

*ANNUAL
REPORT OF
THE PUBLIC
PRINTER
1939*

*THE ANNUAL REPORT
OF THE PUBLIC
PRINTER*



For the Fiscal Year Ended June 30,
1939. Submitted to the Congress of
the United States on January 3, 1940



*UNITED STATES
GOVERNMENT PRINTING OFFICE*

1939

CONTENTS

ADMINISTRATIVE

	Page
Efficiency and cost comparisons	1
Service to the departments	
Outstanding and unusual publications	6
Typography and printing design	7
National park booklets	
Division of Accounts	9
Production Control Committee	11
Personnel	13
Building program	18
Maintenance Division	19
Purchasing Division	20
New equipment	
Work released by the Public Printer	22
Departmental duplicating plants	22
Apprentice school	26
Health and welfare activities	29
Emergency hospital	
Executive advisory safety committee	
Group life insurance	
Group hospitalization	
Federal Credit Union	
Government Printing Office American Legion Post No. 33	
United Veterans of American Wars, Government Printing Office Unit No. 1	
Cafeteria and Recreation Association	
Contributions to charitable organizations	
Receipts and expenditures	35
Criticism by organizations and individuals	50

Division of Tests and Technical Control	53
Samples tested	
Paper	
Envelopes	
Corrugated fiber containers	
Ink and miscellaneous products	
Type metal	
Press rollers, glues, and pastes	
Bookbinding research	
Electrotype and photoengraving materials	
Assistance to other departments	
Publications	
Contact with printing, binding, and allied organizations	
Correspondence	

PRODUCTION

Congressional printing.	64
Composing Division	65
Platemaking Division	67
Press Division	69
Bindery Division	70
Patent Office printing	71
Tabulating-machine cards	73
Stores Division	74
Library of Congress branch composing and binding sections .	75
Delivery Section	81

PUBLIC DOCUMENTS

Service and distribution	83
Mailing lists	
Depository libraries	
Congressional bills	
Special Libraries Association	
Monthly catalog index	
Exhibit at Pan-American Exposition, Tampa, Fla.	
Exhibit at Golden Gate International Exposition, San Francisco, Calif.	
Suggested legislation	
Recommended changes in methods of distribution	89
Need for legislation to facilitate sale of publications	

* * *

Conclusion	93
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Administrative Assistant to the Public Printer
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MISS JO COFFIN, Assistant to the Public Printer



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MAYBELLE G. FICKEL	Liaison Officer
EDWARD M. NEVILS	Production Manager
RAYMOND H. LECRAW	Night Production Manager
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WILLIAM A. MITCHELL	Superintendent of Planning
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FRANK H. MORTIMER	Director of Typography
ERNEST E. EMERSON	Director of Purchases
FELIX E. CRISTOFANE	Comptroller
ALLA G. STEVENS	Superintendent of Stores
CHARLES P. WAITE, M. D.	Medical and Sanitary Director
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WILLIAM A. SMITH	Congressional Record Clerk
JAMES B. BENNETT	Captain of the Guard

THE ANNUAL REPORT OF THE PUBLIC PRINTER

I have the honor to submit to the Congress of the United States the following report covering the work of the Government Printing Office for the fiscal year ended June 30, 1939, as required by law.



ADMINISTRATIVE

EFFICIENCY AND COST COMPARISONS

From observation and experience I find the questions pertaining to printing most often asked of departmental representatives by Members of Congress are apparently covered by two main subjects: First, would it be cheaper to procure your work from commercial printers? Second, are printing costs increasing at the Government Printing Office? Based upon this idea, I have decided to treat these subjects in the opening paragraphs of my report on the assumption that all are interested in knowing the facts in both cases.

With reference to the first question I again would like to call attention to the report made to the President on this subject by a special investigator (see page 1, Annual Report of the Public Printer, 1938), as apparently it has been overlooked by many interested in this subject. In view of their current relevancy to this continuously recurring question, three paragraphs from the investigator's report are, for emphasis, again quoted:

The findings with respect to allegations that complaining departments and agencies can get printing done by outside union shops for much lower prices than charged by the Government Printing Office are:

(d) While it is possible that upon isolated items of printing, outside union shops might consistently be able to quote prices lower than charges made by the Government Printing Office, upon other items the charges made by the Government Printing Office are lower than outside union shops could be expected to quote.

(f) The diversion from the Government Printing Office to outside union shops of any class of printing which the Printing Office has heretofore done would be expected to cause increased costs, and therefore charges, upon work not diverted, due to costs arising from fixed overhead that must be charged against the volume of work actually produced.

To further substantiate the above findings, I call attention to the facts outlined in detail in this report under the heading "Patent Office Printing," that the Government Printing Office is producing the patent specifications, trade-marks, designs, and Gazette for less than the prices quoted by a commercial concern, notwithstanding the fact that the commercial concern proposed to use an allegedly cheaper and greatly inferior process to produce the work. Further facts in connection with this question are outlined on page 72 of this report under the heading mentioned above.

The second question apparently arises as a result of the adoption on October 15, 1937, of a new schedule of charges which was predicated upon an exhaustive cost-accounting study that had been carried on for 2 years simultaneously with the installation of a modern cost-accounting system. As has previously been outlined, the new schedule supplanted an old schedule which had been in effect since the early days of operation of the Government Printing Office and which did not reflect the changed balance in production costs of various classes of work brought about by modern production methods. When the new schedule went into effect our customers noted and called attention to the jobs that were higher in cost under the new schedule, but completely ignored and failed to call attention to the many large jobs that were produced at a much lower cost under the new schedule. This undoubtedly is the cause of the feeling which existed during the last fiscal year that Government printing prices had increased. I am now happy to say that a better understanding of the conditions exists and that it is believed that Members of Congress will get more accurate replies to the second question. The special investigator's report above referred to found the conditions to be as outlined by the Public Printer, as is indicated by the following paragraphs, which are again quoted as being timely and relevant to this question:

(a) The charges made by the Government Printing Office upon certain classes of printing have been increased in conformity with a new schedule of charges which became effective on October 15, 1937.

(b) The charges made by the Government Printing Office upon other classes of printing have been decreased in conformity with the new schedule of charges which became effective on October 15, 1937.

(f) The anticipated over-all results of the operation of the new schedule of prices are identical with the corresponding results of the superseded schedule in that the total charges collected from customer departments and agencies will be just sufficient to meet all of the expenses incurred in the operation of the Government Printing Office.

A more convincing answer, however, than any that has yet been given to the second question is contained in the following comparative

statement of the charges for work delivered during the fiscal years 1930 to 1939, inclusive. The figures contained in this statement may be checked against the annual reports of this Office for the last 10 fiscal years; they clearly indicate the answer to the question and reveal that while the number of copies of printed matter delivered to the various departments and agencies has increased 65 percent during the last 5 years, the cost of work performed in this Office in producing this 65 percent increase in volume has increased only 13 percent. The percentage increase shown in the last column under total charges includes charges made to departments for blank paper. But the point in connection with the table that I particularly would like to emphasize and which is most gratifying to me and to the officials and employees of this Office, whose cooperation has made it possible, is that during the last 5 years the manufacturing cost for each thousand copies of printed material delivered to the departments has been reduced from \$3.02 to \$2.07. The Government Printing Office feels that this is the answer to the second question.

Comparative statement of the charges for work delivered during the fiscal years 1930 to 1939, inclusive

Fiscal year	Number of copies	Charges for composition, plating, press, binding, authors' alterations, and rush work	Charges for paper	Total charges
1930.....	3, 903, 932, 177	\$10, 879, 408. 67	\$3, 217, 111. 58	\$14, 096, 520. 25
1931.....	3, 409, 447, 250	11, 417, 104. 24	3, 129, 336. 51	14, 546, 440. 75
1932.....	3, 403, 609, 436	11, 413, 186. 32	2, 920, 194. 03	14, 333, 380. 35
1933.....	3, 098, 684, 889	10, 860, 031. 13	2, 081, 064. 11	12, 941, 095. 24
1934.....	4, 295, 469, 911	10, 144, 707. 01	2, 805, 045. 00	12, 949, 752. 01
1935.....	5, 013, 078, 631	11, 432, 400. 03	5, 032, 626. 94	16, 465, 026. 97
1936.....	5, 806, 276, 860	12, 734, 713. 76	6, 021, 555. 18	18, 756, 268. 94
1937.....	6, 091, 154, 072	12, 769, 267. 89	5, 394, 709. 35	18, 163, 977. 24
1938.....	6, 524, 377, 197	12, 307, 059. 03	5, 652, 257. 03	17, 959, 316. 06
1939.....	6, 599, 485, 832	12, 773, 810. 78	5, 464, 234. 32	18, 238, 045. 10
Total, 1930-39 inclusive.....	48, 145, 516, 255	116, 731, 688. 86	41, 718, 134. 05	158, 449, 822. 91
Total, 1930-34 inclusive.....	18, 111, 143, 663	54, 714, 437. 37	14, 152, 751. 23	68, 867, 188. 60
Total, 1935-39 inclusive.....	30, 034, 372, 592	62, 017, 251. 49	27, 565, 382. 82	89, 582, 634. 31
Percent of increase 1935 to 1939 over 1930 to 1934 (5-year periods).....	65	13	94	30
Manufacturing cost per 1,000 copies (1930-34).....				\$3. 02
Manufacturing cost per 1,000 copies (1935-39).....				\$2. 07

Service to the Departments

The principal function of the Government Printing Office is to render the best possible service to Congress and to the departments

and to assist them as economically and efficiently as possible to carry out the functions imposed by law. Previous reports have outlined the ability of the Office to meet large and urgent demands even beyond department expectations and without disrupting orderly production on current jobs flowing through the Office.

The Office is desirous of rendering this assistance not only by delivering their orders in accordance with specifications and within the time specified but also by aiding them in planning their work for the most economical methods of production. In order to meet the changing and increasing demands of the departments, the Office is continually improving its plant and equipment; for example, there is outlined, beginning on page 75 of this report, changes and improvements made in our Library printing branch. That these changes and improvements are helping to solve one of the Library's pressing problems and that they are appreciated by the Library is indicated by the following letter from Mr. Archibald MacLeish, Librarian of Congress:

DEAR MR. GIEGENGACK:

Permit me to take this occasion to acknowledge the indispensable assistance rendered in the functioning of the Library of Congress by the branch printing office and the branch bindery of the Government Printing Office, recently removed from the main building to our annex.

The whole efficacy of our service is dependent upon the swift accomplishment of numerous and varied processes to which are subjected each of the incredible number of items (books, pamphlets, maps, prints, pieces of music, and manuscripts) which are deposited with us annually. With each of these processes, at one or more stages, printing is involved. Lacking these printed records our service could be only local and parochial in scope and could not hope, as now, to perform that nation-wide function which makes this a national library. And this, of course, quite apart from the fact that the printed entries in our catalogs and our registers are many times more beautiful and legible, and therefore more useful to the scholar and the investigator, than any other form of record could be. But we are dependent not only upon the ultimate printing of the record, but also upon its immediate accomplishment; for not only is our service linked with them, but that of other libraries all over the country as well.

Similarly in our duty as trustee of the literary heritage of the American people we have a solemn obligation to preserve the collections in our custody, while at the same time assuring the freest possible use of them. Conditioned by this dual obligation, binding, mounting, and repair become matters of primary importance.

It was these considerations which 40 years ago persuaded the Public Printer to establish branch offices in the Library building. The demands upon them grew with our own growth. In due course the quarters assigned them became too limited, their staffs too small, and their equipment insufficient.

The completion of the annex building, however, made possible the assignment of more appropriate quarters for the branch bindery and the branch printing office, and permitted the Government Printing Office to expand the plant and make more effective use of each activity. You have seized this opportunity, and.

as a result, production has been increased to a point where a substantial contribution is being made towards the reduction of our arrearages in printing and binding.

I am impressed by the adequacy and efficiency of the mechanical installation in the branch printing office. The 12 new intertype machines have cleared away the large arrearage existing a year ago and are capable of performing an even larger volume of work. The two Babcock Optimus No. 5 cylinder presses are capable of handling the longest runs which we wish to assign without, as formerly, having to transfer such work to the main office. Two automatic-feed Chandler and Price job presses make the reprinting of our catalog cards a matter of such simple routine that our previous concern for the up-keep of the card stock has completely disappeared.

The arrangement of the shop permits an even and unidirectional and consequently efficient flow of work. The fine succession of the composing machinery, insulated proofreaders' cages (with provision for 12 readers), proofing, imposing, and make-up equipment; the array of composition benches and type cabinets; the presses; and finally the powerful Scybold 44-inch cutter and the drilling machine for boring holes in the catalog cards, provide a remarkable illustration of the adaptation of modern mechanical equipment to the art so simply practiced 500 years ago, and of the efficiency which may be obtained from intelligent planning based upon the real conception of a problem. It is necessary only to point out that the branch printing office is now performing all the work which formerly had to be sent to the main office, such as the monthly registers of copyright entries; the only work of ours which it is unable to perform is that requiring ruling, stitching, gumming, or the making of blank books.

Similarly with the branch bindery, the new space in the annex was equipped and ready for occupancy early in this year, and on two days—March 30 and March 31, 1939—each binder was able to remove himself, his tools, and his books from his old bench in the main building to his new station in the annex, without any interruption to the work.

Here, as in the printing office, the arrangements permit the steady flow of work from one end of the shop to the other. The equipment here, as there, has been selected with a close regard to the function to be performed.

I need hardly say that the presence in our own building of the branch bindery is absolutely essential to our economy. And here, once more as in the case of printing, it is not only our local service which is served thereby, but our status as reflected in a nation-wide and even in an international relation.

For the cooperation of the United States Government Printing Office and of the Public Printer in securing the important conditions which I have outlined, not only I and my staff, but all who are in any way affected by the proper functioning of the divisions of the Library, together with the Copyright Office, have cause to be grateful.

Faithfully yours,

ARCHIBALD MACLEISH, *The Librarian of Congress.*

While many letters of commendation have been received by the Office during the last fiscal year, Mr. MacLeish's letter typifies the high degree of cooperation that now exists between the Government Printing Office and the great majority of the agencies that it serves.

OUTSTANDING AND UNUSUAL PUBLICATIONS

Among the more than 60,000 tons of printed matter completed annually under the Government Printing Office imprint, a certain number of jobs stand out for their unusualness or because of the production problems involved. These jobs deserve mention because they best demonstrate the versatility of our mechanical equipment and also illustrate the outstanding ability of our employees, whose fine spirit of cooperation and responsiveness to demands made upon them deserve praise and commendation.

Among these was the Agriculture Yearbook, again an outstanding job of printing, with a total order for 252,260 bound copies of 1,248 pages each, in all a total of 4,919,070 press impressions and requiring a consummate amount of various bindery operations.

An outstanding accomplishment by the pressroom for speed of production in a limited time was the printing of the Social Security Hearing consolidated. This hearing consisted of three volumes, totaling 2,724 pages and four maps, which required 175 signatures with a grand total of 1,325,250 press impressions. Within 24 hours after going to press on the early morning of May 24, complete signatures were delivered to the bindery, enabling the Office to meet the delivery requested by Congress for May 25.

Two other rush jobs were for the Railroad Retirement Board, which required 3,000,000 copies; one an order for an 8-page booklet with cover, and the other a 4-page folder. It is commendable that regardless of the "rush" nature of these jobs, savings in handling were effected wherever opportunity offered. For instance, on the first item the copy as submitted to us made 9 pages with a 4-page cover. Through a new make-up, accepted by the Board, the booklet was reduced to 8 pages, thus permitting an \$800 saving on paper stock, a reduction of 334,000 presswork impressions, and a one-third reduction in folding time. The copy on this job reached the Office at 4:15 p. m. on June 1, with a request for delivery as soon as possible but not later than June 12. The entire order was completed by 1 p. m. June 5.

The book "American Armies and Battlefields in Europe" was delivered on June 22, 1939. While copy reached the Office as far back as March 29, 1937, owing to the Commission's attention to detail and excessive changes in type an earlier delivery could not be made. This book was prepared under the direction of the American Battle Monuments Commission as a part of its project to commemorate in a complete and lasting manner the accomplishments and services of the American forces in Europe during the World War. It is the result

of many years' effort by the Commission, and is a combined guide to the American battlefields in Europe and a concise history and reference work covering the activities of the American forces overseas during the period 1917-19. It also gives detailed information concerning the American national cemeteries and World War memorials in Europe and contains a large amount of interesting miscellaneous information and general facts concerning the American Expeditionary Forces. The book comprises 547 pages and is profusely illustrated, containing 561 official photographs from American, German, and Allied sources, 120 small maps and sketches of which 27 are in color, 9 colored insert maps and charts, and 3 large colored maps covering the operations of American divisions in the Aisne-Marne, St. Mihiel, and Meuse-Argonne offensives.

Another large job was the printing of the 2 series of volumes of the proceedings and papers of the Third World Power Congress, which made 10 volumes; and the proceedings and papers of the Second Congress on Large Dams, which made 5 volumes. These books were originally begun in 1936, when the papers were printed as supplements for use at the World Power Conference and then corrected, revised, printed, and finally bound for use of the members of the World Power Conference and Congress on Large Dams.

The United States Statutes at Large, which amount to 5,250 volumes, were bound by hand, due to the need for sturdiness. After they had been backed, the boards were laced on with three strings and then, after headbanding, backlining, and banding, were covered in full buckram. The Supreme Court reports, amounting to 10,415 volumes; the Foreign Patents, 1,805 volumes; the Indexes to Patents and Trade Marks, 900 volumes, were other large orders requiring hand binding. Volumes of this nature must withstand the maximum of handling when in use, and only the strongest binding will assure their durability. Machine binding is customary, but is far inferior to handwork.

TYPOGRAPHY AND PRINTING DESIGN

It is gratifying to point out that the attitude of most Government departments toward better typographical design has improved considerably. This is important, as it is obvious that the economies of production and improved appearance of Government printing can be accomplished only with their cooperation. Through the work of the Director of Typography we have been able to prove the economies of good planning and the advantages of the common-sense application of type and typography.

In bringing this condition about we have strived to establish better relations between the Government Printing Office and the departments in such a manner that they will recognize and take advantage of our many facilities for their convenience. The advantages in this arrangement are twofold: It assures specifications that are in keeping with the working facilities and materials of the Government Printing Office, and it provides them with printing at a price within their budgets.

By careful planning we approach the problem of publication design in an endeavor to obtain reduction in cost through changes in the make-up and typographic detail, as follows:

1. By reducing the number of operations required for composition and make-up—(a) elimination of initial letters; (b) elimination of dashes, rules, and boxes; (c) elimination of run-arounds in straight matter; (d) elimination of extra assembly operation in subheads; (e) elimination of run-in boldface in body of text matter; (f) elimination of intricate display composition and complicated page arrangements; (g) substitution of machine for hand operations in headings and legends for illustrations.

2. By simplifying presswork and bindery operations—(a) planning the publication to make full-size press forms of 16 or 32 pages and eliminating odd 4- or 8-page signatures; (b) increasing page capacity to get same or greater amount of content matter in fewer pages.

3. By adaptation of style and format to Government Printing Office production facilities—(a) use of body type available on many machines in both Monotype and Linotype Sections; (b) employment of linotype composition for straight matter; (c) use of standard-trim sizes and paper stocks.

4. By employing a style for halftones that eliminates extra hand work in engraving section—(a) elimination of combinations, cut-outs, silhouettes, odd shapes, and mortises; (b) by discouraging use of difficult copy by departments.

The following table based on the aforementioned recommendations shows some of the advantages and improvements possible and finally adopted for a current monthly publication:

Item	Present	Suggested	Change
Size of paper page.....	9¼ by 11¾ inches.....	Same	None.
Size of type page.....	42½ by 55 picas.....	48 by 58 picas....	20 percent larger.
Amount of paper page utilized by type page.....	63 percent.....	74 percent.....	17 percent increase.
Width of column.....	13½ picas.....	15 picas.....	1½ picas wider.
Number of characters in 1 column line.....	38.....	42.....	10 percent more.
Number of lines to column.....	66.....	69.....	3 more lines.
Page capacity in words.....	1,254.....	1,449.....	195 more words.
Number of square inches in type page.....	64.....	77.....	13 square inches increase.
Size of body type.....	8 point.....	Same.....	None.
Leading of body type.....	2 points.....	Same.....	None.

National Park Booklets

Changes in the format of the National Park booklets to bring about economies has been going on for the past 4 years, and has reached a point whereby comparisons can be made to show the reduction in cost of manufacture brought about in collaboration with the Interior Department and National Park Service.

The main factor in this reduction was the elimination of the separate covers and the decision to keep them within 32 pages wherever possible. The advantages of this arrangement and the reduction in cost can be readily seen by comparing the cost per page for 1939 with that of 1937 in the table below, which is self-explanatory:

	1937	1938	1939
Total charges per page per thousand copies.....	\$2. 11	\$1. 51	\$0. 93
Total charges per thousand copies.....	80. 34	52. 97	27. 01

The above figures are based upon the computed charges determined from the scale of prices in effect at the time of computing the job. A slight reduction in the offset scale is included in these reductions, which is not more than 10 percent.

DIVISION OF ACCOUNTS

In view of the importance of the new accounting system mentioned in my last annual report, the activities of this Division appear for the first time under a separate heading in this report.

This Division during the fiscal year 1939 has continued to perform the functions involving the general financing of the Government Printing Office, including: accounting; bookkeeping; cost recording; current cost analysis; measuring ems of type in composition; computing charges for each printing requisition; studies in connection with rates and readjustment thereof for over 1,000 printing operations; statistical studies with regard to efficiency in the operation of machinery, printing methods, and equipment, which have resulted in appreciable savings and reductions in rates; the preparation and record keeping in connection with approximately 100,000 bills for the printing produced during the fiscal year; compilation of accurate costs of each printing job as the work on the job progressed throughout the plant; preparation of numerous other statistical tables and statements for use of the Office in general and for the operating divisions in order to assist management officials; mechanical preparation of the pay rolls and audit of pay rolls; administration of the annual-

and sick-leave laws and regulations; reports with reference to retirement deductions; and various other functions and reports concerning legal and financial matters.

The Division received, checked, and recorded 9,054 purchase orders during the fiscal year 1939 as compared with 8,054 for the fiscal year 1938. For the fiscal year 1939 there were 13,714 receiving tickets handled, 9,725 vouchers audited and approved for payment, and 8,355 checks prepared. There were 97,688 jackets handled for the fiscal year 1939 as compared with 95,594 for 1938. During the year 1939 there were 1,929,530,600 ems of type measured, an increase of 54,324,400 over the preceding fiscal year.

The last annual report explained in some detail the cost-accounting and production-control system established for the Government Printing Office. An outline was given of the purposes and expectations together with a brief description of certain specific accomplishments so far achieved. Since that time several refinements have been made which improved the results being obtained.

Throughout this report, under the various productive and administrative titles, references will be found to the work of the Division of Accounts through numerous cost studies and production investigations. This phase of the cost work is continuous, therefore a complete listing of it would be extensive; also, the information assembled and the plans proposed are primarily of a definitive or basic nature and are usually referred to other sources, such as the Production Control Committee, for execution. The final proof of the value and effectiveness of the system rests in its reflection in the scale of prices used for estimating and charging all printing and binding work. During the year a number of revisions were made in the schedules of the scale of prices which resulted in a reduction of approximately \$500,000 for an equal amount of work. Proposed revisions under consideration at the end of the fiscal year will further reduce the unit charges for departmental work by over \$200,000. In some instances it was necessary to consult with the departments in order to conform departmental orders with proposed production plans, and appreciation must be expressed for the cooperation received.

Under the chapter on presswork reference was made to the review of press equipment for the purpose of determining the most economical means of production, so that a definite program might be developed for the replacement of press equipment when such replacements are warranted. Many of the presses in the Government Printing Office today have been in use for more than 20 years; others have become obsolete through the introduction during the past 10 years of faster

and more flexible presses. In some instances the continued use of equipment cannot be justified in the light of cheaper and more efficient presses made available during recent years, and the statistical information concerning the cost of operation will form the basis for intelligent action in making replacements.

In order to determine the most economical methods of production with conditions prevailing such as those outlined above, it was not satisfactory to use tabulations of production as actually performed, but rather it was necessary to reconsider every order entailing presswork, estimate its production by the most practical equipment existing in the Office or available on the market, giving due consideration to prior and subsequent operations, and tabulate all of this information according to sheet sizes and quantities and the character of the job itself. The result of this investigation was the compilation and adoption of the program as outlined under Presswork. This study is to my mind one of the most valuable pieces of research completed to date. It required the review of all work done during the past 2 years, or over 150,000 orders. Due to the machine methods of accounting used by the division, a major portion of the work was performed as a rapid mechanical operation.

