housing rights, live where you want to live, 16682
- Your medicare handbook, 2224, 12925
- Your opportunities and rewards in Air Force Reserve, 11963
- Your opportunities and rewards in Air National Guard, 11964
- Your right to representation in Social security matters, 1103
- Your son and United States Coast Guard, 10861
- Youth:
 - American, characteristics, population, educational attainment, etc., current population reports, 4943
 - before your kid tries drugs, 970
 - breakthrough for disadvantaged youth, 2015
 - experimental and demonstration programs—
 - basic education, 7405
 - impact on the community, 7407
 - job placement, creation, and development, 7408
 - recruitment and community penetration, 7411
 - testing, counseling and supportive activities, 7413
 - using the nonprofessional, 7414
 - bridge to future, Veterans Administration special employment and training for youth, 6278
 - children's and young adult services in public library systems serving from 100,000 people, 1970 directory, 14277
 - community development program, young adult groups, build our American communities, 11280
 - disadvantaged, follow through programs, 1969-70 Federal funds, 583
 - drug use, scope, corrective measures, etc., 15392
 - employment, job guide for young workers, 805
 - Federal youth corrections act, amend—
 - hearing, 11051
 - law, 13314
 - reports, 9864, 12216
 - group leaders, forestry conservation activities, guide, 3418
 - handling juveniles in District of Columbia courts, revise procedures, reports, 8623, 8629

Youth—Continued

- juvenile justice, crime in America, hearings, 5150
- looking for a job, general information, 10509
- low-income families, program to help achieve college education, 1796
- male, educational and labor market experience, career thresholds, longitudinal study, 5812
- market, information sources from Marketing information guide, 3527
- message to young workers about Fair labor standards act, 9267
- Negro, in job training project for inner city, 4364
- publications, price list, 10517
- smoking, health, and you, facts for teenagers, 13183
- State responsibility for juvenile detention care, 15391
- suicide, analysis, review of literature, 4567
- summer youth opportunity campaign, 1969, contractors and State highway departments, 4135
- teenagers discuss the generation gap, 4954
- unemployment and minimum wages, relationship, 8865, 10293
- upward bound, ideas and techniques, reference manual, 7028
- upward bound project, general information, 594
- volunteer in today's world, 15383
- young American travelers, drug arrests abroad, notice, 11901
- youth in trouble, crime in America, hearings, 11030
- youth involvement, 12918
- youth reports series, 4954
- see also* 4-H clubs.
- Youth Conservation Corps:
 - establish—
 - hearings, 1579
 - law, 13345
 - reports, 6630, 12185, 15846
 - pilot program, proposals, report, 8288
- Youth Conservation Corps Interagency Committee:
 - establish—
 - law, 13345
 - reports, 6630, 12185
- Youth Correction Division:
 - designate examiners to interview youth offenders being considered for release on parole—
 - hearing, 11051
 - law, 13314
 - reports, 9864, 12216
- Youth Development and Delinquency Prevention Administration, publications and films, 17417
- Ypsilanti, Mich., Perry Preschool Project, program in compensatory education, 11237
- Yttrium:
 - and rare earth metals, preparation by electrodeposition and vacuum distillation of alloys, 868
 - phase relations in alkaline earth fluoride-yttria systems, 18166-167
- Yttrium dicarbide, carbon system, mass spectrometric investigation of vaporization thermodynamics, and dissociation energy of yttrium dicarbide and tetracarbid, 8937
- Yttrium oxide:
 - and barium fluoride phase diagram relation in alkaline earth fluoride-yttria systems, 18167
 - and calcium fluoride phase diagram relation in alkaline earth fluoride-yttria systems, 18166
- Yttrium tetracarbid, dissociation energy of yttrium dicarbide and tetracarbid, and mass spectrometric investigation of vaporization thermodynamics of yttrium dicarbide-carbon system, 8937

Yugoslavia :

