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ANNUAL REPORT
OF THE
BOARD OF REGENTS
OF THE
SMITHSONIAN INSTITUTION,
SHOWING
THE OPERATIONS, EXPENDITURES, AND CONDITION
OF THE INSTITUTION
FOR THE
YEAR ENDING JUNE 30, 1907.

REPORT
OF THE
U. S. NATIONAL MUSEUM.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1908.

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UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,
Washington, D. C., November 8, 1907.

SIR: I have the honor to submit herewith a report upon the present condition of the United States National Museum, and upon the work accomplished in its various departments during the fiscal year ending June 30, 1907.

Very respectfully,

RICHARD RATHBUN,
Assistant Secretary, in Charge of the National Museum.

DR. CHARLES D. WALCOTT,
Secretary, Smithsonian Institution.

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REPORT ON THE PROGRESS AND CONDITION OF THE U. S. NATIONAL MUSEUM FOR THE YEAR ENDING JUNE 30, 1907.

BY RICHARD RATHBUN,

Assistant Secretary of the Smithsonian Institution, in charge of the U. S. National Museum.

GENERAL CONSIDERATIONS.

INCEPTION AND HISTORY.

The inception and history of the National Museum have often been discussed in the opening pages of the annual report. Congress, in the act of August 10, 1846, founding the Smithsonian Institution, recognized that an opportunity was afforded, in carrying out the large-minded design of Smithson, to provide for the custody of the museum of the nation. To this new establishment was therefore intrusted the care of the national collections, a course that time has fully justified.

In the beginning the cost of maintaining the museum side of the Institution's work was wholly paid from the Smithsonian income; then for a number of years the Government bore a share, and during the past three decades Congress has voted sufficient funds to cover the expenses of the Museum, thus furthering one of the primary means "for the increase and diffusion of knowledge among men" without encroaching upon the resources of the Institution.

The museum idea was inherent in the establishment of the Smithsonian Institution, which in its turn was based upon a ten years' discussion in Congress and the advice of the most distinguished scientific men, educators, and intellectual leaders of the nation of seventy years ago. It is interesting to note how broad and comprehensive were the views which actuated our lawmakers in determining the scope of the Museum, a fact especially remarkable when it is recalled that at that date no museum of considerable size existed in the United States, and the museums of England and of the continent of Europe were still to a large extent without a developed plan, although containing many rich collections.

The Congress which passed the act of foundation enumerated as within the scope of the Museum "all objects of art and of foreign

and curious research and all objects of natural history, plants, and geological and mineralogical specimens belonging to the United States," thus stamping the Museum at the very outset as one of the widest range and at the same time as the Museum of the United States. It was also fully appreciated that additions would be necessary to the collections then in existence, and provision was made for their increase by the exchange of duplicate specimens, by donations and by other means.

If the wisdom of Congress in so fully providing for a museum in the Smithsonian law challenges attention, the interpretation put upon this law by the Board of Regents within less than six months from the passage of the act can not but command admiration. In the early part of September, 1846, the Regents took steps toward formulating a plan of operations. The report of the committee appointed for this purpose, submitted in December and January following, shows a thorough consideration of the subject in both the spirit and the letter of the law. It would seem not out of place to cite here the very first pronouncement of the Board with reference to the character of the Museum:

"In obedience to the requirements of the charter,^a which leaves little discretion in regard to the extent of accommodations to be provided, your committee recommend that there be included in the building a museum of liberal size, fitted up to receive the collections destined for the Institution. * * *

"As important as the cabinets of natural history by the charter required to be included in the Museum your committee regard its ethnological portion, including all collections that may supply items in the physical history of our species, and illustrate the manners, customs, religions, and progressive advance of the various nations of the world; as, for example, collections of skulls, skeletons, portraits, dresses, implements, weapons, idols, antiquities, of the various races of man. * * * In this connexion, your committee recommend the passage of resolutions asking the cooperation of certain public functionaries, and of the public generally, in furtherance of the above objects.

"Your committee are further of opinion that in the Museum, if the funds of the Institution permit, might judiciously be included various series of models illustrating the progress of some of the most useful inventions; such, for example, as the steam engine from its earliest and rudest form to its present most improved state; but this they propose only so far as it may not encroach on ground already covered by the numerous models in the Patent Office.

^a Since the Institution was not chartered in a legal sense but established by Congress, the use of the word "charter" in this connection would seem to be unauthorized. It was not subsequently employed.

“Specimens of staple materials, of their gradual manufacture, and of the finished products of manufactures and the arts may also, your committee think, be usefully introduced. This would supply opportunity to examine samples of the best manufactured articles our country affords, and to judge her gradual progress in arts and manufactures. * * *

“The gallery of art, your committee think, should include both paintings and sculpture, as well as engravings and architectural designs; and it is desirable to have in connexion with it one or more studios in which young artists might copy without interruption, being admitted under such regulations as the board may prescribe. Your committee also think that, as the collection of paintings and sculpture will probably accumulate slowly, the room destined for a gallery of art might properly and usefully meanwhile be occupied during the sessions of Congress as an exhibition room for the works of artists generally; and the extent and general usefulness of such an exhibition might probably be increased if an arrangement could be effected with the Academy of Design, the Arts-Union, the Artists’ Fund Society, and other associations of similar character, so as to concentrate at the metropolis for a certain portion of each winter the best results of talent in the fine arts.”

The important points in this report are, (1) that it was the opinion of the Regents that a museum was requisite under the law, Congress having left no discretion in the matter; (2) that ethnology and anthropology, though not specially named, were yet as important subjects as natural history; (3) that the history of the progress of useful inventions and the collection of the raw materials and products of the manufactures and arts should also be provided for; (4) for the gallery of art the committee had models in existence, and they proposed, pending the gathering of art collections, which would of necessity be slow, to provide for loan exhibitions by cooperating with art academies and societies.

In the resolutions which were adopted upon the presentation of this report, a museum was mentioned as “one of the principal modes of executing the act and trust.”^a The work was to go forward as the funds permitted, and, as is well known, the maintenance of the

^a *Resolved*, That it is the intention of the act of Congress establishing the Institution, and in accordance with the design of Mr. Smithson, as expressed in his will, that one of the principal modes of executing the act and the trust is the accumulation of collections of specimens and objects of natural history and of elegant art, and the gradual formation of a library of valuable works pertaining to all departments of human knowledge, to the end that a copious storehouse of materials of science, literature, and art may be provided which shall excite and diffuse the love of learning among men, and shall assist the original investigations and efforts of those who may devote themselves to the pursuit of any branch of knowledge.

museum and the library was long ago assumed by Congress, the Institution taking upon itself only so much of the necessary responsibility for the administration of these and subsequent additions to its activities as would weld them into a compact whole, which together form a unique and notable agency for the increase and diffusion of knowledge, for the direction of research, for cooperation with Departments of the Government and with universities and scientific societies in America, and likewise afford a definite correspondent to all scientific institutions and men abroad who seek interchange of views or knowledge with men of science in the United States.

Since that early day no material change has been suggested in the general scope of the Government museum; it has only remained to elaborate the details, and the opportunity is now close at hand to realize all that the first Board had in view, since ample space will be available within another two years.

The development of the museum has naturally been greatest in those subjects which the conditions of the past sixty years have made most fruitful—the natural history, geology, ethnology, and archeology of the United States, supplemented by many collections from other countries. The opportunities in these directions have been mainly brought about through the activities of the scientific and economic surveys of the Government, many of which are the direct outgrowths of earlier explorations, stimulated or directed by the Institution. The Centennial Exhibition of 1876 afforded the first opportunity for establishing a department of the industrial arts on a creditable basis, and of this the fullest advantage was taken, though only a part of the collections then obtained could be accommodated in the space available.

The department or gallery of the fine arts had made little progress, though not from lack of desire or appreciation, until within the past eighteen months, during which its interests have been markedly advanced, as elsewhere explained.

Another subject to which much attention has been paid with gratifying results is American history, illustrated by objects representing distinguished personages and important events as well as the domestic life of the country from the colonial period to the present day.

It has been deemed appropriate to present the foregoing brief review of the scope of the national collections, in this connection, since the time is near when they may be given an orderly arrangement and when the subjects least developed from lack of space may have the opportunity for growth. By transferring to the new building, as proposed to Congress, the subjects which are best represented, which have been as a whole most completely classified and can, therefore, be most advantageously exhibited for the benefit of the public, namely, ethnology, archeology, natural history, and geology, the pres-

ent museum building may be given over to the arts and industries. In several branches of this subject the collections are already important and extensive, and arrangements are under way for large and valuable additions. Certain halls in the Smithsonian building were originally planned for the gallery of fine arts, and with a moderate expenditure they can be adjusted to suit the requirements of to-day.

With its collections thus distributed between the three buildings, all fireproof and of substantial construction, the National Museum may be expected to enter upon an era of renewed prosperity and usefulness.

While it is the primary duty of a museum to preserve the objects confided to its care, as it is that of a library to preserve its books and manuscripts, yet the importance of public collections rests not upon the mere basis of custodianship, nor upon the number of specimens assembled and their money value, but upon the use to which they are put. Judged by this standard, the National Museum may claim to have reached a high state of efficiency. From an educational point of view it is of great value to those persons who are so fortunate as to reside in Washington or who are able to visit the nation's capital. In its well-designed cases, in which every detail of structure, appointments, and color is considered, a selection of representative objects is placed upon view to the public, all being carefully labeled individually and in groups. The child as well as the adult has been provided for, and the kindergarten pupil and the high school scholar can be seen here, supplementing their class-room games or studies. Under authority from Congress, the small colleges and higher grades of schools and academies throughout the land, especially in places where museums do not exist, are also being aided in their educational work by sets of duplicate specimens, selected and labeled to meet the needs of both teachers and pupils.

Nor has the elementary or even the higher education been by any means the sole gainer from the work of the Museum. To advance knowledge, to gradually extend the boundaries of learning, has been one of the great tasks to which the Museum, in consonance with the spirit of the Institution, has set itself from the first. Its staff, though chiefly engaged in the duties incident to the care, classification, and labeling of collections in order that they may be accessible to the public and to students, has yet in these operations made important discoveries in every department of the Museum's activities, which have in turn been communicated to other scholars through its numerous publications. But the collections have not been held for the study of the staff nor for the scientific advancement of those belonging to the establishment. Most freely have they been put at the disposal of investigators connected with other institutions, and, in fact, without the help of many such the record of scientific progress based upon the

material in the Museum would be greatly curtailed. When it is possible to so arrange the investigator comes to Washington; otherwise such collections as he needs are sent to him, whether he resides in this country or abroad. In this manner practically every prominent specialist throughout the world interested in the subjects here well represented has had some use of the collections, and thereby the National Museum has come to be recognized as a conspicuous factor in the advancement of knowledge wherever civilization has a foothold.

SOME IMPORTANT MATTERS OF THE YEAR.

The most noteworthy feature of the year was the remarkable advance made in the subject of the fine arts, assuring the definite organization of the National Gallery of Art on a proper basis.

The new granite building for the Museum was carried to such a height that some idea may now be gained of its future appearance and of its adequacy for accommodating those branches of the National collections—natural history, geology, and anthropology—for which Congress authorized its erection. The repairs in progress on the present Museum building, including the renewal of the roofs and the isolation of the several halls, conducted under the ordinary appropriations, are accomplishing all that was anticipated, the thorough renovation of the structure and its adaptation to the collections bearing on the arts and industries, the extension of which has long been retarded by the lack of space.

The additions made to the collections of the Museum, not including the fine arts, were comprised in 1,398 accessions and numbered about 250,000 specimens. They were obtained mainly through transfers of material from several bureaus of the Government and through donation and exchange from private sources, some of the gifts having been especially noteworthy from their size and value.

The most important accessions in ethnology came from the Philippine Islands and the Kongo region of Africa. Excavations at the famous Casa Grande ruin in Arizona were productive of a large collection of ancient Indian relics, and many archeological specimens were also received from Central America and Mexico. The division of physical anthropology was especially favored in several of its lines of inquiry, while the collection of firearms illustrating the colonial and national military service of the United States was increased to the extent of making it the most complete of its kind in existence.

The Bureau of Fisheries transmitted exceptionally large and valuable collections in zoology, obtained during recent investigations in different regions, the most important being the results of an expedition by the steamer Albatross to the northwestern part of the Pacific

Ocean and the Okhotsk Sea. Noteworthy series of mammals, birds, and reptiles were obtained from the Philippine Islands and other interesting localities. Of fishes, 25,000 specimens were received; of insects, 44,000 specimens, and of plants, 47,000 specimens.

The additions to the section of fossil invertebrates were especially notable, amounting to over 115,000 specimens. They were acquired partly by transfer from the Geological Survey and partly by donation.

No material changes were made in the exhibition halls, except in connection with the fine arts, as described elsewhere. About 16,000 duplicate specimens were distributed to schools and colléges, and some 25,000 were used in making exchanges. The classification of the collections, especially those recently received, has necessitated an exceptional amount of painstaking investigations, resulting in the preparation of many important scientific contributions. The publications for the year comprised 8 volumes and 4 parts of volumes.

While field researches were engaged in at different times of the year by a few members of the staff, the trips were all of relatively short duration, though they resulted in extensive additions to the collections and the filling of many gaps.

The Museum is represented at the Jamestown Ter-Centennial Exposition by a comprehensive historical exhibit, and at the International Maritime Exposition at Bordeaux, France, by a few striking examples and models of aboriginal water craft and early steamboats.

NATIONAL GALLERY OF ART.

Reference is made on pages 7, 8, and 9 of this report to the action by Congress in 1846, charging the Smithsonian Institution with the custodianship of all objects of art belonging to the United States, and to the initial plan proposed on the part of the Board of Regents for carrying out this important provision of the fundamental law.

In the Smithsonian building, which was immediately put in course of erection, two rooms were especially designed for the collections of art—the west hall and connecting range on the main floor. These quarters were so used for a time in conjunction with the library and reading room, but the accommodations proved so inadequate that it became necessary to also devote to the same purpose a part of the large upper hall now occupied by the collection of prehistoric archeology.

Examples of art were among the very first acquisitions by the Institution, and from time to time thereafter additions of one kind and another were received, but any sum that might have been spared for this purpose from the Smithsonian income would have been wholly insufficient to make any pronounced or systematic progress in this

direction. In the National Museum, however, certain branches of art have been fostered for over a quarter of a century and are now fairly well represented.

The first collection purchased by the Institution was the valuable series of prints assembled by the Hon. George P. Marsh, containing examples of the work of nearly every etcher and engraver of celebrity from the early masters to the middle of the last century. Though not the largest, it was recognized as the choicest collection of its kind then in this country. Later accessions included, besides engravings, a number of paintings, reproductions of celebrated pieces of sculpture, busts of distinguished individuals, and many important books on art.

The early exhibition in the upper Smithsonian hall consisted mainly of the unique collections of Indian portraits and scenes by J. M. Stanley, C. B. King, and others, but in the fire of 1865 this section of the gallery with its contents was entirely destroyed. The objects on the lower floor escaped injury and were subsequently deposited for safe-keeping in the Library of Congress and the Corcoran Gallery of Art, where they remained until about ten years ago. Since that time one of the rooms in the eastern part of the Smithsonian building has been utilized for the prints, books, and various other works of art, but the larger part of the collection has been provided for in the National Museum.

Such, briefly, was the history of the art exhibits up to January, 1906, when the acceptance by the Board of Regents of the large and notable collection of Mr. Charles L. Freer marked the beginning of a new epoch in the affairs of the gallery of art. In the following July a further advance was made through the acquisition of the valuable collection of the late Harriet Lane Johnston, based upon a decision of the supreme court of the District of Columbia, essentially reaffirming the intent of the fundamental act, that the custodianship of the National Gallery of Art was vested in the Smithsonian Institution. This collection is especially noteworthy in that it contains paintings by several celebrated masters, besides other pieces of merit and of historical importance. It was delivered to the Institution in the early part of August, 1906, and was at once installed in the reception room in the Smithsonian building, the only place then available.

The necessity of securing more extensive quarters without delay led to the selection and temporary fitting up of the lecture hall in the Museum building for the purposes of the gallery and especially for the paintings. On the completion of these changes in the latter part of November, 1906, the Harriet Lane Johnston collection and other paintings were transferred there, and these, with several loans and donations, fully occupy the existing wall space. Among the

loans should be mentioned twenty-one paintings from the Lucius Tuckerman collection, and among the gifts, one by the Hon. J. B. Henderson, a Regent of the Institution, and one by Miss Eleanor Blodgett, of New York.

During the latter part of the winter the gallery received a most substantial and gratifying recognition from Mr. William T. Evans, of Montclair, New Jersey, the well-known connoisseur and patron of art, whose contribution, made without solicitation, consisted of 52 paintings in oil by American artists of established reputation. Unfortunately, no place could be found in the Museum building for this valuable collection, and it was necessary to provide elsewhere for its temporary keeping. This has been accomplished through the courtesy of the trustees of the Corcoran Gallery of Art, where the pictures are now hung, filling the greater part of the large atrium.

Leaving out of consideration the Freer collection, which is to remain at the home of its generous donor during his lifetime, the National Gallery now has in its possession valuable paintings and other art objects for whose exhibition under suitable conditions it is important to arrange without delay. For this purpose there is no better place in the existing buildings than the second story of the main part of the Smithsonian building, a hall 200 feet long by 50 feet wide. It will require some changes to adapt it to the hanging and lighting of pictures, and some improvement in its approaches, which are now inconvenient for the public, involving an expenditure greater than is possible from the current appropriation, but it is hoped that Congress will provide for this work at its forthcoming session.

NEW BUILDING FOR THE NATIONAL MUSEUM.

Work on the new building has not progressed as rapidly as was expected, owing to delays in the delivery of the granite which is to compose the greater part of the outer walls. The fault has lain both with the quarry and with the railroad leading therefrom, the former having already violated the time limit of its contract by a considerable period, and the latter having neglected to furnish the necessary cars when called upon to do so. This delay has not only caused annoyance, but is resulting in a pecuniary loss to the Government through the deterioration of large collections held in storage, and in other ways.

At the beginning of the fiscal year, July 1, 1906, the basement walls and piers and the steel framework and brick arches resting upon them had been completed except at the south and north pavilions, and work had been commenced on the court walls of the main story. The few architectural changes contemplated in the two pavilions, the former containing the main entrance and rotunda, the

latter affording access from Tenth street, had been finally planned and the contract for the cutting of the stone was awarded soon afterwards.

At the close of the year the stonework on the eastern section of the building had been carried to the top of the second story, including the lintels, but on the western section only a few of the piers had been completed. The court walls had also been constructed to about the same height, but lack of stone prevented the extension of the walls of the two pavilions above the basement, except at the sides of the northern one. The steel work and arches between the first and second stories were in place.

Of the principal structural features there still remain the completion of the second story on the western side, the placing of the cornice which caps this entire story, the building of the upper story with its floor and roof, and the erection of the pavilions, of which the southern one involves a large amount of stonework. Fortunately the granite and steel girders for the upper story have been delivered, and the materials for the roof are obtainable on short notice. In fact, there have been no delays in securing supplies of all kinds except the white Vermont granite, of which the exterior walls will mainly consist.

SUMMARY OF THE OPERATIONS OF THE YEAR.

APPROPRIATIONS.

The appropriations made by Congress in the sundry civil act for the maintenance and activities of the National Museum during the year covered by this report, namely, from July 1, 1906, to June 30, 1907, were as follows:

Preservation of collections.....	\$180,000
Furniture and fixtures.....	20,000
Heating and lighting.....	18,000
Building repairs.....	15,000
Books.....	2,000
Rent of workshops.....	4,580
Postage.....	500
Printing and binding.....	34,000
Total.....	274,080

The sum of \$500,000 was also granted in the same connection for continuing the construction of the new building for the Museum.

Following are the appropriations for the year ending June 30, 1908:

Preservation of collections.....	\$190,000
Furniture and fixtures.....	20,000
Heating and lighting.....	18,000
Building repairs.....	15,000
Books.....	2,000
Rent of workshops.....	4,580
Postage.....	500
Printing and binding.....	33,000
Total.....	283,080

The sundry civil act approved March 4, 1907, provides for completing the erection of the new Museum building in the following terms:

Building for National Museum: "For completing the construction of the building for the National Museum, and for each and every purpose connected with the same, one million two hundred and fifty thousand dollars: *Provided*, That if the Superintendent of Buildings and Grounds, Library of Congress, now in charge of construction of the new Museum building and the disbursing of all appropriations

made for the work, be at any time incapacitated to continue in such charge, the Board of Regents of the Smithsonian Institution is hereby empowered to take charge of the construction and to disburse appropriations made for same."

BUILDINGS.

The progress of the work on the new building for the National Museum has already been described.

The bad condition of most of the roofs on the present Museum building and the efforts made for their improvement have often been discussed in previous reports. Apart from the corner pavilions and central towers, which contain the work rooms and offices, there are seventeen large exhibition halls, each with its separate roof, though all are connected by intervening metal gutters. Eight of these roofs, covering the same number of ranges which adjoin the outer walls of the buildings, were constructed originally of tin, and have called only for such attention and amount of repair as might customarily have been expected. The other nine roofs, being those over the four main halls, the four courts and the central rotunda, were, however, built of slate, a material too heavy for the supporting iron framework, and unsuitable for the relatively slight pitch of these roofs. They rapidly deteriorated to such an extent as to act almost like sieves, allowing the rain to penetrate during every storm, with the result of damaging the walls and causing much injury to the contents of the halls. Continuous and expensive repairs proved ineffective.

It finally became evident that the only remedy lay in the entire replacement of the slate roofs. In accordance with the plans heretofore explained, these roofs were to be of tin on the upper or exposed surface, with an inner sheathing of thin sheet steel. The work was taken up in July, 1906, and continued until winter, during which period five of the roofs were renewed in an entirely satisfactory manner. It is expected that three of the remainder can be rebuilt during the next fiscal year, leaving only that over the rotunda for the summer of 1908. The completion of this undertaking should place the structural part of the building in even better condition than it was in the beginning. It has, fortunately, been possible to carry on this reconstruction without materially disturbing the contents of the halls, or closing to the public more than small areas of the floor at any stage of the work.

The lecture hall in the Museum building, as mentioned elsewhere, was temporarily fitted up at small expense for the immediate purposes of the National Gallery of Art. The changes consisted mainly in closing all openings into the hall, except the necessary doorways,

by fireproof material, and the installation of electric lamps for suitably lighting the pictures and for the general illumination of the hall.

The only further advance made in the isolation of the different halls, as a measure toward preventing the spread of fire, was the filling in of several of the large openings between the piers on the south side of the southwest court.

There were acquired during the year, both by construction in the shops and by outside contracts, 8 exhibition cases, 122 storage cases, 89 miscellaneous pieces of furniture, and 1,721 standard drawers, of which 300 were of metal. The number of articles of furniture now on hand, many being of very large size, is as follows: 2,342 exhibition cases, 2,401 storage cases, 1,676 pieces of miscellaneous furniture, and 37,581 drawers, boxes, etc., used in connection with both the exhibition and storage of specimens. There has been the customary amount of repair and renovation of cases, addition and improvement of fixtures, etc. The experiments looking to the introduction of metal or fireproof storage furniture was continued during the year, and important conclusions were reached in several directions. This work has special reference to the fitting up of the new building, in which it is desirable to provide for the absolute safety of the national collections.

The appropriation for the heating and lighting of the buildings has, as in previous years, proved inadequate, causing much inconvenience. Steam was first raised in the boilers on October 2, 1906, and was shut down on May 12, 1907, but since it could not be maintained, on an average, more than about twelve hours a day, it has been impossible during the colder weather to bring the large halls to a proper temperature at the time of opening in the morning.

Changes in the electric installation begun the previous year were continued and completed. The means have not permitted the use of electric lights beyond the most ordinary needs, however, and during many afternoons in winter extensive parts of the exhibition halls become so dark at an early hour as to prevent the collections they contain from being examined.

ADDITIONS TO THE COLLECTIONS.

The number of accessions received during the year, not including the subject of the fine arts, was 1,398, comprising a total of about 250,000 specimens, of which nearly 4,000 were anthropological, about 145,000 biological, and over 100,000 geological and paleontological. A complete list of these additions is given in the latter part of this report; the more important ones were as follows:

Anthropology.—In physical anthropology one of the principal accessions was a unique series of about 100 human long bones and

scapulæ, obtained in exchange from the College of Physicians and Surgeons, New York. The specimens were selected by Doctor Hrdlička with the view of illustrating all of the principal types of normal variation in size and shape. Twelve skulls of the extinct Huron Indians and a number of other human bones were received in exchange from Laval University, Quebec, through Mgr. J. C. K. Laffamme, and another normal, well-preserved skull of the same tribe was donated by Prof. Henry Montgomery, of the University of Toronto. The skull of a Panama Indian, collected by Edward Barson and transferred by the Bureau of American Ethnology, is the first of its kind obtained from the Isthmus. Other interesting specimens were contributed by Lieut. J. R. Harris, assistant surgeon, U. S. Army; Dr. R. H. Fuhrmann, of St. Louis, Missouri; and Drs. J. D. Murray, D. S. Lamb, W. J. Tompkins, E. L. Morgan, and J. E. Mitchell, of Washington. As in previous years, a considerable number of the brains of mammals and birds were prepared for the comparative brain series, the specimens from which they were obtained having come mainly from the National Zoological Park, and partly as donations from Mr. E. S. Schmid, of Washington.

Among the accessions in ethnology were two gifts from the President of the United States—an American Indian poncho and 50 specimens collected in the Kongo region of Africa by Mr. Clarence Rice Slocum, late consul-general at Boma. Maj. E. A. Mearns, surgeon, U. S. Army, made important additions in continuation of his previous contributions, consisting of implements, utensils, and weapons of the Philippine peoples, and especially of a collection of baskets showing remarkable weaving from the rarely visited island of Palmas, off the southeast end of Mindanao. Mr. A. F. Dresel, of Nelson, Virginia, donated a Cherokee blowgun and two arrows; Dr. J. R. Harris, U. S. Army, a collection of ethnological specimens gathered by him during service in the Philippines; and Mrs. L. E. Bland, of Whiteabbey, Antrim, Ireland, a nest of Malacca baskets and seven samples of old and modern Malacca native lace. Of loans to the division mention may be made of sixteen pieces obtained in Mexico by the late Rev. J. Hendrickson McCarty and deposited by Mrs. L. N. F. McCarty, of Washington; a collection of embroideries and other art treasures from Mrs. A. C. Barney, of Washington; and a superb ancient Korean inlaid silver tobacco box from Dr. William H. Dall, of the Museum. Fifteen specimens, besides photographs and drawings, of Danish, Icelandic, Swiss, and Caucasian weaving devices for making tape were received in exchange from Mr. Henry Volkart, of St. Gall, Switzerland; and a woman's costume from Dalecarlia, Sweden, together with a child's dress, cap, and apron, from Mrs. J. Howard Gore, of Washington. A collection of Greenland Eskimo specimens and of historical objects from the Greely

Arctic Expedition, collected by Dr. Octave Pavy, surgeon of the expedition, were purchased, as were also two rare Chilcootin baskets.

One of the most important donations in prehistoric archeology was received from Dr. L. A. Wailes, of New Orleans, Louisiana. The collection came from Central and South America and may be briefly described as follows: From the Peten district in Guatemala small baked clay heads representing various types of physiognomy and head gear, fragments of large earthenware vases, mainly ornamental parts showing the human face; portions of figures of vases with hands, arms, feet, and legs, modeled in the round, the feet showing sandals and the method of attachment; other fragments representing animal forms, apparently finished in a kind of glaze; pottery whistles, a clay spindle whorl, a small polished stone chisel, and a piece of rosewood with human face carved in profile. From Costa Rica, small carved-stone images, earthenware vases (mainly tripods), and a pottery whistle representing a toad. From Chiriqui, Panama, earthenware vessels and polished stone hatchets, the latter being characteristic of that locality, hexagonal in section with beveled surfaces; a polished stone hatchet from Mexico, an obsidian knife from Honduras, and a pottery bowl of black polished ware, with four animal figures grouped about the rim, from Venezuela. Mr. A. H. Blackiston, of El Paso, Texas, sent as a loan a collection of stone and pottery objects from the Casas Grandes Valley, Chihuahua, Mexico, containing many fine examples of earthenware ollas, bowls, dishes, effigy vases, etc., with painted and incised decorations. The effigy vases representing human, quadruped, and bird forms are remarkable. Among the stone objects are grooved axes, hammers, pestles and mortars, bandstones, grooved arrowshaft straighteners, polishing and discoidal stones, medicine bowls or dishes, notched and grooved stones, amulets, pendants, charm or medicine stones, paint stones, a large circular stone with central hole believed to have been used in a ball game and a number of stone balls, shell beads, pendants and ornaments, bone awls, and a carved bone amulet. This material has been installed with objects from the same locality previously lent by Mr. Blackiston, and together they form a very noteworthy exhibit. The Rev. Robert C. Nightingale, of Swaffham, England, donated an interesting collection of ancient stone implements and fragments of Romano-British urns, obtained in the vicinity of Norfolk, England. The stone objects include hammers, flint cores, flakes, knives and scrapers; the pottery, representing seven different vessels, was found in an old earthwork on which, according to persistent tradition, a temple of Diana formerly stood.

Brig. Gen. P. Henry Ray, U. S. Army, presented several exceptionally good discoidal stones, all polished, and three showing slightly

concave surfaces; they were found together about a foot below the surface, in the hills along the French Broad River, near Asheville, North Carolina, on the site of an old Indian camping place. Prof. E. H. Randle, of Hernando, Mississippi, sent as an exchange a collection of stone implements and other objects, including large chipped blades (digging tools), showing high polish at the broad cutting end; leaf-shaped blades, worked flakes, spearheads and arrow points of flint; polished stone hatchets, one of unusual form; hammer stones, mortar and pestles, stone balls, mullers of stone and hematite; discoidal stones, and an exceptionally fine hematite plummet or sinker. The collection is mainly from western Tennessee and contains many good pieces. The Bureau of American Ethnology transferred to the Museum a number of leaf-shaped blades of rhyolite, from caches recently discovered near Tennallytown, District of Columbia. Dr. Henri Martin, of Paris, France, transmitted in exchange many flint implements, scrapers, knives, points, etc., from a deposit at La Quina, Charente, France. The President of the United States donated a collection of small earthenware figurines, vessels, and whistles from ancient graves in Panama, presented to him on the occasion of his visit to the Canal Zone in 1906. A small unique ornament of pagodite, found near a large Indian mound 5 miles south of Washington, Wilkes County, Georgia, was contributed by Mr. Barry Benson. Casts of several interesting stone objects, borrowed for the purpose, were made in the laboratory of the department.