At the request of the Superintendent of Platemaking, studies were made relative to the individual operation costs involved in stereotyping and electrotyping. Careful analysis and application of these facts by the Superintendent of Platemaking have led to reductions in the cost of stereotyping, which in the course of a year will amount to approximately \$4,000. Continuous or progressive cost reports covering an experimental period conducted with newly developed methods and materials in the making of electrotyping proved the advantages of the methods being experimented with, both from the standpoint of cost reduction and in shortening the required time before delivery. On the basis of the reports prepared, certain changes in production methods have been started which, upon completion, will result in a reduction of over 10 percent in the unit costs of electrotyping. This percentage figure will mean the production of an amount of electrotypes equal to that of 1939 for approximately \$25,000 less than the cost for 1939.

PRODUCTION CONTROL COMMITTEE

Since its creation a year ago the Production Control Committee has inaugurated a number of revisions in procedures and methods which are just now showing results in improving service and relations between this Office and governmental agencies.

There has been for several years a rapid increase in the number of dated publications or periodicals published by the departments for governmental and public use. Work of this type differs widely from the class of work usually handled by this Office and upon which we had established standard practices. Personnel had been trained to the requirements of the departments prior to this growth of publication work. An extensive review was made of this production in the Office, and, following the training of personnel, definite production regulations were drawn up establishing procedure as to composition and make-up of publication work with the plan in mind of permitting this Office to reduce its charges to the departments. It was necessary to receive the cooperation of all productive divisions of the Office and to work jointly toward a common aim. The results accomplished to date are extensive. On the publication Extension Service Review, which is illustrative of the work done, a monthly saving representing almost 30 percent was effected through changes in the production methods of the Office.

A review by the Accounting Division of the cost of bindery work subsequent to the production of signature work in the pressroom showed excessive amounts of time required for preparation of the signatures before normal binding operations could proceed. Through investigation it was determined that the method of handling the signatures in the pressroom required considerable jogging and stacking upon their receipt in the bindery. Instructions were given for altering this method, and consequently the savings must eventually be reflected in reduced prices.

For many years the standards in the Government Printing Office for the production of pamphlet, book, or multiple-page work have been the use of 4-, 8-, and 16-page signatures. Through figures made available from the compilation of individual order costs a large volume of work was found to exist in 12- and 24-page signatures or their multiples. Prior practice for this work had been in the production and charging of such signatures in 16-page sizes; however, in the great majority of cases the departments requested the elimination of the four blank pages occurring in the signature, thus necessitating the extra and nonproductive work of bone-cutting or slipping out the blanks, which cost had to be borne by the departments. The use of a 12-page form will permit the use of a sheet 20 percent smaller and cheaper, will reduce the time of imposition, will in some cases permit printing on a faster press, and will eliminate the expensive hand work of bone-cutting or slipping. The effect of this change will, in the course of a year, result in many thousands of dollars' savings to

Congress and the departments and will permit this Office to speed up its delivery. The speed-up in many cases may amount to as much as 50 percent of the total time.

A great volume of work is received from the Department of Agriculture for the printing of Farmers' Bulletins, which are sold through the Superintendent of Documents in great quantities. A complete tabulation was gotten of the methods of production of all of these bulletins for a representative period. The conditions thus pictured indicated plainly the possibility of standardization of the method of production. Over 500 orders, totaling between 10 and 12 million copies, are printed each year, and the plans developed will permit this Office to produce this work for the Agriculture Department at a price much below the present one, proportional savings will also be realized by the Superintendent of Documents. Possibilities for reductions following the principles involved in this work exist in work for all departments and are being adopted as rapidly as the limitations of equipment of the Office will permit.

The work of the Production Control Committee requires the cooperation of the foremen and group chiefs of all sections of the Office, and it should be definitely stated that at no time during the year was there any lack of enthusiasm on their part. Probably of equal benefit with the work actually accomplished by the Production Control Committee is the development of this cooperative attitude being taken by all supervisors. For many years past emphasis has been placed on delivery. It is only during recent years that the emphasis has been spread equally over costs, methods of production, and service. Thus, the thinking of production in terms of cost is an accomplishment for which the Production Control Committee should receive no little praise, especially since this has been accomplished without loss of quality or service. It can be said confidently that the coming year will see reductions in cost and improvement in production more than equal to those accomplished during the past year.

PERSONNEL

In order to carry out the Executive order of June 24, 1938, the Public Printer issued the following administrative order:

Administrative Order No. 1

CREATION OF THE DIVISION OF PERSONNEL

JANUARY 31, 1939.

Executive Order No. 7916, dated June 24, 1938, reads in part as follows:

"SECTION 6. Effective not later than February 1, 1939, the heads of the executive departments and the heads of such independent establishments and agencies

subject to the Civil Service laws and rules as the President shall designate, shall establish in their respective departments or establishments a Division of Personnel Supervision and Management, at the head of which there will be appointed a Director of Personnel qualified by training and experience, from among those whose names are certified for such appointment by the Civil Service Commission pursuant to such competitive tests and requirements as the Civil Service Commission shall prescribe. * * *

"It shall be the duty of each Director of Personnel to act as liaison officer in personnel matters between his department or establishment and the Civil Service Commission and to make recommendations to the departmental budget officer with respect to estimates and expenditures for personnel. He shall supervise the functions of appointment, assignment, service rating, and training of employees in his department or establishment, under direction of the head thereof, and shall initiate and supervise such programs of personnel training and management as the head thereof, after consultation with the Civil Service Commission, shall approve, including the establishment of a system of service rating for departmental and field forces outside of the Classification Act of 1923, as amended, which shall conform as nearly as practicable with the system established under the said act. Subject to the approval of the head of such department or establishment and of the Civil Service Commission he shall establish means for the hearing of grievances of employees and present appropriate recommendations for the settlement thereof to the head of his department or establishment. He shall serve as a member of the Council of Personnel Administration * * * and perform such other functions as the head of the department or agency, after a consultation with the Civil Service Commission, shall prescribe. * * *"

Pursuant to the provisions of the Executive order above quoted, there is hereby created in the Government Printing Office, effective February 1, 1939, a Division of Personnel to carry into effect the purpose and intent of the said order.

The Division of Personnel will be headed by a Director of Personnel and an Assistant Director of Personnel and will be composed of the following units:

Board of Wage and Salary Review.	Appointment, Retirement, and Records Section.
Efficiency Rating Review Board.	Classification and Organizational Survey Section.
Grievance Board.	Employees' Relations and Welfare Section.
Medical, Safety, and Health Section.	Training Section.
Recruitment, Selection, and Placement Section.	

The Board of Wage and Salary Review.—The Board of Wage and Salary Review will consist of the Comptroller, as chairman, the Chief Clerk, and the head of the Division in which the individual or trade under consideration is employed. The duties of this Board will be to hear appeals concerning wages and salaries submitted by the employees and referred to the Board by the Director of Personnel; and, after holding hearings and making necessary studies and investigations, to make recommendations to the Director of Personnel as to the action to be taken; to carry out the duties imposed upon the Public Printer by Title 44, Section 40, U. S. Code, which duties are to determine rates of wages, including compensation for night and overtime work, for more than ten employees of the same occupation

after conferences with committees selected by the trades affected, such rates to become effective upon the approval of the Public Printer and the Joint Committee on Printing.

The Efficiency Rating Review Board.—The Efficiency Rating Review Board will consist of the Comptroller, as chairman, the Superintendent of Platemaking, and the Chief Clerk. The duties of this Board will be to instruct the rating and reviewing officers concerning the preparation of efficiency ratings involving employees under their jurisdiction; to hold hearings with the rating and reviewing officers prior to the forwarding of the efficiency-rating notices to the employees, principally with the idea of reviewing the work done by the rating and reviewing officers to determine that proper procedures are followed and that the ratings are in proper form; to hold hearings in individual cases where employees received unsatisfactory ratings and to make recommendations as to the retention or dismissal of the employees receiving such ratings; to hold hearings and to make recommendations in cases involving efficiency ratings contested by the employees.

The Grievance Board.—The Grievance Board will consist of the Assistant Director of Purchases, as chairman, the Assistant Chief Clerk, the Assistant Comptroller, the Assistant Superintendent of Presswork, and such additional members as may be approved from time to time. The duties of this Board will be to hold hearings on questions raised by dissatisfied employees and referred to the Board by the Director of Personnel, such questions not having been concluded satisfactorily to the employee by the Employees' Relations Section of the Division of Personnel; the Board, after holding hearings and taking testimony, will submit its recommendations to the Director of Personnel; to hold hearings on recommendations for disciplinary action made by the line officers, such recommendations having been referred to the Board for its consideration and recommendations by the Director of Personnel.

The Medical, Safety, and Health Section.—The Medical, Safety, and Health Section will consist of a Director, Assistant Director, and such other employees as may be found necessary. The functions of the section will be to give medical examination to employees entering on duty and to those employees who have been absent for long periods on sick leave and to make recommendations to the Director of Personnel as to the ability of such employees to return to duty; to render first aid and emergency medical attention to employees injured while on duty or becoming ill while on duty; to maintain the Emergency Hospital and emergency room; to review applications for sick leave and to make recommendations from a medical standpoint as to the acceptability of such applications; to investigate through a visiting nurse employees absent on sick leave for the purposes of rendering such assistance as possible to destitute employees and discovering abuses of the sick-leave laws; and to make recommendations to the Director of Personnel tending to improve the general health and safety conditions of the Office.

The Recruitment, Selection, and Placement Section.—The Recruitment, Selection, and Placement Section will perform the necessary functions involved in the developing, establishing, and carrying out of procedures for the investigation, recruitment, and selection of the best available eligibles for positions; cooperating with the chiefs of the various divisions and with the Civil Service Commission in arranging for examinations to meet the needs of the Office; conducting research for improvement in selection processes; cooperating with the Training Section in determining qualifications and standards for positions to be filled by reinstatement.

ment, new appointments, transfers, and promotions. This section will operate in conjunction with and as a part of the Appointment, Retirement, and Records Section.

Appointment, Retirement, and Records Section.—The functions of the Appointment, Retirement, and Records Section are to establish, maintain, and carry out existing laws and Civil Service regulations and decisions relating to appointments and other personnel matters; to formulate recommendations with respect to budget estimates for expenditures involving personnel; cooperate with Training and Placement Sections in determining qualification standards for personnel; to initiate and prescribe procedures to facilitate action on appointments and the satisfactory filling of positions; to prepare and maintain all personnel records for services, retirement, leave, personnel journals, etc. This section will consist of a Chief of Section, Assistant Chief, and such other personnel as may be found necessary.

Classification and Organizational Survey Section.—The functions of the Classification and Organizational Survey Section will be to formulate, develop, and carry out plans and procedures pertaining to the classification of positions other than those in the trades; to determine that salary rates of persons in the trades are in conformity with the duties performed; to conduct surveys of positions and personnel arrangements in the various divisions and to make reports and recommendations concerning efficiency, personnel management, personnel relationship, and economy; to prepare job specifications and keep current the classification-control records of changes and duties and responsibilities of all classes of positions; to coordinate and establish uniformity and consistency in job allocations and assignments; to maintain current organization and functional charts; to draft reports and personnel orders for approval by the Director of Personnel relating to classification changes; to review recommendations and to investigate any apparent irregularities and infractions of laws, Civil Service rules, and regulations pertaining thereto; to supervise and maintain the personnel classification files and the comprehensive control system for the entire personnel of the Office; and to make such other investigations and perform such other duties as are consistent with the general functions of this section. The personnel of this section will consist of a Chief of Section, an Assistant Chief, and such other employees as may be found necessary.

Employees' Relations and Welfare Section.—The functions of the Employees Relations and Welfare Section will be to hear and adjust grievances and complaints of employees; to conduct such administrative investigations as may be necessary to develop important facts when necessary; to devise procedures for consideration of disciplinary measures and penalties to the end that they shall be consistent and just; to make reports to the Director of Personnel concerning disciplinary matters and questions of personnel grievances that cannot be settled to the satisfaction of the employee; to make reports to the Director of Personnel involving findings of undesirable conditions of employment. The personnel of this section will include such employees as the Director of Personnel may find necessary.

Training Section.—The functions of the Training Section will be to develop, establish, and carry out complete courses of training for apprentices for the purpose of providing qualified employees to meet necessary requirements of the Office for filling positions in the various trades; to develop, establish, and carry out programs for the purpose of training employees; to formulate programs for

consistent methods of training for promotion within the service; to review efficiency ratings and to design training courses to correct the weaknesses revealed by the ratings; and to make such other studies and surveys as will insure that employees are given the opportunity to use to the best advantage their qualifications and talents. The personnel of this section will consist of a Chief of Section, an Assistant Chief, three instructors, and such other employees as may be found necessary.

Director of Personnel.—The present Administrative Assistant to the Public Printer, Mr. Russell H. Herrell, having qualified as required by the Civil Service Commission, is hereby appointed Director of Personnel and in addition to those duties now performed by him is hereby authorized and directed to supervise and manage the Division of Personnel and to carry out the functions enumerated in the said Executive order.

All existing orders and procedures inconsistent with this order are hereby abolished.

A. E. GIEGENGACK,
Public Printer.

While the Division has been functioning along the lines indicated above, it has been greatly handicapped by lack of proper space in which to set up and train the individual sections in the technical duties required of each section. Progress has been made, however, and I am pleased to report that the personnel procedures of the Government Printing Office are now on a sounder basis than they have ever been before. Improvement has been made in our work of recruitment, classification, promotion, training, and employees' relations, and plans for further improvement in these and all other phases of personnel administration are well under way. The move into the new building will give the Office the space it needs in order properly to handle this work. The technical advice and assistance the Office is receiving through the Federal Council of Personnel Administration, of which the Director of Personnel is a member, will enable it to modernize and put on a sound and uniform basis all of its personnel work.

There was an increase of 135 in the number of employees on the rolls of the Office at the close of June 30, 1939. The total number on this date was 5,544, as compared with 5,409 on June 30, 1938.

During the year 90 employees of the Office were retired—49 on account of age, 23 on account of disability, and 18 who took advantage of the clause in Section 1 of the Retirement Act, approved May 29, 1930, which permits of retirement at employee's option for those who are eligible for retirement at the age of 70 years, 65 years, or 62 years, as the case may be, after they have attained the age of 68, 63, or 60 years, respectively, providing they have had at least 30 years of service. Of the 90 employees who retired during the past year, 76 were men and 14 were women.

The following summarized statement shows all changes in personnel during the past fiscal year:

Appointments.....	468
Separations.....	333
Retirements.....	90
Deaths.....	32
On rolls June 30, 1939.....	5, 544

Visitors conducted through the Office by our guides during the fiscal year numbered 895; of this number 103 were from foreign countries.

BUILDING PROGRAM

My last annual report contained a detailed description of the new warehouse building which was completed February 4, 1938, and the new H Street annex building, construction of which was only well begun. Such excellent progress has been made during the past 12 months that this building will be practically completed and ready for occupancy during January 1940.

Permission has been given for limited use of the third and fourth floors of the new annex to erect printing presses. By January 1, 1940, about 30 new presses will have been installed and ready for operation. After that date the moving of presses and other equipment will proceed as rapidly as possible without stopping production in any department. All production work through presswork will be carried on in the new annex, and all binding operations will be done in the present old main building. The completed product will therefore be shipped from the old building or will be delivered in that building to the Superintendent of Documents for stock, sale, and distribution.

The annex building construction contract includes the enlargement of the shipping platform in the old main building. This work cannot be started until this Office has moved approximately a score of printing presses into the new pressrooms in order to vacate the space for the enlarged shipping platform. When completed, the platform will accommodate 9 trucks at one time, as compared with loading space for only 3 of our fleet of 32 trucks at the present platform. This will relieve what has been a very serious congestion.

The work of replacing the 35-year old obsolete direct-current electric wiring in the old main building has been started under a separate contract. The new service will supply 60-cycle alternating current to lighting, new elevators, and some other power applications in the old building. The old guard- and fire-alarm systems will also be modernized.

Plans are being made for the replacement of the 35-year-old elevators, which are obsolete and entirely inadequate in load capacity.

After the completion and occupancy of the new annex and the vacating of the leased warehouse at 613 G Street NW., the following space will be occupied by this Office:

Building number	Date completed	Usual designation	Gross floor area
1	1903	Old Main Building.....	<i>Sq. ft.</i> 468,738
2	1930	G Street Extension.....	178,504
3	1940	H Street Annex.....	564,639
4	1938	Warehouse.....	162,400
Total.....			1,374,281

The Library branch of this Office occupies an additional net 21,971 square feet of floor space in the new Congressional Library Annex, and has been referred to elsewhere in this report.

Particular thanks are due the Public Buildings Administration of the Federal Works Agency for its splendid cooperation in carrying out our building program. The new warehouse and annex buildings are well designed to meet our special requirements, and the supervision of the construction has been excellent. The completed buildings, consequently, are highly satisfactory.

MAINTENANCE DIVISION

The past year has been an unusually busy one for the Maintenance Division, as, in addition to the usual engineering, operating, construction, and maintenance work, there has been much extra work in connection with planning for new equipment and moving into the new annex building.

The Machine Section, in repairs, maintenance, and new work, recorded a total of nearly 20,000 jobs with a value of approximately \$146,000. The jobs vary from routine grinding of cutting-machine knives and filing saws to overhauling our most complicated production machinery and building special equipment for some of our special requirements.

The Carpenter and Paint Section made approximately 20,000 new boxes and repaired nearly 3,000, most of which were for tabulating-card use by various Government departments. For this and other work the shop used 362,000 board feet of lumber, of which nearly 200,000 board feet were reclaimed from incoming shipping boxes, crates, and skids. An unusual job was the construction of a wooden representation of an open book measuring 10 by 8 feet and 14 inches thick

for use in connection with the Superintendent of Documents' exhibit at Tampa, Fla., in February.

The Electrical Section installs and maintains all electrical equipment, including many complicated automatic control devices. During the year approximately 33,000 maintenance, repair, and installation jobs were completed. Because it is impossible to standardize on one or a few makes, the great variety of equipment in use adds greatly to the complexity of this maintenance work.

The Pipe and Sheet Metal Section maintains our extensive plumbing, heating, piping, duct, and tube systems, and other sheet-metal equipment. Particularly noteworthy has been the construction of substantial metal equipment to replace old wooden equipment.

The Power Section operating records on electric, steam, gas, and other service give a valuable history of the growth of the Office. Increased mechanization of production is clearly indicated by the continual increase in the amount of power per employee that is being used. This year, for the first time in the history of the Office, the annual power consumption passed the 10,000,000 kilowatt-hour mark. The ratio now stands 1,820 kilowatt hours per employee per year as compared with 1,470 five years ago, an increase of 24 percent. When operation of the new annex is begun, with air-conditioning for pressrooms, this figure will take a decidedly further jump.

PURCHASING DIVISION

During the fiscal year ended June 30, 1939, the Purchasing Division placed 9,072 orders, involving total expenditures for purchases of approximately \$6,430,195. Open-market proposals for material and paper numbered approximately 20,000 and for illustrations 375.

By closely watching the paper market and the trends therein and by placing orders for standard stocks at the most opportune time as indicated by such trends, an actual saving of \$41,982.12 was effected during the year.

The Purchasing Division was able to secure by transfer from other departments to this Office during the fiscal year 1939 surplus property valued at \$2,913.

Proposals for material were sent in April 1939 for the term of 1 year beginning July 1, 1939, and ending June 30, 1940, to approximately 625 prospective bidders, which resulted in the placing of 64 contracts. Proposals for paper were sent in October 1938 to approximately 150 firms for the 6-month term beginning January 1, 1939, and in April 1939 for the 6-month term beginning July 1, 1939, which resulted in the placing of 25 contracts for the first 6-month period and 20 con-

tracts for the second 6-month period. Proposals for envelopes for the year beginning July 1, 1939, were issued in April to approximately 50 prospective bidders, resulting in the placing of 8 contracts.

Five contracts for the sale and disposal of various classes of old material and one for the removal of debris were entered into for the year beginning July 1, 1939.

New Equipment

New equipment purchased during the past year for various Divisions are as follows:

Binding Division.—One machine for cleaning book cases; 2 friction-type feeders; 1 Hickok disk ruling machine; 1 Fairbanks springless dial scale; 15 package-sealing machines; 2 Pleger book-cover finishing and stamping machines; 3 Boston stitcher heads; three 5,000-pound lift trucks.

Library Binding Branch.—Two Pleger book-backing machines; 4 steel cabinets; one 44-inch automatic spacing cutting machine; 1 multiple-spindle paper-drilling machine; 1 bench grinder; 7 hand book presses; 2 pneumatic book presses; 1 board-cutting shear; 1 Pleger book-cover finishing and stamping machine; 1 Morrison wire-stitching machine; 1 cabinet for leather; 2 cabinets for paper; 120 metal-edge pressboards; 11 racks for pressboards.

Composing Division.—Thirty-eight toggle bases and chases; 3,000 toggle hooks; 1 machinist's bench; 2 monotype molds; 22 type cases; 2 Margach metal feeders; three 3,000-watt monotype casting pots; 10,100 steel galleys; 10 galley cabinets; 50 chases; 10 chase cabinets; 1 imposing surface proof press; 2 Miller saw trimmers; 2 improved Ludlow typographs.

Library Composing Branch.—Ten 12- by 18-inch semisteel chases; 1 lead cutter; 1 Margach metal feeder; 1 automatic inking attachment for proof press; 1 Universal composing-room saw trimmer; 1 geared line-up and register table; 1 lift truck; 2 roller cabinets; 1 chase rack; 4 miscellaneous tables.

Delivery Section.—Three 5,000-pound hand lift trucks; 2 half-ton auto delivery trucks.

Maintenance Division.—One sheet-metal bending brake; 1 electric drill; one 100-inch automatic knife grinder; 1 free wheel lift for autos; 2 program machines; 2 electric pumps; 1 flexible shaft machine; one 30-inch cabinet-type surfacer.

Planning Division (Layout Section).—One all-metal view camera; 1 enlarging camera with fluorescent illumination; 1 professional printer.

Platemaking Division.—One bending machine for electrotypes plates; 1 circular screen and rotary holder; 1 Routrimmer for plates; 1 combination washing and drying machine.

Presswork Division.—Two Babcock Optimus presses, size 5, for Congressional Library branch; 9 single-color Miehle presses, size No. 56; 1 two-color Miehle press; 1 Chandler and Price press, 10- by 15-inch; 3 post lightning envelope presses; 3 ink agitators; 120 final base blocks; 200 plate catches; 1 Presto drier; 1 automatic jogging transfer table.

Stores Division.—Twelve 7,500-pound trailer trucks.

Divisions of Tests and Technical Control.—One air-conditioning plant for testing rooms; 3 metal pots for metal room.

WORK RELEASED BY THE PUBLIC PRINTER

Under the authority contained in Section 14, Title 44, U. S. Code, during the fiscal year 1939 the Public Printer authorized the various departments to purchase direct for their own use printing and binding valued at approximately \$2,000,000. An analysis of this work which the Government Printing Office was not suitably equipped to handle economically shows that a large percentage of it was fanfold and continuous-form printing and that the demands by the departments for this type of printing are rapidly increasing. A study of the charges made for some of this work reveals a fluctuation in price that is difficult to understand. To those familiar with the methods used in producing the forms, in many cases the prices charged the departments for this work appear to be exorbitant. If the demand for this type of work continues to increase and the prices charged therefor do not fall more in line with what it is believed they should be, it will be necessary for this Office to give serious consideration to the installation of equipment needed for the production of these forms, and, pending the installation of such equipment, to resume the buying of such printing for the departments.

DEPARTMENTAL DUPLICATING PLANTS

Criticism of the volume and nature of printing matter put out by the Federal Government continued throughout the year. In many cases criticisms were based upon isolated and exceptional occurrences and, while being sincere, were apparently made without an opportunity to study and analyze conditions, for, as I stated in my last annual report (page 20), they are not justified by the actual facts. To substantiate this it is only necessary to recall that the increase in funds for printing has lagged far behind the increases allowed by Congress for other governmental activities, and this notwithstanding

the fact that many of the new duties placed upon the departments and agencies by statute made it necessary for them to send out great volumes of printed matter in order properly to carry out their duties and to inform the people of the United States as to the rights and benefits that had been conferred upon them by law.