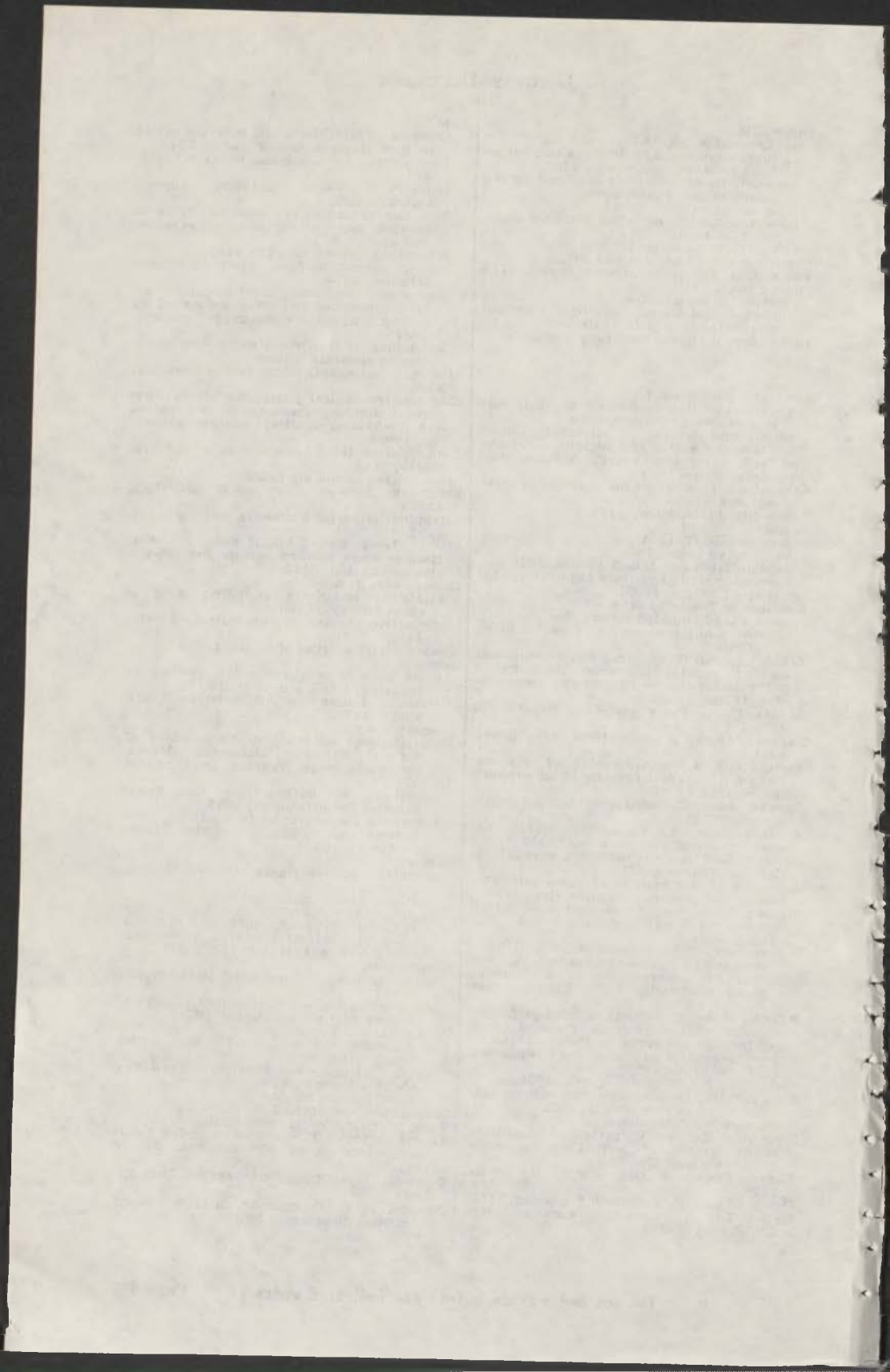
- background notes, 18344
- cultural relations, American reading rooms in Yugoslavia, agreement, 1152
- economic trends and their implications for United States, 11463, 18088
- educational system, 11211
- mineral industry, minerals yearbook chapter, 863, 16910
- selling in Yugoslavia, 15723
- Yui Wong see Wong, Yui and wife.
- Yuma, Ariz., soil survey, special report, 7778
- Yuma County, Ariz. :
 - community profile, 6982
 - relinquish and disclaim any title to certain private lands, report, 1610
- Yuma Mesa division, see Gila project.