During the excavations made to uncover the ancient ruins of Casa Grande, Arizona, under a special act of Congress, Dr. J. W. Fewkes, in charge of the work, discovered several hundred small objects which could not be safely left at the spot, and they were accordingly brought to the Museum. They consisted of stone implements, pottery vessels, articles of shell and bone, wooden implements and beams, textile fabrics and basket work, and a number of human skulls and skeletons.

The principal accession to the division of historic archeology comprised specimens of Greco-Egyptian papyrus, a gift from the Egypt Exploration Fund.

The division of technology received a number of very valuable additions, the most important of which was the transfer from the War Department of a collection of 115 rifles, muskets, carbines, and pistols, principally obsolete weapons used by the United States Army between 1800 and 1860. It includes a variety of pieces made at the Government armories at Springfield, Massachusetts, and Harpers Ferry, West Virginia, and examples of the work of several private contractors who manufactured guns of the Springfield pattern for the Government. Among the latter are muskets made by Asa Waters, Millbury, Massachusetts, in 1820, 1821, 1822, 1825, 1826, and 1827;

by Lemuel Pomeroy, Pittsfield, Massachusetts, in 1823, 1828, and 1829; by B. Evans, Valley Forge, Pennsylvania, in 1826, and by P. and E. Blake, New Haven, Connecticut. An especially rare and interesting piece is a United States military musket made by the Colt's Patent Fire Arms Manufacturing Company in 1863. There are also a valuable group of Hall's breech-loading rifles and carbines, showing the development of this arm, which was the first breechloader used in the United States Army, and a number of Jenks' breech-loading rifles and carbines of different models. Many of these pieces possess much individual interest and they serve a valuable purpose in filling gaps in the Museum collection.

As a separate accession there was also received from the War Department a Westley-Richards double-barrel, muzzle-loading, percussion shotgun of a very superior quality and finish, said to have been at one time in the possession of John B. Floyd, Secretary of War under President Buchanan; one Harpers Ferry musket, model of 1856, and a pair of Colt's army revolvers made especially for presentation to a prominent military officer. The Harpers Ferry musket has a round, bronzed, smooth bore, 33-inch barrel of .70 caliber, with a full walnut stock, brass mountings, and percussion cap lock with Maynard tape primer. It was evidently designed as a pattern for use in fabricating guns of this model and is accompanied by a number of steel gauges. The Colt's revolvers are dated 1862, have 8-inch .44 caliber barrels, and solid, bronzed metal handles. The entire piece is elaborately and richly decorated and much of the metal work is gold plated. Combustible envelope cartridges and percussion caps were used with them.

The Museum now has examples of typical guns, of the Springfield pattern, made for and used by the United States Army, of the following dates: 1800, 1814, 1817, 1820, 1821, 1822, 1825, 1826, 1827, 1831, 1833, 1840, 1844, 1845, 1848, 1850, 1851, 1853, 1854, 1855, 1856, 1858, 1859, 1860, 1862, 1863, 1864, 1865, 1866, 1868, 1869, 1870, 1873, 1881, and 1884. The collection is the most comprehensive of its kind in existence. The efforts of the Museum have also been extended to gathering and placing on record all the necessary data for the presentation of a complete history of the subject which these arms illustrate.

The Department of the Interior transferred to the Museum 30 models of important historical inventions, which had been prepared by the United States Patent Office for exhibition at the principal expositions held during the past ten or fifteen years. The most notable objects represented are: Hero's steam engine, made 150 B. C., a grain-harvesting machine used in Gaul, A. D. 70, the Gutenberg printing press of 1440, Papin Deny's steam engine of 1600,

Trevethick's locomotive of 1804, Stephenson's locomotive of 1829, Pixii's magneto machine of 1832, Thomas Blanchard's turning lathe of 1843, and the grain-harvesting machines patented by James Boyce in 1799 and by William Manning in 1831. There is also a series of primitive looms of Egyptian, Roman, and East Indian types, and a Navajo Indian loom. The spinning industry is illustrated by early East Indian and English spinning wheels, Arkwright's machine of 1769, Thomas Hargraves' spinning jenny of 1770, William Peabody's wheel of 1812, Peter Paddleford's machine of 1816, and Moses Day's machine of 1836. A number of pieces of apparatus devised and used by Emile Berliner, of Washington, between 1867 and 1879, illustrating important steps in the development of his inventions relative to the battery telephone transmitter, were deposited by the American Bell Telephone Company. The Santos-Dumont airship No. 9, was presented to the Museum by Mr. Edward C. Boyce, of New York.

For exhibition in the division of ceramics, Miss E. R. Scidmore, of Washington, has lent a fine collection of pottery, gathered during her visits to Japan. It consists of 90 pieces, including examples of Seto, Satsuma, Takatori, Ninsei, Bizen, Kioto, Iga, Tokonamo, Owari, Oribe, Raku, Karatsu, Kiomidzu, Awata, and some Korean ware and ivory white porcelain. For several years past, through the initiative of Mr. Frank R. Haynes, chairman of the Art and Design Committee of the American Potters' Association, a number of American potters have been contributing samples of their best work to the national collection. The gifts from this source during the past year were as follows: An art vase from the Pope-Gosser China Company, of Coshocton, Ohio; examples of Nipur and metalline ware from the Cook Pottery Company, of Trenton, New Jersey; two specimens of crystal patina ware from the Clifton Art Pottery, of Newark, New Jersey; a specimen of overglaze pottery from Mr. S. A. Weller, of Zanesville, Ohio, and five historical plates of blue Wedgwood ware from the Jones, McDuffee & Stratton Company, of Boston, Massachusetts. The Fostoria Glass Company, of Moundsville, West Virginia, presented 21 specimens of etched glass. From the Pennsylvania Museum and School of Industrial Art, at Philadelphia, there were obtained by exchange 5 pieces of porcelain made about 1825 by William Tucker, of Philadelphia, whose factory suspended in 1838, and a small octagonal earthen dish with slip decoration made by Pennsylvania German potters about 1830. The former ware was the first hard-paste porcelain produced in the United States and is now very rare. Mr. B. P. Richardson, of New York City, donated a specimen of Rouen ware, and Mr. Harold I. Sewall, of Bar Harbor, Maine, deposited a pair of blue and white jars of Chinese porcelain, purchased at the recent Heber R. Bishop sale.

An important addition to the division of graphic arts consisted of a set of 42 volumes of Voltaire's works, bound in full Persian morocco, reproducing in 15 designs many of the rare and beautifully bound books of the courts of Europe. It was the work of the St. Hubert's Guild of Art Craftsmen, Akron, Ohio, by whom it was presented. Among the accessions in photography were 10 colored photographs of the normal solar spectrum, purchased from Prof. J. F. Ames, of Johns Hopkins University; a color photograph made and presented by Mr. M. Miley, of Lexington, Virginia; 12 photographs in velox, royal velox, and royal bromide, the gift of the Eastman Company, of Rochester, New York; and a landscape in velox, contributed by E. J. Pullman, of Washington.

Among musical instruments the principal accession was a church organ, said to have been in this country two hundred and three years. It was presented by the vestry of St. Thomas Church, Hancock, Maryland, from which it was recently removed. Especially noteworthy among the additions to the division of medicine was a series of photographs of eminent American physicians, who have been prominently connected with the progress of medicine and surgery. The original pictures were obtained from many sources, and the copies made in the photographic laboratory of the Museum.

The division of history received 63 permanent accessions and 13 loans. The most important of the former consisted of personal relics of the late Secretary Samuel Pierpont Langley, the gift of his family to the Smithsonian Institution. They comprise a number of pieces of apparatus of his own devising, illustrating some of his early work, besides 15 medals, 77 diplomas, and other objects, all of which have been arranged in one of the cases in the hall of history. To the already large series of memorials of soldiers and sailors of the United States there were added a sword presented to Rear-Admiral Shubrick for distinguished services on the ship *Constitution*, lent by his granddaughter, Mrs. T. F. Bayard; the commissions of General Kilpatrick, lent by his daughter, Mrs. Henry H. Morgan; a silver service of Commodore John Kelly, presented by his daughter, Mrs. Ellen M. Davis; the army uniform of Lieut. C. R. Carville, presented by Mrs. E. C. Fiedler, and the sword carried by Col. Æneas Mackay, aid-de-camp to Alexander Macomb, U. S. Army, in the war of 1812, Seminole war, and the war with Mexico, presented by Miss Cornelia McK. Bogy.

Among the accessions to the division of historic religions were a collection of lamps, amulets, and embroideries used in Jewish religious life, deposited by Hadji Ephraim Benguiat, of New York; a Jewish prayer cap, lent by Dr. Harry Friedenwald, of Baltimore, Maryland; two sets of Catholic priests' vestments, one presented by the Rev. Joseph Mendl, of Montclair, the other by the Rev. P. T.

Carew, of Ridgewood, New Jersey; a Catholic priest's cassock, donated by the Rev. John F. Fenton, D. D., Brookland, District of Columbia, and a collection of 58 Chinese and Japanese rosaries, deposited by Miss E. R. Scidmore, of Washington. The rosaries of Miss Scidmore are of various materials and makes, and some are finely carved; from the point of view of the study of religious sentiments and practices, they are highly interesting, as they invite a comparison of the form and use of the rosary in Brahmanism, Buddhism, Catholicism, and Mohammedanism.

Biology.—One of the most noteworthy contributions to the department of biology was a collection made in the Philippine Islands by Dr. Edgar A. Mearns, U. S. Army, consisting chiefly of mammals, birds, reptiles, fishes, and mollusks, many of which came from localities not heretofore explored by naturalists.

The Bureau of Fisheries transmitted large and important collections of fishes, mollusks, crustaceans, crinoids, and other marine invertebrates, and many specimens of birds, from the expedition of the steamer Albatross to the northwestern Pacific Ocean in 1906, during which the Okhotsk Sea, the Aleutian Islands, the Commander Islands, Kamchatka, the Kuril Islands, and Japan were visited. The same Bureau also transferred nearly 200 species of Japanese fishes, including many new and rare forms, collected by Dr. Hugh M. Smith, Deputy Commissioner of Fisheries, in 1903; the alcyonarian corals (with 36 types) and the hydroids (with 25 types) from the Hawaiian explorations of 1902, described by Prof. C. C. Nutting; the medusæ from the same source, reported on by Dr. A. G. Mayer; 9 species of the myzostome parasite of crinoids from Japan, described by Dr. J. F. McClendon; specimens of the rare tunicate, *Octacnemus*, from the Albatross cruise of 1904-5 in the eastern Pacific Ocean, and over 3,000 specimens of fishes obtained by Prof. W. P. Hay in several streams in West Virginia.

The principal transfers from the Department of Agriculture were as follows: From the Bureau of Entomology, about 5,000 miscellaneous insects from various localities and 2,500 Lepidoptera from Mexico presented by Mr. R. Muller; from the Biological Survey, 200 reptiles from Lower California, collected by Mr. E. W. Nelson and Mr. E. A. Goldman, and 448 specimens of plants; from the Bureau of Plant Industry, 3,663 specimens of plants. A number of animals, mainly mammals and birds, were received from the National Zoological Park, the most important being a moose, llama, Brazilian tapir, thar, markhor, Bactrian camel, lion, nilghai, zebu, rhea, and California condor.

The principal accessions consisting wholly of mammals comprised about 100 specimens, mostly bats, from Venezuela, Cuba, and Jamaica, presented by Capt. Wirt Robinson, U. S. Army; 29 specimens

from Kan-su Province, China, from Mr. W. W. Simpson; 27 specimens from the Philippines, donated by Lieut. George C. Lewis, U. S. Army; a mounted skeleton of Gray's beaked whale (*Mesoplodon grayi*), and a miscellaneous collection consisting of species not previously represented in the Museum, from Kashmir, Peru, Venezuela, and England.

Through exchange with the Hon. J. E. Thayer, the Museum obtained 177 specimens of humming birds from Costa Rica, comprising 26 species, one of which is new to the collection. A small collection from various parts of the world was purchased for the purpose of filling important gaps. The section of birds' eggs acquired several noteworthy additions. One of these, obtained through Prof. Axel Johan Einar Lönnberg, of Stockholm, consisted of a set of the eggs of Ross's gull (*Rhodostethia rosea*), from breeding grounds recently discovered by Mr. S. A. Buturlin, of Russia, near the Kolyma Delta in northeastern Siberia. Another comprised five eggs and a nest of Kirtland's warbler (*Dendroica kirtlandi*), received in exchange from Mr. E. Arnold, of Battle Creek, Michigan. While this rare species has been known since 1852, its breeding grounds, a limited area in northern Michigan, were located only a year or two ago. Two eggs of the rare eared trogon (*Euptilotis neovenus*) were obtained from Mexico, and some 800 eggs and 18 nests of American and Chinese species were contributed by the Rev. E. B. and Mr. Harry R. Caldwell.

For the division of reptiles and batrachians a valuable collection made by Dr. Franz Werner, comprising about 160 species and subspecies, chiefly from Eastern Europe and the Mediterranean countries, was acquired by purchase. Princeton University presented 83 specimens of reptiles from Patagonia, composing the first set of duplicates from the collection made by the late Dr. J. B. Hatcher and studied by Doctor Stejneger. Prof. C. H. Eigenmann donated 60 specimens from Cuba, and Mr. Julius Hurter 18 specimens, chiefly from Missouri. Among the latter were 3 specimens of the salamander, *Spelerpes stejnegeri*, not previously represented in the Museum, and several specimens of the rare cave salamander, *Typhlotriton spelæus*. Many specimens were collected by members of the Museum staff in Virginia, in the vicinity of Wilmington, North Carolina, and in Colombia, and some valuable material was contributed by the National Museum of Costa Rica.

About 25,000 specimens of fishes were received during the year. Next to the transfers from the Bureau of Fisheries, the most important accessions consisted of a set of Philippine fishes, including several new species, presented through the Bureau of Fisheries by the Philippine Commission to the St. Louis Exposition; and an excellent

collection of about 400 Australian fishes, comprising 119 species, obtained in exchange from the Australian Department of Fisheries.

The collection of mollusks was increased by over 19,000 specimens. The dredgings of the Albatross in the northwestern Pacific and adjacent waters constituted the principal source of supply, rich in new material, the Okhotsk Sea especially furnishing many interesting novelties from a region where but little collecting had previously been done. The next most conspicuous accession was an exchange from the Senckenbergische Naturforschende Gesellschaft, Frankfurt am Main, Germany, comprising some 600 species and many cotypes of species described by the late Herr Mollendorf from the Philippines and eastern Asia, all named and labeled with localities, forming a most desirable addition from a region hitherto but poorly represented in the Museum. Useful also in the same connection was the contribution of Dr. E. A. Mearns, who sent a large collection of miscellaneous shells from the Philippines containing many specimens of interest. Next should be mentioned the results of the explorations in the vicinity of Wilmington, North Carolina, by Dr. Paul Bartsch, of the Museum staff, who secured a very large number of specimens of land and fresh-water mollusks, comprising several novelties and a good series of the rare *Planorbis magnificus*, which was the special object of the trip.

The Museum is indebted to the energy and generosity of Prof. H. Pittier, of the Department of Agriculture, who, during his botanical researches in tropical America, found time to gather several lots of exceptionally interesting land shells, containing a number of species new to the collections. Dr. Edward Palmer, of the same Department, and under similar conditions, increased the series of Mexican species by acceptable additions. The Museum is also under obligations to its old correspondent, the Rev. W. A. Stanton, S. J., for valuable material from British Honduras.

The division of insects received over 44,000 specimens, comprised in 396 accessions, some of the more important of which were as follows: Prof. P. R. Uhler, of Baltimore, presented 20,000 specimens of Hemiptera, comprising the larger part of the celebrated collection which he has been assembling for many years. Mr. William Schaus donated 8,000 specimens of Lepidoptera, constituting the result of his collecting in Mexico and Central America during the past year, and in continuation of his large gift of a year ago. The Department of Agriculture transmitted about 5,000 specimens of different groups obtained during field work by members of the Bureau of Entomology. Through the same source, Mr. R. Muller, of the City of Mexico, presented over 2,000 Lepidoptera from Mexico, of which the species were determined and the names supplied to him. Other donations worthy of mention were 500 Coleoptera from

Santiago de Las Vegas, Cuba, contributed by Mr. Carl F. Baker; 375 Hemiptera and other insects from Mr. H. G. Barber; 350 bees from Mr. E. S. G. Titus; 260 Hemiptera from Mr. G. Beyer, and 240 Cuban Lepidoptera from Mr. Mel T. Cook.

Besides the large amount of material from the Bureau of Fisheries, already referred to, the division of marine invertebrates received several important small accessions, of which the following were the most noteworthy: From Dr. R. von Lendenfeld, Prague, Austria, 238 microscopic slides of sponge sections and spicules, prepared largely from type specimens from the German and other deep-sea expeditions, and from Australia, Zanzibar, and the Adriatic, the basis of eighteen published reports; specimens of madreporarian corals collected by Dr. J. E. Duerden at the Hawaiian Islands and presented by the Carnegie Institution, and from French Somaliland, received in exchange from the Museum of Natural History, Paris, France. Thirty-five species of Malayan crustacea, reported on by Dr. J. G. de Man, were contributed by the Natural History Museum, of Lubeck, Germany.

The number of specimens added to the helminthological collection was 514, of which the greater number were obtained by transfer from the Bureau of Animal Industry, Department of Agriculture, and many from the United States Public Health and Marine-Hospital Service.

In addition to the specimens transmitted by the Department of Agriculture, the division of plants acquired many important collections. Through exchange with the Jardin Botanique de l'Etat at Brussels there was received a series of 900 plants collected in Mexico by H. Galeotti many years ago. It is rich in types and will prove of great value in connection with the studies of the Mexican flora now in progress. About 1,300 Mexican plants were collected for the Museum by the associate curator, Dr. J. N. Rose, and 1,648 specimens were purchased. A number of gifts of Central American plants, comprising in all 1,405 specimens, were made by Prof. H. Pittier. About 3,200 plants were collected in eastern Cuba by the assistant curator, Mr. W. R. Maxon, and other West Indian plants to the number of about 3,100 were received from the New York Botanical Garden. By exchange with the Bureau of Science, Manila, the Museum acquired 5,571 Philippine plants, and 175 tropical specimens were obtained in the same manner from the Copenhagen Botanical Museum. Mr. H. D. House added 700 specimens from South Carolina to his previous donations; Mr. E. S. Steele gave the Museum about 5,000 specimens collected by him in the District of Columbia and vicinity, and 1,332 California plants were purchased. Mrs. J. M. Milligan, of Jacksonville, Illinois, presented her private herbarium of about 2,200 specimens, and the collection of the late Prof. T. A.

Williams, comprising about 4,400 specimens, was purchased. Two small collections of European plants were obtained through exchange with the Botanical Garden at Brussels and the Natural History Museum at Freiburg, Switzerland.

Geology.—The more important accessions in the division of systematic and applied geology were as follows: A quantity of iron meteorites, "shale balls," altered sandstone, etc., from Coon Butte, Arizona, deposited by Mr. D. M. Barrington, of Philadelphia; a similar collection from the same region, obtained by the head curator of geology during his investigations in May, 1907, under a grant from the Smithsonian Institution; 621 specimens of rocks and ores, secured during investigations by the U. S. Geological Survey, from Encampment and the Big Horn Mountains in Wyoming, the Pearl district and the Silverton and Ouray quadrangles in Colorado, the Snoqualmie quadrangle in Washington, and the Penobscot Bay quadrangle in Maine, and six fine examples of fractured and crushed bowlders from the Deer Creek coal fields of Arizona; a fine large mass of scheelite from Atolia, San Bernardino County, California, donated by the De Golia & Atkins Company; a representative series of copper and nickel ores, from Copper Cliff Mines, Ontario, presented by the Canadian Copper Company; a selected series of Bohemian igneous rocks, in exchange, from Dr. J. E. Hibsck; and a number of scarred pebbles from the ground moraine of China, collected by Mr. Bailey Willis and deposited by the Carnegie Institution.

The division of mineralogy received a small collection of specimens of native gold from mines in the Grass Valley district of California, donated by the President of the United States; several minerals new to the collection or representing new localities, and meteorites from the following places: Santa Rosa, Colombia; Elm Creek, Kansas; Rich Mountain, North Carolina, through exchange with the State Museum, Raleigh; Uberaba, Brazil, through exchange with the K. K. Naturhistorisches Hofmuseum, Vienna; La Becasse, France, through exchange with the Museum of Natural History, Paris; and Selma, Alabama, presented by the American Museum of Natural History, New York.

The division of stratigraphic paleontology was the recipient of the most extensive and valuable accessions of any of the branches of this department. The U. S. Geological Survey transferred about 45,000 specimens of fossil invertebrates from the pre-Cambrian, Cambrian, and Ordovician horizons of the United States, composing the collection which has for some years past been the subject of special study by Dr. Charles D. Walcott. The Hon. Frank Springer, who purchased during the year the so-called Pate collection of fossil invertebrates, after reserving the crinoids in which he is personally interested, presented the remainder, comprising about 50,000 specimens,

mainly from the Paleozoic rocks of the Mississippi Valley, to the National Museum. This gift is of exceptional value in that it represents the fauna of horizons and localities in which the Museum has been deficient. Mr. Springer also donated about 500 specimens of fossil invertebrates from the Devonian of Callaway County, Missouri, and two fine exhibition specimens, one a type of *Archimedes wortheni*. Other noteworthy additions of fossil invertebrates were the Nettelroth collection, containing practically all of the many types figured in Nettelroth's "Kentucky Fossil Shells," many of the specimens illustrated by Davis in his "Kentucky Fossil Corals," and an especially fine representation of the Silurian and Devonian faunas of Indiana and Kentucky; a collection of 120 Cretaceous fossils from San Juan Royá, Mexico, the gift of Prof. Charles Schuchert, of Yale University; and a series of plastotypes of all the types of Cambrian Ostracoda described by Dr. George F. Matthew, the specimens having been lent to the National Museum for the purpose by Prof. W. A. Parks, of the University of Toronto.

Among the additions to the section of fossil vertebrates were casts of four specimens, including three skulls and an entire skeleton, of *Pareiasaurus bairdi* from the Karoo beds of South Africa, received in exchange from the British Museum; teeth and other skeletal remains from the Oligocene of Germany; and a life size restoration in place of a Pteranodon, made by Dr. George F. Eaton, and received from the Yale University Museum.

Twenty-two specimens of fossil plants from the Fort Union Tertiary of North Dakota, presented by Dr. F. H. Knowlton, of the U. S. Geological Survey, and a large quantity of fossil wood from the Fossil Forest of Arizona, collected by the head curator, were among the additions to the section of paleobotany.

GENERAL WORK ON THE COLLECTIONS.

The revision of the osteological collections in physical anthropology, a considerable part of which had been gathered before the recent establishment of the division, was completed during the year. This work involved the cleaning, sorting, numbering, and cataloguing of many specimens, and the systematic arrangement of all in standard drawers, the order followed being geographical by tribes. The storage quarters were remodeled and so extended as to render accessible every specimen in the collection, which comprises parts of about 8,000 skeletons. The card or reference catalogue was completed for all of the collections of the division. A number of busts of Indians were made, the opportunity for this having been furnished by visiting delegations.

In the division of ethnology the storage space was also somewhat increased, permitting the classified arrangement of many additional

specimens belonging to the reserve series. Much of the time of the preparators was directed, as in all previous years, toward the preservation of objects subject to injury by insects and other agencies, such as dust, dryness, moisture, and chemical decomposition. Pottery is more or less subject to deterioration by some of these causes, showing in the exfoliation of the ware. This has been especially noticeable in the ancient Pueblo pottery, which was treated during the year with an impervious dressing that promises to be effective.

A card catalogue was made of the Etruscan bronzes and potteries, Samian and Aretine ware, Egyptian and Trojan antiquities, preparatory to their transfer from the division of prehistoric archeology to that of historic archeology.

In the department of biology, as elsewhere, there is great difficulty in safeguarding the reserve collections, because of the very inadequate facilities for storage, and this lack is especially felt in connection with the mammals, in view of the relatively large size of many of the specimens. The collection of mammals is in fairly good condition so far as it is kept in the Museum building, but the large number of specimens stored in outside temporary quarters are difficult of access and can not, therefore, be properly looked after. The collection of skins of North American squirrels was transferred during the year to new insect-proof cases, and the bat skins were rearranged on the basis of the classification recently elaborated by Mr. Gerrit S. Miller, jr. Similar work with reference to the insectivores and the field mice of the genus *Peromyscus*, of which there is a very large series, was begun. The skulls of the three groups mentioned were entirely rearranged, and the cases and drawers containing them were fully labeled. Metal cases were provided for the skins of seals and sea lions, which had previously been unprotected. About 100 large mammal skins were made up and 65 were tanned. The number of mammal skulls cleaned was approximately 3,000, of which about two-thirds were of medium to large size.

A beginning was made in relabeling the reserve collection of birds, one of the largest and most valuable in the world, originating in the field work of Prof. Spencer F. Baird before he became Assistant Secretary of the Smithsonian Institution in 1850. The importance of this work has repeatedly been pointed out by the curator of the division, but with the present force its completion will require a considerable length of time. A number of valuable skins were repaired by the taxidermists, and all of the specimens received during the year were put away in their proper places, except those sent from the Philippine Islands by Doctor Mearns, which await his return for study and cataloguing. Notwithstanding the crowded condition of the bird collection, its storage in three separate quarters,

and the constant use made of it by many persons, the material remains in good condition.

In the several divisions of reptiles, fishes, mollusks, and other aquatic invertebrates, the alcoholic specimens, which fill many thousands of cans, jars, and vials, and require unremitting oversight to insure their preservation, have received the proper amount of attention. Work on the systematic arrangement of the reserve series of fishes has been continued, and several thousand specimens have been assigned their appropriate places on the shelves. Many duplicates were separated out and numerous miscellaneous lots of specimens were identified. Nearly 19,000 specimens were catalogued, and a considerable amount of time was spent on the card catalogue of type specimens, of which the Museum has a very noteworthy series.

The collections of insects have been maintained in good condition, although, outside of the Lepidoptera and Orthoptera, they are mainly contained in drawers of a temporary and insecure character. New drawers of hardwood with hermetically closing covers, fitting in steel racks, are being supplied as rapidly as the funds permit, and a large number have already been installed. Under the present conditions, however, the work of classifying and arranging the immense collections in this division must consume many years, and relatively little progress could be made except for the cooperation of the Bureau of Entomology of the Department of Agriculture.

In the division of mollusks much was accomplished in the direction of labeling, registering, and adding to the reserve series. This applies as well to the Jeffreys collection, obtained some years ago, of which the identification of all specimens is being verified, and the final installation is now about two-thirds completed. A system of card catalogues has been started for convenience in referring to collections and in providing information as to the representation of species from especially interesting geographical areas. The study series is completely labeled and readily accessible by means of index cards. The identified specimens which have accumulated in the division of marine invertebrates during recent years, and also the general collections of actinians, hydroids, and ascidians were entirely catalogued. The large catalogue cards on which the starfishes and ophiurans were originally recorded were discarded for the smaller library size, to which the data were transferred.

Under an arrangement made by Professor Baird, when United States Commissioner of Fisheries, Prof. A. E. Verrill, of Yale University, was placed in charge of the working up of the collections of marine invertebrates secured during the seacoast investigations of the Fish Commission from 1871 to 1887. In lieu of a regular salary Professor Verrill was to receive the first set of duplicates, while the

first or reserve series of specimens and the remainder of the duplicates were to come to the National Museum. A partial separation under this agreement was made several years ago, but the final adjustment of the matter, in which the great bulk of the collections is concerned, was left to be taken up during the past year. The work began in April, 1907, and will occupy at least six months. The two assistant curators of the division of marine invertebrates have been detailed to cooperate with Professor Verrill in carrying out this important undertaking, which will result in the transfer to the Museum of many thousands of valuable specimens, including a great number of types, and of species not hitherto represented in the collections.

In the division of plants the rearrangement of the herbarium on the system of Engler and Prantl, which has been mentioned in previous reports, was nearly completed. Specimens to the number of 28,378 were incorporated in the permanent series, making the total number of sheets so disposed of since the transfer of the collection to the Museum 319,982. The number of specimens mounted during the year was 9,617. One hundred and sixty-eight pigeonholes were added to the herbarium stacks, bringing the total to 10,362. The matter of adopting metal cases received further consideration, and a trial case has been in use during a part of the year.

All the skulls and skeletons of birds in the division of comparative anatomy contained in the Museum building were rearranged in accordance with Sharpe's classification. A catalogue was made of all the osteological material stored in the west shed on Ninth street, with the exception of the birds preserved in alcohol, from which skeletons are to be prepared at a future time. Apart from a few skeletons and some very large pieces, all the miscellaneous mammalian skeletons were brought into the Museum building, in order that such as were of value might be put in their proper places.

The chief taxidermist remounted the group of Polar bears presented by Mrs. E. M. Ziegler, the position of the bears being changed, a seal introduced, and new groundwork constructed. A Kashmir stag was also renovated and 41 small mammals were mounted. The latter represent a distinct advance in a branch of taxidermy, which has always been considered very difficult, special care being taken to faithfully represent the physiognomy and characteristic attitudes of these little animals. The results are very satisfactory, especially in those cases in which it was possible to use fresh skins. The species were chiefly North and South American and European. About 90 other specimens and groups were repaired or prepared for the reserve series. The taxidermist assigned directly to the division of mammals, besides much miscellaneous work, made up 96 skins for the study series and skinned 19 other mammals and 12 reptiles. The bird taxidermist was chiefly engaged in remounting valuable large Old

World birds belonging to the exhibition series and cleaning and repainting the bills and feet of others.

The osteological preparator and his assistant were mainly occupied in roughing out skeletons from fresh specimens received from the National Zoological Park and elsewhere, in preparing a series of orang skeletons received from Dr. W. L. Abbott, and in cleaning mammal skulls. Many of the last mentioned were large, and the fresh specimens from the Zoological Park included such forms as the camel, zebu, sea wolf, thar, markhor, and rhea.

The chief modeler and general preparator was engaged principally in overhauling and completing the insect exhibit, in cleaning corals, and in preparing plaster models of various subjects. An important work was the restoration of the jaws of two fossil porpoises, one of which was a type specimen.