Under the conditions outlined in my last annual report, and as they exist today, I feel it my duty to point out to the Members of Congress and particularly to the appropriation committees that if they are to take cognizance of these criticisms and are still of the opinion, after a thorough consideration of all the facts, that further limitations upon printing are necessary, the remedy does not lie in reducing the printing appropriations. This is due to the fact that a cut in a printing appropriation usually forces the department to turn to other appropriations over which there is no control or limitation from a printing standpoint for the funds necessary to produce in their own printing and duplicating plants work that would be ordered from the Government Printing Office had the cut not been made. In addition to this, cuts in printing appropriations would in many instances seriously handicap the departments in carrying out their functions. This leads again to the question discussed in previous reports, as to what control, if any, is necessary, possible, or advisable over the so-called duplicating plants in the departments. It is recognized that these plants serve a useful purpose in the department in that in many instances they expedite the work of the department and result in a saving in the department's printing appropriation. For these reasons and in view of the fact that the Public Printer is making every effort to cooperate with the departments to the fullest extent in furthering the better interests of the Government as a whole, he has taken, so far, no definite action to carry out the provisions of section 60, Title 44, U. S. Code, which states that all printing offices in the departments shall be under the Public Printer. This is notwithstanding the fact that a great percentage of the work done in these plants, particularly that requiring the use of the multilith, is a direct violation of the law requiring that all printing be done at the Government Printing Office.

There was outlined in last year's report the efforts that were being made by the departmental representatives (acting as a committee), the Joint Committee on Printing, and the Bureau of the Budget to solve the problem as to the work that should be done in the Government Printing Office and that which could be done in the departments, by the issuance of a definition which attempted to define the term "printing" as used in the Federal statutes. I regret to report

that there have been no material results from these earnest efforts to clarify the situation. I believe that this is due principally to the fact that in drawing the definition a greater attempt was made to cover the situation as it now exists in the departments than actually to outline what Congress had in mind when it used the term "printing". For this reason the definition did not rest upon a sound basis and was bound to cause further confusion. The situation as it now stands is that while the law definitely states that all printing shall be done at the Government Printing Office, much of it is not, because it is felt that in some cases it is more expeditious and economical to evade the law. This is intended merely to give a brief picture of the condition and is not intended as a criticism of anyone, as those responsible for the work in the departments are given definite jobs to do and are endeavoring to carry them out as satisfactorily as possible. It is also known that a number of the departments do not realize that the equipment they are using is printing equipment. They have never seen the offset process, for example, and do not realize that it is one of the three general classes of printing. They have been misled to believe that the equipment they are using is not printing equipment but "duplicating equipment," "processing equipment," etc.; that, for example, the multilith process is something new and is not covered by the term "printing." That this is erroneous and is only confusing the issue is well known throughout the graphic arts industry by all printers and by all well-informed users of printing, and has been recognized by the courts, as is indicated by a decision recently handed down by the Supreme Court of Michigan in the case of *Franklin De Kleine Co. v. The State*. In this case the court held with reference to this subject as follows:

There are three general kinds or classes of printing known to the trade and in general use, namely: relief or letter-press printing, intaglio printing, and offset printing. The exact nature of the first two classes is apparently not in any way involved in the present controversy. In offset printing the production is from a plate, the image to be reproduced being on the surface thereof and slightly projected by ink placed thereon. The printing is not done directly from the plate, but the image is transferred to a rubber blanket and thence to the paper or other substance used to receive it. The plate, which may be produced in various ways, is a necessary part of the process. The conclusion seems to be justified that such method of printing is in common use, and that such was the fact prior to the adoption of the present State constitution.

Various types of machines intended for use in offset printing are manufactured and used in the United States. Plaintiff employs the so-called Harris press. The method of operation of the multilith presses, or machines, installed in the various State departments above referred to is essentially the same in principle as the method involved in the use of the Harris press and other machines used in

offset printing. In other words, the principle of the multilith machine is essentially that of offset printing generally. The use of the plate is an essential part of the process. The production of pamphlets, forms, cards, labels, etc., on the multilith press is, in fact, production by the offset-printing method.

If Congress and the departments really wish to control the volume of printing done in the departments, the printing act should be amended to authorize departmental printing plants and to place the control of the work they are to handle in the hands of a committee of three composed of (1) a representative of the Bureau of the Budget, designated by the Director thereof; (2) a representative of the Government Printing Office, designated by the Public Printer; and (3) a representative of the department or agency concerned, designated by the head thereof. For the purpose of getting uniform action throughout the service, the first two members would form a permanent committee with the third member sitting only when questions affecting his department were under consideration—the departmental representative being changed as the permanent committee transferred its considerations from one department to another. This committee should be given the authority to determine (1) the type of work that could be more expeditiously and economically handled in the departments on the kind of equipment in question, and (2) the kind of matter that could be more expeditiously and economically handled in the Government Printing Office, where larger, faster, and more permanent equipment is used. In addition to the authority placed in this committee to determine where the different classes of matter are to be reproduced, the Public Printer should have authority to determine (1) the type and amount of equipment to be carried in each department and (2) the authority to determine that it was efficiently and properly used. The committee's authority to determine the kind of material that should be reproduced in the department should carry with it the authority to prevent the printing of any material in the department's duplicating plants that was not approved by the committee. The Public Printer's authority to determine that each plant contain only such equipment as necessary to handle the department's approved needs and that such equipment be efficiently operated, should carry with it all authority necessary to enforce his findings.

It is believed that the enactment of legislation to carry out the general idea briefly outlined above—after it has been perfected and improved by the comments, suggestions, and recommendations of all interested agencies—is the only way to legalize what is now being done, and the only sound basis upon which to set up controls of this type of work—if Congress decides that further controls are necessary.

APPRENTICE SCHOOL

During the year several attacks by employee organizations and others were made upon the Government Printing Office Apprentice School. The following letter, addressed to a Congressman and referred by him to this Office for consideration, is quoted as typical of these attacks:

I take this privilege of writing you to ask your intercession and influence in the curtailment of apprentices in the Government Printing Office when the budget for that branch of Government service is presented for your approval. The apprentices under the jurisdiction of the International Typographical Union have for some time past had their term extended from five to six years—this step having been undertaken on the premise that youths would not look invitingly upon a trade which called for such a lengthy indenture.

At present there are hundreds of skilled craftsmen unemployed and it doesn't seem consistent to have young men master the "art" when there is no guarantee of gainful employment facing them upon their elevation to journeymen. In the printing industry as in numerous other fields the genius of the inventive mind has achieved miracles—all of which are irrevocable, irreproachable, and certainly a priceless heritage to the craftsman. However, even though the I. T. U. was a pioneer in the forty-hour week—the dilemma of the unemployed still persists.

Realizing that if these major efforts of our organization towards rehabilitation and stability were brought to your attention, I have asked for your intervention of excessive apprenticeships in the G. P. O. where, I am given to understand, they are hired in mass numbers.

Please accept my sincere thanks for any effort you are desirous of exerting in the serious and exigent situation.

The Public Printer addressed the following letter as a reply to the above:

I have the honor to reply to your letter of ——— transmitting a communication from Mr. ———.

This Office has given very serious consideration to the question raised by Mr. ——— and cannot help but feel that he is unduly alarmed and certainly misinformed on some points. For example, he states that "the Government Printing Office hires apprentices in mass numbers," while the fact is that since the reopening of the apprentice school on October 16, 1935, there have been hired and assigned to our composing division only 90 individuals, who are now in the various stages of learning the work of compositors, makers-up, imposers, proofreaders, revisers, copy preparers, slug-casting machine operators, monotype keyboard operators, and the other highly specialized operations in which the members of the Typographical Union employed in this Office are engaged.

The law authorizes the employment of 200 apprentices and reads in part as follows:

The Public Printer may employ, at such rates of wages and salaries, including compensation for night and overtime work, as he may deem for the interest of the Government and just to the persons employed, except as otherwise provided herein, such journeymen, apprentices, laborers, and other persons as may be necessary for the work of the Government Printing Office; but he shall not, at any time, employ more persons than the neces-

sities of the public work may require or more than two hundred apprentices at any one time.

Mr. ———'s statement that "it doesn't seem consistent to have young men master the 'art' when there is no guarantee of gainful employment facing them upon their elevation to journeymen" is not applicable to the apprentices in the Government Printing Office, as the only reason for hiring and training them is to make certain that the Office will have available for key positions skilled craftsmen who have been trained in the procedures necessarily followed in producing Government work. In a plant as large and as highly specialized as the Government Printing Office, without key employees so trained it would be impossible for this Office to function as smoothly, efficiently, and as economically as it does. Therefore all apprentices hired who satisfactorily complete their five-year course are given positions as craftsmen immediately upon the completion of the course.

Mr. ——— and all others raising the same question may be assured that the Public Printer, who has been a member of the Typographical Union for many years and as a result of his experience in the industry, both as an employee and as an employer, is thoroughly conversant with the conditions existing therein, will continue to limit the number of apprentices employed by the Government Printing Office to the minimum required for the purposes indicated.

If I may be of further service to you in this or any other matter, please let me know.

The Apprentice School in the Government Printing Office is conducted for specific purposes, which are twofold: (1) to assure the organization of an adequate reserve of efficient and dependable workers; and (2) to give the more adept and efficient apprentices sufficient knowledge of industrial practices to prepare them for key positions when future vacancies are to be filled. Because of the enormous volume of printing executed in the Office and the specialized character of much of it and because of the many detailed ramifications connected with the manufacturing process, few skilled workers trained in commercial fields are found sufficiently versatile or capable of handling some of the Office work. Experience has shown that only through painstaking study and preparation and through years of experience are men made capable of fulfilling many of the administrative and specialized positions in this Office.

With this administrative responsibility in mind, the Public Printer not only reopened the Apprentice School in 1935 but also has deemed it a wise precautionary measure to appoint two classes of apprentices. The first class, appointed in 1935, consisted of 100 apprentices; and the second class, appointed in 1938, consisted of 50 apprentices. Due to separations there are at present 90 in training in the Composing Division; 22 in the Press Division; 23 in the Bookbinding Division; 3 in the Machine Shop Section; and 2 each in the Photoengraving, Electromolding, Electrofinishing, and Stereotyping Sections.

The plan followed by the school is one in which a broad general

training is given to all apprentices during the first 6 months of apprenticeship. The apprentices are assigned to each of the printing divisions for a predetermined period of time. This procedure provides training in, and affords a general idea of, the several trade branches in the Office. The opportunity for providing such a general printing education does not exist in other apprentice-training establishments nor trade-training schools throughout the country.

The same broad educational features are followed in the training of apprentices in each particular trade branch. The apprentices are periodically changed from one class of work to another within the section, and from one section to another within a division. One of the aims of the school is to train apprentices for as many different classes of work as possible in order that they may be prepared to work in any department or on any kind of work where their services may be needed. With a general knowledge of the work of other trade branches, with a practical knowledge of trade skill within a particular trade branch, and with an enriched background of information of subject matter relating to their respective trades, the apprentices of the Government Printing Office are showing every indication of acquiring a promising trade education.

Monthly reports from teachers and foremen show that apprentices have, as a whole, maintained the high average in work performance established over the three previous years. These reports have not only been encouraging to those actively engaged in teaching but also gratifying to those responsible for the administration of school activities. Upon graduation, our apprentices should possess a sympathetic understanding of employee problems in other branches and be able to work toward closer and smoother cooperation between divisions.

Aside from regular school printing, the Apprentice Section printed Office forms approximating in value \$8,200. This work, selected and accepted for its teaching possibilities, is substituted for many lesson exercises of a less practical nature.

Last year several of the apprentices won recognition in the typographic field. One composing apprentice was awarded second prize in a nation-wide contest sponsored by a trade magazine. His score of 53 was only 4 points under that of the winner, who received 57. Four others received honorable mention in the same contest.

In a nation-wide typographic contest sponsored by the International Association of Printing House Craftsmen, two more composing-room apprentices received honor-roll awards from the International Typographical Union School for the high averages they

received in the union's course of instruction. Their averages were 98.19, 97.78, and 95.64 percent, respectively.

On the basis of employed union printers, the ratio of apprentices to journeymen in the commercial field is approximately one to 14. In the Government Printing Office with 1,355 compositor printers employed at this time, the ratio stands at approximately 1 apprentice to every 15 compositor printers.

HEALTH AND WELFARE ACTIVITIES

Emergency Hospital

During the fiscal year 1938 the Emergency Hospital gave a total of 26,426 treatments to employees of the Office. Of this number 4,806 were for injuries received while on duty; 2,553 surgical treatments for other than injuries received while on duty, which enabled the employees to remain at work and perform efficient service with little or no loss of time; 12,224 treatments for medical conditions; and 6,843 retreatments.

In addition to the surgical and medical treatments rendered to employees of the Office by the Emergency Hospital staff, 489 physical examinations were made of new employees on entering the service, and 1,035 physical examinations were made in determining the employee's physical fitness for certain occupations and in checking the relationship between occupations and physical conditions.

The increase in medical treatments was due in some measure to the epidemic of grippe during the winter months. The increase in the number of injuries in the Office is accounted for by the intensive efforts made to have all cases, no matter how trivial, reported immediately.

Last year reference was made to the appointment of a visiting nurse and the purposes for which she was appointed. During the past year the visiting nurse called on 2,086 employees who had reported ill.

The following projects to improve the health and safety of the employees while at work were undertaken during the past year:

A survey of the entire plant was made to determine the manner of using benzol and the quantities in which it was used. Newer methods of safe handling were recommended and carried out in those operations in which the use of benzol was essential, and substitutes were recommended in those instances where benzol was not particularly necessary. This survey has resulted in absolute control of all benzol used in the plant from the standpoint of health and safety of the employees engaged in its use.

Two-handed safety devices were installed on five cutting machines. These devices absolutely preclude tripping the knife of the machine unless both hands are on levers and remote from the knife.

Revolving grips were installed on the handles of the cranks on the roll lifts used on four postal-card and money-order presses. This was done to prevent slipping of the employee's hands from the grip, which usually results in injury. Since installation there has been no recurrence of this type of accident.

An exhaust fan for the removal of spray during spray painting was installed in the paint shop. This fan, supplementing the use of a mask, has resulted in the maximum protection that can be afforded in this kind of work.

A study of past accident records in this Office revealed that the greatest cause of the more serious accidents was falls and slips from the presses. An investigation revealed that the major factor in these accidents was the accumulation of oil and grease on wooden steps and platforms on and about the presses. A nonskid steel surface was installed over the wooden platform on the two-color press. This was received with enthusiasm by the employees, and plans are being made to resurface all wooden steps and platforms with the nonskid surface.

The latest apparatus and the most efficient method for removing the fumes generated in electric and acetylene welding are being installed. These will afford the greatest protection possible to the workers.

A new type of goggle for use against flying particles to be used by employees already wearing corrective lenses was inspected and demonstrated. It is a decided improvement over the old type, which could not be worn over glasses and necessarily cut down the visual acuity and thus increased accident hazards. It is planned to furnish each machinist with a pair of these goggles.

The use of salt tablets as a preventive of heat exhaustion and heat cramps due to excessive sweating was introduced in the Monotype Casting and the Stereotyping Sections. These are now being used extensively by these employees, and further distribution is contemplated.

Emergency gas masks for use in the power plant were inspected and tested. A systematic plan for future inspection and testing was formulated.

Executive Advisory Safety Committee

Each year the Public Printer has been deeply concerned by the number of accidents occurring in the plant, and each year he has discussed ways and means to prevent accidents and to insure the safety of employees. Many are familiar with the results accomplished by

the Office in this effort. The Medical Director has been designated to attend meetings of the National Safety Council and to study the practices and procedures used in similar work by commercial and governmental agencies.

As a result of these studies and conferences among officials of the Office, the Public Printer determined that the number of accidents could be materially reduced through the concerted action of the personnel. In order to get the necessary cooperation he formulated a definite safety program. Briefly it is as follows: An executive advisory committee was set up. The duties of this committee are (1) to coordinate safety programs in the various trades; (2) to promote the idea of safety-mindedness throughout the plant; (3) to establish "shop safety committees."

A "shop safety committee" was formed for each major section. It consists of the Medical Director, foreman of the section, and an employee of the section, elected by the employees of that section. This committee has the services and advice of a representative of the mechanical division on all questions of a mechanical nature. The duties of this committee are (1) to inspect sections; (2) to analyze and investigate the cause of accidents and to take all steps necessary to eliminate their repetition; (3) to instruct new employees or those unacquainted with new tasks; (4) to report on the condition and use of safety equipment; (5) to recommend new procedure and equipment in the interest of accident prevention.

The report of the shop committee is forwarded to the Public Printer by the superintendent of the division concerned, for his information and such comment and recommendation as he deems advisable.

Each and every employee has a definite interest in his own safety and the safety of his fellow employees. To stimulate and keep alive that interest, each employee was requested to take a serious interest in the election of the person to represent his section on the shop committee and to make to that representative any suggestion he had that would improve safety conditions. Careful consideration is given these suggestions and recommendations, and the Public Printer is looking forward with great interest to the Medical Director's annual report for the next year, as he anticipates that the number of accidents will be sharply reduced.

The following Administrative Order was issued to place officially the safety policy into effect:

In the interest of accident prevention and to promote safety throughout the Government Printing Office, there is hereby created a committee to be known as the "Executive Advisory Safety Committee."

The membership in the Executive Advisory Safety Committee will consist of the Medical and Sanitary Director as chairman, the Superintendent of Plate-making, the Superintendent of Binding, the Superintendent of Composition, the Superintendent of Presswork, the Superintendent of Stores and Traffic Manager, the Mechanical Superintendent, and the Chief of Delivery.

In general the functions of this committee will be:

1. To coordinate safety practices in the various trades.
2. To establish shop safety committees and to determine the structure, manner of functioning, and duties of these committees.
3. To prepare for the approval of the Public Printer all necessary safety rules and regulations.
4. To recommend methods of promoting safety-mindedness among the employees by such means as signs, posters, etc.
5. To keep adequate records to conform with those of the Division of Labor Standards, Department of Labor.
6. To assist and cooperate with the Interdepartmental Safety Conference.

The chairman of the Executive Advisory Safety Committee is hereby authorized to call necessary meetings of the committee and to take such other action as may be necessary to carry out the functions and purposes of this committee as enumerated herein.

Reports and recommendations of the committee will be submitted to the Public Printer through the Director of Personnel.

Group Life Insurance

Through the Government Printing Office Group Life Insurance Association, organized May 1, 1931, there have been paid, up to April 30, 1939, 236 death and 13 disability claims, totaling \$223,390. At the close of the association's fiscal year on April 30, 1939, there were in force 3,580 units of insurance, amounting to \$3,112,714; 1,950 second units, amounting to \$1,688,197; and 480 third units, amounting to \$386,146; total insurance in force was \$5,187,057.

On April 30, 1939, the reserve fund of the association consisted of \$63,000 in United States Treasury bonds, \$7,500 (maturity value 10 years, \$10,000) in United States savings bonds, and \$2,000 invested in the Government Printing Office Federal Credit Union. This fund was established to be used should the present premium rates (which are adjusted annually) of the association be materially increased due to the group attaining a high average age or having a high mortality experience.

Insurance is provided at a cost of \$1 per month per unit in amounts from \$250 to \$1,000, depending upon an employee's age.

Group Hospitalization

Group hospitalization was introduced into the Government Printing Office on May 1, 1935, at which time 515 employees joined the organi-

zation. At the close of the fiscal year, April 30, 1939, there were 1,629 members of this group.

For the nominal cost of 65 cents a month members are assured 21 days' hospital care, including semiprivate accommodations, bed and board, general nursing care, use of operating room, ordinary medications, and routine laboratory examinations. If more than 21 days' hospitalization is needed, the hospital allows a discount of 10 percent to members.

For subscribers on whose contract no hospital service has been given in the preceding contract year and for the listed family members (if any) who have participated under such contract in the preceding contract year, the following additional benefits are offered: 30 days of hospital care, if needed, instead of 21 days in the current contract year; and this 30 days may be extended to 6 months under these conditions: In lieu of the discount of 10 percent offered above, Group Hospitalization, Incorporated, will pay, to a participating member hospital only, one-half of such hospital's charge for room service in semiprivate accommodations for any confinement beginning within the 30 days allowed above and extending continuously for a period not to exceed 6 months from the date of such admission.

A number of leading hospitals in the city are affiliated with this organization, and each member of the group may select the hospital to which he would prefer to be taken. All hospitals affiliated with group hospitalization have been approved by the Medical Society of the District of Columbia.

All contracts make special provisions for hospitalization in other cities in the event of an accident or an acute illness occurring while the subscriber is out of the city of Washington and unable to utilize the facilities of a participating member hospital.

Participation is open to all employees of the Government Printing Office under 65 years of age who have been in sound health for 30 days preceding the date of application for membership. There is also available a contract for the employed subscriber and his or her spouse and a contract for the spouse and unmarried children under the age of 18 years. For these contracts the charges are \$1.50 and \$1.75 a month, respectively.

Federal Credit Union

The Government Printing Office Federal Credit Union was granted its charter on August 20, 1935, under authority of the act approved June 26, 1934 (Public, No. 267, 73d Cong.). The purpose of the Federal Credit Union system is to establish a further market for

securities of the United States and to make more available to people of small means credit for provident purposes through a national system of cooperative credit, thereby helping to stabilize the credit structure of the United States.

At the end of the fiscal year 1939 the union had on deposit for shares a total of \$192,483.28. Its outstanding loans amounted to \$159,652.37. Its total membership was 2,972. All loans are payable either in monthly or semimonthly installments, the interest charge under the Federal Credit Union Act being 1 percent per month on unpaid balances.

Under the provisions of the act, all receipts from entrance fees and fines, together with 20 percent of all earnings, must be transferred to a reserve fund for bad loans. At the present time the surplus fund amounts to \$3,485.81 and the reserve for bad loans (consisting of entrance fees and fines and 20 percent of earnings to date) amounts to \$3,152.98.

The net earnings of the association since January 1, 1939, amount to \$6,320.45, which will be divided among the members in proportion to the length of time and the amount of their deposit at the end of the calendar year.

Government Printing Office American Legion Post, No. 33

Government Printing Office Post, No. 33, the American Legion, Department of the District of Columbia, has a membership of 450 and is one of the largest and most active posts of the Department. During the past year, it has been outstanding in its Americanization, welfare, and rehabilitation work. Where emergency required, it has rendered direct aid to many families. It has also been active in civic and patriotic affairs of the District.

During the past year many social functions were presented, including a free family picnic to Chapel Point, Md., June 24, 1939, to which all employees of the Government Printing Office were invited.

About a year ago the post started a fund to secure a home. This fund now amounts to \$1,500 and is steadily growing. It is the hope of the post and those interested in it that the home can be secured during the coming year.

United Veterans of American Wars, Government Printing Office Unit No. 1

The United Veterans of American Wars, Government Printing Office Unit No. 1, was organized in 1922 and is the oldest veteran

organization in the Government Printing Office. Its membership numbers 400 and is composed of Spanish-American and World War veterans. Unit No. 1's purpose is to aid and assist its members in times of illness and distress. Unit No. 2, known as the Col. Charles Young Unit, is the colored branch of this organization. During the past year both units participated in many patriotic and social events.

Cafeteria and Recreation Association

The Cafeteria and Recreation Association of the Government Printing Office is composed of employees of the Office, who elect representatives from each section, who in turn elect the officers and a board of directors with the exception of two representatives and two members of the audit committee, who are appointed by the Public Printer.

The association operates the cafeteria, cigar stand, bowling alleys, auditorium, and recreation rooms for the benefit of the employees of the Office. During the fiscal year 1939 the cafeteria served an average of over 4,000 wholesome meals per day to the employees of the Office. Due to the work on the new building and to lack of room, the recreational activities have been somewhat restricted, but an athletic and recreation association is being organized under the supervision of the Public Printer and the Cafeteria Association to foster and promote all recreational activities.

An orchestra, composed of employees of the Office, has been organized, and gives concerts on Fridays during the lunch periods and for exercises or activities of the Office.