Z

- Zaffarano, Richard F. :
 - natural gas liquids, review of their role in petroleum industry, 4408
 - supply and demand for energy in United States by States and regions, 1960 and 1963, integrated energy balances and energy flows, 5849
- Zahn, John J., strength of multiple-member structures, 18022
- Zalcmanis, Janis, relief, 1446
- Zambia :
 - area handbook, 1234
 - background notes, 7808
 - capsule facts for Armed Forces, 7973
 - economic trends and their implications for United States, 14621
 - selling in Zambia, 6514
 - special study mission report, 390
 - print additional copies, reports, 9696, 13634
- Zanio, Kenneth R., research and development on single crystal high resistivity cadmium telluride for use as gamma ray spectrometer, 10763, 15526
- Zapata, Pio A. Pol y, see Pol y Zapata, Pio A.
- Zappolo, Aurora A., educational attainment, 4941
- Zarin, Neil A., measurement of non-continuum and turbulence effects on subsonic sphere drag, 11616
- Zasada, John C., albio seedlings of white spruce, 16569
- Zausner, Eric R., accounting system for sanitary landfill operations, 12930
- Zaveler, Saul A., programmer's manual for CalComp plotting, 971
- Zeiss, Carl, modification of Zeiss telemeter telescope for precision dendrometry, 4196
- Zeitoun, M. A., conceptual designs of outfall systems for desalting plants, 14594
- Zellinger, John E. :
 - preparation characteristics of coal from Beaver and Lawrence Counties, Pa., 882
 - preparation characteristics of Pennsylvania anthracite from Kidney seam, Northern Field, 7488
- Zelonka, John R., structural models for design of mining systems, encasement of strain gage networks in epoxy, 18169
- Zens, Clarence M., international commerce, 2757
- Zerbl, Paolo (Paul) G., relief, 3906
- Zero gravity, forced-convection boiling near inception in zero gravity, 4521
- see also Weightlessness.
- Zibrowski, Helmut W., review of some little known genera of serpulidae (annelido, polychaeta), 4665
- Ziebach County, S. Dak., community profile, 14263
- Zigler, Edward F., nomination, hearing, 11120
- Zil'ber, Lev A., virologist, work and life, USSR study, 4336

Zinc :

- deposits, White Mountain plutonic series in New Hampshire and Maine, 5543
- high-purity, by amalgam electrorefining, 872
- industry, mineral industry survey, monthly, 3367
- lead mining operation, relative effects of grouped physical variables on revenue-cost system, 871
- minerals yearbook chapter, 4487
- solvent extraction from waste phosphate solution, 5874
- zinc-copper and zinc-titanium-copper alloys, properties and creep influenced by rolling temperature and copper content, 7487
- Zn doping of GaAs films using coevaporation of elements, 15089
- Zinc oxide, mineral industry survey, monthly, 3368
- Zinc sulfides, typical phosphors, alternating-current electroluminescence in, observation and mechanism of direct current quenching, 16984
- Zinn, Walter H., Enrico Fermi award (remarks), 143
- Zirconia, see Zirconium oxide.
- Zirconium, isotope effect in B zirconium, 12822
- Zirconium oxide, pure zirconia, melting point, 9382
- Zitter, Meyer, use of Social Security's continuous work history sample for population estimation, 6442
- Zodhy, Adel A. R. :
 - electrical resistivity sounding with L-shaped array, 18039
 - geometric factors of bipole-dipole arrays, 14523
- Zonars, Charles, relief of estate, 13386
- Zones :
 - blind zone of weather radar, method of reducing, USSR study, 10270
 - tectonic zoning in Afghanistan, USSR study, 16762
- Zoogeography :
 - distributions of fishes in fresh water of Katmai National Monument, Alaska, and their zoogeographical implications, 3717
 - evolution, of bathypelagic fish genus Stomias (Stomiidae), 1095
 - ostracode zoogeography in southern Nova Scotian and northern Virginian faunal provinces, 10174
- Zoology :
 - medical and veterinary, index-catalogue, 12963
 - special publications, 15406
 - Smithsonian contributions to zoology, 1094-96, 2217-18, 4663-65, 6155-62, 7734-36, 9106, 10547, 11850-852, 12915-916, 15161-162, 17273-275
- Zooplankton :
 - sampling devices, annotated bibliography, 15747
 - seasonal and areal distribution in coastal waters of Gulf of Maine, 15746
- Zornig, Harold F. :
 - designs for low cost wood homes, house plans, 7184-89
 - wood structures survive Hurricane Camille's winds, 4202
- Zoroasteridae, see Starfishes.
- Zorocallida, see Starfishes.
- Zuck, Marjorie, relief, 348, 5045
- Zucrow, Maurice J., engineering design handbook, elements of aircraft and missile propulsion, 80
- Zumwalt, Elmo R., jr., nomination, hearing, 9894
- Zuzman, Jack, bibliography on epidemiology of mental disorders, 12857



Order Blank To Superintendent of Documents,
Government Printing Office,
Washington, D.C. 20402

Order Blank To Superintendent of Documents,
Government Printing Office,
Washington, D.C. 20402

Date _____, 19____

Name

Street Address _____

City, State, ZIP Code _____

For Use of Supt. of Docs.

Enclosed.....

To be mailed
later.....

Subscriptions.....

Refund-----

Coupon refund.....

Postage

[illegible]

Total, \$ _____

For PROMPT, ACCURATE SHIPMENT please fill in the following label—Please PRINT or typewrite.

U.S. GOVERNMENT PRINTING OFFICE
PUBLIC DOCUMENTS DEPARTMENT
WASHINGTON, D.C. 20402

OFFICIAL BUSINESS

RETURN AFTER FIVE DAYS



POSTAGE AND FEES PAID
U.S. GOVERNMENT PRINTING OFFICE

Name _____

Street Address.....