In the department of geology the systematizing of the petrographic material received from the U. S. Geological Survey, and the separation and labeling of the duplicates has advanced rapidly. This collection is now in better condition than ever before. The entire exhibition series of minerals and gems was overhauled and cleaned.

The arrangement of the Pate and Ulrich collections of fossil invertebrates, two of the largest accessions of the year, required a large amount of attention, a total of 12,368 specimens having been numbered and registered.

Aside from the preparation of specimens, the work in the section of vertebrate paleontology consisted largely in designating the types, cotypes, and illustrated specimens, completing the records, preparing card catalogues, and revising the manuscript and correcting the proofs of the Type Catalogue Bulletin. For the first time in the history of the department it is possible to state with comparative certainty the nature and whereabouts of the type material in this section. The contents of 123 boxes, received from Dr. J. B. Hatcher and Mr. C. H. Sternberg, upward of twenty years ago, have been cleaned and repaired, and are now ready for the preparation of mounted specimens or for use as duplicates. This collection consists largely of the remains of the fossil rhinoceros, *Teleoceras fossiger*, and comprises 10,500 bones in various states of preservation. With this material was discovered a nearly complete skeleton of a new species of small horned rodent. Seventy-eight storage trays of *Titanotherium* material were cleaned and sorted, and satisfactory progress was made in working up the *Camptosaurus* remains, among which were discovered a fairly complete skeleton of *C. dispar*, and sufficient portions of the type specimen of *C. nanus* to make a full restoration of this form.

The preparator in the division of geology has been occupied, as heretofore, in cutting sections and making casts, and in the general

work of preparing specimens for exhibition. The number of catalogue cards prepared was 7,140, of reference cards 1,860, and of labels 1,745. Numbers in india ink or oil colors were placed on 23,586 specimens, this being the only certain method of securing their identity. A large number of duplicate specimens were made up into labeled sets for sending to educational establishments.

In the preparation of the Type Catalogue, already referred to, the collections have been greatly benefited, since it resulted in the segregation and appropriate labeling of the several thousand type specimens in the department, which have thereby been made readily accessible. This work has occupied the attention of the several experts in the department during several years, and the time they have put upon it has been more than justified.

EXHIBITION COLLECTIONS.

While the subject of physical anthropology, owing to lack of space, has not been illustrated in the public halls except by a number of Indian busts in the northwest range, several interesting collections have been made accessible in the laboratory of the division, for the benefit of intelligent visitors, as follows: A series of skulls from Peru and Bolivia, showing pre-Columbian trephining; several sets of fossil human bones, skulls from Rock Bluff, Illinois, Lansing, Kansas, etc., forming a series of supposed geological antiquity; casts of quaternary human skulls and other bones from Europe and of the calvarium of the Pithecanthropus, with a group of modern Indian skulls showing low forms of development; a series of artificially deformed skulls illustrating the three principal types of deformation; painted, graven, and otherwise prepared skulls from North America, New Guinea, and Indonesia; a racial collection of pelvises; the skeleton of an Indian giant and one of an Indian pigmy; a series of types of normal variation in human bones; a series of human and animal brains, etc.

In ethnology one new group, consisting of five figures of Roumanian peasants in costume, was prepared and installed, and a figure of an Aino woman was modeled and added to the Aino case. The pottery in the wall cases of the Pueblo court was rearranged.

The most important additions to the exhibition in the hall of prehistoric archeology consisted of several hundred flint and bone implements and many fossil bones, including fragments of the jawbones and teeth of the mastodon, mammoth, bison, and horse, from a sulphur spring at Afton, Indian Territory, which had been used as a shrine by Indians; the loan collection of Mr. A. H. Blackiston from Casas Grandes Valley, Mexico; and a number of series of cache implements from several localities.

The collection of casts of classic sculpture, formerly in the graphic arts court, was transferred to the hall now occupied by the National Gallery of Art.

Much progress was made in improving the installation and labeling in the division of technology. The superb collection of arms deposited by the United States Cartridge Company was moved to the east hall adjoining the general exhibit of firearms, where it properly belongs. The Lilienthal flying machine was repaired and hung from the roof in the east hall, and the Hargrave machine is being prepared for exhibition in the same place. A large number of objects were sent from this division to the Jamestown Exposition, causing many temporary gaps in the exhibition halls.

A few additions were made to the exhibition series in ceramics, the graphic arts, musical instruments, and medicine, and more important ones to the historical collection.

Under existing conditions an extension of the biological exhibits is scarcely practicable except in the case of small specimens, and the efforts of the staff have been mainly directed toward keeping the collections from deterioration and making such improvements as are possible. The largest pieces added to the mammal series this year were a grizzly bear and a skeleton of the beaked whale, *Mesoplodon grayi*. A very large skeleton of another species of beaked whale, *Berardius bairdii*, was laid out preparatory to mounting. About 40 small mammals, supplying deficiencies in the Nearctic, Neotropic, and Palearctic series, were also installed. The new style of label holder mentioned in last year's report was put into use in connection with the exhibit of North American birds. The taxidermists have remounted many of the valuable Old World birds and have cleaned others, besides renovating the older groups of both mammals and birds. A large amount of relabeling was done.

About 3,000 specimens were added to the insect exhibit, and also seven groups in Riker mounts, illustrating the life histories of insects. It was found necessary to shut off another small section of the hall containing the reptiles and fishes for the accommodation of additions to the reserve collection of insects. This action involved the rearrangement of all the exhibition cases in the hall.

The display series in systematic and applied geology was increased by 175 specimens and that of minerals by 91 specimens. The most conspicuous additions to the exhibit of vertebrate paleontology consisted of a cast of *Parciasaurus baini*, a restoration of Pteranodon, and two remounts of the New Zealand Moa.

RESEARCHES.

In the division of physical anthropology Doctor Hrdlička, assistant curator, completed comparative studies on orang skulls from Western Borneo, on the cranial fossæ in man and the higher primates, and on the osteological specimens in the collection having relation to the antiquity of man in America. He also continued his investigations on the racial variations of the humerus, the brain weight in animals, and the action of preservatives on the brain. Studies on the orang skeleton and on the cranial capacity of Indians were taken up. In the course of and for the benefit of his researches, Doctor Hrdlička visited the College of Physicians and Surgeons, New York; Laval University, Quebec; Anastasia Island, on the east coast of Florida, and the States of Nebraska and Iowa.

Professor Mason, head curator, and Doctor Hough, assistant curator of ethnology, were mainly occupied in studying the aboriginal culture of the Malays and other peoples of the East Indies, as exemplified in the large collections made and presented by Dr. W. L. Abbott. Doctor Hough continued his work on the history of heating and illumination and on the Pueblo collections, and completed two papers, one on the agave as a culture plant, the other on the palm and agave as nature plants. An account of the Museum-Gates expedition of 1905 has been begun. A large series of Eskimo ivory needlecases was lent to Dr. Frank Boas, of Columbia University, for use in a special investigation on the development of ornament and in his general work on the Jesup North Pacific Expedition.

Mr. Holmes, curator of prehistoric archeology, made extensive use of the collections of that division in the preparation of numerous descriptive articles for the Handbook of American Indians, the first volume of which was issued by the Bureau of American Ethnology about the close of the fiscal year. In the course of this work he also made more detailed studies for embodiment in a monographic paper on stone implements.

The assistant curator of historic religions, Doctor Casanowicz, has in course of preparation a description of the exhibition collection of Jewish religious rites and ceremonials, which is probably the finest in the country.

Many persons visited the Museum for the purpose of examining specimens in ethnology and archeology, and a few lots of specimens were also lent to assist in the conduct of investigations elsewhere.

Some of the more important biological researches completed during the year are best indicated by the titles of the resulting publications, such as the fourth part of the work on the Birds of North and

Middle America, by Mr. Ridgway; the Mammals of the Mexican Boundary, by Doctor Mearns; the Families and Genera of Bats, by Mr. Miller; the Herpetology of Japan, by Doctor Stejneger; and the Madreporarian Corals of the Hawaiian Islands and Laysan, by Doctor Vaughan.

Doctor Lyon, assistant curator of mammals, completed or had in preparation papers on Doctor Abbott's recent collections of mammals from western Borneo and the coast and islands of northeastern Sumatra, on Burchell's zebra, and on mammals from Mount Rainier, Washington, and Kan-su Province, China. The catalogue of type specimens of mammals, mentioned in previous reports, was made ready for printing. A number of specimens of mammals were sent to naturalists connected with the British Museum for study and comparison, and a few to American naturalists. As in previous years, the members of the Biological Survey made considerable use of the collections.

The head curator of biology, Doctor True, examined the types of fossil cetaceans in the collections of Johns Hopkins University, the Woman's College of Baltimore, the Maryland Geological Survey, and the Philadelphia Academy of Natural Sciences, preliminary to the study of the related material in the National Museum, and to a revision of the North American genera and species. He prepared an account of the type specimen of *Agorophius pygmaeus*, to accompany an unpublished plate which had been engraved for the Smithsonian Institution some fifty years ago, and a description of the type of *Anoploussa forcipata*, of which a cast has been presented by the Museum of Comparative Zoology. He also continued work on the National Museum collection of recent species of beaked whales, giving special attention to the genera *Mesoplodon* and *Berardius*.

Mr. Ridgway, curator of birds, began the writing of Part V of his work on the Birds of North and Middle America, his investigations in that connection relating especially to the humming birds. He was assisted in the measuring of specimens and the preparation of references for the synonymical tables by Mr. Riley, aid. Doctor Richmond, assistant curator of birds, added about 3,500 cards to the card catalogue of genera and species of birds, on which he has been engaged for some years. He also began upon an ornithological bibliography supplementary to that of the Zurich *Concilium*. Mr. H. C. Oberholser, of the Biological Survey, continued his studies on the collections of birds from Sumatra, Borneo, and the China Sea, contributed by Dr. W. L. Abbott. Mr. Austin H. Clark, of the Bureau of Fisheries, spent some time during the winter in working up the birds collected by the Fisheries steamer Albatross during the expe-

dition of 1906 in the Northwest Pacific Ocean. He also identified various species in the Museum collections from Japan, Korea, and elsewhere, and described a number of new species. The members of the American Ornithologists Union and its committee on nomenclature consulted the collections, as did the naturalists of the Biological Survey.

Doctor Stejneger, curator of reptiles, was largely occupied in completing his Herpetology of Japan, to which reference has already been made. He continued work on the Philippine and West Indian reptilian faunas, and took up the study of the Costa Rican. He also began on a revision of the North American salamanders, for which special field work was undertaken, and published a paper on the origin of the Atlantic fauna and flora of Norway, based upon material in the Museum.

Doctor Evermann, curator of fishes, in conjunction with Mr. Alvin Seale and Mr. W. C. Kendall, studied and reported on a collection of fishes from Argentina and on two collections of Philippine fishes, one made by Dr. E. A. Mearns, the other received from the Philippine government. Doctor Evermann, with the help of Mr. E. L. Goldsborough, also did considerable work on the collections of fishes from the coasts of Alaska, British Columbia, Washington, Oregon, and California. Mr. Bean, assistant curator of fishes, and Mr. Seale prepared a paper relating to Philippine fishes. Many specimens of fishes, mainly from different parts of the Pacific Ocean, were sent to Stanford University for study by Dr. David S. Jordan and Dr. C. H. Gilbert; and several rays and a specimen of *Katheostoma* were lent to Dr. Ulric Dahlgren, of Princeton University, for examination.

Doctor Dyar, acting assistant curator of insects, continued the preparation of a monograph on the mosquitoes, while the several custodians who are also connected with the Bureau of Entomology, and others from that Bureau, pursued investigations along the lines of their specialities. About 2,000 specimens of insects were lent to entomologists, including materials supplied to Prof. E. D. Ball and Dr. P. P. Calvert, for use in working up certain groups for the "Biologia Centrali-Americana." Doctor Calvert now has all of the Central American Odonata belonging to the Museum, and Mr. W. D. Pierce all of the Coleoptera of the order Strepsiptera.

Doctor Dall, curator, and Doctor Bartsch, assistant curator of mollusks, completed so much of their monograph of Pacific Coast Pyramidellidæ as relates to the Oregonian fauna, and facilities for the examination and study of certain groups of mollusks were furnished to several naturalists.

Work on the hand book of American crabs, by Miss Rathbun, assistant curator of marine invertebrates, mentioned in the last

report, was continued, and some drawings and photographs to be used as illustrations were prepared. Miss Rathbun also completed a paper on the brachyuran crustaceans obtained during the recent Albatross cruise in the Northwestern Pacific, and began the study of an important collection of crabs from the Gulf of Siam, transmitted by the Natural History Museum at Copenhagen, Denmark. Arrangements were made to publish a valuable manuscript prepared some forty years ago by the late Dr. William Stimpson on the Brachyuran and anomuran crustaceans obtained mainly on the North Pacific exploring expedition of 1853 to 1858. It will be issued in the Miscellaneous Collections of the Smithsonian Institution. Dr. Harriet Richardson, collaborator, worked up and reported on the isopod crustaceans collected during recent cruises of the Fisheries steamer Albatross in the North and South Pacific Ocean. Mr. Austin H. Clark, naturalist of the steamer Albatross during the North Pacific expedition of 1906, spent several months in the study of the crinoids secured on that cruise, as well as the specimens in the general collection of the Museum, and prepared descriptions of a number of new species for publication.

A considerable number of specimens of the genus *Heliaster* of starfishes from the Galapagos Islands were lent to Dr. Hubert L. Clark, of the Museum of Comparative Zoology, for use in a revision of the genus. The collection of pedunculate cirripeds was sent to Dr. H. A. Pilsbry, of the Philadelphia Academy of Sciences, who has kindly offered to report on this group as represented in the National Museum. Arrangements were made with Mr. J. A. Cushman, of the Boston Society of Natural History, to work up the foraminifera from the deep-sea dredgings and soundings of the Fisheries steamer Albatross in the Pacific Ocean, and a considerable amount of material has already been sent to him.

In the division of plants Doctor Rose, associate curator, continued his studies of Mexican plants and of the cacti, on which he has been engaged for some years. Mr. Maxon, assistant curator, made good progress in his work on the American ferns, giving special attention to those of Cuba and Jamaica, and Mr. Painter, aid, continued his investigations of water lilies. Over a thousand plants were lent for study to both American and European botanists.

In the division of geology and mineralogy nearly all of the time available for research work was devoted to the study of meteorites and associated phenomena. Six papers on this subject by the head curator, Doctor Merrill, three being in collaboration with Mr. Tassin, assistant curator of mineralogy, were prepared and, with one exception, were printed during the year. At the close of the year Doctor Merrill was engaged in an exhaustive study of the problems presented

by the Coon Butte crater, Arizona, which he visited in May. Mr. Tassin also made a large number of chemical analyses and established the identity of 128 minerals belonging to the old collection.

Doctor Bassler, assistant curator of stratigraphic paleontology, prepared papers on the Pliocene Bryozoa of California and the Devonian Bryozoa of Wisconsin, and, in conjunction with Mr. E. O. Ulrich, had nearly completed a monograph on the American Ostracoda. At the close of the year he was at work on a collection of Russian Ordovician Bryozoa received from Dr. A. von Michwitz, and, in cooperation with the U. S. Geological Survey, was engaged in a study of certain stratigraphic problems in the Southern Appalachians and the Mississippi Valley. Mr. Gidley continued his investigations on Mesozoic fossil mammals, completing his studies on the fossil horse, as represented in the National Museum and the American Museum of Natural History, and on a new fossil rodent, *Mylogaulidæ*. Mr. Gilmore has prepared and studied the type specimen of *Morosaurus agilis*, and has begun to work up the material in the Marsh collection representing *Camptosaurus*, with the view of revising and giving a detailed description of the genus. In paleobotany no researches were carried on directly by the Museum, although work was constantly in progress at the Museum by Mr. David White and Dr. F. H. Knowlton, members of the staff of the U. S. Geological Survey.

Twenty important lots of material from the several divisions of the department of geology were lent to individuals and establishments elsewhere to aid in investigations, and a number of specialists were given facilities at the Museum to conduct researches in furtherance of their own studies. Among the latter the following may be mentioned: Dr. George Mikhailowski, Director of the University Museum, Dorpat, Russia; Dr. Constantine Pfaffius, attaché to the governor-general of the Amur Territories; Miss Mary W. Porter, of Oxford, England; the Hon. Frank Springer, of New Mexico; Prof. R. T. Jackson, of Harvard University; Prof. Aug. F. Foerste, of Dayton, Ohio; Mr. Barnum Brown, Mr. A. Hussakoff, and Dr. O. P. Hay, of the American Museum of Natural History, and Prof. E. W. Berry, of the Maryland Geological Survey.

EXPLORATIONS.

No field work was carried on by members of the staff of the department of anthropology, but important accessions were obtained from explorations by the Bureau of American Ethnology and from the excavations made by Dr. J. W. Fewkes at the Casa Grande ruin in Arizona, under the direction of the Smithsonian Institution. Of private explorations by which the department was benefited, those by

Dr. E. A. Mearns, U. S. Army, in the Philippine Islands are especially noteworthy.

Although the amount of field collecting on behalf of the department of biology was inconsiderable, yet important contributions in several lines were secured by this means. The head curator, Dr. F. W. True, as the result of visits made to Chesapeake Beach, Maryland, in November, 1906, and March, 1907, in search of the remains of fossil cetaceans, obtained a nearly complete skull of a fossil porpoise, apparently representing a genus of Eurinodelphidæ, a family new to North America, and the humerus and sacrum of a fossil seal, probably the recently described *Leptophoca lenis*.

Dr. Leonhard Stejneger spent about two months of the summer of 1906 in making observations on living salamanders in the vicinity of Stribling Springs, Augusta County, Virginia, preparatory to a revision of the group. This region was selected on account of its geographical position and the number of its springs and small streams, and although the season proved unfavorable, a considerable number of both adults and larvæ were obtained. Mr. W. L. Hahn made a zoological reconnaissance in the Kankakee basin of northwestern Indiana and Mr. Barton A. Bean a collecting trip to the Florida Keys, the latter having been rendered possible through the kindness of Mr. W. H. Gregg, of St. Louis, in permitting the use of his private yacht for that purpose. Dr. Paul Bartsch, in the autumn of 1906, visited the neighborhood of Wilmington, North Carolina, where he obtained fine series of specimens of the rare large land shell, *Planorbis magnificus* and of other species, including some little-known and interesting forms. His observations indicate that the region is an important distribution center, which would repay more extensive and detailed inquiries. Dr. Harrison G. Dyar and Mr. A. N. Caudell were in California at the beginning of the year, engaged in an investigation of mosquitoes, the results of which were published in the Proceedings of the Museum. Subsequently Doctor Dyar conducted additional field work relating to the same subject.

Dr. J. N. Rose, associate curator of plants, continued his botanical explorations in Mexico during the summer of 1906, returning with over 1,000 herbarium specimens and about 200 living plants, the latter being deposited in one of the greenhouses of the Department of Agriculture, as the Museum has no facilities for the care of such material. Mr. W. R. Maxon, assistant curator of plants, spent about two months in the spring of 1907 in botanical investigations at the eastern end of Cuba, with headquarters at Santiago de Cuba. Mr. Maxon worked mainly in the valley of the Rio Bayamita, on the

south slope of the Sierra Maestra, to a height of 3,500 feet; at Daiquiri, about 18 miles east of Santiago, especially interesting for its cacti; on the Gran Piedra, to a height of 4,000 feet; on the Yateras Range, 20 to 25 miles south of Guantanamo, to a height of 2,100 feet, and at Novaliches, a cactus region, 6 miles south of Guantanamo. He collected about 3,000 dried specimens and about 160 living cacti and orchids. The former were mostly ferns, representing about two-thirds of the known species of Cuba, many being rare. He also made observations regarding the distribution of the rare insectivorous mammal, *Solenodon cubanus*, and secured several specimens of the Hutia rat, *Capromys*, and one specimen of the rare Cuban ivory-billed woodpecker, *Campephilus bairdi*.

Explorations by other branches of the Government and by individuals resulted, as in previous years, in extensive additions to the collections of biology. The work of the Bureau of Fisheries in the Northwestern Pacific Ocean, of the Biological Survey in the West, of the Bureau of Plant Industry in Mexico, of Doctor Mearns in the Philippines, of Prof. C. H. Eigenmann in Cuba, and of Dr. H. Pittier and Dr. Edward Palmer in Central America and Mexico are deserving of special mention. Valuable material was also received as the result of explorations by the Costa Rican National Museum.

During May, 1907, Dr. George P. Merrill, head curator of geology, spent a week at Coon Butte crater, Arizona, conducting investigations under a grant from the Smithsonian Institution, and another week in collecting specimens of fossil wood in the Fossil Forest reservation near Adamana, in the same Territory.

Mr. G. W. Gilmore, also under the auspices of the Smithsonian Institution, left Washington on May 22, 1907, for Alaska, where he will explore several regions in which the remains of the mammoth and other large mammals are likely to occur. Under the joint auspices of the U. S. Geological Survey and the Museum, geological investigations were carried on in the Mississippi Valley by Dr. R. S. Bassler, and on June 17, 1907, Dr. A. C. Peale was detailed to accompany Dr. F. H. Knowlton, of the Survey, for the purpose of studying certain problems regarding the fossil flora of the Laramie region.

DISTRIBUTION AND EXCHANGE OF SPECIMENS.

There were lent for study to specialists not connected with the Museum over 6,000 specimens. About 25,000 duplicate specimens were used in making exchanges, and some 16,000 were distributed for teaching purposes to educational establishments throughout the country. The latter were mostly contained in 199 sets, as follows: 44 of marine invertebrates, 21 of fishes, 51 of rocks, 43 of nonmetallic minerals and ores, 2 of minerals, and 29 of invertebrate fossils; and

in 9 miscellaneous sets made up of representatives of several groups each.

Among the more important foreign museums and other scientific institutions with which exchange relations were had during the year the following may be mentioned: The British Museum of Natural History, London, and the Royal Botanic Gardens, Kew, England; the Museum of Natural History, Paris, France; the Botanical Museum, Berlin, the Botanical Garden, Darmstadt, the Senchenbergischen Museums, Frankfort, and the Natural History Museum, Lubeck, Germany; the Botanical Garden, Brussels, Belgium; the Botanical Museum, Copenhagen, Denmark; the Naturhistoriska Riksmuseum, Stockholm, Sweden; the Zoological Museum, Christiania, Norway; the Zoological Museum of the Imperial Academy of Sciences, and the Royal Botanical Garden, St. Petersburg, Russia; the Musée Cantonale d'Histoire Naturelle, Freiburg, Switzerland; the K. K. Naturhistorisches Hofmuseum, Vienna, Austria; the Hungarian National Museum, Budapest, Hungary; the Botanic Gardens, Durban, Natal, South Africa; the Department of Fisheries, Sydney, New South Wales; the Selangor State Museum, Kuala Lumpur, Federated Malay States; the Instituto Medico Nacional, City of Mexico; the Hope Gardens, Kingston, Jamaica; the Université Laval, Quebec, the Geological Survey of Canada, and the University of Toronto, Canada; and the Estacion Central Agronomica, Santiago de las Vegas, Cuba.

Exchanges were also conducted with the following individuals abroad: Mr. Edward Lovett, of England; Mons. Drouin de Bouville, Dr. Henri Martin, and Mons. M. Petitmengin, of France; Dr. Walter Horn, of Germany; Dr. J. E. Hibsich, of Austria; Mr. A. Roman, of Sweden; Baron Harold Loudon, of Russia; Dr. A. Berger, of Italy; Dr. H. Christ and Mr. Henry Volkart, of Switzerland; Rev. Longin Navas, of Spain; Mr. R. L. Mestayer, of New Zealand; Señor Juan Tremoleras, of Uruguay; Mr. Constantine G. Rickards and Dr. Nicolas Leon, of Mexico; Mr. James Fowler and Dr. G. F. Matthew, of Canada.

VISITORS.

The total number of visitors to the National Museum building during the year was 210,107, a daily average of 671, and to the Smithsonian building 153,591, a daily average of 490. Were the buildings kept open during evenings and Sundays, as is the general practice elsewhere, these numbers would be at least doubled.

In the following tables are shown, respectively, the attendance during each month of the past year, and for each year beginning with 1881, when the Museum building was first opened to the public.

Number of visitors during the fiscal year 1906-7.

Year and month.	Museum building.	Smithsonian building.
1906.		
July	13,579	9,427
August	22,527	16,102
September	18,830	13,515
October	15,980	11,822
November	14,243	9,534
December	13,262	9,334
1907.		
January	13,167	8,967
February	13,445	9,631
March	17,759	11,871
April	21,821	15,891
May	20,149	17,844
June	25,345	19,653
Total	210,107	153,591

Number of visitors to the Museum and Smithsonian buildings since the opening of the former in 1881.

Year.	Museum building.	Smithsonian building.	Year.	Museum building.	Smithsonian building.
1881	150,000	100,000	1895-96	180,505	103,650
1882	167,455	152,744	1896-97	229,606	115,709
1883	202,188	104,823	1897-98	177,254	99,273
1884 (half year)	97,661	45,565	1898-99	192,471	116,912
1884-85	205,026	105,993	1899-1900	225,440	133,147
1885-86	174,225	88,960	1900-1901	216,556	151,563
1886-87	216,562	98,552	1901-2	173,888	144,107
1887-88	249,665	102,863	1902-3	315,307	181,174
1888-89	374,843	149,618	1903-4	220,778	143,988
1889-90	274,324	120,894	1904-5	235,921	149,380
1890-91	286,426	111,669	1905-6	210,886	149,661
1891-92	269,825	114,817	1906-7	210,107	153,591
1892-93	319,930	174,188	Total	5,974,341	3,322,409
1893-94	195,748	103,910			
1894-95	201,744	105,658			

MEETINGS.

In November, 1906, the lecture hall was fitted up for the purposes of the National Gallery of Art until more suitable quarters could be provided for the latter. This prevented the holding of regular lecture courses during the year, but by removing the cases occupying the floor it has been possible to utilize the hall for a limited number of meetings. The American Ornithologists' Union had its annual congress here from November 13 to 15, inclusive.

On the evening of December 3, under the auspices of the Board of Regents, a meeting was held to commemorate the life and services of the late Secretary, Samuel Pierpont Langley, at which many of his

associates and friends were gathered. The Hon. Melville W. Fuller, Chief Justice of the United States and Chancellor of the Institution, presided, and made a few introductory remarks. Addresses were then delivered by the Hon. Andrew D. White, a Regent of the Institution; by Prof. E. C. Pickering, Director of the Harvard University Observatory, and by Mr. Octave Chanute, the distinguished engineer of Chicago.

The hall was also used by the National Academy of Sciences for its public meetings from April 16 to 18, inclusive.

CORRESPONDENCE.

The amount of correspondence which devolves upon the Museum is exceptionally great, since, as a national institution, it has come to be regarded by the public generally as a place where information upon the several subjects within its scope may be freely sought. In accordance with the traditional policy of the Smithsonian Institution, of which it forms a part, the requests of correspondents have been cordially complied with so far as possible, although the preparation of replies encroaches heavily upon the time of the scientific as well as the clerical staff. This is especially so when specimens are transmitted for identification, the number of such received during the past year having amounted to several thousand, contained in nearly 800 separate lots or sendings.

The office of correspondence also attends to the distribution of the publications of the Museum, of which about 52,000 copies of volumes and separates were distributed during the year to institutions and individuals on the regular mailing list, and about 21,000 copies in compliance with special requests.

PUBLICATIONS.

The publications issued during the year comprised 8 volumes and 4 parts of volumes. The Annual Report of the Museum for 1904-5, the completion of which had been delayed, and that for 1905-6 were both published in November, 1906. They were limited to administrative matters, the customary general appendix of scientific papers being omitted.

Volume 31 of the Proceedings of the Museum was published on February 19, 1907, and volume 32 was completed, except as to binding, by the end of the year. The former contained 26 papers, the latter 51, a total of 77 important contributions based on the Museum collections. These papers were also issued in separate form, in editions of 600 copies each, as soon as possible after their preparation, for distribution to specialists and scientific establishments.

The Bulletins issued were No. 53, volume 2, "A Catalogue of the type and figured specimens of Fossil Vertebrates and Plants, Miner-

als, Rocks, and Ores contained in the Department of Geology;" No. 56, part 1, "Mammals of the Mexican Boundary of the United States, by Maj. Edgar A. Mearns, surgeon, U. S. Army;" No. 57, "The families and genera of Bats, by Gerrit S. Miller, jr.;" and Volume XI of the Contributions from the U. S. National Herbarium, devoted entirely to a description of the "Flora of the State of Washington," by Mr. Charles V. Piper, of the U. S. Department of Agriculture.

The parts of volumes published were reprints of Parts A and G of Bulletin No. 39, being directions for collecting birds and mollusks, respectively; a supplement to Bulletin No. 51, being a list of the publications of the Museum from 1901 to 1906, and three parts of Volume X of the Contributions from the National Herbarium, as follows: Part 2, "The genus *Ptelea* in the western and southwestern United States and Mexico," by Dr. Edward L. Greene; Part 3, "Studies of Mexican and Central American plants," by Dr. J. N. Rose, being the report of his botanical researches on a fifth trip to Mexico in the interest of the division of plants; Part 4, "Leguminosæ of Porto Rico," by Dr. Janet Perkins.

The following Bulletins were in print at the close of the year, but were not bound and ready for distribution until in July: No. 50, Part IV, of the "Birds of North and Middle America," by Robert Ridgway; No. 58, "Herpetology of Japan and adjacent territory," by Leonhard Stejneger; No. 59, "Recent Madreporaria of the Hawaiian Islands and Laysan," by T. Wayland Vaughan.

In addition to the above, twelve short papers descriptive of Museum material, mainly by members of its staff, were published in the Quarterly Issue of the Smithsonian Miscellaneous Collections. Four were on mammals, one on reptiles, one on mollusks, one on mosquitoes, three on botany, one on Brazilian Indians, and one faunal. Permission was also granted for the printing elsewhere than in the publications of the Institution and Museum of seven papers of a similar character.

The 106 scientific papers mentioned above may be classified by subjects as follows: Mammals, 22; birds, 3; reptiles and bacrachians, 3; fishes, 19; insects, 8; mollusks, 9; crustaceans, 8; helminthology, 2; echinoderms, 4; corals, 1; comparative anatomy, 2; botany, 7; fauna, 1; geology, 3; meteorites, 4; fossils, 9; ethnology, 1. They are cited in full in the Bibliography at the end of this report.

LIBRARY.