Contributions to Charitable Organizations

In addition to cheerfully supporting intraoffice charitable and relief organizations, the employees of the Government Printing Office have contributed generously to local and national relief associations. Their contributions to the Red Cross for the current year amounted to \$3,455, to the Community Chest \$22,201, and to the fund for the prevention and treatment of infantile paralysis \$2,262. In addition to these substantial contributions they have given generously to other charitable and relief funds. Their cooperation along these lines is sincerely commended by the Public Printer.

RECEIPTS AND EXPENDITURES

The total resources available to the Government Printing Office during the fiscal year ended June 30, 1939, including the Office of the

Superintendent of Documents and appropriations and payments for work, amounted to \$20,566,023.68 as compared with \$19,778,914.79 for the fiscal year 1938, an increase of \$787,108.89.

Obligations incurred during the fiscal year 1939 totaled \$20,496,-155.71, leaving an unobligated balance of \$69,867.97 subject to over-adjustments or underadjustments on \$1,884,138.60 outstanding obligations to July 1, 1939. Obligations incurred in 1939 showed an increase of \$741,406.41 over those for 1938.

The total compensation paid to all employees, including those of the Office of the Superintendent of Documents, during the fiscal year 1939 amounted to \$12,120,114.74, which total included \$416,-705.88 deposited to the credit of employees in the retirement fund through the 3½ percent deduction as required by law.

Table 1 gives the details of all resources available to the Government Printing Office for the fiscal year ended June 30, 1939, and all liabilities incurred against these resources during the fiscal year.

TABLE 1.—*Resources and liabilities under appropriations for the fiscal year ended June 30, 1939*

RESOURCES

Appropriation for working capital, legislative act approved May 17, 1938.....	\$3, 820, 000. 00	
Second Deficiency Act, approved June 25, 1938.....	450, 000. 00	
Receipts from all sources for printing and binding.....	14, 894, 205. 01	
Refunds from various sources.....	180. 10	
Bills receivable July 1, 1939, for printing and binding furnished.....	523, 840. 09	
		\$19, 688, 225. 20
Appropriation for salaries, Office of Superintendent of Documents.....		630, 000. 00
Appropriation for general expenses, Office of Superintendent of Documents.....		227, 430. 00
Second Deficiency Act 1939, approved May 2, 1939.....		20, 000. 00
Balance of appropriation for equipment for Government Printing Office Building.....		¹ 368. 48
Total resources available for fiscal year 1939.....		20, 566, 023. 68

¹ Appropriated in 1929, available until used.

LIABILITIES

Working capital and repayments for printing and binding:	
Disbursed to June 30, 1939-----	\$16, 379, 966. 05
Outstanding obligations July 1, 1939-----	1, 815, 827. 59
Total disbursed and outstanding obligations-----	\$18, 195, 793. 64
Salaries, Office of Superintendent of Documents:	
Disbursed to June 30, 1939-----	\$594, 723. 43
Outstanding obligations July 1, 1939-----	27, 990. 16
Total disbursed and outstanding obligations-----	622, 713. 59
General expense, Office of Superintendent of Documents:	
Disbursed to June 30, 1939-----	\$186, 959. 15
Outstanding obligations July 1, 1939-----	40, 320. 85
Total disbursed and outstanding obligations-----	227, 280. 00
Equipment, Government Printing Office Building:	
Disbursed to June 30, 1939-----	\$368. 48
Outstanding obligations July 1, 1939-----	-----
Total disbursed and outstanding obligations-----	368. 48
Total disbursed to June 30, 1939-----	\$17, 162, 017. 11
Total outstanding obligations July 1, 1939----	1, 884, 138. 60
Outstanding obligations Code of Federal Regulations-----	450, 000. 00
Outstanding obligations returnable to U. S. Treasury-----	1, 000, 000. 00
Total disbursed and outstanding obligations-----	20, 496, 155. 71
Unobligated balances (subject to 10 percent over or under on outstanding orders)-----	69, 867. 97
Total-----	20, 566, 023. 68

Table 2 is a summary statement showing all financial transactions during the fiscal year ended June 30, 1939, covering appropriations made for the fiscal years 1937, 1938, and 1939. This statement also gives a summary of all expenditures for various items during the fiscal year 1939, regardless of the appropriation from which paid, together with a recapitulation of disbursements by major items.

TABLE 2.—*Summary of financial transactions in fiscal year ended June 30, 1939, covering appropriations for fiscal years 1937, 1938, and 1939*

APPROPRIATION FOR 1937

	Resources	Disbursements	Unexpended balance on July 1, 1939, from the appropriation for 1937
Public Printing and Binding:			
Unexpended balance July 1, 1938	\$151,328.99		
Credits to appropriation by payments from all sources for printing and binding and other receipts from miscellaneous sources	1,347.87		
Disbursed for material and supplies		\$113,888.39	
Total	152,676.86	113,888.39	\$38,788.47
Salaries, Office of Superintendent of Documents:			
Unexpended balance July 1, 1938	15,517.73		15,517.73
General expense, Office of Superintendent of Documents:			
Unexpended balance, July 1, 1938	243.63		243.63
Grand total appropriations	168,438.27	113,888.39	54,549.88
Unobligated balance of 1937 appropriations on June 30, 1939			54,549.88

APPROPRIATION FOR 1938

	Resources	Disbursements	Unexpended balance on July 1, 1939, from the appropriation for 1938
Public Printing and Binding:			
Unexpended balance, July 1, 1938	\$1,282,116.04		
Credits to appropriation by payments from all sources for printing and binding and other receipts from miscellaneous sources	1,591,524.44		
Disbursed for labor		\$473,837.63	
Disbursed for paper		942,489.26	
Disbursed for lithographing and engraving		84,910.39	
Disbursed for material and supplies		302,520.75	
Disbursed for Surplus Fund		1,000,000.00	
Total	2,873,640.48	2,803,758.03	\$69,882.45
Salaries, Office of Superintendent of Documents:			
Unexpended balance, July 1, 1938	30,276.76		
Disbursed		27,076.61	
Total	30,276.76	27,076.61	3,200.15
General expense, Office of Superintendent of Documents:			
Unexpended balance, July 1, 1938	58,794.30		
Disbursed		58,794.30	
Total	58,794.30	58,794.30	
Grand total appropriations	2,962,711.54	2,889,628.94	73,082.60
Deduct for outstanding obligations			72,530.74
Unobligated balance of 1938 appropriations on June 30, 1939			551.86

TABLE 2.—Summary of financial transactions in fiscal year ended June 30, 1939, covering appropriations for fiscal years 1937, 1938, and 1939—Continued

APPROPRIATION FOR 1939

	Resources	Disbursements	Unexpended balance July 1, 1939
Public Printing and Binding:			
Legislative act of May 17, 1938.....	\$3,820,000.00	-----	-----
Second Deficiency Act of June 25, 1938.....	450,000.00	-----	-----
Credits to appropriations by payments and bills receivable from all sources for printing and binding and other receipts from miscellaneous sources.....	15,418,225.20	-----	-----
Disbursed for labor.....		\$11,024,477.07	-----
Disbursed for paper.....		4,502,913.17	-----
Disbursed for lithographing and engraving.....		50,093.75	-----
Disbursed for materials and supplies.....		802,482.06	-----
Total.....	19,688,225.20	16,379,966.05	\$3,308,259.15
Salaries, Office of Superintendent of Documents:			
Legislative act of May 17, 1938.....	630,000.00	-----	-----
Disbursed.....		594,723.43	-----
Total.....	630,000.00	594,723.43	35,276.57
General expense, Office of Superintendent of Documents:			
Legislative act of May 17, 1938.....	227,430.00	-----	-----
Second Deficiency Act of 1939, approved May 2, 1939.....	20,000.00	-----	-----
Disbursed.....		186,959.15	-----
Total.....	247,430.00	186,959.15	60,470.85
Equipment, Government Printing Office Building, Legislative act of February 28, 1929:			
Unexpended balance July 1, 1938.....	¹ 368.48	-----	-----
Disbursed to June 30, 1939.....		368.48	-----
Total.....	368.48	368.48	-----
Grand total.....	20,566,023.68	17,162,017.11	3,404,006.57
Deduct for outstanding obligations.....			3,334,138.60
Unobligated balances of 1939 appropriations on June 30, 1939.....			69,867.97
Total unobligated balance, subject to change by 10 percent over and under on outstanding obligations:			
1937.....			54,549.88
1938.....			551.86
1939.....			69,867.97
Total.....			124,969.71

¹ Appropriated Feb. 28, 1929, available until used.

RECAPITULATION—ALL APPROPRIATIONS

Total paid for labor.....	² \$11,498,314.70
Total paid for material and supplies.....	1,218,891.20
Total paid for lithographing and engraving.....	135,004.14
Total paid for paper.....	5,445,402.43
Total paid for printing and binding.....	18,297,612.47
Total paid for salaries, Office of Superintendent of Documents.....	³ 621,800.04
Total paid for General Expense, Office of Superintendent of Documents.....	245,753.45
Total paid for Equipment, Government Printing Office Building.....	368.48
Total credited to Code of Federal Regulations.....	450,000.00
Total credited to Surplus Fund.....	1,000,000.00
Grand total.....	⁴ 20,615,534.44

² Includes \$395,221.37 deposited to credit of retirement fund.

³ Includes \$21,484.51 deposited to credit of retirement fund.

⁴ Includes \$416,705.88 deposited to credit of retirement fund.

Table 3 is a statement of all moneys received during the fiscal year ended June 30, 1939, by the Disbursing Clerk as repayments for printing and binding for the several executive departments and independent Government establishments, and from the sale of waste paper and other waste materials, and the appropriation to which deposited. The receipts from these various sources during 1939 totaled \$15,920,079.85 as compared with \$15,384,081.18 in 1938, an increase of \$535,998.67.

TABLE 3

1929

Deposited to the credit of appropriation for public printing and binding: Refund.....	\$127. 42
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1935

Deposited to the credit of appropriation for public printing and binding: Refund.....	. 92
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1936

Deposited to the credit of appropriation for public printing and binding: Balance of appropriation.....	5, 411. 58
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1937

Deposited to the credit of appropriation for public printing and binding:		
For printing and binding for departments.....	\$1, 345. 56	
Balance of appropriation.....	3, 580. 87	4, 926. 43

1938

Deposited to the credit of appropriation for public printing and binding:		
For printing and binding for departments..	\$1, 532, 074. 76	
Miscellaneous printing and binding.....	63. 94	
Refunds.....	59, 068. 22	1, 591, 206. 82

1939

Deposited to the credit of appropriation for public printing and binding:		
For printing and binding for departments..	\$14, 159, 438. 38	
Miscellaneous printing and binding.....	79, 810. 66	
Refunds.....	28, 069. 73	
Damage to Government property.....	99. 55	14, 267, 418. 32

1938

Deposited to the credit of appropriation for salaries, Superintendent of Documents: Balance of appropriation.....	121. 05
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TABLE 3—Continued

1939

Deposited to Miscellaneous Receipts:

Sale of waste paper.....	\$43, 717. 47	
Sale of salvage.....	6, 744. 99	
Discounts, rebates, etc.....	394. 00	
Telephone messages.....	10. 85	\$50, 867. 31
Grand total.....		15, 920, 079. 85

Table 4 shows comparative production records by major items for the fiscal years 1937, 1938, and 1939. It will be seen that there have been decreases in some items produced in 1939 as compared with 1938 and that other items show substantial increases.

The number of actual impressions for 1939 is 14,413,117 more than in 1938 even though larger-size sheets are used for obtaining fewer impressions and greater production. The figures given for sheets folded would indicate a reduction of some 33,000,000 sheets. This reduction is also due to the use of larger sheet sizes and would in total comprise more printed matter than the number of sheets reported under 1938. The number of signatures gathered is also related to sheet sizes with resulting increase in the number of pages in signatures.

TABLE 4.—*Production of principal items entering into printing and binding in fiscal years 1937, 1938, 1939*

Item	1937	1938	1939
Main Office and Congressional Library Branch:			
Total charges for printing and binding.....	\$18, 163, 977. 24	\$17, 959, 316. 06	\$18, 238, 045. 10
Jackets written.....number.....	79, 332	80, 106	82, 633
Estimates made.....do.....	59, 614	58, 058	61, 798
Bills computed.....do.....	101, 473	95, 594	97, 688
Electrotypes, stereotypes, and matrices			
square inches.....	12, 942, 570	13, 468, 121	12, 208, 393
Postal cards printed.....number.....	2, 428, 243, 040	2, 240, 766, 100	2, 136, 042, 180
Money orders shipped.....do.....	282, 095, 325	262, 511, 860	261, 804, 697
Actual impressions.....do.....	1, 084, 839, 488	1, 141, 090, 031	1, 155, 503, 148
Sheets folded.....do.....	715, 915, 376	679, 169, 095	646, 236, 555
Signatures gathered.....do.....	218, 969, 549	290, 812, 096	250, 061, 724
Tips made.....do.....	31, 398, 213	43, 306, 901	36, 188, 755
Copies wire-stitched.....do.....	86, 256, 978	78, 948, 103	91, 346, 895
Books rounded and backed.....do.....	1, 206, 103	1, 762, 762	1, 648, 732
Copies covered.....do.....	15, 949, 612	14, 810, 426	16, 273, 119
Stamping impressions.....do.....	2, 658, 941	1, 987, 470	2, 123, 869
Books cased-in.....do.....	1, 313, 203	1, 146, 603	1, 139, 039
Books indexed.....do.....	487, 503	268, 182	463, 517
Sheets passed through ruling machine.....do.....	49, 162, 498	42, 172, 615	49, 571, 494
Signatures sewed.....do.....	37, 440, 737	48, 606, 987	46, 631, 764
Copies punched and drilled.....do.....	220, 912, 293	196, 840, 923	274, 507, 203
Lines perforated.....do.....	12, 462, 567	11, 630, 313	16, 652, 844
Tablets made.....do.....	8, 401, 788	7, 939, 214	9, 495, 253
Miscellaneous rebinding, etc.....do.....	127, 740	179, 111	156, 299

Other outstanding increases in production during 1939 above those for 1938 are: Copies covered, 1,462,693; books indexed, 195,335; sheets

passing through ruling machine, 7,398,879; copies punched and drilled, 77,666,280; lines perforated, 5,022,531; tablets made, 1,556,039.

Table 5 shows the charges for printing and binding work and the service for which the work was done during the fiscal year 1939. The charges for printing and binding for the Congress amounted to \$2,700,000; for the Post Office Department, including the cost of printing postal cards and money-order blanks, \$1,881,791.91; Treasury Department, \$1,521,430.92; Department of Agriculture, \$1,447,208.19; War Department, \$733,390.64; Department of Commerce, exclusive of Patent Office printing, \$534,740.84; Patent Office, \$789,740.72; Navy Department, \$714,731.04; Interior Department, \$861,599.48; Works Progress Administration, \$817,902.04; Library of Congress, \$468,536.23; Department of Labor, \$603,222.36; Agricultural Adjustment Administration, \$538,877.76; Social Security Board, \$256,633.89; Department of Justice, \$403,675.07; Federal Housing Administration, \$306,389.47; and State Department, \$215,092.82. The Superintendent of Documents ordered the printing of books and pamphlets for sale to the public at a cost of \$486,616.99; for depository distribution the cost of publications was \$97,213.51; for catalogs and indexes, \$15,986.62; for price lists and other Office printing, \$77,494.28; and for supplies and services, \$50,675.15; making the total cost of work and services furnished to the Superintendent of Documents during the fiscal year 1939, \$727,986.55.

A number of other branches of the service had printing and binding costs during the year 1939 in excess of \$100,000 each.

TABLE 5.—*Charges for work and to whom delivered during the fiscal year ended June 30, 1939*

Congress:

Congressional Record.....	\$569, 321. 80
Publications for folding rooms.....	424, 351. 14
Miscellaneous for folding rooms.....	51, 475. 66
Publications for International Exchange.....	17, 489. 40
Franked envelopes and document franks.....	58, 559. 38
Bills, resolutions, and amendments.....	357, 090. 56
Committee reports.....	58, 139. 72
Documents.....	300, 465. 35
Hearings.....	378, 615. 63
Miscellaneous publications.....	47, 082. 44
Miscellaneous printing and binding.....	437, 408. 92

Total congressional printing.....	\$2, 700, 000. 00
The Federal Register.....	120, 000. 00

TABLE 5.—*Charges for work and to whom delivered during the fiscal year ended June 30, 1939—Continued*

Private orders by Members of Congress:	
Documents, reports, bills, etc.....	\$20, 338. 23
Speeches.....	60, 488. 47
Other private orders.....	1, 797. 44
Superintendent of Documents.....	727, 986. 55
Library of Congress.....	468, 536. 23
Agriculture.....	1, 447, 208. 19
Commerce.....	534, 740. 84
Interior.....	861, 599. 48
Justice.....	403, 675. 07
Labor.....	603, 222. 36
Navy.....	714, 731. 04
Post Office.....	1, 881, 791. 91
State.....	215, 092. 82
Treasury.....	1, 521, 430. 92
War.....	733, 390. 64
Agricultural Adjustment Administration.....	538, 877. 76
Alley Dwelling Authority.....	550. 75
American Battle Monuments Commission.....	22, 019. 29
Board of Governors of the Federal Reserve System.....	2, 584. 16
Board of Tax Appeals.....	30, 383. 63
Bureau of the Budget.....	38, 277. 04
Central Statistical Board.....	1, 468. 63
Civil Aeronautics Authority.....	41, 605. 63
Civil Service Commission.....	128, 732. 36
Civilian Conservation Corps.....	40, 030. 18
Commission of Fine Arts.....	406. 20
Commodity Credit Corporation.....	59, 531. 05
Commodore Perry Commission.....	1. 14
Court of Claims.....	27, 211. 75
Court of Customs and Patent Appeals.....	5, 733. 63
District Court of the U. S. for the District of Columbia.....	264. 72
District Government.....	83, 523. 55
Electric Home and Farm Authority.....	587. 04
Employees' Compensation Commission.....	41, 412. 71
Export-Import Bank of Washington.....	308. 18
Farm Credit Administration.....	104, 424. 25
Farm Security Administration.....	158, 536. 49
Federal Alcohol Administration.....	12. 00
Federal Communications Commission.....	42, 360. 59
Federal Deposit Insurance Corporation.....	8, 942. 77
Federal Emergency Administration of Public Works.....	134, 250. 44
Federal Emergency Relief.....	50. 70
Federal Home Loan Bank Board.....	14, 238. 56
Federal Housing Administration.....	306, 389. 47
Federal Power Commission.....	39, 563. 14
Federal Savings and Loan Insurance.....	1, 343. 48
Federal Surplus Commodities Corporation.....	16, 784. 90

TABLE 5.—*Charges for work and to whom delivered during the fiscal year ended June 30, 1939—Continued*

Federal Trade Commission.....	\$61, 872. 31
General Accounting Office.....	101, 002. 96
George Washington Bicentennial Commission.....	13, 103. 42
Home Owners' Loan Corporation.....	44, 813. 69
Inland Waterways Corporation.....	18. 50
Interstate Commerce Commission.....	209, 920. 77
Maritime Labor Board.....	493. 32
National Academy of Sciences.....	187. 10
National Advisory Committee for Aeronautics.....	19, 199. 55
National Archives.....	12, 476. 92
National Bituminous Coal Commission.....	36, 002. 66
National Capital Park and Planning Commission.....	73. 18
National Emergency Council.....	38, 870. 95
National Forest Reservation Commission.....	797. 03
National Labor Relations Board.....	91, 423. 78
National Mediation Board.....	2, 669. 80
National Railroad Adjustment Board.....	36, 117. 73
National Unemployment Registration.....	23, 193. 14
Northwest Territory Celebration Commission.....	4. 25
Panama Canal.....	6, 679. 82
Pan American Union.....	27, 701. 24
Patent Office.....	789, 740. 72
Prison Industries Reorganization Commission.....	45. 09
Puerto Rico Reconstruction Administration.....	2, 900. 65
Railroad Administration.....	33. 51
Railroad Retirement Board.....	27, 751. 88
Reconstruction Finance Corporation.....	160, 374. 24
Recorder of Deeds, District of Columbia.....	376. 99
Resettlement Administration.....	. 50
Rural Electrification Administration.....	74, 665. 08
Securities and Exchange Commission.....	100, 930. 90
Smithsonian Institution.....	56, 463. 03
Smithsonian Gallery of Art.....	743. 38
Social Security Board.....	256, 633. 89
Supreme Court, United States.....	10, 949. 56
Tennessee Valley Authority.....	57, 775. 70
Thomas Jefferson Memorial.....	315. 99
U. S. Constitution Sesquicentennial Commission.....	1, 425. 03
U. S. Court of Appeals for the District of Columbia.....	1, 754. 27
U. S. Golden Gate Exposition.....	953. 94
U. S. Housing Authority.....	39, 895. 06
U. S. Maritime Commission.....	39, 170. 09
U. S. Tariff Commission.....	25, 665. 07
Veterans' Administration.....	131, 967. 54
White House.....	5, 552. 45
Works Progress Administration.....	817, 902. 04
Grand total.....	18, 238, 045. 10

TABLE 6.—Statement of the cost of production of the Office for the fiscal year 1939
[Production sections only]

Section (manufacturing center)	Total compensation	Material, supplies, equipment, and machinery	Maintenance and upkeep	General overhead	Paper stock issued, illustrations ordered, outside purchase vouchered	Intersection work and miscellaneous credits		Total cost of production
						Debit	Credit	
Job Composing.....	\$456,041.82	\$13,111.04	\$3,783.52	\$96,752.08	---	\$56,230.67	\$21,782.95	\$604,136.18
Plating Lock-Up.....	34,687.89	1,884.68	961.44	7,354.04	---	905.57	5.23	45,788.99
Title Page.....	29,720.51	194.71	152.15	6,306.37	---	11,134.67	133.84	47,383.57
Hand.....	331,517.08	14,792.41	2,916.82	70,277.30	---	91,321.09	497.21	510,327.49
Linotype.....	749,489.28	6,896.54	14,170.43	158,826.37	---	495,266.87	3,133.93	1,421,515.56
Monotype.....	1,188,288.90	24,237.14	17,176.62	245,405.80	---	576,498.51	143,210.13	1,878,306.93
Proof.....	901,701.39	376.76	780.38	180,208.05	---	90.92	1,083,157.50	---
Patents.....	499,090.50	5,113.08	4,909.07	103,812.83	---	31,070.19	5,719.48	640,285.19
Library Composing Branch.....	105,407.61	11,233.00	8,906.71	8,250.54	\$33,908.52	17,531.86	---	185,238.24
Platemaking: Molding, stereotyping, and finishing.....	269,368.69	22,046.96	10,734.14	64,069.78	---	12,878.47	61,271.11	317,837.93
Photoengraving.....	106,074.23	18,622.26	2,462.46	25,210.86	---	6,402.94	41,114.20	117,648.56
Press: Job, book, offset, and tabulating card.....	1,886,277.76	69,481.73	90,107.21	372,203.37	---	149,306.19	12,656.18	2,498,722.08
Money Order.....	86,668.16	7,704.70	2,533.80	20,315.32	58,680.35	5,700.61	---	135,638.00
Postal Card.....	132,498.17	36,228.01	10,683.33	29,877.23	574,139.19	38,207.21	18,453.19	818,676.63
Pamphlet.....	1,055,793.06	19,405.41	30,161.40	74,866.09	13,501.85	7,063.66	175,909.24	968,472.88
Blank.....	377,183.64	27,831.66	18,219.87	141,566.16	170,474.13	16,056.73	109,793.07	936,951.88
Book.....	720,594.50	120,603.13	14,648.94	141,566.16	29,917.85	39,414.37	31,609.69	1,935,874.80
Cutting and Packing.....	306,063.56	16,060.40	7,138.69	60,718.91	1,569,375.02	7,597.88	11,739.02	171,884.83
Library Binding Branch.....	160,019.76	10,760.30	6,319.30	11,530.35	3,001.89	1,702.25	31,006.05	55,254.46
Details Chargeable.....	82,308.43	18.21	18.06	3,505.92	---	412.89	---	---
Ink.....	15,327.92	54,792.13	950.26	2,912.59	---	---	73,982.90	---
Metal.....	12,769.71	26,614.25	4,308.56	2,425.41	---	---	46,117.93	---
Roller and glue.....	8,799.86	17,618.21	1,157.26	1,672.00	---	.43	29,147.76	---
Stores (handling paper, illustrations, and outside purchases).....	247,574.75	10,133.22	29,543.09	45,054.65	---	542.47	332,848.18	---
Paper Stock, Press Division.....	---	---	51,699.49	---	3,195,509.01	191,843.82	---	3,387,352.83
Miscellaneous items.....	---	---	---	---	204,185.46	426,227.17	101,310.52	580,801.60
Miscellaneous service for Superintendent of Documents other than printing and binding.....	---	---	---	---	---	3,096.97	---	50,887.63
Total.....	9,631,299.27	553,937.84	303,683.05	1,932,017.14	5,852,693.27	2,186,536.41	2,334,599.40	18,185,567.98

TABLE 7.—Itemized statement of the classes and charge for work delivered during the fiscal year 1939

Class of work	Number of copies	Number of type pages	Number of publications bound	Charges for composition, presswork, plating, folding, binding, illustrations, contract, miscellaneous	Charges for paper	Charges for authors' alterations	Charges for rush work	Total charges
Publications:								
Smaller than 5½ by 8½	11,553,557	28,500	40,283	\$209,676.90	\$42,835.43	\$9,686.96	\$3,513.51	\$265,712.80
Octavo (5½ by 8½ by 9½)	83,632,142	590,026	675,061	3,595,247.80	595,335.06	181,566.60	147,667.80	4,519,717.26
Royal octavo (6½ by 9½ by 11)	5,667,392	39,333	39,888	375,730.55	67,379.13	23,356.40	10,317.66	476,883.74
Quarto (larger than 8 by 11)	16,611,845	71,761	62,471	916,011.49	101,740.78	52,618.29	49,618.04	1,119,983.60
Miscellaneous	36,962,453	452,346	162,931	406,196.47	184,048.61	895.37	---	651,140.45
Congressional Record	5,302,269	29,355	43,005	440,262.36	72,892.92	3,263.62	52,812.90	569,321.86
Bills, resolutions, and amendments	7,430,178	101,369	43,005	262,502.46	24,883.51	1,208.58	68,436.01	357,090.56
Specifications of Patents, etc.	5,330,421	145,899	297	620,598.00	8,981.81	---	---	629,540.81
Official Gazette and Annual Indexes	233,638	29,163	50	119,575.13	21,800.97	---	---	141,376.10
Post Office:								
Money orders	261,804,637	---	---	113,485.12	58,080.35	---	---	172,165.47
Postal cards	2,021,560,000	---	---	251,931.61	574,139.19	---	---	826,070.80
Letterheads and envelopes	272,433,985	---	---	200,823.65	227,232.31	263.87	3,673.49	431,993.32
Blanks, notices, schedules, etc.	3,867,595,453	---	---	2,495,208.22	1,965,077.42	37,967.01	101,226.51	4,599,479.16
Blank books	3,148,941	---	---	302,376.66	103,543.40	1,067.38	4,426.54	411,413.98
Binding newspapers, documents, reports, etc.	122,894	---	---	447,888.66	1,506.82	40.16	463.18	449,898.82
Loose-leaf and other patent binders	46,567	---	---	4,938.05	456.68	5.10	8.33	5,408.16
Blank paper	---	---	---	431,153.81	1,227,579.42	---	---	1,658,733.23
Miscellaneous charges	---	---	---	763,613.83	186,020.51	636.99	1,738.71	952,010.04
Total	6,599,455,832	1,487,852	1,023,986	12,017,171.77	5,464,234.32	312,636.33	444,002.68	18,238,045.10

Table 6 is a statement giving the details of production costs for each section of the Office, exclusive of the Office of the Superintendent of Documents, grouped under the headings of salaries, wages, leave, and holiday pay; materials, supplies, equipment, and machinery; maintenance and upkeep; administrative and clerical expenses, and other major items entering into the cost of production.