City, State, and ZIP Code _____

Additional space for your order

[illegible]

Order Blank To Superintendent of Documents,
Government Printing Office,
Washington, D.C. 20402

Order Blank To Superintendent of Documents,
Government Printing Office,
Washington, D.C. 20402

Date _____, 19____

Name

Street Address _____

City, State, ZIP Code _____

For Use of Supt. of Docs.

----- Enclosed -----

To be mailed
later

----- Subscriptions -----

Refund.....

Coupon refund.....

Postage

[illegible]

Total, \$ _____

For PROMPT, ACCURATE SHIPMENT please fill in the following label—Please PRINT or typewrite.

U.S. GOVERNMENT PRINTING OFFICE
PUBLIC DOCUMENTS DEPARTMENT
WASHINGTON, D.C. 20402

OFFICIAL BUSINESS
RETURN AFTER FIVE DAYS



POSTAGE AND FEES PAID
U.S. GOVERNMENT PRINTING OFFICE

Name _____

Street Address_____

City, State, and ZIP Code _____

Additional space for your order

[illegible]

Do not write in space below

Total, \$.

Order Blank To Superintendent of Documents,
Government Printing Office,
Washington, D.C. 20402

Date _____, 19____

Street Address _____

Enclosed.....

To be mailed
later

Subscriptions

Refund _____

Coupon refund.....

Postage

Total, \$ _____

Name _____

Street Address-----

City, State, and ZIP Code _____

Additional space for your order

[illegible]

Do not write in space below

Total, \$

Order Blank To Superintendent of Documents,
Government Printing Office,
Washington, D.C. 20402

Order Blank To Superintendent of Documents,
Government Printing Office,
Washington, D.C. 20402

Date _____, 19____

Name

Street Address _____

City, State, ZIP Code _____

For Use of Supt. of Docs.

----- Enclosed -----

To be mailed
later

----- Subscriptions -----

Refund -----

Coupon refund.....

Postage

[illegible]

Total, \$_____

For PROMPT, ACCURATE SHIPMENT please fill in the following label—Please PRINT or typewrite.

U.S. GOVERNMENT PRINTING OFFICE
PUBLIC DOCUMENTS DEPARTMENT
WASHINGTON, D.C. 20402

OFFICIAL BUSINESS

RETURN AFTER FIVE DAYS



POSTAGE AND FEES PAID
U.S. GOVERNMENT PRINTING OFFICE

Name _____

Street Address_____

City, State, and ZIP Code _____

order

[illegible]

GOVERNMENT PRINTING OFFICE BOOKSTORES

In addition to the mail-order service provided by the office of the Superintendent of Documents, Government Printing Office, for the sale of those publications listed in the Monthly Catalog with an asterisk (*) and price, there are also 10 retail bookstores which constitute a part of the operations of that office. The locations of these stores are shown below:

Government Printing Office
710 North Capitol Street
Washington, D.C. 20402
Telephone: Area code 202—783-3248

Department of Commerce, Lobby
14th and Constitution Avenue NW.
Washington, D.C. 20230
Telephone: Area code 202—WOrth
7-3527

USIA Building, 1st floor
1776 Pennsylvania Avenue NW.
Washington, D.C. 20547
Telephone: Area code 202—632-9668

Department of State Building, 1st floor
21st and C Streets NW.
Washington, D.C. 20520
Telephone: Area code 202—632-1437
(Public access to building controlled by
security regulations.)

Pentagon Building
Main Concourse, south end
Washington, D.C. 20310
Telephone: Area code 202—541-2998

Boston Branch
Room G25, John K. Kennedy Federal
Building
Sudbury Street
Boston, Massachusetts 02203
Telephone: Area code 617—233-6071

Chicago Branch
Room 1463—14th floor
Everett McKinley Dirksen Building
219 South Dearborn Street
Chicago, Illinois 60604
Telephone: Area code 312—353-5133

Kansas City Branch
Room 135, Federal Office Building
601 East 12th Street
Kansas City, Missouri 64106
Telephone: Area code 816—374-2160

Los Angeles Branch
Room 1015, Federal Office Building
300 North Los Angeles Street
Los Angeles, California 90012
Telephone: Area code 213—688-5841

San Francisco Branch
Room 1023, Federal Office Building
450 Golden Gate Avenue
San Francisco, California 94102
Telephone: Area code 415—556-6657

UNITED STATES
GOVERNMENT PRINTING OFFICE
PUBLIC DOCUMENTS DEPARTMENT
WASHINGTON, D.C. 20402

OFFICIAL BUSINESS



POSTAGE AND FEES PAID
U.S. GOVERNMENT PRINTING OFFICE