The Museum has been fortunate in continuing to receive from Prof. O. T. Mason, Dr. C. A. White, and Dr. W. L. Ralph many scientific

publications of importance in completing the sets and series in the library. Dr. C. W. Richmond has also continued to give to the Museum many rare scientific works not to be found elsewhere in the city. The plan adopted by the Regional Bureau of the International Catalogue of Scientific Literature, of sending to authors lists of their scientific writings that have been entered in the Catalogue and requesting any that have not been cited, has proven of special benefit to the Museum through the acquisition of many separates from periodicals, journals, etc.

The library now contains 30,307 volumes, 47,642 unbound papers, and 108 manuscripts. The additions during the year consisted of 2,581 books, 3,567 pamphlets, and 111 parts of volumes. There were catalogued 1,301 books, 3,567 pamphlets, and 13,215 parts of periodicals. The number of cards added to the reference catalogue was 6,330. Gaps in 550 sets of publications were completely or partially filled, and 1,020 books were bound.

The number of books, periodicals, and pamphlets borrowed from the general library amounted to 34,859, including 9,397 assigned to the sectional libraries, of which there are 29.

PHOTOGRAPHY.

The photographic laboratory, which is one of the best equipped for its purpose in existence, has for its object the preparation of illustrations for the publications of the Museum, for the manuscript records of important collections, and for the exhibition halls, and of copies of plans relating to details of construction in connection with the buildings, furniture, etc.

The number of negatives made during the year was about 1,600; of silver, velox, bromide and platinum prints, about 3,600; of blueprints, 2,177; and of bromide enlargements, 229. Most of the enlargements and some of the other work enumerated were prepared especially for the exhibit of the Museum at the Jamestown Ter-Centennial Exposition, for which there was also assembled by Mr. T. W. Smillie, chief photographer, a unique collection illustrative of the history of photography from 1824 to the present time.

EXPOSITIONS.

Jamestown Ter-Centennial Exposition.—As stated in last year's report, the sundry civil act approved June 30, 1906, contained an item of \$200,000 to enable the United States Government, including the Smithsonian Institution and National Museum, to prepare exhibits for the Jamestown Exposition, which opened April 26, 1907, and in the same connection an additional sum of \$350,000 was appropriated for the construction of the necessary buildings for their display.

The amount allotted from the former appropriation to the Institution and Museum by the Ter-Centennial Commission was only \$16,000, with which to prepare and install a comprehensive collection illustrating the aboriginal, colonial, and national history of America, but it is believed that an effective result has been attained even with these slender means. A separate building connected with one of the main Government buildings by an open colonnade, known as Annex B, and containing about 6,000 square feet of floor space, was assigned to the Institution and its branches.

Mr. W. de C. Ravenel, Administrative Assistant of the Museum, was designated to represent the Institution and the Museum, and the preparation of the collection was carried forward and completed in accordance with plans submitted by him and approved by the Secretary. The following account relates only to the part taken by the Museum. A more detailed report of the entire exhibit under the Institution will be published later in the report of the Smithsonian proper.

The object sought by the Museum was to convey a correct impression of the character and culture of the aborigines, of the principal events in American history during the three hundred years succeeding the arrival of Capt. John Smith, and incidentally of the progress made in certain fields of invention. This plan was carried out by the assembling of collections of prehistoric Indian household implements, and of representations of the arts of Alaska and the outlying possessions, Porto Rico, Hawaii, Samoa, and the Philippine Islands; by means of groups of life-sized lay figures, photographs, paintings, engravings, and colonial and revolutionary relics, illustrating certain periods, costumes, and historic events; by the use of models illustrative of primitive methods of land transportation in America and early water transportation by steam, including some of the important early railway locomotives, such as the Stevens locomotive of 1825; the "Tom Thumb," constructed by Peter Cooper, which in 1829 drew a car of passengers 13 miles in fifty-seven minutes; the English "Stourbridge Lion;" the American "Best Friend," built in 1831, and others; by means of models of the Morse telegraph and Bell telephone apparatus, pieces of apparatus used by Prof. Joseph Henry in connection with his electrical researches, and a series of American small arms, muskets, rifles, and carbines, illustrating various stages of development down to the United States army rifle of 1903.

The most interesting group historically, prepared under the supervision of Mr. W. H. Holmes, Chief of the Bureau of American Ethnology, depicts Capt. John Smith accompanied by ten of his comrades in the costumes of 1607, with arms of the same period, trading for corn with a party of Powhatan Indians at the mouth of the

James River, near one of their villages. Capt. John Smith and his men are in a sailboat 22 feet long and 8 feet wide; some of the Indians are in a canoe alongside exchanging corn and skins for beads, blankets, hatchets, looking-glasses, and the like; while some are on the bank offering fruit. Other groups show the aborigines engaged in making implements, the costumes worn by the Virginia planter and his wife, the Dutch patroon and his wife, the Puritan and his wife, and a Spanish soldier and lady.

Another feature of special interest is a frieze around the hall of colored portraits of 130 persons prominent in American history, beginning with Christopher Columbus and including the most famous explorers, soldiers, sailors, philanthropists, authors, jurists, artists, scientists, inventors, and architects. Below this frieze the wall space is occupied by a collection of engravings, paintings, and photographs of historic scenes and events in American history, including 50 colored drawings of Indians, facsimilies of those made in 1585 by Governor John White. The principal events in the development of photography and in medical science are also represented by special exhibits.

International Maritime Exposition at Bordeaux.—This exposition, which opened on May 1 of the present calendar year and will close on October 31, is the outcome of a plan conceived by the French Maritime League to celebrate the one hundredth anniversary of the beginning of steam navigation. The United States Government was invited through the French Ambassador to participate, and Congress voted the sum of \$15,000 to meet the necessary expenses. At the request of the Secretary of State the Smithsonian Institution agreed to undertake the preparation, installation, and maintenance of a Government exhibit, and Mr. W. de C. Ravenel, Administrative Assistant of the Museum, was placed in charge as the representative of the Smithsonian Institution. Of the amount appropriated the sum of \$8,000 was allotted for this purpose, but owing to the late date at which Congress took action it was impossible to complete the installation at Bordeaux until the 1st of July.

The objects selected from the National Museum consist in part of a number of models illustrating the boats and other water craft used by the aborigines of the Western Hemisphere, and show the effect of environment on structural materials. They have been arranged geographically from Point Barrow, in Alaska, to the Straits of Magellan, and include the Eskimo kaiak and the skin canoe of Arctic waters; the dugout of the Pacific coast, and the birch-bark canoe of Canada, the Eastern States, and the Great Lakes; the old form of canoe made from a single tree trunk by the Indians of Virginia; the coracle or "bull boat" of the Sioux, made of skin stretched over a crate, and the reed cane float of the early inhabitants of Nevada,

etc.; an ancient form of raft made of three logs; a seagoing raft of logs, provided with a kind of platform, cabin, and sail; a rough bark canoe from Peru and the Amazon region, and a specimen of the Fuegian bark canoe, frequently constructed in sections for convenience in portage.

The Museum also furnished drawings, photographs, and models of John Fitch's boat, which steamed on the Delaware River in 1787, and of Robert Fulton's steamer Clermont, which, on August 11, 1807, made its famous trip on the Hudson River from New York City to Albany, a distance of 150 miles in thirty-two hours. Other celebrated boats, represented by models, are the Savannah, the first steamship to cross the Atlantic, and the Phoenix, the first steamboat to navigate the ocean.

The Bureau of Fisheries, the Coast and Geodetic Survey, the Bureau of Navigation, the Reclamation Service, the Isthmian Canal Commission, the War and Navy Departments, and the Life-Saving Service also contributed models and photographs. Through the courtesy of Mr. R. Fulton Ludlow, grandson of Robert Fulton, there was also exhibited the compass used by Pilot Acker on the Clermont on the Hudson River, during 1807 and 1808, and a number of other relics of Fulton belonging to Mr. Ludlow.

ORGANIZATION AND STAFF.

To the National Gallery of Art, a definite status, under the immediate direction of the National Museum, was given during the past year, as elsewhere explained. The curatorship of this important branch has been temporarily accepted by Mr. W. H. Holmes, Chief of the Bureau of American Ethnology, and an artist of distinction.

Mr. Lancaster D. Burling, formerly of the Geological Survey, was appointed an assistant curator in the division of stratigraphic paleontology, in charge of the Cambrian collection; and, in the absence of Dr. W. H. Ashmead, Dr. Harrison G. Dyar acted as assistant curator of insects during several months. Mr. Otto Heidemann, of the Bureau of Entomology, was made custodian of the Hemiptera in the division of insects.

Mr. Alvin Seale, formerly of Leland Stanford Junior University, was employed during three months of the winter to assist in rearranging the collections of fishes.

The furlough of Mr. Gerrit S. Miller, jr., now temporarily connected with the British Museum, was continued for another year. Mr. LeRoy Abrams, assistant curator of plants, Mr. Walter L. Hahn, aid in the division of mammals, and Mr. E. J. Horgan, aid in the section of birds' eggs, severed their connection with the Museum.

Through the death, on June 27, 1907, of Mr. Paul Edmond Beckwith, assistant curator of the division of history, the Museum suffered a severe loss. The main burden of installing and caring for the historical collections fell upon him, and he was also in direct charge of the collections of coins and medals and of ceramics, with all of which subjects he was widely acquainted. Endowed with an artistic temperament, the exhibitions which he arranged were always pleasing and attractive to the public, while his personality won for the Museum many generous and appreciative friends. He was devoted to his work and untiring in the fulfillment of his duties. Mr. Beckwith was born at St. Louis, Missouri, September 22, 1848, and entered the service of the Museum in 1886. He was a member of several scientific and patriotic societies.

THE MUSEUM STAFF.

[June 30, 1907.]

CHARLES D. WALCOTT, Secretary of the Smithsonian Institution, Keeper *ex officio*.

RICHARD RATHBUN, Assistant Secretary, in charge of the U. S. National Museum.

W. DE C. RAVENEL, Administrative Assistant.

SCIENTIFIC STAFF.

DEPARTMENT OF ANTHROPOLOGY :

Otis T. Mason, Head Curator.

Division of Ethnology: Otis T. Mason, Curator; Walter Hough, Assistant Curator; J. W. Fewkes, Collaborator.

Division of Physical Anthropology: Aleš Hrdlička, Assistant Curator.

Division of Historic Archeology: Cyrus Adler, Curator; I. M. Casanowicz, Assistant Curator.

Division of Prehistoric Archeology: William H. Holmes, Curator; E. P. Upham, Aid; J. D. McGuire, Collaborator.

Division of Technology: George C. Maynard, Assistant Curator.

Division of Graphic Arts: Paul Brockett, Custodian.

Section of Photography: T. W. Smillie, Custodian.

Division of Medicine: J. M. Flint, U. S. Navy (Retired), Curator.

Division of Historic Religions: Cyrus Adler, Curator.

Division of History: A. Howard Clark, Curator.

Associate in Historic Archeology: Paul Haupt.

DEPARTMENT OF BIOLOGY :

Frederick W. True, Head Curator.

Division of Mammals: Frederick W. True, Curator; Marcus W. Lyon, jr., Assistant Curator.

Division of Birds: Robert Ridgway, Curator; Charles W. Richmond, Assistant Curator; J. H. Riley, Aid.

Section of Birds' Eggs: William L. Ralph, Curator.

Division of Reptiles and Batrachians: Leonhard Stejneger, Curator; R. G. Paine, Aid.

Division of Fishes: B. W. Evermann, Curator; Barton A. Bean, Assistant Curator; C. A. McKnew, Aid.

Division of Mollusks: William H. Dall, Curator; Paul Bartsch, Assistant Curator; William B. Marshall, Aid.

Division of Insects: L. O. Howard, Curator; W. H. Ashmead, Assistant Curator; Harrison G. Dyar, Acting Assistant Curator; H. S. Barber, Aid.

Section of Hymenoptera: W. H. Ashmead, in charge.

Section of Myriapoda: O. F. Cook, Custodian.

Section of Diptera: D. W. Coquillett, Custodian.

Section of Coleoptera: E. A. Schwarz, Custodian.

Section of Lepidoptera: Harrison G. Dyar, Custodian.

DEPARTMENT OF BIOLOGY—Continued.

Division of Insects—Continued.

Section of Orthoptera: A. N. Caudell, Custodian.

Section of Arachnida: Nathan Banks, Custodian.

Section of Hemiptera: Otto Heidemann, Custodian.

Division of Marine Invertebrates: Richard Rathbun, Curator; J. E. Benedict, Assistant Curator; Mary J. Rathbun, Assistant Curator; Harriet Richardson, Collaborator.

Section of Helminthological Collections: C. W. Stiles, Custodian; B. H. Ransom, Assistant Custodian.

Division of Plants (National Herbarium): Frederick V. Coville, Curator; J. N. Rose, Associate Curator; W. R. Maxon, Assistant Curator; J. H. Painter, Aid.

Section of Cryptogamic Collections: O. F. Cook, Assistant Curator.

Section of Higher Algæ: W. T. Swingle, Custodian.

Section of Lower Fungi: D. G. Fairchild, Custodian.

Associates in Zoology: Theodore N. Gill, C. Hart Merriam, R. E. C. Stearns, W. L. Abbott.

Associates in Botany: Edward L. Greene, John Donnell Smith.

DEPARTMENT OF GEOLOGY:

George P. Merrill, Head Curator.

Division of Physical and Chemical Geology (Systematic and Applied): George P. Merrill, Curator; Laurence La Forge, Aid.*Division of Mineralogy*: F. W. Clarke, Curator; Wirt Tassin, Assistant Curator.*Division of Stratigraphic Paleontology*: Charles D. Walcott, Curator; R. S. Bassler, Assistant Curator; Lancaster D. Burling, Assistant Curator.

Section of Invertebrate Fossils: Paleozoic, R. S. Bassler, in charge; Cambrian, L. D. Burling, in charge; Carboniferous, George H. Girty, Custodian; Mesozoic, T. W. Stanton, Custodian; Cenozoic, W. H. Dall, Associate Curator; Madreporarian Corals, T. Wayland Vaughan, Custodian.

Section of Paleobotany: David White, Associate Curator; A. C. Peale, Aid; F. H. Knowlton, Custodian of Mesozoic Plants.

Associate in Mineralogy, L. T. Chamberlain.

Associate in Paleontology, Charles A. White.

Associate in Paleobotany, Lester F. Ward.

DEPARTMENT OF MINERAL TECHNOLOGY:

Charles D. Walcott, Curator.

NATIONAL GALLERY OF ART:

William H. Holmes, Curator.

ADMINISTRATIVE STAFF.

Chief of Correspondence and Documents, R. I. Geare.

Disbursing Agent, W. I. Adams.

Superintendent of Construction and Labor, J. S. Goldsmith.

Editor, Marcus Benjamin.

Editorial Clerk, E. S. Steele.

Assistant Librarian, N. P. Scudder.

Photographer, T. W. Smillie.

Registrar, S. C. Brown.

Property Clerk, W. A. Knowles.

LIST OF ACCESSIONS TO THE COLLECTIONS DURING THE FISCAL
YEAR 1906-1907.

[Except when otherwise indicated, the specimens were either presented or transferred in accordance with law.]

ABRAMS, L. R., Santa Rosa, Cal.: 3 living plants from California (47453).

ACADEMY OF NATURAL SCIENCES, Philadelphia, Pa.: 14 beetles, representing 3 species, described by Henry Skinner (47071: exchange).

ADAMS, C. WALLACE, Washington, D. C.: 7 skins and skulls and 2 alcoholic mammals; reptiles and batrachians (46878: exchange).

ADAMS, W. IRVING, Smithsonian Institution: Photographs of scenes in the Colorado Canyon, Zuñi, Yellowstone Park, and adjacent localities (47352).

AGRICULTURE, DEPARTMENT OF:

Bureau of Biological Survey: 6 eggs of bobolink, *Dolichonyx oryzivorus* (46190); 3 specimens of living cacti from Oklahoma, obtained by Vernon Bailey (46305); set of eggs and nest of *Myadestes townsendi* (46359); 2 specimens of living cacti from Colorado, collected by Merritt Cary (46502); 17 plants collected in Texas by A. H. Howell (46528); 4 birds' eggs from Mexico (46529); 7 living specimens of *Agave* collected at Frisco, N. Mex., by Vernon Bailey (46557); fishes collected by different field parties of the Bureau (46630); 168 plants from Colorado, Wyoming, and South Dakota, collected by Merritt Cary (46800); 76 plants, collected mainly in New Mexico by Vernon Bailey (46838); 2 plants from California and Oregon (46891); crabs collected in Lower California by E. W. Nelson and E. A. Goldman in 1905 (46975); large specimen of

AGRICULTURE, DEPARTMENT OF—Cont'd.
bird louse from the stomach of an eagle (47018); 109 specimens collected in the western section of the United States by members of the Survey (47216); reptiles and batrachians from Lower California (47300); 20 specimens of Diptera, chiefly from Plummers Island, Maryland (47334); 77 plants collected by A. H. Howell in Texas (47468).

Bureau of Chemistry: Plant (46799).

Bureau of Entomology: 5 wasps, obtained by W. Dwight Pierce, of Dallas, Tex. (46299); phyllopod crustacean, *Streptocephalus* sp., collected by Mrs. M. S. Donaldson at Winchester, Va. (46453); 10 rare beetles (forest insects) (46761); 2 insects obtained from E. F. Hutchings, Waterville, Me. (46764); Lepidoptera (46793); 2 crickets from Florida (46795); about 18 specimens of *Horiola arcuata* (?) which were found attacking cacao, obtained from H. Caraciola, Trinidad, West Indies (46856); 17 insects obtained from A. Dugès, Guanajuato, Mexico (46860); 5 specimens of Hymenoptera and 10 moths from Columbus, Ohio (46889); 44 species of insects obtained through F. F. Crevecœur, Onaga, Kans. (46898); 3 grasshoppers and some butterflies obtained from the Chamberlain Carr Company, Hanford, Cal. (46899); 8 specimens of Eurytomids received from M. T. Cook, Santiago de las Vegas, Cuba (46901); 23 sawflies from F. Epper, Mount Angel, Ore.

AGRICULTURE, DEPARTMENT OF—Cont'd.

(46902); 43 specimens of bees (types and paratypes of 5 species) from Texas (46914); Diptera from Surinam (46918); about a dozen specimens of parasites (*Pimpla* sp.) bred from caterpillars obtained by W. H. Volck, Watsonville, Cal. (46970); about 180 insects (46986); caddis-flies and stone-flies obtained from J. Henderson, Boulder, Colo. (46987); 74 specimens of Lepidoptera obtained from Roberto Müller, City of Mexico (47003); 42 specimens of Orthoptera from C. F. Baker, Santiago de las Vegas, Cuba (47046); Hemiptera and Diptera (47054); 27 specimens of Diptera, including cotypes of 3 of Rouband's species of *Simulium* (46076); 177 insects, principally Coleoptera, Diptera, and Hemiptera, collected at Willis, Tex., by J. C. Bridwell (47077); 12 mosquitoes from the Museum of Natural History, Paris, France (47078); 50 specimens of Coleoptera and 75 of Orthoptera (47079); 105 specimens of Diptera, collected by the cotton boll weevil investigators (47084); 2 galls from Savannah, Ga. (47119); insects obtained from G. P. Goll, Guatemala (47195); 1,850 insects collected by the cotton bollworm force (47205); 754 insects collected in India, Hindustan, and Persia by Mr. Benton (47206); 4 species of *Simulium* (3 cotypes) received from C. Roubot, Paris, France (47207); 460 specimens of Hymenoptera (47208); 725 insects, mostly from the cotton bollworm investigators (47219); 139 specimens of Lepidoptera from Roberto Müller, City of Mexico (47242); 7 specimens of Hymenoptera received from S. A. Rohwer, Boulder, Colo. (47245); 56 mosquitoes from Georgetown, British Guiana, collected by E. D. Rowland (47262); 36 specimens of Orthoptera from Texas (47275); 8 mosquitoes sent by E. D. Rowland, Georgetown, British Guiana (47291); 25 insects from T. D. A. Cockerell,

AGRICULTURE, DEPARTMENT OF—Cont'd.

Boulder, Colo., including types of Coccidæ (47310); 6 adults, 2 larvæ, and 3 pupæ of *Agria brunnipalpis* Macq., obtained from C. W. Howard, Pretoria, Africa (47321); 11 rare beetles obtained from Charles Dury, Cincinnati, Ohio (47325); 2 mosquitoes, *Megarhinus septemtrionalis*, from E. C. Cotton, Knoxville, Tenn. (47327); about 15 insects obtained from D. L. Van Dine, Honolulu, Hawaii (47368); 147 specimens of Lepidoptera from Roberto Müller, City of Mexico (47396); 2 specimens of *Corydalis cornuta* obtained from Coyotepec, District of Zacatlán, State of Puebla, Mexico, by A. C. Herrera (47397); about 50 insects from Texas collected by the cotton boll weevil investigators (47402); 5 beetles, 2 roaches, and 5 specimens of Hymenoptera received from B. Bilgen, Paramaribo, Dutch Guiana, South America (47412); 10 cotypes of *Telenomus ashmeadi* Morrill, from A. W. Morrill, Bureau of Entomology (47413); 8 specimens of *Smythurus hortensis* collected in Kentucky (47434); a coleopteron from Dutch Guiana (47461); a hemipteron *Polididus armatissimus* from C. H. Halliday, Mindanao, P. I. (47462); Diptera (47463); 73 specimens of Lepidoptera from Roberto Müller, City of Mexico (47488); beetle from San Juan, Porto Rico (47492); 8 insects from B. Bilgen, Paramaribo, Dutch Guiana (47510); 2 mosquitoes collected by E. C. Levy, Richmond, Va. (47513); 37 specimens of Lepidoptera from Mexico (47522); 15 ants taken from orange and fig trees in Algiers, La. (47529); 2 specimens of *Vespa* sent by C. Abbott Davis, Roger Williams Park Museum, Providence, R. I. (47532).

Bureau of Plant Industry: About 650 plants collected by David Griffiths in the western section of the United States (46180); 8 living plants from Mexico and Guatemala (46217); 70 plants collected in the United States by C. D. Mell (46253);

- AGRICULTURE, DEPARTMENT OF—Cont'd.
 parasitic plant from the Straits of Magellan, South America (46543); 35 plants from Washington collected by J. M. Westgate (46628); 226 plants from various localities (46635); 2 specimens of *Sansevieria* from Africa (46649); 77 plants from Alaska (46675); 1,980 mosses and sedges from North America (46676); 5 specimens of cacti collected in Colorado by Merritt Cary (46713); specimen of *Ribes* collected in California by C. V. Piper (46740); 8 plants, mainly from tropical America (46770); specimen of living cactus from Mexico (46798); specimen of living cactus from Mexico (46839); plant from Texas (46893); 23 living plants, mainly Cactaceæ, from Mexico, collected by W. E. Safford (47005); 12 living plants, mainly Cactaceæ, collected in Mexico by W. E. Safford (47032); 3 plants collected in Mexico by L. H. Dewey (47108); 35 plants collected in Arizona and Colorado by C. D. Marsh (47112); 2 living plants collected in Mexico by G. N. Collins (47135); 61 living plants, mainly Cactaceæ, collected in Mexico by W. E. Safford (47136); 8 plants collected in Korea and Manchuria by F. N. Meyer (47138); 93 plants from the botanical garden of the University of California (47170); 2 plants from Alaska, collected by J. D. Culbertson (47218); 126 specimens of *Carex* (47319); 8 specimens of *Ribes*, collected in the southwestern section of the United States by David Griffiths (47320); 2 specimens of fungi from Siberia (47239).
Forest Service: 3 lots of Isopods (*Sphaeroma destructor*) from Florida and Tennessee (46895); plant, *Juniperus pinchoti*, from Texas (47131); fossils (47392).
- AGRICULTURAL EXPERIMENT STATION, Bozeman, Mont.: 21 specimens of Orthoptera (47189; exchange).
- AINSLIE, C. N., Department of Agriculture, Washington, D. C.: 16 specimens of Microlepidoptera (47125).
- AKERS, J. W., Washington, D. C.: Abnormal hen's egg (46505).
- ALABAMA, GEOLOGICAL SURVEY OF, University, Ala.: 74 plants from Alabama and 10 photographs (46724); 37 plants from Alabama, collected by Roland M. Harper (47012). Exchange.
- ALDRICH, J. M., University of Idaho, Moscow, Idaho: 53 mosquitoes (46526; exchange); 2 flies (*Cnanece* sp.) (47284).
- ALDRICH, Hon. T. H., Washington, D. C.: Land shells from New York (46693).
- ALFARO, Señor Don ANASTASIO, Museo Nacional de Costa Rica, San José, Costa Rica: Lizards from Costa Rica (46498; 46731); reptiles and batrachians from Central America (46977; 47121; 47174; 47343).
- ALLEN, GLOVER M., Cambridge, Mass.: Toad, *Bufo americanus*, from Labrador (47287).
- ALLEN, R. A., jr., U. S. National Museum: 11 birds and 2 rabbits, leaf-shaped blade and an arrow point from Amelia County, Va. (46656; 46658).
- AMERICAN BELL TELEPHONE COMPANY, Boston, Mass.: Early historical telephone apparatus, the invention of Mr. Emile Berliner (12176; loan).
- AMERICAN ENTOMOLOGICAL COMPANY, Brooklyn, N. Y.: 10 Hesperidæ (47004); 9 Hesperidæ (47059; purchase).
- AMERICAN MUSEUM OF NATURAL HISTORY, New York City: 2 chalcidoids (46340); model of a fire drill made by the Tlingit Indians (46562); 129.4 grams of the Selma (Alabama) meteorite (46932); 4 specimens of Hymenoptera (47038).
- AMES, J. F., Johns Hopkins University, Baltimore, Md.: 10 photographs of the normal solar spectrum (47372; purchase). From the Jamestown Exposition.
- ANTHONY, A. W., Anthony, Oreg.: Fossils (46310); 8 small slabs containing fossils (46448).

- ARMSTRONG, ERNEST, Cobalt, Ontario, Canada: Specimens of smaltite, nicolite, native silver, cobaltite, erythrite, and annabergite (46189: purchase).
- ARNOLD, DELOS and RALPH, Pasadena, Cal.: Pleistocene bryozoans and ostracods from California (46441).
- ARNOLD, E., Battle Creek, Mich.: 5 eggs, nest, and 2 parent birds of *Dendroica kirklandi* (46376: exchange).
- ARTHUR, JAMES, Baker City, Oreg.: Basalt and hyalite, an amorphous form of silica (46349).
- BAILEY, VERNON, Department of Agriculture, Washington, D. C.: Specimen of *Ribes pinetorum* from New Mexico (46196); 5 specimens of cacti from New Mexico (46435); fragments of pottery from ancient pueblo ruins near Jemez, N. Mex. (46454).
(See also under Department of Agriculture.)
- BAKER, C. F., Santiago de las Vegas, Cuba: About 40 insects (7 cotypes of 2 species of Orthoptera) (46295); about 500 beetles from Central America and the West Indies (46808); 8 plants from California (47217); 7 specimens of Junçaceæ from California (47322: exchange); 146 plants from the Pacific slope (47332: purchase); 4 plants from Cuba (47345: exchange).
- BAKER, FRANK C., Chicago Academy of Sciences, Chicago, Ill.: 22 specimens of Lymnæas (7 cotypes) from the United States (47410).
- BALDWIN, D. R., Ravenden Springs, Ark.: Bug, *Mezira emarginatus* Say (47414).
- BALL, C. R., Washington, D. C.: Specimen of willow from Massachusetts (47293: exchange).
- BALL, ELMER D., Logan, Utah: 31 specimens of Homoptera (47494).
- BALL, MRS. W. F., Los Angeles, Cal.: Specimen of *Tylodina fngina* Gabb., a marine mollusk from California (46665).
- BALLOU, H. H., Imperial Department of Agriculture for the West Indies, Barbados, West Indies: 11 specimens of rhynchotous insects (46192).
- BAMBERGER, MAX, Park City, Utah: Diatomaceous earth from near Glens Ferry, Idaho (47023).
- BANGS, OUTRAM, Boston, Mass.: 2 fetal specimens of a mole (46875).
- BANKS, CHARLES S., Entomologist, Bureau of Science, Manila, Philippine Islands: Insects (46909).
- BANKS, NATHAN, Department of Agriculture, Washington, D. C.: 2 specimens of *Phengodes* sp. from College Station, Tex. (47091).
- BARBER, H. G., New York City: 153 specimens of Hymenoptera, 47 of Neuroptera, and 175 of Diptera (46620).
- BARBER, H. S., U. S. National Museum: Butterflies, 14 mosquitoes, and 20 miscellaneous insects (46624).
- BARCLAY, D. M., Albany, Tex.: Fern from Texas (46746).
- BARNES, C. C., Bisbee, Ariz.: Case-bearing moth (46357).
- BARNES, WILLIAM, Decatur, Ill.: 27 specimens of Neuroptera (47010).
- BARNEY, MRS. A. C., Washington, D. C.: Collection of embroideries, an ivory plaque, and 2 old paintings, besides other objects of art (12288: loan).
- BARRETT, ROBERT S., Alexandria, Va.: 25 archeological objects from the State of Teotihuacan, Mexico (47312).
- BARRINGER, D. M., Philadelphia, Pa.: Collection of meteorites, "shale balls," etc.; also rocks and meteoric material found in exploratory work at Meteor, Coon Butte (Canyon Diablo region), Ariz. (46958: deposit; 47103).
- BARROTT, A. F., Washington, D. C.: Skulls of 3 ancient New York Indians (47137: exchange).
- BARROWS, WALTER B., Michigan Agricultural College, Agricultural College, Mich.: 3 birds' skins (cotypes) of *Sporophila palustris* (46553).