Table 7 is an itemized statement of the classes of work delivered and charged for during the fiscal year 1939. Of publications there were printed 154,477,389 copies, including speeches, private orders, and copies ordered for sale by the Superintendent of Documents, but not including the Congressional Record, of which 5,302,269 were printed. The table shows that the grand total of the number of copies of the various classes of work printed in 1939 was 6,599,485,832, as compared with 6,524,377,197 in 1938 and 6,091,154,072 in 1937. The increase in the number of copies of the various classes of work printed in 1939 over 1938 was 75,108,635. The total charges for this work in 1939 amounted to \$18,238,045.10, as compared with \$17,959,316.06 in 1938.

Table 8 gives the details of the inventory of stock and machinery and equipment on hand at the close of the fiscal year 1939. The value of supplies on hand, including paper, envelopes, and other materials, was \$1,186,620.34, as compared with \$1,314,278.26 in 1938, representing a decrease in the value of stock on hand of \$127,657.92. The value of machinery and equipment in 1939 was \$5,580,573.70, as compared with \$5,395,885.07 in 1938, or an increase in the value of machinery and equipment of \$184,688.63. The total value of stock of all kinds and machinery and equipment on hand at the close of the fiscal year 1939 was \$6,767,194.04, as compared with \$6,710,163.33 at the close of the year 1938.

Table 9 shows the number of copies of publications printed in 1939 for the Congress, the executive departments, and independent Government establishments. During the fiscal year 1939 there was printed a total of 130,770,510 publications, as compared with 117,450,064 in 1938. The figures in table 9 are exclusive of the number of copies of speeches printed for Members of Congress and other private orders.

TABLE 8.—*Inventory of quantity and cost of paper and envelopes, materials, and supplies, and machinery and equipment on hand June 30, 1939*

	Pounds	Cost
Paper and envelopes:		
Printing.....	3, 328, 785	\$169, 955. 95
Mimeograph.....	755, 300	33, 429. 94
Safety writing.....	30, 367	2, 762. 93
Writing.....	2, 697, 900	145, 486. 04
Map.....	89, 090	10, 183. 68
Manifold.....	351, 262	47, 904. 55
Bond.....	2, 206, 562	184, 344. 23
Ledger.....	716, 314	67, 540. 47
Index.....	571, 401	53, 803. 13
Cover.....	291, 815	25, 830. 08
Manila.....	369, 105	22, 857. 57
Kraft.....	478, 226	18, 756. 26
Manila tagboard.....	489, 074	34, 511. 57
Cardboard.....	105, 032	5, 613. 79
Bristolboard.....	2, 012, 320	83, 934. 82
Miscellaneous.....	157, 033	15, 579. 81
Binder's board.....	560, 520	14, 917. 44
Envelopes.....		23, 959. 90
Total, paper and envelopes.....		961, 372. 16
Other material and supplies:		
Miscellaneous supplies.....		169, 360. 24
Book cloth.....		10, 291. 16
Ink ingredients.....		10, 214. 92
Buckram.....		10, 351. 55
Leather.....		5, 422. 90
Gold leaf.....		4, 239. 27
Ink (made in Government Printing Office).....		3, 455. 23
Cartons and containers.....		3, 551. 49
Imitation leather.....		2, 361. 42
Total, materials and supplies.....		225, 248. 18
Total, materials and supplies, paper and envelopes.....		1, 186, 620. 34
Machinery and equipment.....		5, 580, 573. 70
Grand total.....		6, 767, 194. 04

TABLE 9.—*Publications, including annual reports and documents, printed on requisition during the fiscal year ended June 30, 1939, for Congress, the executive departments, and independent Government establishments*

Congress.....	4, 203, 350
The Federal Register.....	2, 059, 200
Superintendent of Documents.....	15, 567, 419
Library of Congress.....	155, 872
Agriculture.....	28, 780, 332
Commerce.....	2, 885, 937
Interior.....	2, 704, 383
Justice.....	542, 851
Labor.....	9, 545, 285
Navy.....	3, 435, 888
Post Office.....	9, 624, 179
State.....	594, 077
Treasury.....	2, 842, 939
War.....	8, 529, 191
Agricultural Adjustment Administration.....	20, 786, 021
Alley Dwelling Authority.....	1, 379

TABLE 9.—*Publications, including annual reports and documents, printed on requisition during the fiscal year ended June 30, 1939, for Congress, the executive departments, and independent Government establishments—Continued*

American Battle Monuments Commission.....	470
Board of Governors of the Federal Reserve System.....	18, 576
Board of Tax Appeals.....	89, 915
Bureau of the Budget.....	46, 797
Central Statistical Board.....	8, 368
Civil Aeronautics Authority.....	494, 813
Civil Service Commission.....	207, 806
Civilian Conservation Corps.....	250, 886
Commission of Fine Arts.....	1, 506
Commodity Credit Corporation.....	78
Court of Claims.....	33, 352
Court of Customs and Patent Appeals.....	682
District Government.....	37, 577
Employees' Compensation Commission.....	96, 294
Export-Import Bank of Washington.....	09
Farm Credit Administration.....	1, 185, 153
Farm Security Administration.....	1, 294, 556
Federal Communications Commission.....	159, 867
Federal Deposit Insurance Corporation.....	1, 229
Federal Emergency Administration of Public Works.....	119, 617
Federal Home Loan Bank Board.....	89, 746
Federal Housing Administration.....	4, 260, 460
Federal Power Commission.....	32, 422
Federal Savings and Loan Insurance.....	11, 001
Federal Surplus Commodity Corporation.....	75, 503
Federal Trade Commission.....	111, 156
General Accounting Office.....	14, 838
George Washington Bicentennial Commission.....	6, 000
Home Owners' Loan Corporation.....	3, 019
Inland Waterways Commission.....	1
Interstate Commerce Commission.....	2, 037, 343
Maritime Labor Board.....	50
National Academy of Science.....	2, 800
National Advisory Committee for Aeronautics.....	32, 791
National Archives.....	14, 665
National Bituminous Coal Commission.....	13, 617
National Emergency Council.....	777, 556
National Forest Reservation Commission.....	8, 000
National Labor Relations Board.....	564, 425
National Mediation Board.....	10, 033
National Railroad Adjustment Board.....	1, 501
National Unemployment Registration.....	38, 175
Panama Canal.....	6, 824
Pan American Union.....	109, 912
Patent Office.....	92, 856
Prison Industries Reorganization Commission.....	2
Puerto Rico Reconstruction Administration.....	261

TABLE 9.—*Publications, including annual reports and documents, printed on requisition during the fiscal year ended June 30, 1939, for Congress, the executive departments, and independent Government establishments—Continued*

Railroad Administration.....	150
Railroad Retirement Board.....	14, 830
Reconstruction Finance Corporation.....	249, 029
Resettlement Administration.....	1
Rural Electrification Administration.....	1, 228, 842
Securities and Exchange Commission.....	208, 037
Smithsonian Gallery of Art.....	3, 500
Smithsonian Institution.....	116, 094
Social Security Board.....	2, 200, 694
Supreme Court of the U. S.....	1, 653
Tennessee Valley Authority.....	90, 078
U. S. Constitution Sesquicentennial Commission.....	12, 000
U. S. Court of Appeals for the D. C.....	4, 000
U. S. Golden Gate Exposition.....	57
U. S. Housing Authority.....	293, 510
U. S. Maritime Commission.....	51, 836
U. S. Tariff Commission.....	17, 548
Veterans' Administration.....	49, 783
White House.....	12
Works Progress Administration.....	1, 608, 045
Total.....	130, 770, 510

Table 10 shows the receipts from the sale of waste paper, waste materials, and condemned machinery, and the surplus from the sale by the Office of the Superintendent of Documents of Government publications over the cost of their printing during the fiscal year ended June 30, 1939.

TABLE 10

Condemned material, machinery, waste wood, waste metal, etc....	\$6, 744. 99
Waste paper.....	43, 717. 47
Surplus from sale of documents.....	431, 566. 55
Discounts, rebates, etc.....	394. 00
Telephone messages.....	10. 85
Total.....	482, 433. 86

CRITICISM BY ORGANIZATIONS AND INDIVIDUALS

Sporadic attacks upon the Office and attempts by individuals and organizations to gain personal profit through diverting printing from the Government Printing Office took up much of the time of many of the Members of Congress and of the officials of this Office in replying to such attacks. The following letter received from a Member of Congress illustrates the type of attack usually made:

Permit me to quote to you a letter which I have today received from the Secretary of the Printers' Board of Trade, ———:

At the meeting of the members of the Printers' Board of Trade held yesterday, I was asked to call your attention to the volume of printing which is being produced for use in this area by the Government Printing Office in Washington.

When the Government Printing Office was established, it was generally accepted and for many years it was the policy for it to print only material such as the Congressional Record, money orders, and other Government documents and publications. Now, however, all sorts of forms and miscellaneous printed matter which is used in local areas are being produced by the printing department. We feel that this is a discrimination against the wage earners in this territory and against the employers who have heavy investments and who are paying large sums in taxes for the support of Federal departments and services. Moreover, other industries do not lose as a result of Government competition, and purchases of supplies in local areas are made through local merchants and manufacturers.

We therefore hope that you will support the effort that is being made to correct this situation so that the printing industry in ——— may not be discriminated against.

I will appreciate it if you will advise me how I may reply to my correspondent.

Sincerely,

_____,
Member of Congress.

To the above letter the Public Printer made the following reply:

Hon. ———,

*House of Representatives, U. S.,
Washington, D. C.*

MY DEAR MR. ———:

I am pleased to have your letter in which there is quoted a communication received from the Secretary of the Printers' Board of Trade, ———. I trust the following comments will be of assistance to you in replying to your correspondent, Mr. ———.

There appears to be some misunderstanding on his part, as he states that there has been a change in policy with regard to Government printing. This is not the case, as by Joint Resolution, approved June 23, 1860, the Superintendent of Printing was authorized and directed by Congress to establish a printing office for the purpose of producing printing and binding for the Senate, the House of Representatives, the Executive and Judiciary Departments, and the Court of Claims. Having this general policy outlined, the Printing Office was acquired in 1861, and there appears since that date to have been no change in this policy as expressed by Congress in the creation of the Government Printing Office.

It may be that the printing to which Mr. ——— has taken exception was not done in the Government Printing Office. All Government printing is not done at the Government Printing Office for the reasons that: (1) many of the Federal departments and agencies have large field plants in which they produce the work urgently needed in, or peculiar to, their respective localities; (2) the Joint Committee on Printing authorizes the various Federal agencies to procure approximately \$2,000,000 worth of printing annually from commercial sources throughout the United States for the use of the agencies in the field; (3) the Public Printer, under the law authorizing him to release to the departments for purchase by them any job which in his opinion it would be in the better interests of the Government as a whole to procure from commercial printers, releases annually another approximately \$2,000,000 worth of printing for such purchases. These are facts with which Mr. ——— apparently is not familiar.

With reference to Mr. ——'s statement that by having its work done in the Government Printing Office the Government is discriminating against the wage earners in his locality, I must say that he is again misinformed on this point, as the Government Printing Office selects its employees through the Civil Service Commission from among the wage earners in every State in the Union. Any reduction in the work of the Government Printing Office necessarily means a reduction in its force with a resultant increase in unemployment in the various localities from which the Government Printing Office employees were originally drawn. That the wage earners of the country do not agree with Mr. —— is clearly shown by the action the American Federation of Labor recently took before the congressional Joint Committee on Printing when that Committee was considering the question of turning over certain Government work to private interests. The wage earners know that such action would be of no benefit to them, and for that reason vigorously opposed the proposal.

With reference to Mr. ——'s statement that the Government, by having its work done in the Government Printing Office, discriminates against employers who pay large sums in taxes for the support of the Federal departments and agencies, the answer is that the action proposed by Mr. —— would most certainly tend to increase rather than decrease such taxes. To realize the truth of this it is only necessary to recall that it is unquestionably cheaper to have a job set up once and printed at one press run for distribution throughout the States than it would be to have the job composed and run off in 48 or more different localities. In addition, no one, in so far as this Office knows, has questioned the advisability of maintaining a Government Printing Office as a service bureau for Congress and the departments to handle jobs that could not possibly be handled with any degree of satisfaction in commercial plants, such as the Congressional Record, in some cases the large volumes of hearings that have to be gotten out practically overnight, and many tremendous departmental jobs which in order to meet requirements of law must be gotten out within record-breaking time, as, for example, the 87 million unemployment census cards.

All who are at all familiar with the production of printing know that the more work a plant has—up to its capacity—the cheaper each individual job can be produced. This is borne out by the records of the Government Printing Office, which show, by comparing the volume of work completed in 1930 with that completed in 1939, that there has been a 69 percent increase in the number of copies of printed material completed and delivered with an increase in expenditure of only 29 percent; in other words, and as stated, the greater the number of jobs, the cheaper each individual job.

It naturally follows from the above that if Mr. ——'s recommendation to decentralize the work of the Office were approved, the taxpayers' bills for printing would be much heavier than they are at present.

As to Mr. ——'s statement that "other industries do not lose as a result of Government competition, and purchases of supplies in local areas are made through local merchants and manufacturers," the comment is that the Government is in no way competing with the printing industry, as it handles no work under any conditions other than its own. As to purchases of supplies, Mr. ——, if he is a printer, most certainly recognizes the difference between the type of supplies purchased locally by the Government, and printing, which results from a manufacturing process. Mr. —— would certainly not insist that an automobile be manufactured in a town where it was to be used by the Government.

The above is only a brief outline of the situation as it appears to the Government Printing Office. If you need any additional information, we will be very glad to furnish it to you, and if we may be of further service in this or in any other matter, please let us know.

I am happy to report that no action has been taken as a result of this type of attack and that the only loss suffered by the Government as a whole so far is the time lost by various Members of Congress and the officials of this Office which they necessarily have to devote to the consideration of such misguided and unfounded charges.

DIVISION OF TESTS AND TECHNICAL CONTROL

Samples Tested

The total number of samples tested during the year was 8,864. The following is a tabulation of the various materials tested during the fiscal years 1938 and 1939:

Material	1938	1939	Material	1938	1939
Paper and envelopes.....	5,881	5,969	Oils and greases.....	42	35
Textiles.....	881	746	Gasoline.....	71	70
Bookbinding leathers.....	95	92	Chemicals.....	210	199
Metals.....	736	694	Miscellaneous.....	633	701
Glue.....	24	55			
Ink-making materials.....	376	296	Total.....	8,965	8,864
Inks.....	16	7			

There were 266 deliveries rejected for noncompliance with specifications. Of these rejections, 147 were of paper, 48 of envelopes, and 71 of miscellaneous materials.

Paper

Paper received during the year totaled 90,725,830 pounds, an increase of 7,572,967 pounds or 9.1 percent over last year. Of this amount, 2,953,663 pounds or 3.3 percent were rejected. The following is a tabulation of paper rejections and the causes for such rejections made during this fiscal year:

Cause of rejection	Number of rejections	Pounds	Cause of rejection	Number of rejections	Pounds
Deficient in—			Unsatisfactory color.....	1	38,741
Fiber content.....	1	7,725	Unsatisfactory finish.....	4	25,704
Bursting strength.....	7	78,405	Unsatisfactory writing quality.....	10	182,461
Folding endurance.....	28	617,312	Unsatisfactory erasing quality.....	3	14,575
Opacity.....	16	305,326			
Thickness.....	7	51,452	Total.....	147	2,953,663
p _w value.....	9	140,169			
Not within weight tolerance...	20	808,284			
Excessive rosin.....	1	11,589			
Unsatisfactory general appearance.....	40	671,920			

Several changes in paper specifications were made during the year. In deliveries of roll paper, nonreturnable fiber cores with detachable metal plugs are now specified in place of the 3-inch iron cores formerly permitted. Since their introduction there has been a decided decrease in the number of rolls which have had to be rewound for the press-room because of damaged or bent cores.

A requirement for smoothness has been added to the lithograph-finish map, 50 percent rag lithograph-finish map, and 75 percent rag lithograph-finish map papers in order to improve their printing qualities. The moisture content for these grades of paper has been changed from a definite percentage to a requirement that it be in equilibrium with an atmospheric condition of 50 percent relative humidity.

Because of certain difficulties from specks experienced in printing solids and halftones upon offset book paper, a requirement has been added to the specifications that the paper shall be free from lint, fuzz, and loose particles which will pick or lift under normal press conditions.

In order to obtain more permanent and durable calendered tag paper for printing tabulating cards, a p_H requirement was added to the specifications, the bursting strength increased from 50 to 60 points, and the ash decreased from 7 to 5 percent. A 3-months' normal aging requirement has also been included.

The bursting strength of pressboard has been increased to obtain a product of better quality.

The work of evaluating the printing qualities of paper was continued throughout the year. In cooperation with the National Bureau of Standards, a study was made of the effect of different kinds of fibers and fillers upon the printing properties of paper. On the semicommercial paper mill at the National Bureau of Standards, 45 book papers were manufactured from old rags, soda-sulphite wood pulp, and purified wood fibers. Clay, titanium dioxide, calcium carbonate, and zinc sulphide were used as fillers in these book papers. In addition to the usual routine paper tests, determinations were made for smoothness, oil penetration, opacity, and air permeability as a means of indicating the printing qualifications of these papers. Printing tests were also made by the letter-press and offset processes at the Government Printing Office under actual operating conditions.

As a result of this study it was found that the kind of fibers of which the papers were composed had very little effect upon their printing qualities. It is interesting to note that, among other conclusions drawn, papers containing calcium carbonate as a filler showed the

best printing qualities. The full results of this study were published in Research Paper No. 1180 of the National Bureau of Standards, copies of which may be obtained from the Superintendent of Documents of this Office.

An article on Paper Quality in Relation to Printing was prepared by a member of the technical staff of this Division for the annual meeting of the Technical Association of the Pulp and Paper Industry in February 1939. The tests used to evaluate the printing quality of papers prior to actual presswork were outlined. The instruments used in making these tests and the significance of the results obtained in predicting probable defects were discussed. This article was published in the Technical Association Papers, Series XXII, No. 1: 119, 469 (June 1939).

Envelopes

During the year the number of envelopes purchased totaled 65,433,571. Of these purchases 48 deliveries, or 3,237,185 envelopes, were rejected. The following is a tabulation of the principal causes of rejections and the number of envelopes rejected during the fiscal year 1939, together with causes for such rejections:

Cause of rejection	Number of deliveries	Number of envelopes
Deficient in—		
Folding endurance.....	32	2, 122, 185
Fiber content.....	1	25, 000
Bursting strength.....	1	5, 000
Unsatisfactory color.....	14	1, 085, 000
Total.....	48	3, 237, 185

Corrugated Fiber Containers

With a view to reducing the cost of containers for shipping United States postal cards, a trial was made of the use of corrugated shipping containers in place of solid fiber containers. After 3 months' trial of the corrugated containers in which postal cards were shipped to various parts of the United States, the Post Office Department reported them entirely satisfactory. Accordingly corrugated fiber containers have been adopted for the shipping of postal cards to replace solid fiber containers at a saving of approximately 40 percent in cost. The following specifications for quality and construction were developed for use in their purchase:

To be double-faced corrugated fiberboard, with B flute corrugations.

Box: 200-pound double-faced corrugated fiberboard. Nominal thickness $\frac{1}{8}$ inch.

Facings: To be water-resistant. Thickness, 0.016 inch. Bursting strenght, average not less than 100 points.

Corrugations: 0.009-inch kraft or strawboard.

Construction: Shall be a one-piece slotted container, sides of the box forming the seam or joint shall lap inside not less than 1½ inches, and shall have staples or stitches not more than 2 inches apart; two staples at top and bottom, ¾ inch from top and bottom.

Samples: Bidders must submit 10 pieces cut 8 by 10½ inches to show quality of stock they propose to furnish.

All dimensions given are inside measurements and are in the following order: Length, width, and depth.

Ink and Miscellaneous Products

The total production of printing inks, including mimeograph, stamp-pad, and numbering-machine inks, for the year was 368,977 pounds, an increase of 46,847 pounds over last year.

There were also produced a number of miscellaneous products which are classified as follows:

Material:

Blue toner	pounds..	25, 031
Molding wax compound.....	do....	150
Turpentine substitute for lithography.....	do....	260
Electrotype backing fluid.....	quarts..	120
Ruling inks.....	do....	2, 890
Writing inks (all colors).....	do....	21, 774
Striping ink for tabulating cards.....	do....	435
Special ink solvent.....	do....	1, 600
Lacquer thinner.....	do....	640
Mucilage.....	do....	212

Other Government departments and agencies were furnished with miscellaneous materials manufactured by the Government Printing Office.

The following tabulation compares the quantities of different materials furnished to the Government departments during the fiscal years 1938 and 1939:

Material	Pounds	
	1938	1939
Mimeograph ink, black.....	107, 897	154, 402
Printing ink, black and colored, including multigraph.....	13, 498	15, 833
Addressograph ink, blue and black.....	36	70
Writing ink (all colors).....	1 18, 578	1 22, 596
Stamp-pad and numbering-machine ink.....	6, 074	4, 594
Check-signature ink.....	683	484
Special ink solvent.....	1 428	1 488
Molded glue, including canceling-stamp composition.....	2, 591	3, 835
Paste.....	11, 173	8, 100
Roller composition.....	602	500

¹ Quarts.

Some difficulty was experienced with black ink stampings on pyroxylin-impregnated book cloth. Investigation revealed that certain plasticizers added to the pyroxylin composition during manufacture imparted an impervious finish to the book cloth which retarded the ink from adhering or anchoring. The addition of a small quantity of a butyl alcohol and butyl acetate mixture to the ink eliminated this difficulty.

Attention was given to multigraph ink during the year in connection with its use requirements by several Government departments. The formula was in certain instances modified to impart to the ink qualities suitable for their special uses. An investigation was made of several ruling inks, resulting in improvement in brilliancy of the red and brown colors. At the request of the Department of Agriculture special mimeograph inks were developed in red, green, purple, and blue colors.

Type Metal

The total amount of type metal standardized during the fiscal year 1939 was 10,123,124 pounds, a gain of 1.23 percent over the preceding year.

The following table gives in detail the various quantities of metal employed in the correction of the type metals to standard formulas. This includes metal returned for remelting, correction metal, dross, percentage increase due to correction, and the percentage loss due to drossing calculated on the quantity of metal remelted:

	Universal	Electrotype
Returned for remelting.....pounds..	9,414,260	737,223
Correction metal used:		
Lead-antimony alloy.....do.....	12,696	3,468
Tin.....do.....	7,688	1,001
Lead.....do.....	52,118	67,765
Total.....do.....	72,502	72,234
Total corrected metal.....do.....	9,330,959	792,165
Dross.....do.....	155,803	17,292
Increase due to correction.....percent..	0.77	9.80
Loss due to dross.....do.....	1.65	2.35

During the year 12,500 pounds of tin, 5,000 pounds of lead-antimony alloy, 150,000 pounds of lead, and 100,000 pounds of Universal metal were purchased by cash payment.

In addition 135,000 pounds of electrotype backing metal, 205,000 pounds of Universal metal, and 5,000 pounds of lead-antimony alloy

were bought, for which the following materials were exchanged in partial payment:

	<i>Pounds</i>
Old electrotpe plates.....	150, 000
Universal metal dross.....	176, 653
Electrotpe dross.....	18, 428
Electrotpe shells.....	14, 803
Brass rules.....	1, 155
Brass galleys.....	22, 262

Press Rollers, Glues, and Pastes

Press rollers manufactured during the year required 29,198 pounds of composition and totaled 5,725 in number. Of these, 1,352 were mechanically coated upon a specially prepared core by a process whereby the core is rotated while the hot composition is being evenly deposited upon it. For this purpose 37 additional base rollers, having a foundation of a tough and resilient composition over the steel core, were purchased during the year.

The use of sorbitol, a hexahydric alcohol, in rollers reported last year in connection with research conducted upon glycerine substitutes, has been continued throughout the year. The changes which have been made in the formulas for roller composition have produced press rollers of excellent merit and service.

A decided advantage in the use of sorbitol in roller composition over glycerine substitutes previously employed is that it permits the reclaiming of approximately 90 percent of the composition from used rollers returned from the press. This reclaimed composition replaces a substantial quantity of the glue and glycerine in the manufacture of new rollers and flexible glues.

The introduction of more effective agitation paddles in the cooking kettle and the method of cooking the composition, in addition to improved methods of oiling, heating, and chilling the molds, and of transferring the composition from the shooting kettle to the guns, have eliminated oil scars, air holes, and sinks in the finished roller.

The manufacture of molded glue during the fiscal year totaled 122,699 pounds, as compared with 126,070 pounds last year. The manufacture of glucose-glycol paste amounted to 23,000 pounds and of flour paste 95,000 pounds, as compared with 25,000 and 94,000 pounds, respectively, last year.

Bookbinding Research

The cooperative research with the Employing Bookbinders of America and the Book Manufacturers Institute, Inc., on bookbinding problems was continued during the year.

A new formula for a flexible glue was developed during the course of experimental work with sorbitol as a softening agent in bindery adhesives. This was intended primarily to overcome a tendency on the part of large thick books to crack open along the backbone between the signatures during the rounding and backing operation. This new adhesive, designated as Formula L, contains a high ratio of softening agent to glue, and this tends to slow up drying after the gluing-off operation. The formula for this flexible glue is as follows:

	<i>Percent</i>
Glue.....	22. 5
Water.....	51. 4
Sorbitol.....	25. 9
Terpineol.....	. 1
Beta naphthol.....	. 1

The grade of glue used in the above formula is that which has a jell strength of not less than 400 grams, a viscosity of not less than 130 nor more than 140 millipoises, and a p_H value of not less than 6.4 nor more than 7.

A report on flexible glues, which it is hoped may be printed as a technical bulletin in the near future, has been prepared during the year. No changes in the formulas for flexible glues given in the Annual Report of the Public Printer for 1938 have been found necessary during the year.

Mention was made in last year's annual report of assistance given to a national committee engaged in preparing suitable specifications for the printing and binding of school textbooks. That assistance was continued during the present year until the committee reached a final agreement on the specifications.

During the year the research associate of the Book Manufacturers Institute, Inc., cooperated in the preparation of a tentative classification of bookbinding techniques for use in the compilation of a classified card index of current literature.

Assistance has been given to a committee from the Roll Leaf Manufacturers' Association in investigating the tarnishing of roll-leaf imitation gold. Either flat gold leaf or roll gold leaf backed by paper has until recently been universally used for genuine gold stamping. Now roll gold leaf backed by a thin sheet of cellophane has been placed upon the market. This has been tested in the Government Printing Office and found satisfactory. Due to the fact that the cellophane sheet is only one-third as thick as paper backing, the gold impression is sharper and cleaner, giving a much better appearance to the work. In addition to producing better stamping, a saving in the time necessary for

hand cleaning of cases occurs in the bindery, and some classes of work require no cleaning whatever. As a result of tests made on cellophane-backed roll gold leaf, specifications were written for the purchase of this type of backing during the year.

Stamping-leaf manufacturers have also produced aluminum and bronze roll leaf on cellophane backing, and these have been tested and found superior to the paper-backed leaf in stamping characteristics. All aluminum roll leaf now purchased by this Office is cellophane-backed. Technical tests made on bronze roll leaf, backed by cellophane, show it to be unsatisfactory because of its poor resistance to tarnishing.

Difficulty was experienced in obtaining the proper adhesion of pyroxylin-impregnated vellum purchased for general bookbinding purposes, in binding the edges of money-order books. Investigation revealed that the temporary uses to which these books were subjected did not necessitate using a waterproof and vellum resistant binding material. Therefore a lightweight starch-filled vellum was selected as more satisfactory for this special binding purpose, and specifications have been drawn for its purchase.

In cooperation with the Bureau of Chemistry and Soils, United States Department of Agriculture, work has been continued on the development of more permanent bookbinding leathers. As a net result of this research so far, all purchases of sheepskin, goatskin, and cowhide leathers during the past year were made on specifications requiring a combination chrome-vegetable tannage, eliminating the use of straight vegetable-tanned leathers.

In general, leathers of combination chrome-vegetable tannage appear to possess greater resistance to rot than straight vegetable-tanned leather. However, accelerated aging tests of deliveries continued through the past year showed that some of these leathers did not have the expected degree of permanence. Study of this problem has failed to yield significant results, but research is being actively continued to determine those factors and materials which govern the rot resistance of combination chrome-vegetable tanned leathers.

Two sharkskin leathers, identified as Caribbean and Eastern shark, have been tried in the bindery. Extreme difficulty was experienced in forwarding the Caribbean sharkskin leather. When the leather was "broken," or softened, to enable working down around hubs, the surface was eradicated, exposing small holes and leaving a veiny appearance. Much effort was required to turn the leather at corners or joints because of its tendency to fall away. It was considered unsatisfactory for binding. In forwarding the Eastern sharkskin

leather no difficulty was encountered. This leather was pliable and soft and proved easier to work than some other leathers now being used. No trouble was experienced in the finishing process. Accelerated aging tests of these two leathers are now under way.

Electrotyping and Photoengraving Materials

Iron powder in particle size passing a 325-mesh sieve has been used to replace iron filings for oxidizing electrotypes molds. This form of iron has speeded up the process of initial deposition and requires only one-third the quantity of iron formerly used. The iron powder is purchased under the following specifications:

100 percent shall pass a 40-mesh sieve.

Not less than 90 percent shall pass a 325-mesh sieve.

Shall be free from dirt and oil.

Tests were made to determine the efficiency of commercial photoengraver's zinc having an electroplated metallic backing which is resistant to the attack of nitric acid in the etching process. This eliminates the necessity of using such materials as shellac or asphaltum, generally used to protect the back of the zinc plate from acid attack. The use of this type of zinc has the advantage of saving much time and labor in the production of zinc cuts. After a thorough trial of this material the foreman of the Photoengraving Section reported it as being satisfactory. As an economy measure, zinc with this metallic protective backing has been adopted for regular use in the Government Printing Office. The following specification was written for its purchase:

Sizes: 15 by 36 inches and 30 by 40 inches.

Thickness: 0.065 plus or minus 0.002 inch.

General requirements: Shall be soft by etching and routing tests, and be uniformly attacked by the etching acid. The back of the zinc plate shall be acid-proofed by application of a thin, smooth, permanent, acid-resistant, electrolytically deposited metal coating. This coating shall permit five etching bites on the face of the plate, in the usual acid etching bath, without showing erosion.

Chemical requirements: Zinc, not less than 99.28 percent; lead, not more than 0.40 percent; cadmium, not more than 0.30 percent; iron, not more than 0.016 percent.

Assistance to Other Departments

As in previous years, the Government Printing Office, through the Division of Tests and Technical Control, has rendered valuable assistance to the various Government departments in connection with

technical problems pertaining to paper, ink, type metal, glue, book-binding, and various printing processes.

An example may be cited to illustrate such assistance to the departments during the year: At the request of Mr. Edward J. Shaughnessy, Deputy Commissioner, United States Department of Labor, Immigration and Naturalization Service, a study was made of methods of preventing alterations or forgeries of immigration reentry permits. A report was made to the Deputy Commissioner outlining the results of our study, with suggestions of means tending to the solution of this problem. The following letter of appreciation was received from Mr. Shaughnessy:

I wish to thank you for your very exhaustive study in connection with the matter of perfecting some method by which to minimize the forging of reentry permits. At the first opportunity I shall be glad to go into the matter further with you in the hope that a solution may be found for the problem.

The work of putting recommended means for accomplishing this purpose into practice is now in progress.

Publications

During the year the following publications were prepared by the Division of Tests and Technical Control:

"Permanence and Durability," Technical Bulletin No. 22.

"Tentative Condensed Classification of Printing Industry Techniques," Technical Bulletin No. 23.

"Paper Quality in Relation to Printing," Technical Association Papers, Series XXII, No. 1 (1939).

"Effect of Atmospheric Humidity on Paper and Printing," Paper Trade Journal, Vol. 108, No. 26 (June 29, 1939); Paper Mill and Wood Pulp News, Vol. 62, No. 32 (August 12, 1939).

"Paper Defects," Paper Trade Journal, Vol. 108, No. 26 (June 29, 1939); Paper Mill and Wood Pulp News, Vol. 62, No. 32 (August 12, 1939).

Contact with Printing, Binding, and Allied Organizations

As in previous years, this Division has continued to maintain co-operative contacts with the United Typothetae of America, Lithographic Technical Foundation, American Newspaper Publishers Association, Technical Association of the Pulp and Paper Industry, American Society for Testing Materials, American Standards Association, and the Printing and Allied Trades Research Association of Great Britain.

Correspondence

Technical information gathered from the investigation of printing problems and the overcoming of difficulties which often arise in the Government Printing Office has proved an invaluable source of help to the printing, bookbinding, and allied industries. Each year more than a thousand letters of inquiry, from all parts of this country and from foreign countries, are answered to assist in the solution of printers' and bookbinders' problems which are also the problems of the Government Printing Office. The expressions of appreciation in response to this service are very gratifying and are an indication of the general trend throughout the trade for more scientific knowledge of the causes and effects upon which the advancement of the art of printing depends.

THE ANNUAL REPORT OF THE PUBLIC PRINTER

PRODUCTION

CONGRESSIONAL PRINTING

Most of the printing for the first session of the Seventy-sixth Congress was included in the charges for the fiscal year 1939. During this session 16,263 pages were printed for the Congressional Record, an average of 98.6 pages per issue, which is 4.3 pages less per issue than for the preceding Congress. It is interesting to note, however, that for the last week of Congress the Record made 1,111 pages, an all-time record for any one week.

The bill work for the session was very heavy, there being a total of 21,927 bill prints, an increase of 9,816 prints over the preceding session.

Committee reports and documents were about normal in number but there were some very large and unusual committee prints, notably those on the Senate Transportation Bill and the report on the Tennessee Valley Authority. There was a total of 3,235 editions of House and Senate reports and documents.

The hearings this year ran exceptionally heavy. Besides the 41 House and Senate appropriation hearings, making 20,645 pages as compared with a total of 16,386 pages for 1938, 349 other hearings were printed. The total number of pages of hearings was 93,703. The appropriation hearings often taxed our capacity and frequently required overtime to complete. On one night, the House Appropriations Committee sent 2,224 folios of copy on one hearing. This made 786 pages of type and required nearly 9,500 page proofs. All this work was prepared by our copy preparers, and the proofs were delivered in the morning.

The following statement gives a summary of congressional work for the first session of the Seventy-sixth Congress:

Record:

Total pages.....	16, 263
Senate.....	5, 276
House.....	5, 949
Appendix and miscellaneous.....	5, 038
Daily average of pages.....	99

Bills:**Senate:**

New bills.....	2, 974
Joint resolutions.....	186
Concurrent resolutions.....	29
Simple resolutions.....	181

House:

New bills.....	7, 541
Joint resolutions.....	380
Concurrent resolutions.....	34
Simple resolutions.....	294

Total new bills.....	11, 619
Total prints.....	21, 962
Total bill forms.....	14, 738

Reports:

Senate.....	1, 154
House.....	1, 471

Documents:

Senate.....	129
House.....	471

COMPOSING DIVISION

The year's work in the Composing Division has been one of unusual activity, the amount of work being in excess of that in any year since 1918. Eighty-one thousand jackets were handled, as compared with less than 79,000 last year. During the year 2,169,470,000 ems of composition were set and made up by the Linotype and Monotype Sections, an increase of 8,000,000 ems over the preceding year. Of this total, 1,164,655,000 ems were set on slug-casting machines while 1,004,815,000 were monotype composition. Nearly 1,000,000 folios of copy were prepared and read by the Proof Section, excluding congressional work, Patent Office work, and the work for the Library of Congress. During the year the Hand Section imposed and sent to press 57,634 forms for the printing of document work.

The Plating Lock-up Section prepared 152,443 pages of type for electrotyping and stereotyping. The Job Section also felt the increase in work, as revealed by the handling of an additional 1,113 jackets over the preceding year, bringing the total to 42,285 jackets. The Patent Section experienced the largest single increase of the Division and will be treated in a separate section of this report.

Every effort is being made by the officials of the Composing Division to reduce the cost of operation and at the same time to maintain the standards required for good work. Throughout the Division it is evident that the employees are cooperating with their foremen toward

this end. As revealed in the first paragraph of the report of this Division, a substantial increase in the volume of work was received, yet the Division operated with approximately 50 less employees than during last year.

A study was made of the problems involved in the make-up of the Federal Register and the Congressional Record, with the result that a new twin make-up bank was designed by our officials and constructed in our machine shop. This greatly facilitated the make-up of these two publications and contributed substantially to our ability to absorb the great variation in the number of pages and yet to adhere strictly to our delivery schedule. The linotype machinist in charge, working in collaboration with his foreman, completed a control study of replacement and repair parts for typesetting machines, resulting in the reduction to an average cost of only \$20 per machine per year for parts and supplies. Steel cabinets have been designed and constructed for the storage of make-up in the Monotype Section.

The statistical and fact-presenting nature of Government publications requires the use of a large amount of tabular matter. The headings for these tables are set by monotype machines and the head and column rules are inserted by hand after the type is cast. It is not uncommon for this hand work to require more time than the actual setting of the heading type, and the accuracy of the hand ruling depends upon the manual skill of the employee. During the year the Production Manager proposed a method of using special low-alinement monotype dashes designed to conform with normal-character monotype matrices for the machine composition of horizontal heading rules. It is now possible for the monotype operator to compose the horizontal ruling of all headings at the time of setting the wording. This machine composition of the rules requires no extra time, as quads would otherwise be needed for positioning by the keyboard operator. All hand work incidental to horizontal ruling of box headings is thus eliminated, with a saving of time. The alinement of the ruling is excellent and the printed result is superior to the old.

A notable improvement developed by the foreman of the Proof Section during the year has not only tended toward an increase in production per employee but has also increased the quality of proof-reading. The larger part of governmental work heretofore was first proofread with the assistance of a copy holder; this was followed by a silent reading. By reversing this procedure and having the silent reading performed first, the reader is better able to detect errors in general instructions, typographical lapses, wrong fonts, and so forth.

Upon second reading, with copy, the reader is not required to interrupt the copy holder nor to divert his own attention from copy comparison for the marking of typographical errors, machine faults, and similar corrections. This procedure, due to the higher degree of concentration obtainable, improves the quality of printed matter.

PLATEMAKING DIVISION

During the fiscal year 1939 the Platemaking Division produced 15,126,270 square inches of plates. The following figures are in square inches for each class of plate produced: Electrotypes, 6,037,986 square inches; stereotype plates, 4,961,637; stereotype, mats only, 982,274; rubber plates and stamps, 56,162; photoengravings, 828,459; and offset negatives, 2,259,752.

The Plate Vault handled 32,440 requisitions for plates. It released 455,648 pounds of stereotype metal and 224,241 pounds of electrotypes metal for remelting, and 12,496 signatures of book plates were received for storage.

Improvements in equipment and methods are being carefully watched and are being adopted as they prove applicable to the work of the Office. The recent installation of a new-type vertical curving machine for electrotypes has effected a great improvement in the quality of our curved plates and now permits the curving of two document pages at one operation. This has resulted in a saving of 4 square inches of electrotyping per form and a reduction in the required lock-up time per form in the Composing Division. Through the adoption of a new quality of iron powder, oxidizing speed has been increased, and a reduction has been effected in the yearly consumption of iron powder from 5,000 to 1,500 pounds, resulting in substantial savings of money for material and time of the operators. The cost per square inch of electrotyping has been greatly reduced during recent years.

Late developments in electrotypes and stereotype molding materials adapted to the work of this Office have been very interesting, and their adoption has both produced satisfactory results and has been a large factor in lowering our costs. Electrotypes come from the foundry to the Finishing Section in better condition, with a consequent reduction in finishing operations.

Experiments and studies were begun during the latter part of this year in the use of dry mats for a large part of our stereotyping. At the time of writing this report, it has been demonstrated that on much of the document work the use of the dry mat will effect a material saving in the amount of type reset, due to the quicker

wearing out of the wet mats, many more casts being possible from a good dry or plastic mat. Data from the Accounting Section as to the cost of making wet mats are used in determining the procedure most likely to effect the greatest economy in production of work.

In the past year, due partly to the introduction of dry mats on certain classes of work and due also to economies effected in making wet mats, our entire mat costs have been greatly reduced.

The year 1939 has been an interesting period in the Photoengraving Section owing to an increase of 40,000 square inches over last year's production. This indicates that the use of illustrations in Government printing is increasing. A study made of the trend of photoengravings during the past decade reveals remarkable facts. A production of 23,000 square inches of combination engravings in 1936 nearly equaled the 3-year period 1930 through 1932. Since that time the production of this type of plate has increased steadily to reach 51,838 square inches for the year just closed. Halftone production has fluctuated from 143,000 square inches in 1930 to 75,000 square inches in 1934 and to 186,000 square inches in 1939. The production of zinc etchings has remained more nearly constant than any other type, varying only from 515,000 square inches in 1930 to 590,000 square inches in 1939. The most phenomenal trend is in the production of offset negatives during the past 10 years. Beginning with 333,332 square inches of negatives in 1930, the yearly volume reached 680,437 square inches in 1935. The remarkable production for the past fiscal year of 2,259,752 square inches emphasizes that the offset process, from the standpoint of economy, efficiency, and quality, is adapted to certain kinds of governmental printing, due in large part to the perfection of offset machinery.

The trend toward the use of combination engravings has brought with it the further need for general explanation to the departments of the technical limitations involved. Through personal contact with department executives connected with printing and binding, a considerable amount of money has been saved for them by explaining the methods and precautions to be observed in preparing copy for photographing. The use of our strip-film camera makes possible the photographing of copy from both line and halftone engravings on the same film. This makes possible savings in the cost of the negative inserts, formerly somewhat expensive.

An interesting evolution in skill, methods and machinery employed, and in cooperation of employees is illustrated in the 10-year comparison of photoengraving referred to above. In 1930, 19 men worked 48 hours a week to produce 669,000 square inches of plates

for the year. During 1939, 23 men worked 40 hours a week (a total increase of but 8 man-hours per week) to produce 828,459 square inches.

PRESS DIVISION

As indicated by the increased volume of work flowing through the Divisions herein reported, the Press Division felt the increase toward the end of the fiscal year. It was found necessary to increase the force in order to operate the presses 24 hours a day. The total number of impressions for 1939 was 1,155,503,148, an increase of 14,413,117 over 1938. The increase as reported is not fully indicative of conditions of production, as it does not reveal the full extent of the improvement effected through the use of a greater number of large-size sheets and the consequent increase in copies printed at each impression. Through the cooperation of the Composing and Planning Divisions the forms came to the Press Division in the most economical and practical sizes.

The number of jackets handled by the Division as a whole rose to 61,902. Postal cards printed for the Post Office Department dropped to 2,136,042,180 from the 1938 figure of 2,240,766,100. The production of money orders was substantially the same as during 1938, a total of 261,804,697 being delivered during the year.

With the contemplated move into the new building, which makes possible the realinement of equipment and the installation of some new presses, consideration has been given to the type of presses best suited to the needs of the Office. The Accounting Division has made exhaustive studies of the classes of work received in the Office for the purpose of determining the most practical means of production and the advisability of a revision in the format of the work. The result of these studies, which included the consideration of all work printed during the past two years, has been the adoption of a program for the replacement of old and obsolete equipment with new presses better suited to the changes in the work of the Office resulting from developments within the Government departments. Contracts have been placed for 30 presses to be installed directly into the new building, to be in operating condition prior to the moving of the Division from the old building to its new quarters. It is believed that the plan developed for the move into the new building will permit continuous production of all congressional and departmental work without a single material interference.

The capacity of the offset printing equipment in the Government Printing Office was increased by replacing two small and old presses

with two large-size offset presses of the same general nature. A steady increase has been noted in the volume of color work handled by the Office in recent years, and during the year the volume reached a point making it advisable to purchase a two-color press. This press has been in continuous operation on color work since its erection and the saving made on two-color printing has proved the wisdom of its purchase. The Postal Card Section has from time to time found it necessary to operate a night shift. During the year, a new rotary web press was installed to provide for increased production planned to eliminate night work and to insure against mechanical breakdown causing production losses. Three rotary web presses, replacing old equipment, were installed for the printing of money orders. Five new high-speed cylinder presses procured to replace old, worn-out presses have proved to be a decided benefit to the Office. Increased speed and greater accessibility and availability of operating mechanisms, permitting quicker preparation or make-ready, have reduced operating costs. These reductions are, of course, passed on to the departments through reductions in their printing bills.

BINDERY DIVISION

As all work of the Government Printing Office must pass through the Bindery Division, there is a constant effort to prevent congestion. The increased volume was particularly difficult to handle in the bindery because it has been even more handicapped for operating space than the other Divisions.

In this and previous reports attention has been called to the introduction of new production features, improvements in methods, and innovations in the use of present machinery. Such features have been installed in the bindery as well as in other divisions. For example, an order was received for 660,000 case binders for the Federal Housing Administration. This order required reinforcing through the gluing of flaps. No existing machinery was designed for such operation and normally it would have been performed by hand. Such a method would have resulted in the completion of approximately 4,000 cases per day. Experiments were conducted and one of the mailing machines designed for the wrapping of publications for mailing was adapted to the work. The result was a machine production of over six times as much per day as hand work, with a final unit cost of less than 30 percent of what the latter would have cost.