- BARSON, E., Bureau of Statistics, Washington, D. C.: Pair of wooden shoes from Biscayan, Philippine Islands (47313).
- BAYARD, Mrs. T. F., Washington, D. C.: Presentation sword which belonged to the late Rear-Admiral William B. Shubrick, U. S. Navy (12242: loan).
- BAYER, H. VON, Bureau of Fisheries, Washington, D. C.: Specimen of *Lithostrotim* (46209).
- BEALE, JOSEPH, U. S. Navy, Washington, D. C.: Mauser rifle and bayonet (47130).
- BEALL, Capt. F. M. M., U. S. Army, Fort Wright, Spokane, Wash.: Lichen of the genus *Usnea* from Alaska (46385).
- BECKWITH, PAUL, U. S. National Museum: U. S. Navy magazine or Lee rifle used at the battle of Santiago, July 3, 1898 (47145); sword from Porto Rico (11825: loan).
- BENEDICT COLLEGE, Columbia, S. C.: Fossil corals from Bethany, N. Y., and 285 brachiopods from Moscow, N. Y. (47047: exchange).
- BENEDICT, J. E., jr., Woodside, Md.: Snake from Maryland (46234).
- BENGUIAT, HADJI EPHRAIM, New York City: Jewish religious objects (11983: loan).
- BENSON, BARRY, Augusta, Ga.: Indian ornament found near a large Indian mound 5 miles south of Washington, Ga. (46445).
- BERGER, A., La Mortola, Ventimiglia, Italy: Specimen of *Stylophyllum edule* Rose (46191); plant (*Dasy-lirion*) (46739). Exchange.
- BERLIN, GERMANY, Museum für Naturkunde: 41 fossils (46640: exchange).
- BEYER, G., New York City: 260 specimens of Hemiptera from the Huachuca Mountains, Ariz. (46821).
- BIEDERMAN, C. R., Palmerlee, Ariz.: 13 specimens of *Euphoria holochlores* Fall (47424).
- BIRD, H., Rye, N. Y.: 43 specimens of Lepidoptera (46855).
- BLACK HAWK MILLS COMPANY, Albany, Wis.: Specimen of walking stick, *Diapheromera femorata* Say (46544).
- BLACKISTON, A. H., El Paso, Tex.: Pottery and stone implements from Casas Grandes Valley, Chihuahua, Mexico (11527, 11908, 12004, 12177, 12250: loan).
- BLANCHARD, W. H., Bellows Falls, Vt.: 300 specimens of *Rubus* from New England (47455: purchase).
- BLAND, Mrs. L. E., White Abbey, County Antrim, Ireland: 5 Malacca baskets and 2 photographs (46224); specimens of native lace from Malacca (47098).
- BLISS, C. K., Sherman, Mo.: Filipino toothpicks (46232).
- BLISS, E. W., Birmingham, Ala.: Larva of a moth, *Synclora arata* (46356).
- BLOCHMANN, F., Tübingen, Germany: 5 species of rare brachiopods, of which 4 are cotypes of new species, from the Valdivia Expedition (46863).
- BLUMER, J. C., Paradise, Ariz.: 23 plants from Arizona (46393).
- BOGY, Miss CORNELIA McK., St. Louis, Mo.: Sword of the late Æneas Mackay, U. S. Army; carried by him during the war of 1812 and the war with Mexico (46804).
- BOHANNON, N., Chase City, Va.: Cocoon of a moth (46515); cocoon of a moth, *Megalopyge opercularis* (46854).
- BOTANIC GARDENS. (See under Durban, Natal, Africa.)
- BOTANICAL GARDEN. (See under Brussels, Belgium.)
- BOTANICAL GARDEN. (See under Darmstadt, Germany.)
- BOTANICAL MUSEUM. (See under Copenhagen, Denmark.)
- BOUVILLE, DROUIN DE, École Nationale des Eaux et Forêts, Nancy, France: Specimen of *Atherina riqueti* (46933: exchange).

- BOYCE, EDWARD C., New York City: The Santos Dumont airship No. 9 (47128).
- BOYD, GEORGE S., Balfate, Honduras, Central America: Fragments of pottery from Honduras (47031).
- BOYD, MARK F., Madrid, Iowa: Mites from the eye of a snake (46730).
- BRACH, MISS HATTIE A., West Salisbury, Vt.: Cocoons belonging to the genus *Adela* (46479).
- BRADFORD, EUGENE, Bruceville, Cal.: Moth and cocoon of a moth, *Telega polyphemus* (46480).
- BRANDGEE, T. S., San Diego, Cal.: 3 plants from Mexico (46152: exchange); 326 plants from Mexico (46206: purchase); specimen of living *Opuntia* and 2 other plants from Mexico (46554 and 46653: exchange); 298 plants from Mexico (46738: exchange); 2 plants from Mexico (46801: purchase); 3 plants and a specimen of *Lopezia* from Mexico (47202 and 47357: exchange); 520 plants from Mexico (47376: purchase).
- BRANDIS, CHARLES VON, Durango, Mexico: Rocks and ores from San Ramon mines, Durango (46703).
- BREMNER, O. E., San Francisco, Cal.: 11 specimens of Orthoptera, 1 of Hemiptera, and 13 of Hymenoptera (46723).
- BREWER, ISAAC W., Fort Huachuca, Ariz.: 2 specimens of *Oreohelia strigosa* Gould (47170).
- BRIMLEY BROTHERS, Raleigh, N. C.: 2 specimens of *Spelerpes multiplicatus* (46425: purchase).
- BRITISH MUSEUM. (See under London, England.)
- BRITTON, N. L., New York Botanical Garden, New York City: 306 plants from the French Antilles forming part of the Père Duss collection (46923); 1,690 plants collected in Martinique by Père Duss (47240). Purchase.
- BRITTON, W. E., New Haven, Conn.: Type material of *Aleyrodos waldeni* Britt. and *A. coryli* Britt. (47533).
- BROWN, F. A., East Peru, Iowa: Rude stone hammer found in the vicinity of East Peru (46760).
- BROWN, GEORGE L., Helena, Mont.: Ore from the Red Mountain mining district, Montana (47439).
- BROWN, J. B. E.: Cricket (46513).
- BROWN, Dr. P. D., Contract surgeon, U. S. Army, Basey, Samar, Philippine Islands: 5 specimens of Hymenoptera from the chrysalis of a butterfly (47075).
- BROWN, Rev. R., Manila, Philippine Islands: Hymenoptera (46309).
- BRUEHL, E. G., Bennings, D. C.: Gray fox (46223).
- BRUNETTI, E., Calcutta, India: Diptera and Hymenoptera (47114: exchange).
- BRUSSELS, BELGIUM. Botanical Garden: 105 plants principally from Europe (46989); 900 plants from Mexico collected by H. Galeotti (47382). Exchange.
- BRYANT, OWEN, Cohasset, Mass.: Coleoptera from Nassau, New Providence (47009).
- BUDAPEST, HUNGARY. Hungarian National Museum: 11 specimens of Hemiptera (46984: exchange).
- BULLARD, D. E., Washington, Kans.: Pumice dust and a concretion from a ranch near Meade, Kans. (46362).
- BURBANK, A. C., Chouteau, Wash.: Fossil bone (dorsal vertebra), probably of an extinct species of bison (46976).
- BURCHARD, E. F., Washington, D. C.: Samples of glass sand from various localities (47483).
- BUSH, B. F., Courtney, Mo.: 18 specimens of *Laciniaria*, and 56 other plants from Missouri (46615 and 46766: exchange).

- CALDWELL, Rev. E. B. and HARRY R., Foochow, China: 837 birds' eggs, Chinese and American, and 18 birds' nests (47129).
- CALDWELL, J. W., Pittsview, Ala.: Fossils (46540).
- CALIFORNIA, UNIVERSITY OF, Berkeley, Cal.: 22 marine shells from the coast of California (46257); plant, *Brongniartia trifoliata* Brandegee, from Lower California (46813: exchange); 5 plants from Mexico (46953: exchange).
- CALL, R. ELLSWORTH, Emmett, Cal.: 30 birds' skins and a series of birds' nests and eggs from California and Alaska (46496).
- CALVERT, Mrs. E. G. R., and Miss CORNELIA P. RANDOLPH, Washington, D. C.: Historical family relics (46848).
- CAMBIASO, R. D., Santo Domingo, Santo Domingo: Lithographic print showing the casket and other relics connected with the death of Christopher Columbus (47251).
- CAMPBELL, E. O., Gambell, Alaska, and Santa Barbara, Cal.: 54 plants from Alaska (46325); 93 birds' eggs and 3 nests (46379).
- CAMPBELL, H. D., Washington and Lee University, Lexington, Va.: Ordovician fossils from Virginia (47081: exchange).
- CANADIAN COPPER COMPANY, Copper Cliff, Ontario, Canada: Specimens of copper and nickel ores, and matte (47440).
- CANDLIN, HENRY, Greeley, Colo.: 4 specimens of lizards, *Holbrookia maculata*, from the South Platte River (46415); 7 reptiles from Colorado (46590).
- CANDOLLE, C. DE, Geneva, Switzerland: 2 specimens of *Lopezia* from the Prodromus Herbarium (47448).
- CAPLES, Lieut. W. G., U. S. Army, Chattanooga, Tenn.: Pupæ of *Photetron pithecium*, a moth of the family Cochlidiidæ (46403).
- CAPRON, Mrs. ALLYN K., Washington, D. C.: Collection of American historical objects formerly belonging to Capt. Allyn K. Capron, and a guidon carried through the Cuban campaign by Troop L of the Rough Riders, First Volunteer Cavalry, U. S. Army (46684).
- CAPRON, Mrs. ALLYN, sr., Fort Myer, Va.: 3 silk flags used by Capt. Allyn Capron, one of them in the battle of Wounded Knee, Sioux campaign, December, 1890, and the other in the Cuban campaign of 1898 (11701: loan).
- CAREW, P. T., Mount Carmel Rectory, Ridgewood, N. J.: Objects used during the celebration of mass in the Roman Catholic Church (46508).
- CARNEGIE INSTITUTION, Washington, D. C.: 70 specimens of *Madreporearia* collected by J. E. Duerden at the Hawaiian Islands (46916); several glaciated boulders and specimens of argillaceous matrix constituting the tillite discovered by the expedition of 1903-4 to China under the auspices of the Carnegie Institution (47354).
- CARVER, J. B., Sanborn, Vera Cruz, Mexico: Snout-beetle, *Rhina barbirostris*. (46160).
- CARY, L. R., Cameron, La.: 30 marine mollusks from the Gulf of Mexico (46596); 24 lots of crustaceans (46912).
- CARY, MERRITT, Department of Agriculture, Washington, D. C.: About 200 insects, mostly Lepidoptera, from Colorado (47305); specimen of living cactus from Colorado (47449).
- CASTNER, Mrs. H. Y., New York City: Medal, cast in aluminum and distributed at the Paris Exposition, 1889 (47338).
- CAUDELL, A. N., U. S. National Museum: Lizard and batrachian from Humboldt County, Cal. (46395); nest of a humming bird (47192).
- CHAMBERLAIN, E. B., Cumberland Center, Md.: 3 plants from Maryland (46408).

- CHAPMAN, Miss D., Washington, D. C.: Ojibwa pipe (46659: purchase).
- CHAPMAN, PEARSON, Washington, D. C.: Silver tankard, originally in the possession of Nathan Chapman of colonial Virginia and Maryland (12236: loan).
- CHASE, Mrs. AGNES, Washington, D. C.: Specimen of *Juncus* from Illinois (46650); 5 plants from Oregon and 5 from Arkansas (47474).
- CHASE, BENJAMIN F., American consul, Catania, Italy: 7 ancient coins from Sicily (46455).
- CHESAPEAKE AND POTOMAC TELEPHONE COMPANY, Washington, D. C.: Piece of underground telephone cable (47399).
- CHESNUT, V. K., Bozeman, Mont.: 36 plants collected on Lone Mountain, Mont. (47099).
- CHILDS, THOMAS, Sumter, S. C.: Fungus from South Carolina (47025); mycelium of a wood-destroying fungus, *Polyporus* (47094).
- CHRIST, H., Basel, Switzerland: Ferns, mainly from Costa Rica (46681; 47454: exchange) (46888).
- CHRISTIANIA, NORWAY. Zoological Museum: Atlantic red deer, *Cervus atlanticus* (47464: exchange).
- CHURCH, C. T., Geneva, N. Y.: Fresh-water shells, *Bithynia tentaculata* Linn. (46699).
- CHURCHWOOD, A. G., Reno, Nev.: 14 Cambrian trilobites (47198).
- CLAPP, G. H., Pittsburg, Pa.: Cotypes of 4 species of mollusks (47255).
- CLARK, A. H., Bureau of Fisheries, Washington, D. C.: 2 skins of *Felis* (47033).
- CLARK, H. W., Bureau of Fisheries, Washington, D. C.: Plant, *Spathyema fetida*, from the District of Columbia (47134).
- CLIFTON ART POTTERY, Newark, N. J.: 2 pieces of crystal patina ware (46786).
- COBURN, JOE, Telegraph Creek, British Columbia: Skin of a red squirrel, partly albino (45291).
- COCKERELL, T. D. A., Boulder, Colo.: Insects and 18 parasitic Hymenoptera (46213; 46736; 47395); Diptera, Lepidoptera, and 9 pieces of rock containing fossils of gnats; Miocene shales from Florissant, Colo. (47495); 100 Noctuid eggs (Lepidoptera) (47515).
- COLLEGE OF PHYSICIANS AND SURGEONS, Columbia University, New York City: 7 sets of types of normal human bones (46910: exchange).
- COLLINS, FRANK S., Malden, Mass.: 100 specimens of algae (46814; 47381). Purchase.
- COMMERCE AND LABOR, DEPARTMENT OF: *Bureau of Fisheries*: 3,088 fishes collected by W. P. Hay in West Virginia (46198); 9 sets^a of fishes representing the fauna of the Philippine Islands, from the exhibit of the Philippine Commission to the Louisiana Purchase Exposition (46374); reptiles, insects, mollusks, and other invertebrates, plants from Alaska (46416); reptiles, insects, mollusks, and other invertebrates (46417); myzostomes collected by the steamer *Albatross* in Japan (46421); Hawaiian antipatharians collected by the steamer *Albatross* in 1902 (46427); hydroids obtained by the steamer *Albatross* in the Hawaiian Islands in 1902 (46660); specimen of *Kyphosus incisor* from Nantucket, Mass. (46690); fishes, chiefly from Alaska, collected by the Alaska Salmon Commission of 1903 (46715); fishes collected principally during the cruise of the steamer *Albatross* in 1889, 1890-91, 1897-98 on the Pacific coast of America, but chiefly in Alaska (46726); types of *Limanda proboscidia* and *Acanthocottus laticeps*, the former from *Albatross* station No. 3239, and the latter from

^a One of the sets was retained in the Museum, the other 8 being distributed among various scientific institutions.

COMMERCE AND LABOR, DEPARTMENT
OF—Continued.

Nushagak River; also type of *Alci-dea thoburni* from *Albatross* station No. 3350 (46751); fishes collected at various times and places in Florida (46752); specimens of *Menidia* obtained at various times and places along the Atlantic and Gulf coasts (46763); 86 plants from the vicinity of Lake Maxinkuckee, Indiana, collected by H. Walton Clark (46757); fishes obtained by Hugh M. Smith in Japan (46807); fishes from Beaufort, N. C., and the Philippine Islands; insects, reptiles, mollusks, and other invertebrates from Matagorda Bay, Texas (46826); insect larvæ (46836); medusæ obtained among the Hawaiian Islands during a cruise of the steamer *Albatross* (46886); 12 crustaceans (46905); adult brachyura and isopoda from the Pacific and Agassiz-*Albatross* expeditions of 1899-1900 and 1904-5 (46934); mammals and birds obtained by H. W. Clark in the vicinity of Lake Maxinkuckee, Indiana (46972); reptiles and batrachians (47040); specimens of alcyonaria and antipatharians obtained during the Hawaiian cruise of the steamer *Albatross* in 1902 (47082); mollusks and invertebrates collected in Japanese and adjacent waters by the steamer *Albatross* in 1906 (47126); fresh-water fishes from the coast streams of Oregon and California (47166); 3 specimens of fish, *Caracanthus maculatus*, from Hawaii (47167); fishes from Lake Erie collected by C. Rutter in 1894 (47175); 104 fishes from Texas, California, and New York (47187); specimen of *Octacnemus* collected by the recent *Albatross* expedition under Professor Agassiz in the eastern Pacific (47210); shipworms and borings (47261); 3 microscopic slides and specimens, type and cotypes, of *Calyptrobothrium* (47348); fishes collected in New England and the

COMMERCE AND LABOR, DEPARTMENT
OF—Continued.

Great Lakes by Messrs. W. C. Kendall, E. L. Goldsborough, and Capt. C. B. Hudson (47383); 172 birds' skins from Alaska, Japan, Kamchatka, Commander Islands, and other localities (47528); rigged model of a New England Grand Banks schooner (12046: loan).

COMPERE, G., Perth, West Australia: About 220 specimens of insects (47026).

CONDICT, J. D., Madison, N. Y. Specimens of *Populus ciliata* from the Himalaya Mountains (46336).

CONN, R. H., Gulfport, Miss.: Beetle, *Dynastes tityus* (47445).

CONNETT, Mrs. M. F., Newark, N. J.: Badge worn in commemoration of the pilgrimage of Lincoln Post, No. 11, G. A. R. (46361).

CONZATTI, C., Oaxaca, Mexico: 252 plants from Mexico (46144; 46182; 46267; 46567; 46632; 46829; 46866; 47133; 47181; 47406; 47420; 47451).

COOK, CHARLES E., Lockport, N. Y.: Fossil horn of a buffalo from North Bay, Lake Nipissing, Ontario, Canada (46288).

COOK, JOHN H., and FRANK E. WATSON, New York State Normal College: 2 types and a paratype of *Incisalia polios* Cook and Watson, n. sp., Lepidoptera, Lycænidæ (47364).

COOK, M. T., Newark, Del.: 135 plants from Cuba (47214); 240 specimens of Lepidoptera from Cuba (47490).

COOK, O. F., Department of Agriculture, Washington, D. C.: Mollusks from Liberia (47256).

COOK POTTERY COMPANY, Trenton, N. J.: Flowerpot and a metaline jar (46759).

COPENHAGEN, BOTANICAL MUSEUM OF, Copenhagen, Denmark: 175 ferns from tropical America (46771: exchange).

CORLETT, E. H., jr., Atlanta, Ga.: Moth, *Actias luna*. (46579).

- CORNELL UNIVERSITY, Ithaca, N. Y.:
2 chalcodoids (46317).
- CORNER, MRS. W. H., Charmian, Pa.:
Antique waffle-iron (46530).
- CORY, H. H., Greenbush, Wis.: Eggs
of *Ceresa bubalus* Say (46722).
- COVILLE, F. V., Department of Agriculture,
Washington, D. C.: 20 plants
from Greenfield, New Hampshire
(46672: collected for the Museum).
- COX, W. V., Brightwood, D. C.: 2
specimens of golden-winged wood-
pecker, or flicker, *Colaptes auratus*
(47309; 47425).
- CRAWFORD, LAMAR, New York City:
2 quartzite implements found in a
rock shelter on Manhattan Island
(46572).
- CREVECOEUR, F. F., Onaga, Kans.:
Fishes from Kansas (47436).
- CROSBY, CYRUS R., Ithaca, N. Y.: 5
parasitic Hymenoptera (46355).
- CROSBY, F. W., Washington, D. C.:
Sandstone concretions (46413).
- CROWN, W. S., Washington, D. C.:
Half-cent, 1834, United States cur-
rency (46159).
- CULP, W. P., Sunbury, Pa.: Electric
light-bug, *Benacus haldemanum*
Leidy (47469).
- CURTIS, WILLIAM E., Washington,
D. C.: 2 rugs made from the breasts
of specimens of *Rhea* (46669).
- DAECKE, V. A. E., Philadelphia, Pa.:
2 flies (46991).
- DAHLGREN, ULRIC, Princeton, N. J.:
Specimen of *Astroscopus guttatus*
and one of *Urophycis regius*
(47095).
- DALL, W. H., U. S. Geological Survey,
Washington, D. C.: Ancient Korean
fire-box collected by George Kennan
during the Russian-Japanese war
(12118: loan).
- DARMSTADT, GERMANY, Botanical Gar-
den: 46 specimens of living Cras-
sulaceæ (46850: exchange).
- DAVENPORT, HOMER, Morris Plains,
N. J.: Magellan goose (47337).
- DAVIS, C. LESTER, Le Roy, Kans.: 17
Carboniferous fossils (46552: ex-
change).
- DAVIS, MRS. ELLEN M., Philadelphia,
Pa.: Silver service which belonged
to Commodore John Kelley of the
U. S. Navy, consisting of a coffee
pot, sugar bowl, cream pitcher, and
slop bowl (46611).
- DAVIS, E. W., Quebec, Canada:
Salmon, *Salmo salar*, and a trout,
Salvelinus fontinalis (46186).
- DAVIS, GUILFORD, Washington, D. C.:
Pair of old iron steelyards (47113).
- DAVIS, S. AUSTIN, Yonkers, N. Y.:
Specimens of *Pisidia* from Ecuador
(47336).
- DAVIS, WILLIAM T., New Brighton,
N. Y.: Specimen of clothes-moth,
Trichophaga tapetzella (46646).
- DAYTON, O. J., Knobley, W. Va.: Chert
spearhead (47389: purchase).
- DEAM, C. C., Bluffton, Ind.: 105 plants
from Indiana (46768); 180 plants
from Guatemala (47165: exchange).
- DE GOLIA and ATKINS Co., Atolia, Cal.:
Specimen of scheelite (47140).
- DEIKER, C. J., Eureka, Ill.: 3 photo-
graphs showing the earthworks of
mound-builders (46519); fragments
of ancient pottery (47302).
- DELARUE, M. G., Washington, D. C.:
Common red bat, *Lasiurus borealis*
(46449).
- DE PASS, M. W., Archer, Fla.: Speci-
men of *Dynastes tityus* (46322).
- DETWILER, MISS LAURA C., Jersey City,
N. J.: Fern from Mexico (46716).
- DICKSON, ROBERT, Pittsburg, Pa.: 4
Geometrid larvæ (46927); inflated
larva of an insect, *Papilio* (46961).
- DILLER, J. S., U. S. Geological Survey,
Washington, D. C.: 4 species of ore,
oil, and coal from Michigan and
Texas (47427).
- DIMMOCK, GEORGE, Springfield, Mass.:
2 types of *Erochomus cubensis* Dim-
mock (46694).

- DISBROW, W. S., Newark, N. J.: Rocks from New Jersey and Pennsylvania (46414).
- DOANE, R. W., Stanford University, Cal.: 126 specimens of Diptera (47465: exchange).
- DOD, F. H. WOLLEY, Millarville, Alberta, Canada: 22 specimens of Lepidoptera (47224).
- DODE, L. A., Paris, France: Specimen of *Populus Besseyana* (46220).
- DODGE, BYRON E., Davison, Mich.: Prehistoric stone implement (12293: loan).
- DODGE, C. K., Port Huron, Mich.: 33 plants from Michigan (46992).
- DOLL, JACOB, Museum of the Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.: 10 moths (46846).
- DOUGLASS, W. B., Washington, D. C.: Jawbone of a sea lion (*Eumetopias stelleri*) and a piece of old Spanish ironwork; also specimen of terra cotta (47229); 2 polishing or rubbing implements (47443).
- DOWELL, PHILIP, Port Richmond, N. Y.: 36 plants collected in the Adirondacks, New York (46281).
- DRESEL, A. F., Nelson, Va.: Blowgun and 2 arrows (47230).
- DRESSEL, JOHN, Washington, D. C.: Silver watch chain and seal (46243).
- DUDLEY, J. H., Hoquiam, Wash.: Water beetle, *Dytiscus fasciventris* Say (46139); spider, *Misumena vatia* Klerck (46331).
- DUDLEY, W. R., Stanford University, Cal.: 4 plants (Isœtes and Characeæ) from California (46561).
- DUGÈS, A., Guanajuato, Mexico: 2 plants from Mexico (46797).
- DUKES, W. C., Mobile, Ala.: 4 ferns from Alabama (46745); 2 plants, *Lycopodium cernuum* from Alabama (46769); 2 ferns from Alabama (47000: exchange).
- DURBAN, NATAL, AFRICA. Botanic Gardens: 133 plants from Natal (46290: exchange).
- DURY, CHARLES, Cincinnati, Ohio: 11 specimens of North American Coleoptera, 3 species of which are new to the Museum collections (47403).
- DUVALL, MRS. IDA I., Baltimore, Md.: Collection of old pins (47355).
- DWELLEY, HORACE D., Gunston, Va.: Old powderhorn used during the French and Indian war, the war of the Revolution, and the war of 1812 (47398).
- DYAR, CHARLES B., Berlin, Germany: 4 sawflies bred from cocoons from Newton, Mass. (47307).
- EASTMAN COMPANY, Rochester, N. Y.: 3 photographs in royal bromide, 8 in velox, and 1 in royal velox (47375). From the Jamestown Exposition.
- EASTWOOD, MISS ALICE, San Francisco, Cal.: 5 specimens of living Crassulaceæ from the southern part of California (46204).
- EATON, D. C., Herbarium, Yale University, New Haven, Conn.: 50 plants, comprising sets 47 and 48 of Fendler's Trinidad ferns (46315: exchange).
- EBERT, MAJ. R. G., U. S. Army, Camp Stotsenburg, Philippine Islands: 6 specimens of living *Lilium Philippinense* from the Philippine Islands (received through Brig. Gen. T. E. Wilcox) (47512).
- EDSON, GEORGE E., St. Albans, Vt.: 4 slabs containing graptolites (46859).
- EDSON, I. W., Red Cloud, Nebr.: Confederate dollar bill (47393).
- EGYPT EXPLORATION FUND, Cambridge, Mass.: 6 pieces of Egyptian papyri (47007).
- EIGENMANN, C. H., Bloomington, Ind.: Reptiles from Cuba (46378); 4 amphipods, types of *Gammarus cæcus* Weckel (47013).
- ELDER, T. L., New York City: White-metal medal of the George Washington Inaugural Centennial (1789-1889) in New York (46995); collection of tradesman's tokens or store-cards (47072).

- ELLIS, C. R., Flagstaff, Ariz.: Lizards from Arizona (47282).
- ELMER, A. D. E., Manila, Philippine Islands: 907 plants from California (46230: purchase).
- EMMONS, Lieut. G. T., U. S. Navy, Princeton, N. J.: 3 photographs; view of an Indian graveyard on Thompson River, showing mortuary baskets, and 2 of an Indian chief's feasting bowl dug up at Cuatna, Burkes Channel, British Columbia (46906); 2 Chilcootin baskets (47476: purchase).
- ENGEL, HENRY, Pittsburg, Pa.: 115 specimens of Lepidoptera (46784); 2 specimens of Microlepidoptera (47017); 17 specimens of Microlepidoptera (types of new species described by Mr. Engel) (47100); 2 larvæ of *Eutolype bombiciformis* (47506).
- ENTWISTLE, JAMES SR., ESTATE OF, Washington, D. C.: Old-fashioned device for cutting loaf sugar (received through John R. Entwistle in behalf of the family) (46571).
- EPPEs, Miss J. D., City Point, Va.: 5 plants from Simla, Punjab, India (47290).
- EPTING, WILLIAM J., Spencer Pond Camps, Jackman, Me.: Young specimen of Quinнат salmon, *Oncorhynchus tshawytscha* or *chouicha* (46512).
- ERDIS, E. C., Chihuahua, Mexico: Parts of 3 snakes from Mexico (46524).
- ESHNAUR, Mrs. N. M., Terminal, Cal.: Tertiary fossils from California (46666).
- ESTACION CENTRAL AGRONÓMICA, Santiago de las Vegas, Cuba: 24 ferns collected in the western part of Cuba by Messrs. Caldwell and Baker (47117: exchange).
- EWIN, JAMES L., Washington, D. C.: Russian letters-patent (No. 11195) in favor of the Sterling-Meaker Company, of Newark, N. J. (46749).
- FAHS, R. Z., Auburn, Wash.: Fossils from near Snohomish, Wash. (46608).
- FALL, H. C., Pasadena, Cal.: 9 species (7 cotypes) of North American beetles (46965).
- FARLOW, WILLIAM G., Harvard University, Cambridge, Mass.: 100 specimens of fungi from various American localities (47298: exchange).
- FARROW, Mrs. ELLA, Baltimore, Md.: Testament carried through the civil war by a member of Company G, Fifth Maryland U. S. V. (46244).
- FARROW, Lieut. ERNEST E., U. S. Army, Camp Hartshorne, Samar, Philippine Islands: Specimen of trunk fish, *Ostracion cornutus*, from the Philippine Islands (46265).
- FAWCETT, G. L., Miama, Fla.: 4 specimens of *Nymphæa* from Florida (47452).
- FAWCETT, H. S., Lake City, Fla.: 18 plants from Florida (46148); 2 specimens of *Nymphæa* from Ohio (46251); 4 specimens of *Nymphæa* from Florida (46867; 47272).
- FEATHERSTON, N. F., Washington, D. C.: Bowed zither (47477: purchase).
- FELIPPONE, FLORENTINO, Montevideo, Uruguay: Marine algæ, crab, and 2 shells from Uruguay (46368).
- FENTON, JOHN F., Brookland, D. C.: Cassock of a Roman Catholic priest (47277).
- FENYES, A., Pasadena, Cal.: 2 beetles (46292); 11 larvæ of *Amphizoa insolens* and *Thinopinus pictus* from California (46324); coleopterous larvæ (46539). Exchange.
- FERNEKES, VAL., Milwaukee, Wis.: 58 specimens of Lepidoptera (46595).
- FEWKES, WALTER, Bureau of American Ethnology, Washington, D. C.: Lizard from Arizona (46626).