Another economy was effected by employing a flexible-shaft machine to clean book cases after they were stamped. This work heretofore had always been done by hand, and the normal production had been

approximately 50 cases per hour. With the aid of the newly developed machine a production of over 175 per hour has been achieved with an improvement in the quality of the work.

An order which arouses annual interest and concern is the Yearbook of the Department of Agriculture. This year the book amounted to 252,260 copies of 39 double signatures, making a volume of approximately 2 inches in thickness and containing 1,232 pages. Each year the production of this order has caused concern, due to the fact that its great size and volume require careful routing and control to prevent interference with normal flow of work. A new production plan was followed this year whereby the order was handled in blocks of 50,000 copies each and was maintained from one operation to another in blocks without interfering with normal production, and yet permitted delivery earlier than anticipated.

Large rush orders have become almost routine; an illustration of such an order was the binding of 110,618 volumes of Income Tax Regulations within 8 one-shift days from the time it reached the gathering stage.

During recent years a number of novel and practical methods of binding have been developed and adopted by binderies and book manufacturers. They consist in the use of wire, metal, and plastic materials inserted by punchings along the back of the book and producing flat-opening bindings semi-loose-leaf in construction. The Government Printing Office has installed machines for the production of such work, thus allowing Government departments a wider range in the binding of their publications.

PATENT OFFICE PRINTING

There was an increase in the number of patent specifications printed in 1939 as compared with those in 1938. The total printed in 1939 was 58,073 as compared with 52,714 in 1938. The number of pages in 1939 totaled 158,906 as compared with 140,183 in 1938. There were also printed during the year 179 decisions, 223 disclaimers, and 28 certificates of correction.

The Official Gazette, issued weekly, made 15,396 type pages in 1939 as compared with 13,768 pages for 1938. For the Gazette, 56,280 illustrations were made in 1939 as compared with 51,059 for 1938. The total number of copies of the Official Gazette and Annual Indexes printed in 1939, including copies for the Patent Office and those ordered by the Superintendent of Documents for sale, was 233,038 as compared with 227,607 in 1938.

Part of my report for the fiscal year 1938 (beginning on page 27) was devoted to the problem the Office faced during the year in meeting the attempts made by a private concern to secure a contract for Patent Office work. The private interests seeking the patent work led the appropriation subcommittee considering the appropriation for the Patent Office to believe that it could handle the work for \$100,000 less than the amount for which the Government Printing Office was then doing the work. As a result, the committee reduced the appropriation to the Patent Office by \$100,000. The Appropriation Committee, in its report commenting on this reduction, stated that it hoped the Joint Committee on Printing would consider the use of new printing methods very thoroughly, indicating that it thought that economies running into hundreds of thousands of dollars annually would be made possible as a result. In accordance with this, the Joint Committee on Printing went very thoroughly into the proposition submitted by those seeking to do the patent work by alleged new methods. The high lights of the hearings were outlined in my last annual report. It is, therefore, sufficient here to say that it was clearly demonstrated that no saving would have resulted from the transfer of the work from the Government Printing Office; that instead the Government as a whole would have lost approximately \$100,000 as a result of such transfer and would not have had the assurance of satisfactory and uninterrupted service that it now enjoys. I also advised the committee that the Government Printing Office was making every possible effort to determine the cheapest and best way to produce every job submitted to it and that, with specific reference to the patent work, plans were at that time nearing completion which we believed would enable the Office to do the work for even less than the figure quoted by the private concern. Shortly after the hearings and before the beginning of this fiscal year these plans were ready for discussion with the Commissioner of Patents. During the discussions it developed that it would be impossible to reduce charges for Patent Office printing by an amount even approximating \$100,000 and still perform for that office the many services with relation to the preparation of copy for printing which it was then performing and to deliver the same high-quality product. In other words, the plan required certain changes in the policy of the Patent Office with reference to its printing and called for the closest cooperation between the Patent Office and the Government Printing Office. It was estimated that under this plan printing costs could be reduced by approximately \$70,000. The Commissioner of Patents agreed to the proposal and the entire plan was set in

operation on July 1, 1938. The result of its operation for 1 year shows a reduction in the total charges for Patent Office printing of \$75,842. This is the difference between the total bills rendered for 1938 and for 1939. Included in this reduction has been the 12 percent increase in volume indicated in the first two paragraphs under this heading. It is with definite satisfaction that I point to this accomplishment as an indication of the results to be achieved by mutual cooperation between governmental departments and the Government Printing Office.

A continuation of the development of the revised plan as started during 1939 indicates that additional economies will be made, further reducing the cost of patent work. In my report for 1938 I stated that the commercial contract proposed before the Joint Committee was based on figures which in effect were erroneous. I also stated that the character of patent work and our knowledge of the problem was such that its successful production depended on its continuance in the Government Printing Office. Today the rates charged for Patent Office work are less than the rates proposed in the contract considered by the Joint Committee, and I desire to thank the Commissioner of Patents and the officials and employees of his office as well as those of the Government Printing Office for their cooperation, aid, and assistance in making this possible.

TABULATING-MACHINE CARDS

The manufacture in the Government Printing Office of cards for use in tabulating or electrical accounting machines has in the past been a source of complaint from some of the Government departments. Realizing the extensive use of the machines by the Government and the vital part played by the cards in the successful operation of the system, an exhaustive study was authorized of the conditions which affect both the production and use of tabulating-machine cards for the purpose of determining the cause and eventual elimination of complaints.

The necessity for these studies arises from the fact that the Government Printing Office, by manufacturing and supplying these cards, is largely responsible for the accurate performance of highly complicated electrical accounting machinery. The following is taken from a report on this subject: "Irrespective of the finest mechanical, electrical, and engineering skill expended on the machines, accuracy in accounting or other machine uses cannot be assured if the cards which actuate them do not have the proper size, texture, and quality to withstand the operations which they must pass through." The slightest failure

of the card to actuate the machine precisely as intended may result in completely destroying the value and accuracy of important accounting and statistical studies. The combined efforts of large staffs of employees working in conjunction with highly efficient electrical equipment, costing the Government thousands of dollars per month in rental, might be rendered entirely useless through the production by this Office of unsatisfactory cards costing only a fraction of the other investments involved. It was determined that the card stock available for purchase by this Office and its equipment and experience in their manufacture were not sufficient to guarantee satisfactory production of the larger and newer type of tabulating cards. Therefore, the Government Printing Office notified the departments that until satisfactory cards could be guaranteed, either the cards would be purchased for them by this Office from commercial dealers or the departments would be authorized to supply their own needs from commercial sources. It was determined, however, that applications for the cards both in the Post Office and the General Accounting Office were not affected to an appreciable extent by the action of the cards delivered by this Office; neither were the machines appreciably affected; and under these circumstances we would continue to furnish cards for these activities. The total tabulating-card production for this type of work and other miscellaneous orders during the year amounted to 382,262,500 cards. The Government Printing Office tabulating-machine installation is being used as the trial laboratory for the experiments and tests that are still being conducted; the majority of the cards thus being used are printed in this Office. While this undoubtedly has caused an increased cost of operation of the machines in the Accounting Division, it is considered to be the most practical means for conclusive experiments.

In addition to these actual running tests, the Technical Division is continuing its analysis of various stocks produced for this purpose. When the results of these technical experiments and investigations, coupled with actual running experiments, demonstrate that this Office is in a position to guarantee performance of its product and so assume responsibility jointly with the manufacturers of the accounting machines for the correctness of the financial statements and statistics desired by the agencies, it will immediately resume the printing of these cards.

STORES DIVISION

June 30, 1939, completed the first fiscal year for this Division in Warehouse Building No. 4. This year set a new record for actual

number of freight cars unloaded—2,402 carload lots of paper, material, and machinery were received. Paper accounted for 2,365 cars, totaling 94,368,174 pounds gross weight. Miscellaneous materials and machinery accounted for the remaining 37 cars, amounting to 1,195,371 pounds. This is an increase of 302 cars over the previous year's receipts and, with the addition of the less-than-carload lots of paper, envelopes, materials, and supplies received from various sources, shows a daily average of approximately 11 carloads, or one carload per day more than last year. In addition to the carload lots noted above, 2,229,788 pounds gross weight of paper were delivered by outside trucks. The net weight of all paper amounted to 90,725,830 pounds.

The experiments conducted with nonreturnable fiber cores mentioned in the 1938 report have been entirely successful as far as the 3-inch-diameter cores are concerned. Six-inch iron cores are still used on postal-card, bristolboard, and tagboard rolls. Orders drawn on the Superintendent of Stores for the issue of paper and envelopes amounted to 91,980 and for material and supplies 33,690. Issues of some of the principal items of materials and supplies to Government departments and to this Office were as follows:

Standard forms.....	copies..	31, 667, 325
Mimeograph ink.....	pounds..	176, 964
Printing ink.....	do.....	210, 144
Continuous forms.....	sets..	6, 187, 880
Copy paper and blank paper.....	copies..	3, 680, 000
Writing ink.....	quarts..	80, 319

LIBRARY OF CONGRESS BRANCH COMPOSING AND BINDING SECTIONS

As indicated in my last annual report, the Library Composing Section of the Government Printing Office was moved into its new quarters in the new Annex of the Library of Congress on February 1, 1939. It occupies an area of 11,151 square feet.

After the approval of a carefully laid out plan, specifications were drawn up for the purchase of all new steel equipment, awards were made to the lowest bidders, and delivery was made on specified dates. Twelve new slug-casting machines were erected and placed opposite a predetermined electrical floor outlet, and matrices were run in, proved, and checked on all machines. Three hundred and fifty cases of new hand type were laid and printed labels were inserted in holders, all sort-storage cabinets were filled, lead and slug racks checked, proof presses and line-up tables were tested, and the new cylinder presses

were erected and put in running order. Job presses and cutting and drilling machines were positioned and tested, and the necessary paper stock and forms for the presses were arranged for.

The moving date of February 1, 1939, was set in advance and all employees reported for work as per schedule on that date. One cylinder and one job press continued to run in the main Library building until their runs were completed. Thus removal into the new quarters was accomplished with a minimum loss of production in the composing and pressroom divisions.

This removal was made necessary because of the increase in library-card orders from year to year and the lack of available room for expansion in the main Library building. An idea of the congestion can be gained from reports of the chief of the Card Division in the annual reports of the Librarian of Congress. His 1936 report reads in part as follows:

In last year's report I expressed the hope that measures would be taken which would prevent repetition of the congestion in the Library Branch Printing Office that had prevented us from giving the subscribers a satisfactory card service.

Part of the 1937 report reads:

The congestion in the Library Branch Printing Office discussed in the report of this Division last year and the year previous has continued to increase.

The 1938 report states:

It is again necessary to report chronic and increasing delay in the production of the cards. The average periods required to produce cards for publications of the various classes have increased fully 20 percent in the past 5 years. They are so much longer than the periods named in the sixth edition of the Handbook published in 1925 that those figures have come to mean very little to the subscribers. Their dissatisfaction with the present service is registered in an increasing stream of queries and complaints.

Part of the delay in supplying cards at the present time is due to inadequate printing equipment. The new Library Branch Printing Office, to be put in operation in the Annex, should overcome the delay as to printing and reprinting, that office being a thoroughly capable and efficient organization which can be counted on to do its work properly if adequate equipment and funds are provided.

Adequate space and equipment have been provided, and it is gratifying to note that on February 1, 1939, the day the new quarters were formally occupied, there were 22,000 titles, or library-card orders, on hand. Without the aid of a night shift, this section has reduced the 22,000 titles to 6,000 titles, which indicates satisfactory progress in completion of delayed orders. The Library officials heartily commend this achievement, as they are now able to render much better service and have reduced the expense of correspondence due to delayed deliveries.

Numerous visitors who have inspected this modern printing office have commented on the many up-to-date features, such as controlled air-conditioning, sound-proof construction, indirect lighting, all-steel equipment, straight-line production, 15-foot ceilings, and Venetian blinds on all windows—a modern print shop second to none.

The most important addition to the composing-room equipment consists of 12 streamlined slug-casting machines of the latest design, 4 of these machines being 8-magazine Model F mixers, each equipped with 4 main and 4 side magazines, and 8 Model C 3-deckers, each equipped with 3 main and 3 side magazines. All auxiliary magazines carry 34 of the most frequently used accents, a great benefit when 30 percent of the titles set include 60 or more languages and dialects. One Model F is capable of setting Russian and English in the same line, while another is similarly equipped for setting Greek and English, and the other two are equipped to set black-letter and roman. Each of the 8 nonmixers carry fonts in addition to the 8- and 10-point roman required for card and book composition.

The proofroom is another attraction to all visitors interested in printing. This room is completely enclosed with steel and glass partitions and is sound-proofed and air-conditioned. The six steel olive-green proofreaders' desks are of the very latest design. One feature is the sound-deflecting boards at the ends and backs of these desks, making it possible to locate the proofreaders nearer to the source of supply, with minimum disturbance from the usual noise in a proofroom. The reading boards are adjustable to any convenient angle and can be completely removed from the flat top of the desk. Each reading board is equipped with a bail at top and bottom which makes it possible to maintain a clean, smooth writing surface at all times; at the top of the rear sounding board are five open bins for convenient storage of proof and copy. Each desk is equipped with two lighting fixtures consisting of two parabolic shades mounted on flexible conduits. The necessary steel bookshelves and filing cabinets are included in the equipment.

A large proof press with inking attachment, and a craftsman line-up and register table for a 25- by 38-inch sheet is also new equipment. With this it is now possible to prove, correct, line up, and register all forms before going to press, thus saving many hours of press-standing time. Previous to this installation 8 forms a day, each form of 40 library cards, were printed on each cylinder press; now it is possible to print from 12 to 16 forms a day on one cylinder press. The addition of two 12- by 18-inch automatic job presses has enabled the Library Branch pressroom to reclaim most of the job work that

had previously been printed in the main office. The past four months showed a 35 percent increase in job work over a like period of the preceding year. The installation of these 12- by 18-inch automatic job presses has enabled the Library Composing Section to make daily deliveries of "special rush" library cards and all "extra one-hundreds," and, most important, it enables this section to make full delivery on all large orders of new cards; previously only part deliveries were made. These cards are now printed 10 at each impression and it is possible to print from 40 to 45 forms a day on one press. The chief of the Card Division of the Library of Congress has voiced his approval regarding these deliveries and has commented favorably from time to time regarding improved conditions in general.

As to the production, the plant is at present geared to print 3,000,000 cards per month in addition to about 240 thousand 5- by 15-inch by-sheets. This section has also taken over the printing of the entire Catalog of Copyright Entries, totaling over 6,000 pages per annum, the greater part of which was formerly printed in the main office because of inadequate equipment in the main Library building.

The following statement shows the production record for the Library Composing Section for the fiscal years 1937, 1938, and 1939. The reduction of jackets written and jackets closed out in 1939 is due to combining many jackets previously written as single jackets.

	1937	1938	1939
Chargeable impressions.....	32, 107, 634	38, 076, 724	38, 458, 891
Actual impressions.....	2, 731, 496	2, 785, 473	3, 311, 205
Chargeable forms sent to press.....	9, 274	9, 272	10, 660
Actual forms sent to press.....	5, 174	5, 809	8, 091
Subject headings—lines sent to press.....	140, 993	127, 617	186, 272
Subject headings printed.....	426, 332	382, 851	558, 816
Jackets written.....	1, 142	1, 041	975
Jackets closed out.....	1, 129	1, 065	971

The Library Binding Section of the Government Printing Office moved into its new quarters in the new Annex of the Library of Congress on April 3, 1939. The bindery has a total floor area of 10,820 square feet.

All the new equipment purchased for the Library bindery is of steel construction and finished in an olive-green baked enamel. This modern equipment has been placed so that the maximum production can be accomplished with the least expenditure of time and human energy.

A new 44-inch precision electric automatic-spacer paper cutter was installed in the pressroom in line with the battery of presses to carry out straight-line production. This machine is used to cut all paper stock for the presses and all library cards. It cuts so accurately that

40 cards cut separately from a sheet, then stacked together, will appear as though cut at one stroke. As these cards are sold to libraries all over the world and must fit a standard-size file case, exactness and consistency of size is essential.

A new heavy-duty paper-drilling machine, hollow-drill type, is lined up with the cutting machine and drills a $\frac{5}{16}$ -inch hole in the cards and will drill as many cards as the paper cutter will cut in a day.

In the forwarding unit there are 21 steel tables with maplewood tops $1\frac{1}{2}$ inches thick, and a built-in jogging or pounding iron, also a large drawer for storage of tools; the tables are equipped with electric glue pots. The installation of the iron in each table is a saving of many steps each day. Back of these tables is a steel table with a masonite top used to hold both finished and unfinished work. This enables the worker to do more and efficient work, as his work table is clear at all times for the particular job in hand.

Four board shears are lined up with these tables so that each worker must traverse only a short distance to cut his boards. Two new roller book-backing machines, self-centering adjusting type, are conveniently located at the ends of the tables. These machines have greatly reduced the hand labor and have increased the production on backing of books. The addition of a pneumatic standing press eliminates the dangerous manual labor that was necessary on the old presses; this press is capable of greater pressure and turns out a solidly made book.

One large steel shelving unit with six compartments is near the board shears and is used for storage of binder's board and is both neat and convenient. One steel cabinet with four compartments and doors is used for storage and preservation of glue. Two steel cabinets with six adjustable shelves are used for the storage of bindery supplies. One 7-inch ball-bearing grinder, pedestal type, equipped with safety eye shield and goggles, replaces an old and obsolete grinder. Six large steel shelving units with various-size compartments are used for storage of sewed books; this arrangement is a great protection for the books and keeps the separate groups in proper order.

Nine steel racks make ideal protection for press boards when the latter are not in use. Four steel tables with masonite tops serve as stock-cutting tables and for storage of books. One reconditioned 44-inch cutting machine trims the edges of books and does miscellaneous cutting for the Library, and in case of emergency can be used to cut library cards. One drilling machine with two heads is used for miscellaneous drilling and can be used to drill library cards.

The stockroom contains one heavy steel shelving unit with eight

shelves which store heavy rolls of buckram. One large cabinet protects valuable skins of leather. Four steel tables with masonite tops serve as stock-cutting tables and are used for the storage of books awaiting completion.

In the finishing unit there are 30 steel tables with masonite tops. Eighteen of these tables have a 14-inch shelf which serves as storage for the finisher's work in hand. Each table has also a large drawer for tools and supplies. Twelve tables are equipped with electric stoves to heat tools and type used in the finishing of books. Type cabinets are arranged on shelves under the tables and at the ends of the table so that they are accessible to each man. One steel cabinet with six adjustable shelves is used for storage of finisher's supplies. The new book-finishing and stamping machine has proved to be a very wise investment, as it is used to stamp all leather titles and set books which were formerly done by hand. These methods contribute to speedier production.

In the sewing unit there has been great improvement in working conditions for women employees. This unit was formerly crowded into a small room where many women worked at one large table and were seated on wooden chairs of various descriptions. In the new unit there are 10 steel bindery tables with masonite tops; each table is 10 feet long and accommodates two women. Special-type chairs were obtained for the women employees of this unit. Each chair is adjusted for the comfort and correct posture of its user and has greatly reduced the element of fatigue.

Six steel tables with stainless-steel tops were obtained for use in the dampening of newspapers for pressing and binding. They have proved to be very satisfactory. The new compressed-air press is a great improvement over the old-style hand press in that it not only makes newspapers and books more smooth and solid but also does away with the use of a heavy iron bar that has caused injury to a number of men in the past. Twenty-two steel tables with masonite tops are used for work tables and the storage of books; and two steel shelving units are used for the storage of end papers and sewed books. One large steel cabinet with doors protects paper stock. One steel cabinet with six adjustable shelves and doors is used for the storage of sewing supplies. One reconditioned 32-inch paper cutter was added to the equipment and proves very satisfactory.

The moving of the bindery into its new quarters was accomplished without confusion and with a minimum loss of production. Each bookbinder assembled his uncompleted books and his tools on a portable table and proceeded through the connecting tunnel to his

designated work table in the new annex to the Library, where everything was in readiness for the continuance of his work.

For the past 2 years the Library Binding Section, due to lack of space, was unable to satisfy the demands of the Library of Congress and was compelled to send much of its work to the main office. This condition was alleviated by moving into new quarters, and the section is now able to handle all its work without sending any away. With the additional space and equipment, the Binding Section is now in a position to clear up the 314,000 volumes to be rebound as soon as funds are available.

The following table shows the comparative production records of major items for the fiscal years 1937-38 and 1938-39:

Class of work	1937-38	1938-39
Volumes bound and lettered.....	33, 525	35, 801
Volumes newspapers bound and lettered.....	1, 895	2, 056
Extra lines of lettering in gold.....	104, 933	120, 017
Miscellaneous cards cut and drilled.....	1, 370, 597	1, 426, 486
Miscellaneous sheets cut.....	3, 836, 128	4, 904, 896
Block dummies covered with paper.....	4, 690	5, 152
Miscellaneous pads made.....	14, 319	16, 499
Miscellaneous card corners cut.....	1, 832, 000	2, 401, 400

DELIVERY SECTION

The incoming and outgoing carload and less-than-carload shipments of freight, which once constituted an important item in the Delivery Section, have been practically eliminated through the construction and operation of No. 4 warehouse and the establishment of the free pick-up-and-delivery service by the several railroad companies. However, during the year 186,986 pounds of out-going freight, consisting of metal and cores, were shipped. The shipping of postal cards, which was one of this Division's largest hauling problems, is now almost entirely handled by the Stores Division through the use of automatic conveyors and carloading platforms, which materially reduce manual handling. Only 17 shipments of postal cards were handled during the year as compared with 193 for the previous year. Of finished products, 200,416 deliveries were made. It was necessary for the Delivery Section to haul 2,447 loads of printed matter to the Superintendent of Documents' warehouse, located at 613 G Street NW. During the year the Government Printing Office fleet of motor vehicles, comprising 32 trucks and 3 passenger cars, traveled a total of 184,973 miles. The number of accidents amounted to only 5, which is an enviable record for any delivery section.

PUBLIC DOCUMENTS

The increase in all activities of this office during the past year and the shortage of funds to provide sufficient additional personnel naturally had its effect on service rendered. Aside from the increase in activities of all divisions of the office, there occurred the largest turn-over in its force since the office was established. Changes in the force are decidedly detrimental to the work, because experienced personnel is needed to furnish satisfactory information service to the public.

In the last annual report, comment was made on the upward trend in sales of Government publications, and it was believed that the increase was transitory. As shown by the following comparative statement for the last 7 years, the contrary is indicated:

Fiscal year	Number of orders	Number of publications sold	Amount of sales
1933.....	481, 295	8, 255, 490	\$540, 532. 29
1934.....	496, 215	10, 459, 964	594, 007. 64
1935.....	538, 698	9, 499, 205	637, 414. 43
1936.....	548, 848	8, 832, 162	680, 725. 69
1937.....	595, 823	10, 074, 337	813, 246. 60
1938.....	697, 970	11, 546, 273	845, 779. 15
1939.....	773, 464	12, 748, 804	928, 459. 88

For the fiscal year 1938, 102,147 more cash orders were received than during the previous year, and, although the increase was not expected to continue, it is shown that for the year 1939 there was a further increase of 75,494 over 1938.

A review of business for the period 1933-39 shows an increase of over 50 percent in operations, whereas during the same period there was only a 14½ percent increase in appropriation for salaries and wages.

Comparative statement of activities, Public Documents Division

	Fiscal year 1933	Fiscal year 1939	Increase	Percent of increase
Appropriation.....	\$550,000	\$636,000	\$80,000	14.5
Letters of inquiry.....	205,705	321,292	115,587	56.2
Number of orders.....	481,295	773,464	292,169	60.7
Cash remittances.....	\$616,655	\$1,033,624	\$416,969	67.6
Publications distributed for departments.....	49,297,052	75,249,194	25,952,142	52.6
Publications sold.....	8,255,490	12,748,804	4,493,314	54.4
Amount of sales.....	\$540,532	\$928,459	\$387,927	71.8
Number of publications received in library.....	36,047	50,125	14,078	39.4

SERVICE AND DISTRIBUTION

Where there is no control over the amount of business to be handled, the administration of an office presents many difficult problems, especially in estimating the requirements of the office 10 months in advance of the time in which the appropriation becomes available.