- FIEDLER, MRS. E. C., Little Silver, N. J.: Uniform and sword which were worn during the civil war by Lieut. Charles R. Carville, and a head-board which marked his temporary grave on the battlefield at Port Hudson, La. (46623).
- FIELD, GEORGE H., San Diego, Cal.: 11 specimens of Lepidoptera (46599); 8 larvæ and 2 pupæ of *Datana robusta* Strk. (46677); about 70 skins of mosquito larvæ and adults bred from them (47241).
- FISCHER, W., Department of Agriculture, Washington, D. C.: 9 specimens of *Gnetum* from Java (46816).
- FISHER, A. K., Department of Agriculture, Washington, D. C.: 2 specimens of *Cornus stricta* from Maryland (46183); 3 specimens of plant (*Smilax* sp.) from Plummers Island, Md. (46302).
- FISHER, W., Tallac, Cal.: Specimen of *Marsilea* from California (46316).
- FLANNERY, M. C., Washington, D. C.: Talc from Cherokee County, Ga. (46742).
- FLETCHER, JAMES, Central Experiment Farm, Ottawa, Canada: Type of *Cuterebra grisea* (46963).
- FLINT, DR. JAMES M., U. S. Navy (retired), Washington, D. C.: Collection of photographs and printed pages illustrating the history of medicine in America (collected by Doctor Flint for the Jamestown Exposition) (47400).
- FLOWRNOY, F. F., Santa Barbara, Cal.: Large specimen of *Pecten caurinus* Sld., from the Post-pliocene beds west of Santa Barbara (47258).
- FOLEY, T. M., Washington, D. C.: Human fetus (46569).
- FOLGER, A. H., Denver, Colo.: Butterflies and moths (46284).
- FOOTE MINERAL COMPANY, Philadelphia, Pa.: 9 specimens of minerals (47480: purchase).
- FOSTORIA GLASS COMPANY, Moundsville, W. Va.: 21 pieces of etched glassware (46982).
- FOWLER, JAMES, Kingston, Ontario, Canada: 186 plants from Canada (46326: exchange).
- FOX, R. L., Shakan, Alaska: Stone from Alaska (46419).
- FRANCK, GEORGE, Brooklyn, N. Y.: 96 specimens of Lepidoptera (46885: exchange); specimens of Hesperidæ (46908: exchange); 5 specimens of Hesperidæ (46929).
- FRANK, JOHN, Anderson, S. C.: Marble from Poor Mountain, near Wallace, S. C. (47231).
- FRANKFORT, GERMANY, Senckenbergischen Museums: 200 species of European Tertiary mollusks; 6 species of fossil fishes and 4 lithological specimens (46491); 4,700 specimens of land and fresh-water shells from the Philippine Islands, China, Europe, and the Indo-Pacific islands, consisting mainly of cotypes of species described by Möllendorff; also about 425 specimens of fossil snails from the Paludina deposits of the southeastern portion of Europe, including a table showing the development of the genus (47411). Exchange.
- FRAZIER, Miss R., El Paso, Tex.: Young basket-worm, *Oiketicus* sp. (46388).
- FRENCH, CECIL, Washington, D. C.: Specimen of new-born red fox, *Vulpes fulvus* (47191); Prince of Wales pheasant, *Phasianus principalis* (47232); ptarmigan, *Lagopus lagopus* (47523).
- FREIBURG, SWITZERLAND. Musée Cantonal d'Histoire Naturelle: 209 plants from Switzerland (46772: exchange).
- FRIEDENWALD, HARRY, Baltimore, Md.: A Jewish prayer cap (11610: loan).
- FRIERSON, L. S., Frierson, La.: 6 specimens of *Limosinas* from Louisiana (46444).
- FUHRMANN, R. H., St. Louis, Mo.: Fetuses (46470); bones and an old shoe found while excavating in the rear of Gettysburg court-house (46482).
- FULGER, Mrs. P. M., McComb, Miss.: Spider (46514); spider, *Gasteracantha cancer* (L.) (46582).

- GARDNER, Mrs. E. A., Washington, D. C.: 3 war clubs and a bow and arrows from the South Sea Islands (46233).
- GARRETT, A. O., Salt Lake City, Utah: 100 plants (46678); 314 plants from Utah (47266). Purchase.
- GEE, N. GIST, Soochow University, Soochow, China: Beetles (46516); Chinese and Japanese postage stamps (46627).
- GENERAL ELECTRIC COMPANY, Harrison, N. J.: 2 clear tantalum lamps (46578).
- GEORGE WASHINGTON UNIVERSITY, Washington, D. C.: 3 pipes made by the Catawba Indians of South Carolina; a United States artillery sword, with belt and buckle, and a cannon ball (Revolutionary relic) (46598); historical relics (46926). Exchange.
- GEROULD, J. H., Hanover, N. H.: 7 specimens of *Porcellio* (46852).
- GIDLEY, J. W., U. S. National Museum: Fossil wood from Little White River, Pine Ridge Agency, S. Dak. (46199).
- GILL, DE LANCEY W., Bureau of American Ethnology, Washington, D. C.: Stone implements from a mica quarry near Brownsville, N. C. (46785).
- GILMAN, Z. D., Washington, D. C.: 2 clinical thermometers and 2 hypodermic syringes (12221: loan).
- GLOVER, C. C., Washington, D. C.: 5 Indian implements from a large cache near Tenleytown, D. C. (received through Bureau of American Ethnology) (46551).
- GOLDSBOROUGH, Mrs. EDMUND LEE, Washington, D. C.: Marie Antoinette screen (12103: loan).
- GOLL, GEORGE, Philadelphia, Pa.: Specimen of cactus from Mexico (47475).
- GOLSON, FRANK H., Sherlock, Wash.; and Mrs. Eliza L. Golson, Saginaw, Mich.: Skull and parts of a skeleton of an Indian (47253).
- GORDON, Doctor, Equality, Ill.: Piece of fossil wood (47173).
- GORE, Mrs. J. H., Washington, D. C.: Woman's costume from Dalecarlia, Sweden; also a child's dress, including a cap and apron (47391: exchange).
- GOWARD, G., Washington, D. C.: Photographs and a pamphlet illustrating military costumes and social customs of the Japanese; scenes of the results of an earthquake in Japan (46818).
- GRABHAM, M., Kingston, Jamaica, British West Indies: Mosquitoes, larvæ in alcohol, microscopic slides and 2 flies (46525); adults of *Mansonia titillans*, adults and larvæ of *Janthinosa* sp. (46729).
- GRAFF, P. W., Storrs, Conn.: Specimen of fungus, *Xylaria* (47030).
- GRAY, GEORGE M., Biological Station, Woods Hole, Mass.: Mollusks from Porto Rico and New England, representing 31 species (47049).
- GRAY HERBARIUM, Cambridge, Mass.: 611 plants from various localities (46446); 3 specimens of *Juncus* from Quebec (47001). Exchange.
- GREEN, S. T., Jet, Okla.: 4 arrow points (47311).
- GREENE, E. L., U. S. National Museum: 17 plants from Nevada (46143).
- GREIST, L. T., Washington, D. C.: Snake, *Heterodon platyrhinos*, from Maryland (46312).
- GRIGGS, BRUCE A., East Orange, N. J.: Lepidoptera from the Upper Amazon region (46625).
- GRINNELL, J., Pasadena, Cal.: 2 specimens of *Passerella stephensi* from California (46377); lizards and snakes from California (47151); 23 plants from California (47127); 5 specimens of living cacti from California (47215).
- GRINOLD, EMERSON R., Grand Lodge, Mich.: Coal plants from Michigan (47339).

- GROSH, A., Corporal, U. S. Army, Washington, D. C.: Beetles, scorpion, roach, and snails from Cuba (47489).
- GROSSBECK, JOHN A., New Brunswick, N. J.: Cotype of *Stenaspilates flavisaria*. (47387).
- GROUT, A. J., Brooklyn, N. Y.: 50 specimens of mosses from North America (46201; 46964). Purchase.
- GROVE, J. G., Luray, Va.: Spider, *Epeira insularis*. (46545).
- GUTHRIE, OSSIAN, Chicago, Ill.: Geological material from Michigan (46422).
- HAIGHT, M. J., Perrysburg, N. Y.: Caterpillar of *Papilio troilus*. (46327).
- HAINES, ALFRED, Westtown, Pa.: 59 plants from Pennsylvania (46823); 24 plants from Pennsylvania (46941). Exchange.
- HALL, C. LYON, Port au Prince, Haiti: Coral sand of the Pleistocene age (46943).
- HANEY, W. H., U. S. National Museum: Spanish colonial coin of 1792 (47315).
- HARDING, J. H., U. S. National Museum: Pair of spectacles brought from Scotland more than three hundred years ago (46638).
- HARRIS, H. L., Clarksburg, W. Va.: Skull of a raccoon, *Procyon* (47194: exchange).
- HARRIS, DR. JESSE R., U. S. Army, Penang, Philippine Islands: Palm weevil (*Cyrtotrachelus*) (46212); Moro brain (47041); ethnological objects from the Philippine Islands (47444).
- HARRIS, W., Kingston, Jamaica: Reptiles from Jamaica (46177).
- HARRISON, J. F., Piedmont, W. Va.: Fungus. *Phallus daemoum*, from West Virginia (46396).
- HARSHBERGER, JOHN H., Philadelphia, Pa.: 139 plants from the Bermudas (47426).
- HASKELL, W. A., Alton, Ill.: Specimen showing the work of a beetle on hickory wood; a sap beetle (46580).
- HASSALL, ALBERT, Bureau of Animal Industry, Department of Agriculture, Washington, D. C.: Coin (Jackson token) (46847); bronze halfpenny issued during the reign of King George II (46890); a Kaffir knob-kerry (horn club) (12022: loan).
- HASSE, H. E., Sawtelle, Cal.: Living specimen of *Dudleya* from California (46141).
- HATCH, MARK B., Washington, D. C.: Uniform coat worn by Bvt. Maj. Gen. John Porter Hatch, U. S. Army (11700: loan).
- HAVENS, J. G. W., Life-Saving Service, Point Pleasant, N. J.: Long-tailed ichneumon fly, *Rhyssa lunator*. (46506).
- HAWKINS, D. D., Terra Cotta, Fla.: 2 marine shells (46827).
- HAY, W. P., Howard University, Washington, D. C.: Tree frogs from Dorchester County, Md. (46203).
- HEDGCOCK, G. G., St. Louis, Mo.: 10 type specimens of fungi (46353); fungus, *Ceratostemella echinella* (46520); 9 specimens of fungi, including portions of 4 types (47056).
- HEIDEMANN, O., Department of Agriculture, Washington, D. C.: 15 specimens of Nabidæ (46264); 5 specimens of Homoptera (47493).
- HELLER, A. A., Los Gatos, Cal.: 3 specimens of Apiaceæ from California (46200); 285 plants from California (46990: purchase).
- HENDERSON, Judge JUNIUS, Boulder, Colo.: About 50 fresh-water shells from Colorado (46517); 7 fresh-water shells (46644).
- HENDLEY, H. W., U. S. National Museum: Programme for a concert given by the Fourth U. S. Cavalry Band, Camp Overton, Mindanao, Philippine Islands. (46633).

- HENNING, CARL F., Boone, Iowa: Specimen of Nelson's sparrow, *Ammodramus caudacutus nelsoni* (46490).
- HENSHAW, A. N., Plattsburg, N. Y.: White-faced hornet, *Vespa maculata* (46328).
- HENSHAW, H. W., Department of Agriculture, Washington, D. C.: Pack of playing cards made from rawhide and obtained from Camp Apache in 1873 from the White Mountain band (46588); set of gambling disks used by the Salish Indians (46631); 3 ferns from the eastern section of the United States (46667); gourd rattle from the Hawaiian Islands (47330).
- HENSHAW, SAMUEL, Museum of Comparative Zoology, Cambridge, Mass.: 10 beetles from the collection of the late Roland Hayward (47105).
- HERMS, W. B., Ohio Wesleyan University, Delaware, Ohio: 6 shrimps (46585).
- HERN, H. H., Lacombe, Ohio: Photograph of a six-legged dog (47481).
- HESS, FRANK L., Washington, D. C.: Specimen of californite from near Rocky Hill, Cal. (47487).
- HEYSEY, J. H., Fort Myers, Fla.: Crania, bones, shells, and a snake (46341).
- HIBSCH, J. E., Tetschen-a-Elbe, Bohemia, Austria: A series of 50 Bohemian rocks (47457: exchange).
- HILLIARD, G. R., Callensburg, Pa.: Psocids (*Psocus venosus*). (46277).
- HIMALAYA MINING COMPANY, New York City: 3 tourmalines and associations from the company's mines at Mesa Grande, Cal. (47228).
- HINKLEY, A. A., Dubois, Ill.: 96 land and fresh-water shells, many of them cotypes (46788); 11 fresh-water shells from Mexico (47259); 90 shells from Mexico and Texas (47335).
- HOEFFERT, Miss S. R., Schulenberg, Tex.: Moth, *Eacles imperialis*. (46411).
- HOLLISTER, N., Washington, D. C.: Specimen of *Sisyrrinchium* from the District of Columbia (47360).
- HOLM, T., Brookland, D. C.: 7 plants (46344); 9 plants showing the overwintering stages of *Monarda punctata*, *Pycnanthemum linifolium*, *P. incanum*, and *Saliva lyrata* (46420); 7 plants from North Carolina and the District of Columbia (46680); alcoholically preserved plants (47362).
- HOLMES, S. J., University of Wisconsin, Madison, Wis.: 3 amphipods, cotypes of *Crangonyx putealis* Holmes (47115).
- HOLMES, W. H., Bureau of American Ethnology, Washington, D. C.: 2 water colors and an oil painting of an ancient tower and cliff houses on the Rio Mancos, Colo. (painted by Mr. Holmes) (46696); argillite chips and fragments of quartzite and chips found in the surface soil at Trenton, N. J. (46779; collected for the Museum); objects from the site of an ancient soapstone quarry near Christiana, Lancaster County, Pa., and from an ancient rhyolite quarry at Maria Furnace, Adams County, Pa. (46780: collected for the Museum); stone chisels for cutting soapstone, from Connecticut avenue (Rose Hill) quarry, District of Columbia (46781: collected for the Museum); hammer stones, scrapers, cores, etc., from Mitla, Oaxaca, Mexico; also flint cores and a piece of an alabaster vase from San Juan Teotihuacan, Mexico (46782).
- HOLSINGER, S. J., Sunshine Station, Ariz.: Meteoric iron from Sunshine, Ariz. (47428: loan).
- HOLZINGER, J. M., Winona, Minn.: Mosses (46783: purchase); 200 mosses collected mainly in the District of Columbia (47486).
- HOPE GARDENS, Department of Public Gardens and Plantations. (See under Kingston, Jamaica.)
- HORN, WALTHER, Berlin, Germany: 2 specimens of *Tetracha klagesi* W. Horn (46308: exchange).
- HORNEY, Mrs. A. M., Washington, D. C.: Panama silver 5-cent piece (47447).

- HOUGH, WALTER, U. S. National Museum: Banjo instruction book (46263).
- HOUSE, H. D., Clemson College, S. C.: 3 plants, types of *Viola redunca* House and *Convolvulus sericatus* House (46157: exchange); specimen of *Leonitis nepetaefolia* (46406); 68 plants, mainly Cyperaceæ (46450: exchange); 109 plants (46511: exchange); 220 plants from Georgia and South Carolina (46616: exchange); 31 grasses (46652: exchange); 245 plants (46714: exchange); 10 mosses (46809); 7 plants (46973: exchange); 6 plants (47048: exchange).
- HOWARD, L. O., Bureau of Entomology, Department of Agriculture, Washington, D. C.: 49 insects collected in Italy and the Azores Islands (46900).
- HOWARD UNIVERSITY, Washington, D. C.: Piece of the "New Concord" meteorite weighing 554 grams (47122: exchange).
- HOYT, J. K., Candler, N. C.: Unfinished stone pipe (46231).
- HOXIE, W. J., Savannah, Ga.: Seaside sparrow, *Ammodramus maritimus* and Worthington's marsh wren, *Telmatorhytes palustris griseus* (47356); photograph of a nest of a seaside sparrow (47419).
- HREDLÍČKA, ALEŠ., U. S. National Museum: Skull and skeleton from a shell mound on Anastasia Island, Florida (46351).
- HUBBY, MISS E. F., Pasadena, Cal.: Piece of braid weaving done by the Pomo Indians of California (47378).
- HUNGARIAN NATIONAL MUSEUM. (See under Budapest, Hungary.)
- HUNTER, WILLIAM, National Zoological Park: Piece of oak from the Zoological Park (46332).
- HURON MOUNTAIN CLUB, Marquette, Mich.: Specimen of steelhead trout, *Salmo gairdneri* (46249).
- HURTER, JULIUS, SR., St. Louis, Mo.: Reptiles and a sea eel, *Myrichthys oculatus*, from Cuba (46664); salamanders from Kentucky and Tennessee (47022).
- HYDE, A. F., Shelby, Ohio: Neuropterous insects known as ant-lion flies, *Myrmeleon immaculatus* De Geer (47394).
- INDIANA UNIVERSITY, Bloomington, Ind.: 12 specimens of *Mancasellus macrourus* Garman (46465); amphipods (47067).
- INSTITUTO MEDICO NACIONAL. (See under Mexico, Mexico.)
- INTERIOR, DEPARTMENT OF:
- Patent Office*: 30 historical models (46812).
- Bureau of Education*: Hypnotic machine and attachments (46335).
- U. S. Geological Survey*: 291 rocks from Encampment, Wyo., and the Pearl district of Colorado, collected by A. C. Spencer (46195); xenotime from Ellenboro, N. C., and evansite from Goldburg, Idaho (46222); about 300 bottles of black sand and a primitive rock crusher obtained by D. T. Day (46480); septarian concretion from the Benton shales on Rio Puerco, N. Mex., collected by T. W. Stanton (46609); 6 fragments of a vertebrate fossil collected by Whitman Cross from the Triassic Dolores formation of Silver Creek, Engineer Mountain quadrangle, Colorado (46719); fossil fish from the region of Controller Bay, Alaska, collected by C. E. Weaver (46741); fossil bone from the Laramie formation, 7 miles northeast of Green River, Utah, and several fragmentary fossil bones from Colorado (46744); rocks and minerals from the Snoqualmie quadrangle, Washington, collected by Messrs. G. O. Smith and F. C. Calkins (46915); fragments of vertebrate fossils obtained by Mr. C. A. Fisher from the Morrison (?) formation of the Great Falls coal field,

INTERIOR, DEPARTMENT OF—Continued.

Montana (46937); 54 duplicate specimens of typical olivine basalt from Pilot Knob, Routt County, Colo., collected by Messrs. H. S. Gale and R. D. Crawford (46962); vertebrate fossils from the Carbonaceous, near Seymour, and the Cretaceous (Austin chalk), at Enloe, Tex., collected by C. H. Gordon (47014); 49 specimens from the Leadville district, Colorado (47086); 20 specimens of quartz latite from the Ouray quadrangle, Colorado, and of 72 specimens of the same material from the Silverton quadrangle (47087); 85 specimens collected in the Penobscot Bay (Maine) quadrangle by Messrs. George O. Smith, Edson S. Bastin, and Charles W. Brown (47101); 17 hand specimens and a number of chips of prowersose from Appleton, Knox County, Me. (47102); 2 fragments of fossil bones from near Moab, Utah, collected by Whitman Cross (47143); 5 geological specimens from Silverton quadrangle and 3 from Needle Mountain quadrangle, Colorado (47185); 6 fractured boulders from Deer Creek coal field, Arizona (47186); rocks from Rico quadrangle, Colorado (47199); amphibole asbestos from Rocky Mount, Franklin County, Va. (47265); about 45,000 specimens of stuffed and unstuffed material from the pre-Cambrian, Cambrian, and Ordovician rocks of the United States (47270); 3 fossil fishes from Ree Heights, Hand County, S. Dak.; specimen of *Inoceramus deformis* from the Niobrara formation, near La Junta, Colo.; algæ from limestone in the lower portion of Morrison formation near Iron Mountain Station, Wyoming; collection from Lafayette formation near Heathsville, Va.; oysters from the Quaternary deposit, Maryland Point, Potomac River; fossil bone from Columbia formation; coprolite from the base of Chesapeake formation, Tar Bay, James River, Virginia (47340); rocks from Big Horn Mountains and

INTERIOR, DEPARTMENT OF—Continued.

other parts of Wyoming; Black Hills of South Dakota, Newark Group of New Jersey, and Kansas (47341); 7 specimens of limestone and other rocks from Independence quadrangle, Kansas, and adjacent localities (47365); rocks collected by Willis T. Lee in the Rio Grande region of New Mexico, southwestern Utah, and western Arizona (47370); specimen of cerussite from the Hercules mine, Coeur d'Alene district, Idaho, collected by F. L. Ransome (47379); volcanic material, with thin sections of the same, from the West Indies, collected by R. T. Hill and I. C. Russell (47511); minerals from various localities (47524); imperfect fossil fish, *Lepisosteus simplex*, collected by Jeremiah Ahern, U. S. Reclamation Service, near Cody, Wyo. (47534).

JACK, JOHN R., Punta Gorda, Fla.: Photograph of the nest of an Everglade kite (46575).

JAMES, MRS. JULIAN, Washington, D. C.: Stick pin, comb, camisa, and kerchief (47347).

JARVIS, C. D., Storrs, Conn.: Two parasitic Hymenoptera (46412).

JENNEY, C. E., Fresno, Cal.: Shells (46930).

JENSEN, M. C., Washington, D. C.: 359 plants from Virginia (47471: collected for the Museum).

JEWETT, STANLEY G., Portland, Oreg.: 3 juncos and 2 gophers from Oregon (46944).

JOHN, ANDREW, Washington, D. C.: 4 ears of "squaw-corn" (47139); 2 pottery pipes made by the Catawba Indians of South Carolina (47244).

JOHNSON, C. W., Boston Society of Natural History, Boston, Mass.: Pupæ of mosquitoes (47248); 11 mosquitoes from Labrador and Newfoundland (47264).

JOHNSON, MRS. F. P., St. Louis, Mo.: Larva of a cossid-moth (46297).

- JOHNSON, J. H., Kinsale, Va.: Blue crab with a young oyster attached (46236).
- JOHNSTON, MISS ELIZABETH BRYANT, Washington, D. C.: Portrait in oil of George Washington (11609: loan).
- JOHNSTON, HARRIET LANE (deceased): Collection of paintings, engravings, marble busts, photographs (46383: bequest).
- JONES, J. E., Washington, D. C.: Articles gathered from the battlefields of the Russian and Japanese armies before Port Arthur (47184).
- JONES, McDUFFEE & STRATTON COMPANY, Boston, Mass.: 5 blue Wedgwood historical plates (47442).
- JORDAN, D. S., Leland Stanford Junior University, Stanford University, Cal.: Photographs of a young porpoise, *Delphinus delphis*, taken at Avalon, Santa Catalina Island, California (46391).
- JORDAN, GEORGE C., Washington, D. C.: Specimens of isopods, *Mancasellus brachyurus* Harger (46304).
- JOSEPH, ANTONIO, Ojo Caliente, N. Mex.: Scalping knife (47314).
- KANSAS, UNIVERSITY OF, Lawrence, Kans.: 105 specimens of Lepidoptera (46939: exchange).
- KEARFOTT, W. D., New York City: Unidentified larva from a sand tube on the stalk of *Onagra* (47350).
- KEARNEY, T. H., Department of Agriculture, Washington, D. C.: 3 ferns collected in Andreas and Murray canyons, Palm Springs, Cal. (46371); 10 ferns from Tunis (46545).
- KEENAN, MICHAEL, Springer, N. Mex.: Pentatomid, *Lioderma sayi* Uhler, with eggs (46318).
- KELLERMAN, W. A., Columbus, Ohio: 81 plants from Guatemala (46254); plants from Guatemala (46467); specimen of *Wolfiella* from Ohio (46614); 164 plants from Guatemala (46679); 15 plants from Guatemala (47456). Exchange.
- KEMP, ROBERT A., Frederick, Md.: 3 moths, *Crambus alboclavellus* (2 specimens), and *C. girardellus*; also a moth, *Argyria nivalis* (46842).
- KENDALL, MRS. G. W., Newton, Kans.: Meteorite (46606: purchase).
- KENNEDY, ANDREW, Naugatuck, Conn.: Beetle, *Coptocycla aurichalcea*. (46401).
- KENNEDY, P. B., Reno, Nev.: Plant from Nevada (46142); 9 plants (*Ribes*) and a photograph of *Ribes* sp. from Nevada (47323: exchange).
- KEW, LONDON, ENGLAND. Royal Botanic Gardens: Specimen of *Polypodium Hartii* Jenman, from Grenada (46591: exchange).
- KEYSER, E. M., Ancon, Canal Zone, Panama: Millepeds, crabs, fish, and a snake (46548); 2 specimens of Hemiptera, *Acanthocephala panamensis* Dist., and *Quesada (Typanoterpes) gigas* (47326).
- KING, G. F., Washington, D. C.: Tree frog, *Hyla semifasciata*, from Florida (46762).
- KINGSTON, JAMAICA, Department of Public Grounds and Plantations, Hope Gardens: 5 plants from Jamaica (46155: exchange).
- KIRK, ARIEL, Becket, Mass.: Cecropia moth (46430).
- KIRK, E. J., Columbia University, New York City: Specimen of *Archimedes* from the Chester limestone near Huntsville, Ala. (46820).
- KIRKALDY, G. W., Honolulu, Hawaiian Islands: 11 shrimps, *Palæmon (Leander) debilis* Dana (46704).
- KIRKWOOD, F. C., Ocean City, Md.: Chestnut-collared longspur, *Calcarius ornatus*, from Ocean City (46333); black rudder-fish, *Palinurichthys perciformis* (46670).
- K. K. NATURHISTORISCHES-HOFMUSEUM. (See under Vienna, Austria.)
- KLAGES, E. A., Crafton, Pa.: 2 skins and skulls of ant-eaters, *Cyclothorus didactylus* (46392).

- KNAB, FREDERICK, Department of Agriculture, Washington, D. C.: 70 insects (46727); 11 specimens of Neuroptera and Odonata from Massachusetts and Texas; 150 specimens of Lepidoptera (46904: exchange); specimen of living cactus (47317).
- KNIGHT, ORA W., Bangor, Me.: 4 plants from the eastern section of the United States (46459); 31 plants from Maine (46711).
- KNOWLTON, F. H., U. S. Geological Survey, Washington, D. C.: 22 fossil plants from the Fort Union Tertiary of North Dakota (46559).
- KNOX, Lieut. THOMAS M., U. S. Army, Newport News, Va.: Specimen of flying-fish, *Exocoetus heterurus* (47122).
- KUNZÉ, R. E., Phoenix, Ariz.: Specimen of living *Opuntia macrorhiza* (?) Engelm., from near Prescott, Ariz. (46345); 3 plants from the southwestern section of the United States (46705); 2 plants from Arizona (47438).
- LAHILLE, F., Buenos Aires, Argentina: 27 specimens of Diptera (47027).
- LAMB, D. S., Army Medical Museum, Washington, D. C.: Anatomical specimen (46564); fetus (47008); skeleton and brain of a negro (47247).
- LANSBURGH, MAX, Washington, D. C.: Stone from one of the pyramids of Egypt (46819).
- LAVELLE, R. M., Petersburg, Va.: Electric-light bug, *Benacus haldemanum* Leidy (47491).
- LAW, J. A., Oxford, Ind.: Copper bowlder (47430: purchase).
- LEACH, FREDERICK, New York City: 6 watches (11574: loan).
- LEADVILLE PUBLISHING AND PRINTING COMPANY, Leadville, Colo.: Fossil bones from Reindeer mine (46851).
- LEE, E. L., Bridgeport, Ala.: 2 plants from Tennessee (46424).
- LELAND STANFORD JUNIOR UNIVERSITY, Stanford University, Cal.: Types and cotypes of fishes from various localities (46605); type specimen of LELAND STANFORD JUNIOR UNIVERSITY—Continued.
- Lucania browni*, collected by Herbert Brown, Tucson, Ariz. (47168).
- LE MERLE, E. L., Washington, D. C.: Specimen of little black rail, *Circus jamaicaensis*, from Virginia (46773).
- LENDENFELD, R. VON, Prague, Bohemia: 238 microscopic slides of sponges (47197: purchase).
- LEON, NICOLAS, City of Mexico, Mexico: 2 pre-Columbian Mixtec skulls and a fragment of a skull (46221: exchange).
- LEWIS, Lieut. GEORGE C., U. S. Army, Manila, P. I.: Mammals, birds, and insects from the Philippine Islands (46239).
- LINKE, H. A., Tiger Bay, Fla.: Fossil bones and shark's teeth from phosphate beds of Florida (47441).
- LOCHER, Miss JOSEPHINE, Burns, Oreg.: Skeleton of a wolf, *Canis occidentalis* (?) from Oregon (46924).
- LOCKE, OTTO, New Braunfels, Tex.: Specimen of living *Nymphaea* from Texas (46146).
- LONDON, ENGLAND, BRITISH MUSEUM (Natural History): Casts of 4 fossils, including 3 skulls, and an entire skeleton of *Pareiasaurus baini* from the Karoo beds of South Africa (46469: exchange); 41 specimens of Hemiptera (46879).
- LOUDON, Baron HAROLD, Lidsen, near Wolmar, Livonia, Russia: 23 birds' skins (47519: exchange).
- LOVETT, EDWARD, Croydon, England: Folk lore and ethnological objects (46334); set of King Edward's "Royal Maundy money" (47243). Exchange.
- LÜBECK, GERMANY, NATURAL HISTORY MUSEUM: Crab, *Heterograpsus crenulatus* Lenz (46971); crustaceans collected in the East Indies by Captain Storm and determined by Doctor de Man (47531). Exchange.

- LUCAS, F. A., Brooklyn, N. Y.: Model of an egg of the platypus or duckbill, *Ornithorhynchus* (46791); skeleton of a caracara, *Polyborus lutosus*, from Guadaloupe Island (46824).
- LUDLOW, Miss C. L., Washington, D. C.: 4 insects from the Philippine Islands (46431); 100 mosquitoes and other insects (46695).
- LUKENS, C. B., Zanesville, Ohio: Brachiopod, *Atrypa reticularis* (46998).
- LUTHER, C. H., jr., Providence, R. I.: 2 cotypes of *Antomeris io* var. *fuscus* Luther (47035).
- LYON, M. W., jr., U. S. National Museum: Sponges and polyzoans from Lake Piseco, Hamilton County, N. Y. (46471).
- LYON, V. W., Jeffersonville, Ind.: Fossiliferous washings from the Devonian at the falls of the Ohio (46725: exchange).
- LYTLE, F. B., Parkersburg, W. Va.: Silver sixpence of the reign of George III of England (47183).
- MCADAMS, Mrs. J. W., Morrow, Ohio: Larva of bot fly, *Cuterebra buccata* (46261).
- MCATEE, W. L., Department of Agriculture, Washington, D. C.: Turtle from near Plummers Island, Maryland (46319).
- MCCAGG, L. B., New York City: A stake which was placed as a guard to a ford in the river Thames in Saxon times (46830).
- MCCARTY, Mrs. L. N. F., Washington, D. C.: Ethnological specimens from Mexico (11671: loan).
- MCCOMB, G. T., Lockport, N. Y.: Fossil bryozoans from New York (46897).
- MCCORMICK, W. F. J., Coconut Grove, Fla.: Spider, *Admetus whitei* Gerv. (47271).
- MCCORNACK, Mrs. ELLEN C., Eugene, Oreg.: 2 photographs of the skull of a fossil seal, *Desmatophoca Oregonensis* (47288).
- MCCOWN, T. B., Fort Mott, N. J.: 5 scorpions from the Philippine Islands (47209).
- MCELHOSE, H., St. Louis, Mo.: 12 specimens of Lepidoptera (46634: exchange).
- MCMURPHY, JAMES, Stanford University, Cal.: 350 plants from California (47058: purchase).
- MACDOUGAL, D. T., New York City: Specimen of *Krameria* from Arizona (46145).
- MACGILLIVRAY, A. D., Ithaca, N. Y.: 26 specimens of Hymenoptera (46792).
- MACKIE, S. L., New York City: 5 old Southern bank bills (47349).
- MANEE, A. H., Southern Pines, N. C.: 3 specimens of beetle, *Strategus splendidus*, and 1 of *Sandalus* sp. (47233).
- MANILA, P. I.: BUREAU OF SCIENCE: 2 cotypes of mosquitoes, *Worcesteria grata* Banks and 2 cotypes of *Finlaya aranciana* Banks (47106); microscopic slide of the palpi of *Worcesteria grata* Banks (47221); sponges from Lake Lanao, Philippine Islands, collected by Mrs. Mary Strong Clemens (47437); 5,571 plants from the Philippine Islands (47446: exchange).
- MARIS, J. M., Scranton, Pa.: Sample of wood (*Hardwickia binata*) (46197).
- MARLOFF, FRED, Oak Station, Pa.: 85 specimens of Lepidoptera (46884).
- MARNOCK, G. W., Helotes, Tex.: Lizard, *Gerrhonotus*, from Texas (46663).
- MARSHALL, ERNEST, Laurel, Md.: Fishes, reptiles, invertebrates, mollusks, and mammals from Maryland (46380); 6 fresh-water mussels (46442); specimen of small blarina, *Blarina parva* (46993); about 70 specimens of *Unio complanatus* Say from a branch of the Patuxent River (47227); cottontail rabbit, *Sylvilagus floridanus mallurus* (47369).