When the volume of work exceeds the capacity of the available force, which is now the case, employees who are needed for the proper recording and stockkeeping must be used for handling current mail. This means neglecting certain essential features, such as sales promotion of excessive stock and elimination of obsolete publications, which in many cases are of an ephemeral character. It must be remembered that there probably is no commercial concern which carries a stock of 8,076,752 publications, involving more than 65,000 titles.

Service is a most important factor in the promotion of a sales and information business. Comparison is not possible with commercial mail-order houses, where all orders received have been selected from catalogs and purchasers are required to use stock numbers. In our business the handling of sales orders is more complicated because of the frequent necessity for reference work to determine which publication the customer wishes and then to determine its stock classification.

There are hundreds of bureaus and offices supplying information regarding Government publications, and the result is that requests for publications list the titles in every conceivable manner, which makes the filling of orders a difficult problem.

In order to simplify the purchase of publications, this Office issues coupons in denominations of 5 cents which are accepted in payment for orders. During the year 662,000 coupons were sold. In addition, deposit accounts are maintained against which orders are charged. There are 5,875 such accounts, against which 61,167 orders were charged during the year. An advantage of the deposit system is that it is not necessary to know the price when ordering.

Although the Superintendent of Documents is the sales agent for Government publications, he must exercise discretion in their purchase, as publications printed for sale must be paid for from sales receipts. Frequently the Government issues publications of such nature that the anticipated demand does not justify extra copies being ordered for sale by the Superintendent of Documents. Then, when a request is received, there is delay occasioned by effort to obtain copies from other sources.

The noticeable increase in sales might indicate a corresponding decrease in free distribution, but such is not the case. Last year the Office distributed 1,579,672 more copies for the departments than during the previous year, and since 1933 there has been a 52.6 per cent increase. In previous reports mention was made of added activity in mailing forms for governmental emergency organizations, and this work seems to be increasing. The number of pieces mailed last year was 846,560,038.

The following statement shows the number of publications on hand July 1, 1938, the number received and distributed during the fiscal year 1939, including forms, and the number of copies on hand June 30, 1939:

Free publications received and distributed during the fiscal year 1939

Department or establishment	Copies of publications on hand July 1, 1938	Copies of publications received during year	Forms received during year	Copies of publications distributed during year	Forms distributed during year	Copies of publications on hand June 30, 1939
<i>Executive departments</i>						
State.....	513	6,513	0	5,432	0	1,594
Treasury.....	856,379	2,217,929	1,040,000	2,034,668	1,040,000	1,039,640
War.....	1,111	1,925	0	2,903	0	133
Justice.....	2,583	202,419	0	205,002	0	0
Post Office.....	32,572	11,31,065	0	11,200,312	0	148,325
Navy.....	63,141	10,448	0	46,089	0	27,500
Interior.....	1,178,597	2,996,783	0	3,050,056	0	1,125,324
Agriculture.....	12,642,121	30,634,223	0	26,921,552	0	16,354,792
Commerce.....	1,706,174	2,586,547	35,799,200	3,087,706	35,799,200	1,205,015
Labor.....	919,535	9,477,724	0	8,921,473	0	1,475,786
<i>Independent offices</i>						
American Battle Monuments Commission.....	0	150	0	150	0	0
Central Statistical Board.....	0	1,835	0	1,835	0	0
Civil Aeronautics Authority.....	0	160,976	0	160,976	0	0
Civil Service Commission.....	531	46,301	0	46,832	0	0
Employees Compensation Commission.....	1,746	1,250	8,017,830	2,169	8,017,830	827
Federal Communications Commission.....	601	0	0	0	0	601
Federal Power Commission.....	2,227	0	0	0	0	2,227
Federal Reserve Board.....	657	0	0	0	0	657
Federal Trade Commission.....	71,261	47,266	0	53,958	0	64,569
General Accounting Office.....	0	975	0	975	0	0
Interstate Commerce Commission.....	75,374	1,040,222	0	1,039,947	0	75,649

Free publications received and distributed during the fiscal year 1939—Continued

Department or establishment	Copies of publications on hand July 1, 1938	Copies of publications received during year	Forms received during year	Copies of publications distributed during year	Forms distributed during year	Copies of publications on hand June 30, 1939
<i>Independent offices—Continued</i>						
National Advisory Committee for Aeronautics.....	0	430	0	417	0	13
National Archives.....	6,787	62,680	0	65,663	0	3,804
Personnel Classification Board.....	2,138	0	0	2,138	0	0
President's Committee on Administration Management.....	15,876	15	0	6,027	0	9,864
Railroad Retirement Board.....	0	2,499,900	16,318,900	2,499,900	16,318,900	0
Smithsonian Institution.....	170,065	139,981	0	123,728	0	186,31
U. S. Tariff Commission.....	0	61,235	0	11,695	0	49,540
Veterans' Administration.....	0	399	0	399	0	0
<i>Judiciary</i>						
U. S. Court of Customs and Patent Appeals.....	1,070	350	0	72	0	1,348
<i>Congressional</i>						
Bicentennial Commission.....	6,727	2,000	0	0	0	8,727
Congress.....	13,474	5,784	0	13,375	0	5,883
Government Printing Office.....	0	8,683	0	8,683	0	0
Library of Congress.....	124,409	18,831	0	142,640	0	600
<i>Emergency administrations</i>						
Agricultural Adjustment Administration.....	1,108	13,819,758	216,311,460	13,819,758	216,311,460	1,108
Civilian Conservation Corps.....	0	227,323	0	106,600	0	120,723
Commodity Credit Corporation.....	7,350	0	24,234,371	0	24,234,371	7,350
Emergency Conservation Works.....	2,490	0	0	0	0	2,490
Farm Credit Administration.....	788,610	3,711	0	785,756	0	6,565
Federal Crop Insurance.....	0	399,000	5,725,210	399,000	5,725,210	0
Federal Home Loan Bank Board.....	0	74,040	0	74,040	0	0
National Bituminous Coal Commission.....	0	0	3,236,500	0	3,236,500	0
National Emergency Council.....	0	0	406,550	0	406,550	0
National Planning Board.....	1,626	0	0	184	0	1,442
National Resources Committee.....	9,452	255,767	0	193,806	0	71,413
National Unemployment Register.....	0	7,041	0	2,150	0	4,891
Puerto Rico Reconstruction Administration.....	0	0	576,750	0	576,750	0
Public Works Administration.....	2,639	111	0	2,750	0	0
Rural Electrification Administration.....	0	168,551	0	161,358	0	7,193
Social Security Board.....	0	0	6,378,520	0	6,378,520	0
Works Progress Administration.....	0	866,041	528,514,747	866,041	528,514,747	0
Total.....	18,708,944	79,371,182	846,560,038	176,068,215	846,560,038	22,011,911
Superintendent of Documents.....	5,056,057	24,468,514	0	21,447,819	0	8,076,752
Grand total.....	23,765,001	103,839,696	846,560,038	97,516,034	846,560,038	30,088,663

¹ This total includes 819,021 copies of departmental discarded obsolete publications, making total distribution 75,249,194.

² This total includes 1,470,590 copies of Superintendent of Documents discarded obsolete publications, making total distribution 19,977,229.

Total actual distribution of departmental and Superintendent of Documents publications is 95,227,292.

Mailing Lists

There are many publishing houses with larger individual mailing lists, but it is believed there are none with so great a variety as that handled by the Mail List Section of this Office. At the present time

it has 3,355 lists, which vary in size from 100 to over 100,000 names. At the close of the year these lists comprised 1,565,507 stencils, and during the year there were 529,981 additions and 368,629 names dropped.

The regulations of the Joint Committee on Printing require all departments to revise their mailing lists every 6 months by making inquiry as to whether the publications which they distribute are desired by the persons to whom addressed. With such requirements for revision of the lists, one can appreciate the work involved in making the corrections.

Depository Libraries

The last annual report stated that in order to meet changed conditions as they exist today, an investigation of depository libraries was essential before an attempt could be made to amend the law providing for such libraries. The difficulty experienced in obtaining the necessary funds has prevented this investigation.

Mr. Thomas P. Fleming, Chairman of the Committee on Public Documents, American Library Association, has not been successful in securing funds from any of the foundations. As a final recourse, he addressed a letter to the President of the United States, recommending that the Science Committee of the National Resources Planning Board be directed to make the survey, in view of its interest in resources for research. This survey, of course, was recommended to be made in cooperation with the Joint Committee on Printing, the Public Printer, the Superintendent of Documents, departmental libraries of the Government, and interested nongovernmental organizations.

Congressional Bills

Distribution of public bills and resolutions was started in the Seventy-sixth Congress, first session, and during the session approximately 9,000 prints of bills and resolutions were distributed to the depository libraries making selection of this class of material. It will be interesting to learn from the librarians the conjectural value of these bills, and whether or not their use will justify the service, in view of the work involved in making them available to the public.

Special Libraries Association

At the Thirty-first Annual Conference, held in Baltimore May 25 to 27, 1939, resolutions were adopted explaining the interest in Gov-

ernment publications on the part of research workers of the country and the public at large. The Conference stressed the need for prompt service in order that the Special Libraries Association could function satisfactorily in supplying information to its membership, which includes libraries of banks and investment houses; chambers of commerce; trade, professional, civic, religious, and labor associations; boards of education; insurance, public-utility, manufacturing, engineering, and advertising firms; museums; foundations; and publishing houses and newspapers.

Monthly Catalog Index

There has been a growing demand from libraries for an index to each Monthly Catalog, in addition to the present index issued at the end of the calendar year. An index with each monthly issue would unquestionably facilitate its use.

The make-up of the Catalog is a classified arrangement by publishing offices, and many of its users, not being familiar with the organization plan of the Government, find it difficult to locate the publications in which they are interested. However, the printing of an index is contingent on Congress appropriating funds for that purpose.

Exhibit at Pan-American Exposition, Tampa, Fla.

The Superintendent of Documents was allotted space for exhibit of sales publications. The Exposition was held 19 days in February, exclusive of Sundays, during which time nearly 200,000 visitors entered the Government building. Many visitors commented favorably on the exhibit and many appeared to be particularly interested in the large representation of a book which stood 8 feet high, the open pages of which furnished information regarding the sale of publications by this Office.

The United States Commissioner of the Exposition congratulated this Office on its interesting presentation in the Federal Building, and also on the efficient service of its representative, who was on duty during the entire period of the Exposition.

Exhibit at Golden Gate International Exposition, San Francisco, Calif.

The Public Printer accepted an invitation to set up a bookstore which would be a central information booth, and it attracted an unusual amount of attention from the public. Being the main information booth for the Federal exhibit, it was allotted space at the entrance to the building.

The Office representative reports that an exhibit of this type is appreciated, especially since this is the first opportunity that many residents of that section of the country have had to familiarize themselves with the services offered by the Office of the Superintendent of Documents.

There seems to be great demand for information regarding Government publications, and consequently there have been distributed approximately 20,000 catalogs on various subjects. Knowledge of the services rendered by this Office is spreading, and there have been numerous inquiries from school teachers and professors, resulting in the use of a number of publications by schools and colleges as text and reference books. Many requests have been received from school librarians and book dealers for complete sets of catalogs for the purpose of acquainting students or customers with Government publications and methods of obtaining them.

Suggested Legislation

This Office has advocated for many years the elimination of the dual printing of the same publications; e. g., first printing the matter as a congressional report and then, after removing the report serial number, printing it as a departmental serial publication.

In 1907 a resolution was passed by Congress making effective such a policy, but in January of the following year the superintendents of the Documents Room at the Capitol persuaded the Printing Committee to amend the law so that they would continue to receive the class of publications that had been eliminated.

It is my understanding that the superintendents of the Documents Room now entertain a different feeling in regard to these documents and are anxious to have them segregated from the congressional series.

I would recommend, therefore, that the Joint Committee on Printing consider amending sections 131 and 142 of Title 44, United States Code, so as to eliminate printing the same publication both as a document and as a plain-title edition.

There is an insistent demand by the public that the Superintendent of Documents render a service comparable to that of a mail-order house, but it should be obvious that this is impossible unless the personnel of this Office be increased in proportion to the volume of work.

Congress has given its approval to the sale of Government publications in lieu of their free distribution. In recent legislation restricting the use of the penalty frank, no limitation was placed upon the distribution of lists announcing publications for sale.

The trend of demand for Government publications is decidedly upward, and to meet this trend the Office should be equipped to handle the business. It is pleasing to report that Congress evidently recognizes the need for additional funds, and it is hoped that the increase granted for the coming fiscal year will permit the Office to render a more satisfactory service.

RECOMMENDED CHANGES IN METHODS OF DISTRIBUTION

In my last annual report (page 24), I recommended that Congress give serious consideration to the adoption of a sales procedure that would provide a method by which the public could purchase Government publications cheaply and easily. The reasons upon which the recommendations were based and the benefits to be derived from the action recommended were outlined in detail and are again called to the attention of Congress as one of the pressing problems facing those interested in the printing and distribution of Government publications.

The Inter-Departmental Committee on Printing, created by the Executive order of October 28, 1938, has had this question under consideration for some time. It has assembled previous comments and recommendations of interested agencies and has discussed the matter thoroughly. I am, therefore, pleased to be able to quote the following from its tentative report covering this point, as I feel the information contained therein will be of interest to all concerned and I fully concur in the recommendation made:

The Urgent Need for Legislation Which Would Establish a Plan or System to Facilitate the Sale of Publications

For more than a decade those concerned with the operation of Government services of research, regulation, and service work, and the dissemination of information useful to citizens rising from these activities, have sought to find a way to make the publications containing such information easily available for purchase by interested citizens.

The sales system in use at present is somewhat cumbersome and does not serve citizens as efficiently and economically as others that could be devised. The defects in the system have previously been pointed out by official groups which have studied the problems of printing and distribution, and suggestions for eliminating these defects and establishing a sales system that will give better public service have been advanced. The Permanent Conference on Printing in 1932 advanced such proposals, and they were approved by the Coordinator and the Bureau of the Budget. However, they were not put into effect by the Congress. In its report of April 6, 1938, the Special Committee designated to make a study of the production and distribution methods of printed, processed, and duplicated matter published for the use of the executive branch of the Gov-

ernment made a comprehensive summary of the reasons why changes are sought in the system of selling Government publications, outlined the changes needed, and offered for transmission to the Joint Committee on Printing and for its consideration a draft of legislation which would effectuate the desired changes. The report of that committee follows:

The committee feels that Government publications generally should be offered to the public on a sales basis rather than free in order to eliminate distribution to those who do not desire the information, to achieve a wide distribution of useful information at a small cost, and, in fact, to increase net revenues to the Government. Any decrease in free distribution is mainly dependent upon the development of an improved and modern sales system. Accordingly, the committee has developed such a plan which it recommends herein.

Next to the lack of knowledge of availability, the greatest hindrance to the sale of Government publications is the confusion the purchaser faces when he attempts to order them. At present the Superintendent of Documents cannot accept stamps, because they are not redeemable by the Post Office Department. Coins must be mailed at the purchaser's risk. Consequently, what often happens is that a person who wishes to purchase a 5-cent publication buys a money order for which he has to pay a service charge, then he writes a letter and places it and a money order into an envelope which must be stamped at a cost of 3 cents more. The person often spends more for the stamp, money order, and stationery than the price of the publication itself. Moreover, he will probably address his letter to a department rather than to the Superintendent of Documents. The department, upon receipt of the letter, will then have to send the money to the Government Printing Office. All of this complicated official procedure is costly to the Government, and there has been a long-standing need for its correction.

Because of the money, time, and confusion involved in purchasing low-priced publications the sale is negligible compared to the possibilities. Ease in buying is an essential factor to any successful sales plan. Such a system can be made possible by legislation providing that special cards for use in ordering Government publications be placed on sale at post offices in the United States. These cards, in different colors and for different amounts, would be good only for the purchase of Government publications; for example, a blue card might sell for 5 cents and a green card for 10 cents, and so on up to cards selling for 50 cents. For amounts exceeding 50 cents other means of remittance may be used. These cards will be self-addressed to the Superintendent of Documents and the purchaser would simply place a 1-cent stamp on the card, fill in the name of the bulletin he wants, sign his name and address, and drop the card into a mail box. Buyers on rural routes could obtain the cards from carriers.

The Superintendent of Documents would receive the cards, fill the orders, and present the cards periodically to the Post Office Department for redemption, and the receipts would be deposited in the Treasury as required by law. When supplies of publications requested by purchasers are exhausted the cards would be returned to the senders by the Superintendent of Documents for redemption or exchange at post offices. This plan would be readily understood and, furthermore, the departments could promote increased sales without additional cost through the use of information services already available.

The promotion of sales of publications through such means as poster lists in the post offices throughout the country could readily be arranged. These notices would make known publications of national as well as general interest. In all

cases they should be prepared by the department issuing the publication in cooperation with the Superintendent of Documents.

The committee, therefore, recommends the enactment of legislation that would embody the above plan. A suggested draft of such legislation follows:

That the Postmaster General, within 90 days after the approval of this act, is authorized and directed to place on sale in all post offices and branch post offices in the United States, special postal cards of various cash-value denominations for use as a medium of exchange in the purchase of Government publications.

SEC. 2. The form, style, design, color, size, and cash-value denominations of such cards shall be determined by the Public Printer, subject to the approval of the Postmaster General and the Comptroller General. On the face of these cards there shall be printed the required postage and the following address: "Superintendent of Documents, Government Printing Office, Washington, D. C."; and on the reverse side shall be printed the cash value of such card, together with suitable blank spaces for the insertion of the number and description of the publication or publications wanted, the name and State of the post office where the card was procured, and the signature and address of the purchaser. Such cards shall be redeemable only as provided for in sections 3 and 4 of this act.

SEC. 3. All these cards shall be accepted at their face value by the Superintendent of Documents, who shall fill the order or orders contained thereon, and cancel each card in such manner as the Postmaster General may direct. The Superintendent of Documents shall transmit periodically to the Postmaster General for redemption all canceled cards received during the preceding period. The Postmaster General shall accept, at their face value, all cards which show that the order, or any part thereof, has been filled and shall remit by check, to the Superintendent of Documents, a sum equal to the total face value of all the cards so presented and accepted for the preceding period.

SEC. 4. Whenever an order, or any part thereof, described on a card cannot be filled, refund of the price of such card, or the unfilled portion thereof, shall be made to the person submitting the same in such manner as may be determined by the Postmaster General and the Public Printer.

SEC. 5. In order to facilitate the sale of Government publications, it shall be the duty of the various executive departments, independent offices, and establishments of the Government to prepare the necessary descriptive manuscript required for the printing and distribution by the Superintendent of Documents of sales notices, poster lists, and other matter designed to invite attention to the contents and availability of their publications offered for sale and to the method of purchasing provided by this act. Publicity matter to promote the sale of publications shall be displayed in post offices throughout the United States under such rules and regulations as may be promulgated by the Postmaster General.

SEC. 6. The Superintendent of Documents is authorized to expend from appropriations, which are hereby authorized therefor, not to exceed \$25,000 annually for carrying out the provisions of section 5 of this act.

To supplement the regular sales promotional work of the departments and the Superintendent of Documents, the committee further recommends that the Superintendent of Documents be authorized to order from the Public Printer the printing of sales notices and that additional funds be made available to him for that purpose.

On May 11, 1938, the Chairman of the Joint Committee on Printing requested the views and recommendations of the Director of the Bureau of the Budget with respect to this legislative proposal, and the Director of the Bureau of the Budget, on June 9, 1938, replied to the Chairman of the Joint Committee on Printing as follows:

MY DEAR MR. LAMBETH:

Reference is made to your letter of May 11, 1938, requesting the views and recommendations of this office regarding the feasibility of enacting a bill, draft of which was transmitted with your letter, designed to facilitate the purchase of Government publications from the Superintendent of Documents and provide additional revenue for the Government.

I have referred the draft of the bill to the Secretaries of Commerce, Interior, Agriculture, and Treasury and to the Postmaster General, and I am attaching hereto copies of their replies. Each of these Departments, with the exception of the Post Office Department, is favorable to the enactment of such legislation. The Postmaster General is opposed to the proposed legislation because of the administrative and accounting difficulties set forth in his letter.

As you are aware, the substance of this proposed legislation was recommended by a Special Committee composed of representatives of the principal departments concerned with printing, processing, and the distribution of Government publications, as well as other representatives from the Legislative Branch of the Government, after having made a careful study of the entire printing, processing, and distribution methods in the Executive Branch of the Government Service. As indicated to you in my letter of April 12, 1938, it appears that the report of the Special Committee embodies, in general, a variety of practicable suggestions for the improvement of our printing and distribution situation.

It seems to me that the proposed legislation should be beneficial to the Government as a whole for the following reasons:

First, it should very substantially reduce the present large volume of printed and processed material distributed by the departments free, and thereby reduce the amount of material handled by the Post Office Department free of postage;

Second, it should considerably increase the miscellaneous receipts of the Federal Government realized from the sale of Government publications;

Third, it would make more generally known to the public at large the publications that have been made available through expensive and extensive research by the Government.

I am, therefore, inclined to concur in this legislation recommendation of the Special Committee and of the Departments chiefly concerned with the issuance of Governmental publications. While I appreciate the administrative and accounting difficulties with which the Post Office Department would be confronted should such legislation be enacted, it seems to me that these additional costs will be more than offset by the increase in postal revenues that may reasonably be expected to follow the enactment of the legislation.

Very truly yours,

(Signed) D. W. BELL,
Acting Director.

Enclosures: Copies of letters from Commerce, Interior, Agriculture, Treasury, and Post Office on above subject.

The Post Office Department, in its letter of June 1, 1938, to the Bureau of the Budget, set forth its objections to the proposed legislation as follows:

MY DEAR MR. BELL:

The receipt is acknowledged of your letter of the 14th instant, transmitting advance galley proof of a Bill amending the present printing laws relating to the sale of documents by the Superintendent of Documents.

The plan outlined in the proposed Bill to place on sale at all post offices cards of assorted face values to be used in the purchase of documents would make it necessary that each post office must have available complete information regarding the different documents on sale at the Government Printing Office as well as the price thereof. It would necessitate a considerable amount of work on the part of the clerks in furnishing this information and completing the transaction.

This Department is opposed to the proposed legislation because the administrative and accounting difficulties involved make the plan impracticable from the standpoint of the Postal Service. No doubt, a considerable portion of these pamphlets are sold in rural districts, served by the smaller post offices, which would aggravate the problem of handling this accountable stock. The cost of administration and accounting here in Washington also would be an item of some consequence.

It is freely conceded by the proponents of this measure that its enactment would be burdensome and expensive to the Postal Service, the arguments advanced in its favor being based on the benefits accruing to other Departments of the Government, as well as the general public. The Postal Service has been glad to extend its cooperation in solving the problem of distribution for other Departments of the Government in important matters affecting the general public welfare; in most of these cases it has been compensated, at least partly, for the extra expense involved. A relatively small portion of the public would take advantage of the convenience of the facility suggested. The extra work, both in the Field and here in the Department, represents a non-postal activity which I do not feel the Department should be called upon to undertake.

Very truly yours,

(Signed) RAMSEY S. BLACK,
Acting Postmaster General.

The Inter-Departmental Committee, the member of the Committee from the Post Office Department dissenting, reiterates the reasoning given in the report of the Special Committee, above quoted, and urges the enactment of legislation establishing a system that will facilitate sales of publications as a means of making the public service more economical and more efficient.

* * *

CONCLUSION

In concluding this annual report I will advert to some of our outstanding accomplishments during the past fiscal year. While not of a spectacular nature, they contributed largely to the economical and efficient administration of the Government Printing Office. Our method of cost accounting, coupled with the work of the Production Control Committee, the release of governmental printing to depart-

ments, our work for the Patent Office, and the manufacture of cards for tabulating machines are examples of some of the things that required diligent effort and careful thought. The suggested plan for better control over departmental printing and the adoption of a more convenient system for placing Government publications in the hands of the public are considered of much importance to this Office, and it is hoped that corrective legislation will be enacted soon.

Under authority of the act approved February 28, 1933 (Public, No. 381, 72d Cong.), the practice of printing supplementary records and statistics in the Annual Report of the Public Printer has been discontinued, and original copies of such information as has been prepared are on file for public inspection.

A. E. GIEGENGACK,
Public Printer.