- MARTIN, Mrs. H. H., Nellysford, Va.: Spider (*Eperia insularis* Hentz) (46592).
- MARTIN, HENRI, Paris, France: Worked flints of the Moustierian period, found in the deposit of La Quina (Charente), France (47416: exchange).
- MARYLAND ACADEMY OF SCIENCE, Baltimore, Md.: 50 fossils from the Greenbrier limestone of the western section of Maryland (46775).
- MARYLAND SILICATE MILLS, Baltimore, Md.: Sample of quartz and 2 specimens of powder from Carroll County (47318).
- MASON, O. T., U. S. National Museum: Specimen of regal walnut moth (46242); silver coin (25 cents) issued in Canada in 1872 (46735); Canadian 25-cent piece (47212); Columbian half-dollar (47279); negatives of an antique French pistol (47417).
- MATTHEW, G. F., St. John, New Brunswick: 4 Canadian Cambrian ostracods (46587: exchange).
- MAXON, W. R., U. S. National Museum: Insects, myriapods, and mollusks from Costa Rica (46188); 10 ferns from New York and Maryland (46823).
- MAYNARD, G. C., U. S. National Museum: Photograph of Dr. Richard I. Gatling, inventor of the Gatling gun (47278).
- MAYNARD, G. W., New York City: Dental instruments and case-book of Dr. Edward Maynard (12331: loan).
- MAYO, J. C. C., Paintsville, Ky.: 2 stem bases of calamites from Paintsville (46858).
- MAYO, N. S., Santiago de las Vegas, Cuba: 7 specimens of *Physa cubensis* (47260).
- MAYR, GUSTAV, Vienna, Austria: Specimen of *Dinotus* sp., bred from *Hylesinus frazini* (46607).
- MEARNS, Dr. E. A., U. S. Army, Manila, P. I.: Rock from Mindanao (46500); ethnological and natural history material from the Philippine Islands (46501, 46983, 46985); book of mounted photographs relating to the Mexican Boundary Survey (46707).
- MEIGS, HENRY C., Fort Gibson, Ind. T.: Specimen of *Goniatite* from the Carboniferous of Indian Territory (47132).
- MELL, C. D., Washington, D. C.: Specimen of *Krameria* from New Mexico (46227).
- MENDL, JOSEPH F., Montclair, N. J.: Alb, amice, cincture, pair of glass cruets and tray, biret, used during the celebration of mass in the Roman Catholic Church (46481).
- MENESTRINA, JULES F., St. Louis, Mo.: Specimens of renal calculi and photographs of various pathological objects (46940).
- MERRIAM, C. HART, Department of Agriculture, Washington, D. C.: Willow from Nevada (46184); shells from Bermuda (47280).
- MERRILL, ELMER D., Washington, D. C.: 14 land-shells from the Philippine Islands (46476).
- MESTAYER, R. L., Lambton Quay, Wellington, New Zealand: 16 samples of foraminiferous material and 4 specimens of diatomaceous earths (47093: exchange).
- MEXICO, CITY OF, Mexico. Instituto Medico Nacional: 2 plants from Mexico (46487); 150 Mexican plants (46555: exchange); 10 larvæ of Diptera found in the plant "Maguey" (47263); gall from Mexico, probably *Amphibolips*, and small parasites of *Mestocharis* Förster as defined by W. H. Ashmead (47367); imagoes, larvæ, and cocoons of the "Mexican tent-worm," *Clisiocampus* (47388).
- MICHAELIS, Lieut. O. E., U. S. Army, Cardenas, Cuba: Plant, Kidney-cotton, *Gosyppium peruvianum acuminatum* (47295).

- MICHIGAN, UNIVERSITY OF, Ann Arbor, Mich.: 24 specimens of Hymenoptera (47042).
- MILEY, M., Lexington, Va.: Photograph in color (47373). From the Jamestown Exposition.
- MILLER, Mrs. E. P., care of G. S. Miller, jr., U. S. National Museum: 2 frogs and a bat from Luray, Page County, Va. (46472).
- MILLIGAN, Mrs. J. M., Jacksonville, Ill.: Specimens of *Sitodrepa panicea* Linn. (47109); plants from various sections of the United States (47222).
- MISSOURI BOTANICAL GARDEN, St. Louis, Mo.: 2 plants from Mexico (46153); specimen of *Bescharneria* (46574). Exchange.
- MISSOURI, UNIVERSITY OF, Columbia, Mo.: 18 rocks from Missouri (47342: exchange).
- MITCHELL, Miss E. G., U. S. National Museum: Amphipods and isopods from Orange Mountains, New Jersey (46743).
- MITCHELL, J. E., Washington, D. C.: Brain and skeleton of a fetus (47350).
- MONTGOMERY, HENRY, University of Toronto, Toronto, Canada: Cranium of a Huron Indian (46287).
- MONTGOMERY, THOMAS H., University of Texas, Austin, Tex.: 4 parasitic Hymenoptera (46456).
- MOONEY, JAMES, Bureau of American Ethnology, Washington, D. C.: 5 specimens of Indian hair (46350).
- MOORE, CLARENCE B., Philadelphia, Pa.: Post-Columbian skull from Florida (47297).
- MORGAN, E. L., Washington, D. C.: Skeleton and brain of a negro fetus (46216).
- MORGAN, Mrs. HENRY H., Lucerne, Switzerland: 3 commissions of the late General Judson Kilpatrick (11758: loan).
- MORGAN, H. J. KILPATRICK-, Lucerne, Switzerland: Relics of the late General Judson Kilpatrick (47055).
- MORGAN, K. V., U. S. Geological Survey, Washington, D. C.: Plumbago from mines near Trevandrum, Southern India (46721).
- MORHART, CURT, Pfarrer von Staadorf, Bayern, Germany: 2 fossil oysters, *Ostrea marshi* (46960: exchange).
- MORSE, E. V., Marietta, Ohio: Fossil plants from Ohio (46864).
- MOSBY, J. S., Department of Justice, Washington, D. C.: Bronzed bust of himself made in 1866 by Valentine, of Virginia; felt hat worn on the night when he was shot and captured (Dec. 21, 1864) (11762: loan).
- MOSELEY, E. L., Sandusky, Ohio: 43 plants from Canada (46510: exchange).
- MOSHER, F. W., Wakefield, Mass.: Syrphid-fly, representing a new genus and species (47111).
- MOSS, W., Ashton-under-Lyne, England: 6 photo-micrographic prints of shells, radulas, and darts of mollusks (47190).
- MOWBRAY, L. L., Hamilton, Bermuda: Fishes, 3 adults, larva and chrysalis of a butterfly, *Agraulis vanille* (46637).
- MOYER, L. R., Montevideo, Minn.: 63 plants from Minnesota (47268).
- MULLALLY, Mrs. H. A., Vicksburg, Miss.: Moth, *Citheronia regalis* (47431).
- MULLER, JOHN, Stoughton, Wis.: 3 stone hammers (47182).
- MÜLLER, ROBERTO, City of Mexico, Mexico: 2,012 specimens of Lepidoptera (46478; 46645; 46872; 46911).
- MUMFORD, I. S., Ocean City, Md.: Specimen of little auk, or dovekie, from Ocean City (46794).
- MUNN & COMPANY, New York City: Photographs of musical instruments forming a part of the Crosby-Brown collection of the Metropolitan Museum of Art (46410).
- MUNSON, REGINALD, Washington, D. C.: Fetus (47301).

- MURRAY, Dr. ALEX., U. S. Army, Fort Bayard, N. Mex.: Orthoclase crystals from Fort Bayard (46777).
- MURRAY, J. D., Washington, D. C.: Parts of human skeletons (46871; 47028).
- MUSÉE CANTONAL D'HISTOIRE NATURELLE. (See under Freiburg, Switzerland.)
- MUSEO NACIONAL. (See under San José, Costa Rica.)
- MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Mass.: Cotype of *Glanis aristotelis* (46437); 2 casts made in the National Museum of a portion of a jaw of the type of *Anoploussa forcipata* (46931: exchange); 71 echinoderms (47037: exchange).
- MUSEUM OF NATURAL HISTORY. (See under Paris, France.)
- MUSEU PAULISTA. (See under São Paulo, Brazil.)
- NATIONAL SOCIETY OF THE DAUGHTERS OF THE AMERICAN REVOLUTION, Mrs. Donald McLean, President-General: Frame containing 6 picture postals relating to John Paul Jones, and a piece of the wood of the ship which first floated the American flag, *The Ranger*, commanded by him; presented to the society by Mrs. T. C. Robertson, Columbia, S. C.; unframed picture of Elizabeth Grace and Rachel Martin demanding the surrender of the courier of the enemy with dispatches, presented to the society by Frank Bostick Martin of South Carolina; 5 copies of "valuable papers" presented by Mrs. de B. R. Keim, of Pennsylvania; 3 pieces of the original "Charter Oak" from Hartford, Conn., presented to the society by Mrs. Keim (12182); china teapot and a piece of embroidered canvas (12220). Loan.
- NATURAL HISTORY MUSEUM. (See under Lübeck, Germany.)
- NATURHISTORISKA MUSEUM. (See under Stockholm, Sweden.)
- NAVAS, LONGIN, Zaragoza, Spain: 14 may-flies and a *Chrysopa* from Spain (47423: exchange).
- NAVY DEPARTMENT, BUREAU OF ORDINANCE: Lee straight-pull rifle (46294).
- NEBRASKA, UNIVERSITY OF, Lincoln, Nebr.: 7 specimens of *Laciniaria* from Nebraska (46734: exchange).
- NEEDHAM, J. G., Lake Forest, Ill.: 12 specimens of Diptera (46402).
- NELSON, N. C., Quartzsite, Ariz.: Cricket and a spider (46426).
- NETTELROTH, H. H., Louisville, Ky.: The Henry Nettelroth collection of fossil invertebrates representing the paleozoic formations of Ohio, Kentucky, and Indiana (47505: purchase).
- NEWGARDEN, Major G. J., Surgeon, U. S. Army, Manila, P. I.: Coleoptera, consisting of a large snapping-beetle (Elateridae), with pale brown wing-cases; *Oxynterus mucronatus*, and a black-horned scarabæid-beetle, *Oryctes rhinocerus* (46581).
- NEW HAMPSHIRE COLLEGE EXPERIMENT STATION, Durham, N. H.: 96 specimens of Lepidoptera (47401).
- NEW YORK AQUARIUM, New York City: Specimen of striped bass, *Roccus lineatus* (46339).
- NEW YORK BOTANICAL GARDENS, New York City: Fragment of type of *Mertensia tubiflora* from Wyoming, collected by Frank Tweedy (46147); 3 specimens of *Populus* from California and Mexico (46154); 7 living plants from Europe, Nevada, and Arizona (46156); 276 specimens of *Pteridophyta* from Costa Rica and Jamaica (46394); 56 plants, mainly fungi, from Costa Rica (46440); seed of *Melocactus melocactus* from Jamaica (46547); 389 phanerogams from the Philippine Islands, obtained by R. S. Williams (46556); specimen of *Bescharneria californica* (46594); specimen of *Bescharneria bracteata* (46613); 201 ferns, principally from the West Indies (46682); 3 plants from Mexico and Panama, also 2 photographs (46708); 114 plants from Barbados (46810); plant from Mexico (46873); 755 plants from Jamaica and Porto

- NEW YORK BOTANICAL GARDENS—COL. Rico (46925); 555 plants from the West Indies (47019); 11 specimens of *Hepatica* from Costa Rica (47043); specimen and photograph of *Beaucarnea* (47333); moss from Florida (47408); 731 plants collected by Père Duss in the French Antilles (47472). Exchange.
- NEW YORK FISH AND GAME COMMISSION, Long Branch, N. J.: Specimen of black bass from Culvers Lake, N. J. (46266).
- NEW YORK STATE EDUCATION DEPARTMENT, Albany, N. Y.: 3 specimens of a poisonous spider, *Lathrodictes mactans* Koch (46211); specimen of *Leucobrepheos middendorfi* (47405).
- NEW YORK ZOOLOGICAL PARK, New York City: Chimpanzee (46687); iguana from the West Indies (46805).
- NICHOLS, DR. HENRY J., U. S. Army, Leye, P. I.: Filipino fetus (47479).
- NIGHTINGALE, ROBERT C., Beechamwell Rectory, Swaffham, England: Ancient stone implements and fragments of Romano-British urns (received through Bureau of American Ethnology) (46550).
- NORTON, J. B., Manhattan, Kans.: Collection of galls and gall parasites (46945).
- OBERHOLSER, H. C., Washington, D. C.: 2 specimens of *Fraxinus Biltmoreana* from North Carolina (46260).
- OLDROYD, MRS. T. S., Long Beach, Cal.: 4 species of marine shells from San Pedro, California (46921).
- OLDS, MRS. E. B., Woodside, Mo.: About 100 specimens of *Vallonia pulchella* from Woodside (46503).
- OLMSTED, MISS H. A., Castleton, Vt.: 3 spiders (46285).
- ORCUTT, C. R., San Diego, Cal.: Plant from California (46149); specimen of living *Dudleya* from California (46229); 2 specimens of *Dudleya angustifolia* Rose from California (46258: exchange); plant (*Nolina*) from Lower California (46882).
- ORD, ESTATE OF Capt. JAMES T.: Table, 2 chairs, and a helmet (received through Mrs. J. T. Ord) (11628: loan).
- ORIOLE MUSEUM, Knowlesville, N. Y.: Skin of *Spizixos semitorques* (46957).
- OTTAWA, CANADA. GEOLOGICAL SURVEY: 60 plants (46179); 12 specimens of *Laciniaria* from Canada (46509); 32 plants (*Juncaceae*) (46815).
- PALMER, EDWARD, Washington, D. C.: Specimen of living *Sedum* sp., from Mexico (46279); 52 land shells from Mexico (46541); 535 plants from Mexico (46837: purchase); fire fan and basket made by the Tepehuana Indians, Durango, Mexico (46917); basket made in Victoria, Tamaulipas, Mexico (47090).
- PALMER, WILLIAM, U. S. National Museum: 2 crayfishes from the Peaks of Otter, Bedford County, Virginia (46268); skull of a skunk, *Mephitis*, from Great Falls, Fairfax County, Virginia (46894).
- PAMMEL, L. H., Ames, Iowa: Leaf and several fruits of the type of *Ptelea eggertiana* Greene from Missouri (46151: exchange).
- PARIS, FRANCE. MUSEUM OF NATURAL HISTORY: 2 photographic plates of a mounted Okapi (46641); 51 corals from French Somaliland (46936); 80 grams of the "La Becasse" meteorite (47842). Exchange.
- PARISH, S. B., San Bernardino, Cal.: Seeds of *Nolina* from California (46849).
- PATE, W. F. (See under Hon. Frank Springer.)
- PATSELL, JAMES, Knik, Alaska: Wolf-eel, *Anarrhichthys* and 2 sticklebacks, *Gasterosteus* (46988).
- PATTEN, MISS J. C., Washington, D. C.: Fern, *Asplenium pinnatifidum*, from Fairfax County, Va. (46767).
- PATTISON, MRS. S. L., El Paso, Tex.: 50 cacti from Texas (46654: purchase).

- PAUL, Mrs. CHRISTINE, Charenton, La.: Unfinished double-twill basket made by the Chetimache Indians (47458).
- PAVY, Mrs. L. S., Washington, D. C.: Ethnological material from Greenland and vicinity (47083: purchase).
- PAYN, ELIAS J., Olympia, Wash.: Ore from the mines of the Skookumchuck Gold and Copper Mining Company, Thurston County, Wash. (46495).
- PEABODY MUSEUM, Salem, Mass.: 4 photographs pertaining to the U. S. frigate *Constitution* (46215).
- PEARSALL, R. F., Brooklyn, N. Y.: 2 specimens of Diptera (*Olfersia americana* Leach), and the case of a neuropterous larva (47225).
- PEASE, G. H., New York City: Ores from the mines of Federico Varela, Chile (46381).
- PENFIELD, S. L., New Haven, Conn.: Specimen of purpurite (46661).
- PENNSYLVANIA MUSEUM, Memorial Hall, Fairmount Park, Philadelphia, Pa.: 3 specimens of hard paste porcelain made about the year 1825 by Mr. William Ellis Tucker, of Philadelphia, and a pottery dish made by the Pennsylvania-German potters about 1830 (46683: exchange).
- PETERS, R. H., Mobile, Ala.: 6 living plains, mainly from Guatemala (47053: exchange).
- PETITMENGIN, Mons. M., Malzeville, France: 5 plants from Greece (47053: exchange).
- PIERCE, J. H., Coalinga, Cal.: 2 specimens of *Purpura* from the Huasna Oil Fields, San Luis Obispo County, Cal. (47257).
- PINDAR, L. O., Tyrone, Ky.: Sphinxmoth, *Phlegethontius quinquemaculatus* Haworth (46140).
- PIPER, C. V., Department of Agriculture, Washington, D. C.: Specimen of *Sedum* (46194); specimen of cactus (46228); 12 specimens of living cacti from Colorado (46301); about 100 land and fresh-water shells from Texas (46475); 5 plants from Washington (46629); 140 plants from Oregon (46980); specimens of *Allium* from British Columbia (47204); 2 plants from Oregon, types of *Lupinus gormanni* Piper and *Cassiope mertensiana oregana* Piper (47421).
- PITTIER, H., Department of Agriculture, Washington, D. C.: 7 specimens of living cacti from Colombia (46150); 2 land shells from Colombia (46210); 50 lichens from Costa Rica (46338); batrachians from Colombia (46348); 44 land shells from Colombia (46366); 9 plants collected on Volcan de Chiriqui, Panama (46400); 48 negatives of Costa Rican whistles and 17 negatives of metates (46639); large collection of plants from Costa Rica (46728); 45 shells from Guatemala and Honduras (47254); mollusks from Guatemala (47281); 67 specimens of mosses from Central and South America (47346); 110 plants from Central America (47450).
- PocOCK, R. L., Victoria, British Columbia: 3 specimens of cinnabar (47142: purchase).
- POLLARD, C. L., Washington, D. C.: 7 specimens of violets from New York (47422).
- POPE GOSSEY CHINA COMPANY, Coshocton, Ohio: China vase (46758).
- PORTER, C. A., and H. C. DEMMING, Philadelphia, Pa.: Sample of quartz rock from a quarry at Uchland township, Chester County, Pa. (46423).
- PORTER, PLEASANT, Muskogee, Ind. T.: Photograph of donor, chief of the Muskogee Indians (47096).
- POST, E. J., Tampa, Fla.: 47 shells from the Florida Keys and Sarasota Bay (46568):
- POWELL, LESLIE, Notch, Mo.: Skull and bones of a raccoon, *Procyon lotor* Linnæus, and a piece of gypsum (47418).
- PRATT, H. S., Haverford, Pa.: 4 specimens of isopods, *Trichoniscus pusillus* Brandt (46853).

- PRENTISS, D. W., Jr., Washington, D. C.: 7 land and fresh-water shells from Great Falls, Maryland (46474).
- PRESTON, H. B., London, England: 280 species and varieties of land shells from Madeira, Canary, and other islands in the Atlantic Ocean, including many cotypes described by Wollaston and Lowe, and from their collections (47526: purchase).
- PRICE, ESTATE OF SADIE F. (received through Miss Mary E. Price, Bowling Green, Ky.): Shells and other natural-history specimens (46602).
- PRINGLE, C. G., Burlington, Vt.: 3 plants from Mexico (46486); 2 living plants (*Mamillaria* and *Sedastrum*) from Mexico (46523); 19 plants from Mexico (46685: exchange); 386 plants from Mexico (46710: purchase); 2 specimens of *Gaura* from Mexico (47203: exchange); 50 plants from Mexico (47308: purchase).
- PUBLIC MUSEUM, Milwaukee, Wis.: 23 specimens of Lepidoptera (46928: exchange).
- PULLMAN, E. J., Washington, D. C.: Landscape in color (47374). From the Jamestown Exposition.
- PURPUS, C. A., Vera Cruz, Mexico: Specimens of *Echeveria* and *Sedum* from Mexico (46193); 2 specimens of living Crassulaceæ from Mexico (46720); 4 living plants from Mexico (47036; 47069); plant, seeds, and a living specimen of *Beaucarnea* from Mexico (47180, 47236); 5 specimens of *Cereus* from Mexico (47267); 3 specimens of cacti from Vera Cruz (47273); 4 specimens of living cacti from Vera Cruz (47294).
- PUTNAM, F. W., Peabody Museum, Cambridge, Mass.: Button from the coat of Sheriff Watson, of Hancock County, Me., dated 1820, representing the New England Indians (46996).
- QUEBEC, CANADA. UNIVERSITÉ LAVAL: Huron skulls and other bones, pipes, fragments of pottery, shell, and iron bracelets found in the graves of Huron Indians (46565: exchange).
- RALPH, W. L., U. S. National Museum: Salamanders and a hybrid trout from Lake Piseco, Hamilton County, N. Y. (46461); skins and skulls of 3 deer (46542); skins of a deer, bear, rabbit, woodchuck, and a muskrat (46688); fox squirrel from Bloomgrove, Fairfax County, Va. (46803); 57 mounted birds from New York (46833).
- RAMES, J. L., Florence, Ariz.: Specimens of wood ibis, *Tantalus loculator*, from Arizona (46407).
- RANDLE, E. H., Hernando, Miss.: 80 prehistoric stone implements from the western part of Tennessee (46382: exchange).
- RANDLE, J. F., West Point, Miss.: 7 postage stamps (46787).
- RANDOLPH, K. B., St. Joseph, Mo.: Fossil mollusk (47178).
- RATHBUN, Mrs. C. S., Chena, Alaska: About 500 land and fresh-water mollusks from Chena (46507); 60 land and fresh-water shells from the vicinity of Chena (46577).
- RATHBUN, Miss M. J., U. S. National Museum: Crayfish and amphipods from Brookside, W. Va. (46398).
- RAY, Brig. Gen. P. H., U. S. Army, Washington, D. C.: 7 stone dishes found in hills along the French Broad River, near Asheville, N. C. (46493).
- REES, V. H., Collinsville, Ind. T.: Fossil pelecypods (46460).
- REYNOLDS, A. J., Council Grove, Kans.: Fossil invertebrates (46954: gift); skeleton of otter, *Lutra canadensis sonora*, and 2 skeletons of minks, *Putorius vison lutreoccephalus* (47060: exchange); Silurian and Devonian fossils (47163).
- RHOADES, D. F., Penfield, Pa.: Hellgrammite fly (46214).
- RHODESIA SCIENTIFIC ASSOCIATION, Bulawayo, British South Africa: Notes on and photographs of native African wooden writing-tablets (46219).

- RICHARDS, E. A., U. S. consular agent, Kingston, St. Vincent Island, British West Indies: Skull of a whale (46709).
- RICHARDSON, B. P., New York City: Piece of Rouen china in the shape of a pig (46756).
- RICHMOND, C. W., U. S. National Museum: Wire pin found in an old book published in 1792 (46774).
- RICKARDS, C. B., Oaxaca, Mexico: 48 specimens of Lepidoptera (46843; 47074): Exchange.
- RIDGWAY, R., U. S. National Museum: Crow, *Corvus* sp. (47520).
- RIDGWAY, MRS. ROBERT, Brookland, D. C.: 5 ferns and selaginellas from Costa Rica (46202).
- RILEY, J. H., U. S. National Museum: 5 bats from Falls Church, Va. (46237); 3 birds' skins from Virginia (46560); 2 birds' skins from Maryland (46671).
- ROARK, G. P., Percy, N. H.: Specimen of moth (*Notolophus antiqua*) (46390).
- ROBERTS, GEORGE C., Sharon Hill, Pa.: Ceremonial object from a field in Freehold, N. J. (46573); triangular spearhead from Ohio and a leaf-shaped blade from Bangor, Pa. (46732: exchange).
- ROBERTS, GEORGE E., Director of the Mint, Washington, D. C.: Bronze medal of Hon. Theodore Roosevelt (47234).
- ROBINSON, J. D., Washington, D. C.: Specimen of little yellow rail, *Porzana noveboracensis*, from Maryland (46537).
- ROBINSON, T. R., Washington, D. C.: 2 fungi from Fairfax County, Va. (46485).
- ROBINSON, Capt. WIRT, U. S. Army, West Point, N. Y.: 2 snakes from Virginia (46208); skins and skulls of 97 mammals from Venezuela and Jamaica (46238); Coleoptera from Australia (46789).
- ROHRICHT, FERDINAND, Fort Duchesne, Utah: Butterfly, *Papilio thoas* Linnaeus (46320).
- ROHWER, S. A., Boulder Colo.: 2 turtles from Colorado (46868); 23 specimens of Hymenoptera (47289).
- ROJKGEL, S. S., Luray, Va.: Specimen of royal horned devil; larva of *Basiloncha imperialis* Drury (46432).
- ROMAN, A., Upsala, Sweden: Hymenoptera from Sweden (46880; 47196). Exchange.
- ROOSEVELT, Hon. THEODORE, President of the United States: Small earthenware figurines, vessels, and musical instruments from ancient graves in Panama, presented to the President on the occasion of his visit to the Canal Zone (46967); photograph of "Fink and Smith returning from the Polar bear hunt in the Arctic" (47110); Indian poncho (47353); gold ores from California, and a mass of quartz crystals from Alaska (47371); collection of ethnological objects from the Kongo Free State, presented to the President by Hon. Clarence Rice Slocum, late consul-general at Boma, Kongo Free State, consisting of 2 shields, an executioner's knife, 2 pairs of knives, 9 small arrows with reed shafts, 12 small arrows with wooden shafts, 18 large arrows with iron heads, 2 arrows with reed shafts, and 2 striped grass mats in twilled weaving—all native African work (47409).
- ROSENBERG, W. F. H., London, England: 364 specimens of Lepidoptera from Argentina (46718); 8 birds' skins from South America (46966; specimen of *Mephitis (Spilogale) pulisimo* (47045); 28 birds' skins (47223); 1,602 insects (47269); 55 birds' skins (47274). Purchase.
- ROSENSTOCK, E., Gotha, Germany: 96 ferns from the southern part of Brazil (46959: purchase).
- ROSER, THEO., Salt Lake City, Utah: Mineral specimens (46386).

- ROSS, T. S., San Francisco, Cal.: Large centipede from the Philippine Islands (46642).
- ROSSI, ALFRED, New York City: Minerals and volcanic dust from Vesuvius and a photograph of Vesuvius in eruption (46468: purchase).
- ROWLEY, R. R., Louisiana, Mo.: 32 specimens of Kinderhook bryozoans from Louisiana, Mo. (47068).
- ROYAL BOTANIC GARDENS. (See under Kew, England.)
- RUSSELL, MAJ. EDGAR, U. S. Army, Washington, D. C.: Photograph of a humpback whale which broke the Valdez-Sitka cable in 1904 (47088).
- RUTGERS COLLEGE, New Brunswick, N. J.: 3 specimens of *Phengodes* (46903: exchange).
- RYAN, JULIAN, Wedgefield, S. C.: Specimen of albino bobwhite, *Colinus virginianus* (46158).
- SAFFORD, W. E., Washington, D. C.: Covered wicker basket from Guadaluajara, Mexico (47161).
- ST. HUBERT GUILD OF ART CRAFTSMEN, Akron, Ohio: Set of Voltaire's works illustrating the reproduction of many of the rare and beautifully bound books of the courts of Europe, made by the St. Hubert Guild of Art Craftsmen (46870).
- ST. PETERSBURG, RUSSIA. ROYAL BOTANICAL GARDEN: 600 plants from various localities (46874: exchange).
- ST. PETERSBURG, RUSSIA. ZOOLOGICAL MUSEUM OF THE IMPERIAL ACADEMY OF SCIENCES: Sticklebacks and loaches (46835: exchange).
- ST. THOMAS CHURCH, VESTRY OF, Hancock, Md.: An old church organ, said to have been in this country 203 years (46831).
- SANFORD, J. G., Kinsale, Va.: Vertebra of a fossil whale from Northumberland County, Va. (46978).
- SAN JOSÉ, COSTA RICA. MUSEO NACIONAL DE COSTA RICA: Reptiles from Costa Rica (47304); reptiles and batrachians (47415).
- SANTIAGO DE LAS VEGAS, CUBA. ESTACIÓN CENTRAL AGRONÓMICA: 35 plants from Cuba (46883: exchange).
- SÃO PAULO, BRAZIL, SOUTH AMERICA. MUSEO PAULISTA: 11 vials of ants (46999).
- SARGENT, O. H., York, Western Australia; 4 specimens of Hymenoptera (46935).
- SAUNDERS, H. G., Chattanooga, Tenn.: Moth, *Hypoprepia miniata* Kirby (47478).
- SCHAFFER AND STUART, Washington, D. C.: Lump-fish, *Cyclopterus lumpus*, from Chesapeake Bay (47235).
- SCHAUS, WILLIAM, San José, Costa Rica: Large and valuable collections of Lepidoptera (46748; 46845; 47073; 47176).
- SCHLICHTER, P. M. and W., New York City: 6 samples of German marble from the river Lahn, near Villmar, Nassau (47507).
- SCHLÜTER, WILHELM, Halle, Germany: Skeleton of a young orang-outang, specimens of bat and shrew, and skin of a dormouse (47052: purchase).
- SCHMID, E. S., Washington, D. C.: Cuban parrot, *Amazona leucocephalus*, from the Isle of Pines (46458).
- SCHRINER, J., St. Petersburg, Russia: 21 specimens of Hymenoptera (46717).
- SCHUCHERT, CHARLES, Yale University Museum, New Haven, Conn.: 120 Lower Cretaceous fossil invertebrates from San Juan Raya, Puebla, Mexico (47006).
- SCIDMORE, MISS ELIZA R., Washington, D. C.: Pigeon whistles from Peking, China (47211); Chinese and Japanese rosaries (12139: loan); Japanese pottery (12159: loan).
- SCOTT, GEORGE T., Portland, Me.: Button of the G. A. R. (46488).
- SEARS, J. H., Salem, Mass.: Essexite from Salem Neck (47162).
- SEDGWICK, W. H., Versailles, Ind.: 2 Unionidæ (46329).

- SELANGOR, MALACCA, STRAITS SETTLEMENTS. SELANGOR STATE MUSEUM, KUALA LUMPUR: 25 birds and a mammal from the Malay Peninsula (46306; exchange).
- SENCKENBERGISCHEN MUSEUMS. (See under Frankfort, Germany.)
- SEWALL, HAROLD I., Bar Harbor, Me.: Pair of small blue and white jars of Chinese porcelain (11752; loan).
- SHANKS, OLIVER, Bowen, Ill.: 2 teeth of a horse (*Equus caballus*) (46428).
- SHAW, S. ALBERT, Hampton, N. H.: 167 specimens of Microlepidoptera (47011; 47039; 47107).
- SHEAR, C. L., Takoma Park, D. C.: 3 specimens of *Junci* from Colorado (46617); 1,299 plants from the western section of the United States (46956).
- SHEPHERD, M. R., High Springs, Fla.: Whip-tailed scorpion (46358).
- SHERARD, LOUIS, Young Harris, Ga.: Fragments of bones of Indians (46207).
- SHERMAN, FRANKLIN, Jr., Raleigh, N. C.: 14 specimens of Orthoptera (46436).
- SHERWOOD, W. L., New York City: 2 salamanders from Highlands, N. Y. (46235); salamander from North Carolina (46373).
- SHIPPEN, Mrs. W. W., Seabright, N. J.: 2 galls, *Rhodites bicolor* Harris (47460).
- SHREVE, FOREST, Baltimore, Md.: Plant from Jamaica (46981); 268 plants from Maryland (47331).
- SIMPSON, JOHN, Moyie, British Columbia, Canada: Specimen of galena from St. Eugene mine (47527).
- SIMPSON, W. W., Taochow, China: Photograph of a goat antelope, *Nemorrhadus argyrochatus* (47029); 29 mammals and a bird from China (47089).
- SKIPTON, Capt. JAMES A., U. S. Army. Fort Totten, N. Y.: Skin of a buffalo calf and a snake skin (46313).
- SLOAN, T. F., McConnellsburg, Pa.: Glass telegraph insulator and a piece of stranded telegraph wire (11769; loan).
- SLOCOMB, Mrs. CUTHBERT HARRISON, Castello di Brazza, Torreano di Martignaeco, Province di Friuli, Italy: 2 specimens of Orthoptera (47473).
- SLOCUM, Capt. JOSHUA, Washington, D. C.: 8 living plants from the Cayman Islands, British West Indies (47361).
- SMITH, Capt. JOHN, St. James City, Fla.: 2 calcareous concretions from a Florida gopher tortoise (47044).
- SMITH, JOHN B., New Brunswick, N. J.: Cotype of *Orthosia antapica* (47466; exchange).
- SMITH, JOHN C., Simeonoffskie Islands, Sand Point, Alaska: 2 eggs and 2 feet of a golden eagle, *Aquila chrysaetos* (46576).
- SMITH, S. L. S., San Angelo, Tex.: Murine opossum, *Marmosa* (47492).
- SMITHSONIAN INSTITUTION: Bust of Prof. Spencer F. Baird, presented by Mrs. Otto Heidemann (46218). 236 plants from Australia, Costa Rica, and the eastern section of North America, presented by Capt. John Donnell Smith, Baltimore, Md. (46538). Medal struck by a private firm in Aberdeen, Scotland, to commemorate the opening of the Marischal College extension, presented by Prof. F. W. Clarke (46563). 34 plants from Central America, presented by Capt. John Donnell Smith (46593). 9 bronze medals of award from the Trans-Mississippi and International Exposition, Omaha, Nebr., and a similar medal from the World's Columbian Exposition, Chicago, Ill., 1893 (46612). Framed copy of "Plan of the retrenchments as well as of the battle array of Saratoga, 1777," drawn by Thadeus Kosciusko, and presented by Thadeus Korzon, of Warsaw, to the Institution (46698).

SMITHSONIAN INSTITUTION—Cont'd.

- Medals, honorary diplomas, astrophysical apparatus, and publications of the late Samuel Pierpont Langley (46700). 19 ferns from Guatemala, presented by Capt. John Donnell Smith (46712). 108 plants from Guatemala, presented by Capt. John Donnell Smith (46737). Medal struck in commemoration of the centennial of the Academy of Macon, France, and presented by the Academy (46811). Paper-bound book: "Biblia pauperum, Deutsche Ausgabe von 1471," reprint Vienna, 1906 (46869). 12 plants from North America, presented by Capt. John Donnell Smith (47286). Copy of the "Columbian Chronicle" (47351).
- NATIONAL MUSEUM. (Collected by members of the staff.)
- BARBER, H. S.: Snake from Plummers Island, Maryland (46558).
- BARBER, H. S. and PAUL BARTSCH: Raccoon, *Procyon lotor*, from Dismal Swamp, Virginia (46702).
- BARTSCH, PAUL: Fungus, *Cryptoporus volvatus*, from Virginia (46276); mollusks, fishes, insects, and plants from Virginia (46289); specimen of living *Opuntia* from Wilmington, N. C. (46674); 6,000 mollusks, fishes, crustaceans, and reptiles from the vicinity of Wilmington, N. C. (46692); 2 toads from Minnesota (47535).
- BASSLER, R. S.: About 5,000 Ordovician and Silurian fossils from Minnesota, Illinois, and Iowa (46399); about 2,000 Paleozoic fossils from the western section of Virginia (46527); Ordovician sponges from Lebanon, Ky. (46643); about 1,000 specimens of Devonian and Mississippian fossils from the vicinity of Louisville, Ky. (47504).
- BEAN, B. A.: Fishes from Carroll County, Md. (46311); tree-frog, *Hyla versicolor*, from Maryland (46531); collection of fishes from the Florida Keys, Miami to Key West, made in 1906 (46822); invertebrates from Florida (46913).
- CAUDELL, A. N.: Lizard and a batrachian from Humboldt County, Cal. (46395).
- HAHN, W. L.: 14 mammals and 39 bats from Indiana (46365); 30 Ordovician fossils from Indiana (46375).
- HRDLÍČKA, A.: Brain of a child (46549); bat *Vespertilio fuscus* (46817).
- LYON, M. W., jr.: Mammals, birds, salamanders, fresh-water invertebrates and mollusks (46462).
- MARSHALL, C. G., jr.: Box tortoise from Congress Heights, D. C. (46178).
- MAXON, W. R.: 50 cryptogams from the vicinity of the District of Columbia (46409); snake from Colombia, South America (46657); 26 living plants from Cuba (47238); 15 living plants from Cuba (47246); 7 living plants from Cuba (47292); 73 living plants from Cuba (47358); about 3,000 plants, as well as other natural history specimens from Cuba (47435).
- MERRILL, GEORGE P.: Fossil wood from Adamana, Ariz., with negatives of views in the fossil forests (47429).
- PAINTER, J. H.: Plants, *Isotria verticillata* (46369); 17 plants from the District of Columbia (46342).
- PALMER, WILLIAM: Insects from the Peaks of Otter, Virginia (46293); reptiles and batrachians from Virginia (46346); fungus from Fairfax County, Va. (46457); 10 mammals from the Peaks of Otter, Virginia (46586); 100 plants from Virginia (47359); snake (*Coluber obsoletus*) from Plummers Island, Maryland (47514).
- RILEY, J. H.: 6 bats from Falls Church, Va. (46370); skins and skulls of 3 squirrels, skin and skull of a chipmunk, skin of a squirrel, skins and skulls of 3 bats from Falls Church (46434); 29 bats from Falls Church (46655); lizard and a frog from Suffolk, Va. (46825).

- ROSE, J. N.: 100 plants from Washington, D. C. (46252); 25 plants, mainly Cactaceae, from Texas; also 10 shells (46300); 40 living plants, mainly Cactaceae (46337) from Mexico; also 35 living plants mainly Cactaceae, from Mexico (46352); 30 living plants, mainly Cactaceae, from Mexico (46364); 80 living plants (46447); plants, insects, and shells from Mexico (46484); 2 rude Indian spinners from Mexico (47508).
- SCOLLICK, J. W.: Skin and skull of a shrew (46466).
- STEELE, E. S.: About 4,500 plants obtained in the vicinity of Washington, D. C. (46278); 6 plants, *Laciniaria*, from various localities (46439); 234 plants from the eastern section of the United States (46494); 293 plants from the vicinity of Millboro, Va., and near White Sulphur Springs, W. Va. (46521).
- STEJNEGER, LEONHARD: Reptiles, batrachians, fishes, insects, crustaceans, and mollusks from Virginia (46360).
- TURNER, G. B.: Skin and skull of a bat, *Vespertilio fuscus* (46701); 2 specimens of house mouse, *Mus musculus* (47509).
- VASEY, Miss F. N.: 20 plants from White, S. Dak. (46323); 15 plants from White, S. Dak. (46343); 7 plants from South Dakota and Illinois (46384).
- WOOD, NELSON: Specimen of albino crow, *Corvus brachyrhynchus* (46979).
- Models made in the Anthropological Laboratory:* Lay figures for group of Wallachian peasants (46137); models of Etruscan toe-lamp (46246); 2 casts of a duck-head pendant (46247); plaster casts of North American Indians (46483); copy of a plank used as a gong by the Kwakiutl Indians of British America (46518); plaster cast of an Oriental cylinder seal, made from an original of hematite belonging to Mr. Louis Berney, of Baltimore,
- WOOD, NELSON—Continued.
Md. (46570); cast of a stone axe (46968); facsimiles of lanterns of the 17th century (46969); plaster cast of a banner stone found near Wayside, N. C., by P. A. Calboun (47144); musical bows (47276); cast of a carved marble mask from Mexico (47390).
- BUREAU OF AMERICAN ETHNOLOGY: Skulls and bones from Arizona (46248); ceremonial banner used by the Mohave Indians, collected by the late Capt. John G. Bourke, U. S. Army (46877); 24 large-sized rhyolite blades and 8 smaller specimens discovered in caches recently found in Tenleytown, D. C. (46887); Pueblo ethnological material obtained by purchase from Mrs. W. H. Partridge (46997); flint implements and other stone objects obtained through L. G. Hester, Houston, Tex. (47146); human bones and bits of stone and pottery from a stone mound in Ochiltree County, Tex. (47147); arrow points, spearheads, etc., from Popes Creek, Maryland, and vicinity, obtained through S. H. Morris, Faulkner, Md. (47148); quartzite chisel found by W. H. Gill at Rose Hill quarry, District of Columbia (47149); fragments of ancient pottery and stone objects from Coyote Springs, Nev., collected by Robert H. Chapman (47150); shell arrow point from Rowan County, N. C., found by E. K. Bispham, Philadelphia, and presented by Clarence B. Moore (47151); fragment of red oxide of iron found associated with Indian relics near Suffern, N. Y., obtained through Alfred Ronk (47152); flint knives of unique form from Laramie County, Wyo., obtained through W. R. Lighton (47153); stone implements and rough stone objects found near Mount Holyoke and other localities in the Connecticut Valley, obtained through John Gordon, of Smiths Ferry, Mass. (47154); skull of a Key Indian received through Edward Barson

BUREAU OF AMERICAN ETHNOLOGY—

Continued.

(47155); 11 leaf-shaped blades from a cache near Tenleytown, D. C. (47156).

NATIONAL ZOOLOGICAL PARK: Mexican comb lizard, *Ctenosaura* (46162); sandhill crane, *Grus mexicana* (46163); ruffed pigeon, *Columba livia*, scaled quail, *Callipepla squamata* (46164); redhead, *Aythya americana*, cormorant, *Phalacrocorax dilopus floridanus* (46165); red deer, *Cervus elaphus*, mule deer, *Odocoileus hemionus* (46166); rufous rat kangaroo, *Æprymnus rufescens*, coypu rat, *Myocastor coypus* (46167); green jay, *Xanthoura luxuosa* (46168); Indian white crane, *Grus leucogeranus*, specimen of *Ardea tricolor rusticollis* (46169); mule deer, *Odocoileus hemionus* (46170); rufous rat kangaroo, *Æprymnus rufescens*, mongoose, *Herpestes mungo* (46171); red howler, *Alouata seniculus* (46172); Indian white crane, *Grus leucogeranus*, American white-fronted goose, *Anser albifrons gambeli* (46173); hanuman langur, *Presbytis entellus* (46174); Daubenton's curassow, *Crax daubentoni* (46175); serval, *Felis serval* (46176); hybrid between deer from Panama and Cuba, and a moose, *Alces americanus* (46269); white-throated capuchin monkey, *Cebus hypoleucus*, llama, *Auchenia glama* (46270); pig-tail monkey, *Macacus nemestrinus* (46271); specimen of *Ocyphaps lophotes* (46272); California sea lion, *Zalophus californianus* (46273); diamond rattlesnake, *Crotalus adamanteus* (46274); redhead, *Aythya americana* (46275); mino bird, young cormorant, Massena partridge (46418); 4 specimens of harlequin snake, *Elaps fulvius*, fox snake, *Coluber vulpinus*, rattlesnake, *Crotalus confluentis*, and a specimen of *Caudisona miliaris*, also 5 lizards, *Ctenosaura* (46532); European quail, *Coturnix communis*, pigeon hawk, *Falco columbarius*, Florida gallinule,

NATIONAL ZOOLOGICAL PARK—Cont'd.

Gallinula galeata, capuchin monkey, *Cebus capucinus*, capuchin monkey, *Cebus* sp., arctic fox, *Vulpes lagopus*, pig-tailed monkey, *Macacus nemestrinus*, rhesus monkey, *Macacus rhesus* (46533); Columbian black-tailed deer, *Odocoileus columbianus*, collared peccary, *Tayassu tajaca*, fulvous tree duck, *Dendrocygna fulva*, grass parakeet, *Melospittacus undulatus*, markhor, *Capra falconeri* (46534); redhead, *Aythya americana*, cut-throat weaver-finch, *Amadina fasciata* (46535); capuchin monkey, *Cebus capucinus* (?), rufous rat kangaroo, *Æprymnus rufescens*, arctic fox, *Vulpes lagopus*, Brazilian tapir, *Tapirus americanus*, hybrid goat, *Capra falconeri-hircus*, Columbian black-tailed deer, *Odocoileus columbianus*, thar, *Hemitragus jemlaicus*, giant kangaroo, *Macropus gigas* (46536); bactrian camel, *Camelus bactrianus*, hanuman langur, *Presbytis entellus*, mountain beaver, *Aplodontia phæa*, spider monkey, *Ateles*, rhesus monkey, *Macacus rhesus*, common rhea, *Rhea americana*, Humboldt's woolly monkey, *Lagothrix lagothrix* (46647); prairie rattlesnake, *Crotalus confluentis*, clouded iguana, *Cyclura carinata*, 2 specimens of harlequin snake, *Elaps fulvius*, pine snake, *Pituophis melanoleucus* (46648); bald eagle, *Haliwetus leucocephalus*, snowy owl, *Nyctea nyctea*, American egret, *Ardea egretta*, white stork, *Ciconia alba* (46946); anubis baboon, *Papio anubis*, yellow baboon, *Papio babuin*, Guinea baboon, *Papio sphinx*, fallow deer, *Cervus dama*, lion, *Felis leo*, ruffed lemur, *Lemur varius*, rufous rat kangaroo, *Æprymnus rufescens*, banded palm-civet, *Paradoxurus fasciatus* (46947); Indian python, *Python molurus*, harlequin snake, *Elaps fulvius*, 2 pine snakes, *Pituophis melanoleucus*, 2 banded rattlesnakes, *Crotalus horridus*, gopher snake, *Spilotes corais couperii* (46948); common macaque, *Macacus cynomolgus*, pig-tailed monkey, *Macacus nemes-*

NATIONAL ZOOLOGICAL PARK—Cont'd.

trinus (46949); Virginia deer, *Odocoileus virginianus*, coypu rat, *Myocastor coypus*, capuchin monkey, *Cebus capucinus*, 3 specimens of rhesus monkey, *Macacus rhesus* (46950); black buck, *Antelope cervicapra*, fallow deer, *Cervus dama*, mule deer, *Odocoileus hemionus*, arctic fox, *Vulpes lagopus* (46951); cormorant, *Phalacrocorax dilophus floridanus*, Massena quail, *Cyrtonyx montezumæ* (46952); pea fowl, *Pavo cristatus*, mallard, *Anas boschas*, brown capuchin, *Cebus fustellus*, red fox, *Vulpes fulvus*, yellow and blue macaw, *Ara ararauna*, bald eagle, *Haliaeetus leucocephalus* (47061); Mexican comb lizard, *Ctenosaura* sp., rattlesnake, *Crotalus confluentis*, coach whip, *Bascanium flagelliforme*, gopher snake, *Spilotes corais couperii* (47062); giant kingfisher, *Dacelo gigas* (47063); pea fowl, *Pavo cristatus* (47064); California sea lion, *Zalophus californianus*, red fox, *Vulpes pennsylvanica* (47065); cinnamon bear, *Ursus americanus* (47066); Hungarian partridge, *Perdix cinerea* (47157); pig-tailed monkey, *Macacus nemestrinus* (47158); green-winged teal, *Anas carolinensis* (2 specimens), barn owl, *Strix pratincta*, king vulture, *Gypagus papa* (47249); prong-horn antelope, *Antilocapra americana*, swift fox, *Vulpes velox*, gray wolf, *Canis occidentalis* (47250); American beaver, *Castor canadensis*, harbor seal, *Phoca vitulina*, zebu, *Bos indicus*, Panama curassow, *Crax panamensis*, crested pigeon, *Ocyphaps swainsoni* (47496); ocellated turkey, *Meleagris ocellata*, California condor, *Pseudogryphus californianus*, Swainson's hawk, *Buteo swainsoni*, bald eagle, *Haliaeetus leucocephalus*, American egret, *Ardea egretta* (3 specimens), bittern, *Botaurus lentiginosus*, white stork, *Ciconia alba* (2 specimens), wood duck, *Aix sponsa* (2 specimens) (47497); 3 specimens of Louisiana heron, *Ardea tricolor ruficollis*

NATIONAL ZOOLOGICAL PARK—Cont'd.

(47498); white-faced glossy ibis, *Plegadis guarana* (3 specimens) (47499); diamond rattlesnake, *Crotalus adamanteus* (47500); nilghai, *Boselaphus tragocamelus*, black bear, *Ursus americanus*, ocelot, *Felis pardalis*, blue fox, *Vulpes lagopus* (47501); Swainson's hawk, *Buteo swainsoni*, white stork, *Ciconia alba*, loon, *Urinator imber*, Louisiana heron, *Ardea tricolor ruficollis*, great blue heron, *Ardea herodias*, American egret, *Ardea egretta* (2 specimens), wood ibis, *Tantalus loculator* (2 specimens), red deer, *Cervus elaphus* (47502).

SMYTHE, A. W., Jackson, Miss.: Beetle, *Dynastes tityus* (47484).

SNOW, F. H., Lawrence, Kans.: 12 moths (46397); 132 specimens of Orthoptera (46566; 46765; 47002; 47070: exchange); 9 specimens of Lepidoptera (47104); 14 specimens of Diptera (47404).

SNYDER, W. E., Beaver Dam, Wis.: 36 shells (47057); 2 salamanders (47085).

SONS OF THE REVOLUTION, NEW YORK SOCIETY, New York City: A miniature Franklin stove, the souvenir of a banquet given by the society (46834.)

SORNBORGER, CHARLES, Garrett Park, Md.: Weasel, *Putorius* (46922).

SPENCER, M. A. H., Grand Canyon, Ariz.: 4 specimens of living cati from Arizona (47316; 47407).

SPRINGER, FRANK, Burlington, Iowa: About 50,000 fossil invertebrates, collected by W. F. Pate from the Paleozoic rocks of the Mississippi Valley (46697); specimen of *Conularia missouriensis*, and a type specimen of *Archimedes wortheni* (47299); about 500 Devonian fossils from Callaway County, Mo. (47518).

STAINS, W. S., Acoma, Nev.: Specimen of an insect known as the "walking stick," *Diapheromera femorata* (46433).

- STANTON, T. W., U. S. Geological Survey, Washington, D. C.: Plant from Mexico (47123).
- STANTON, W. A., Benque Viejo, Cayo District, British Honduras, Central America: Shells (46314); 30 land and fresh-water shells from British Honduras (46763); 32 land and fresh-water shells (46854).
- STATE DEPARTMENT:
Geological specimen from New South Wales, transmitted through F. W. Goding, American consul at New South Wales (47344).
Samples of food products used in the famine districts in China, transmitted through the consul-general at Shanghai (47380).
- STATE MUSEUM, Raleigh, N. C.: 179 grams of Rich Mountain meteorite (46522: exchange).
- STEARNS, ELMER, Juarez, Chihuahua, Mexico: 3 specimens of living cacti from Chihuahua (46618).
- STIMPSON, Miss A. L., Baltimore, Md.: Indian stone arrow points from Maryland (47417).
- STOCKHOLM, SWEDEN, NATURHISTORISKA RIKSMUSEUM: 3 specimens of fern, *Polypodium serrulatum* Nutt., and 5 tracings of ferns (46802); 306 South American ferns, mainly from Brazil (46806); 7 specimens of *Trichomanes* from tropical America (47050); specimen of *Polypodium* from Brazil (47080); 4 eggs of Ross's gull, *Rhodestethia rosea* (47193). Exchange.
- STRICKLER, G. B., Washington, D. C.: 2 samples of building stone (limestone) from quarries near Batesville, Ark. (47296).
- STRUBLE, S., Washington, D. C.: Snake, *Storeia*, from D. C. (47179).
- SUTER, HENRY, Auckland, New Zealand: 57 species of New Zealand shells (47116: purchase).
- SWAN, H. H., Independence, Kans.: Specimen of centipede, *Cermatia foriceps* (46583).
- SWETT, L. W., Bedford, Mass.: 11 specimens of *Geometridæ* (46920: exchange).
- SWIFT, E. C., Ottawa, Ill.: Sandhill crane, *Grus mexicana* (46610).
- SYDNEY, NEW SOUTH WALES, AUSTRALIA, DEPARTMENT OF FISHES: Collection of Australian fishes (46881: exchange).
- TANNER, Capt. Z. L., U. S. Navy, Washington, D. C.: Specimen of *Gordius* from North Hatley, Canada (46463); 18 birds' skins, mainly from Alaska (46652).
- TASSIN, WIRT, U. S. National Museum: 2 diamond crystals from the Kimberley mines, South Africa (46438).
- TAYLOR, F. L., Whitmarsh, Gloucester, Va.: 2 plants, *Ajuga chamæpitys* (43621).
- TAYLOR, J. S. jr., Newark, N. J.: Ring-necked duck, *Fuligula collaris*, from New Jersey (46451).
- TELLALIAN, O. W., Adana, Asiatic Turkey: Coleoptera and lizards from Asia Minor (47213: purchase).
- THAYER, JOHN E., Lancaster, Mass.: 3 birds' skins, 28 eggs, and 7 nests (46245); 177 skins of hummingbirds from Costa Rica (46862): Exchange.
- THOMPSON, WILLIAM J., Washington, D. C.: 2 fetuses (46250).
- THOMPSON, J. R., Riner, Va.: Rhinoceros beetle, *Dynastes tityus* (46240).
- THORNER, J. J., Tucson, Ariz.: Specimen of *Opuntia* from the Santa Rita Mountains, Arizona (46225); photograph of *Opuntia* sp., found growing in Stone Cabin Cañon, Santa Rita Mountains (46259).
- THORNBURG, V. N., Lincoln, Nebr.: Ordovician and Devonian fossils (47324: exchange).
- THORNTON, W. F., Bluefields, Nicaragua: 31 mosquitoes (46686); mosquitoes and other insects (46876); Orthoptera, Coleoptera, an arachnid, and 2 vials of mosquito larvæ; also 4 adult mosquitoes, and several small snakes (46994).

- THUROW, F. W., Harvester, Tex.: Mollusks representing the species *Lampisilis anodontoides* Lea, *Planorbis tumidus* and *Rangia cuneata* (47024).
- TIDESTROM, IVAR, Washington, D. C.: 9 plants from Maryland (46706).
- TITUS, E. S. G., Department of Agriculture, Washington, D. C.: Hymenoptera from Fort Collins, Colo. (46754); 29 beetles (46796); 350 specimens of Hymenoptera representing species new to the Museum collection, and principally from Colorado; also 50 beetles and 138 specimens of Hymenoptera (47433).
- TODD, Doctor, Stokesville, Va.: Specimen of *Thalassa atrata* (46307).
- TOPPING, LE ROY, Manila, P. I.: 696 plants from New York (46282); 211 plants, mainly *Pteridophyta*, from the Philippine Islands (46367); plants from North America and the Philippine Islands (46372; deposit).
- TORONTO, UNIVERSITY OF, TORONTO, CANADA: Canadian Ordovician and Silurian fossils (47177; exchange); casts of types of Cambrian ostracods described by Dr. G. F. Matthew and lent to the Museum, the plasto-types being made by Doctor Bassler (47201).
- TOWER, W. V., Porto Rico Experiment Station, Mayaguez, P. R.: Mosquitoes, mosquito larvæ, dragon-fly nymph (46622; 46755; 46919).
- TOWNSEND, C. H. T., Washington, D. C.: Reptiles and batrachians from Mexico (47283); about 50 flies from the District of Columbia (47366).
- TRASK, MRS. BLANCHE, Avalon, Santa Catalina Island, California: 3 centipedes and a lizard, *Gerrhonotus sinicauda* (47384); centipede (47470).
- TRAVERS-DURKEE MINING COMPANY, Chicago, Ill.: Copper ore from Promontorio mine, Sonora, Mexico (46497).
- TREMOLERAS, JUAN, Museo Nacional, Montevideo, Uruguay: 14 birds' skins (47200; exchange).
- TREMPER, R. H., Ontario, Cal.: Specimen of *Pteronotus carpenteri* Dall from San Pedro Bay, California (467516).
- TRISTÁN, J. FID, San José, Costa Rica: Fungi from Costa Rica (46323; 46747).
- TRUE, R. H., Department of Agriculture, Washington, D. C.: 14 specimens of *Myxomycetes* from the eastern section of the United States (47385).
- TUCKER, E. S., Denver, Colo.: 8 specimens of parasitic Hymenoptera from Kansas and Colorado (47120).
- TURNER, G. B., U. S. National Museum: Pearl from a common oyster (46504).
- TUTTLE, W. H., Colorado Springs, Colo.: Specimen of mounted *Bassariscus* (46778; purchase).
- TWENHOFEL, WILLIAM, Commerce, Tex.: Specimen of *Schlaenbachia trinitiensis* from near Benbrook, Texas (47034).
- TYLER, F. J., Washington, D. C.: 7 specimens of *Laciniaria* from Texas (46405; 47237).
- TYRRELL, J. B., Klondike, Alaska: Skull of type of *Simbos tyrrelli* collected by W. H. Osgood, of the Biological Survey, Department of Agriculture (46138).
- UHLER, P. R., Peabody Institute, Baltimore, Md.: Specimen of *Rangia cuneata* Gray, from North Point Cliff, Maryland (Pliocene) (46589); about 20,000 to 25,000 specimens of insects (47016).
- ULBRICHT, F. J., Anniston, Ala.: Fern (46354).
- ULREY, A. B., Los Angeles, Cal.: Worms (Oligochaetæ) (46185).
- UMBACH, L. M. Naperville, Ill.: 814 plants from Montana (47171; exchange).
- UPHAM, FRED. E., Fort Worth, Tex.: 4 specimens of living cacti from Texas (47285).

- VELIE, J. W., St. Joseph, Mich.: 3 specimens of *Marginella veliei* Pilsbry (46443).
- VIENNA, AUSTRIA, K. K. NATURHISTORISCHES-HOFMUSEUM: About 200 specimens of "Kryptogamæ exsiccatae" (46477); 40 grams of Uberaba (Brazil) meteorite (through Dr. Friedrich Berwerth, Custos) (46603).
- VIERECK, HENRY L., Philadelphia, Pa.: Hymenopterous parasite, *Aulonotus canadensis* Ashm. (46161); mosquito larvæ (46861).
- VINCENT, C. B., Charleston, S. C.: Land shell from Jamaica (47159).
- VOLKART, HENRY, St. Gallen, Switzerland: An old Danish heddle and 5 pieces of Caucasian silver string (46489); photograph of a young Icelandic woman weaving with quadrangular boards, and a copy of an Icelandic string, woven by Mr. Volkart (46865); piece of Icelandic weaving, 2 drawings of Swiss heddle frames, 2 photographs of a Chinaman in Shanghai weaving with little boards, and a photograph taken at Turfan showing a man weaving with boards (47188); drawing of Swiss heddle frame (47303). Exchange.
- WAILES, L. A., New Orleans, La.: Skull of *Agouti paca* (46841); pottery fragments and stone and pottery objects from Central America (47124).
- WALBRIDGE, MRS. ELIZABETH, Washington, D. C.: Painting entitled "Judith with the head of Holofernes" (11926; loan).
- WALCOTT, CHARLES D., Secretary, Smithsonian Institution: Skin and skull of a mole, *Scalops aquaticus* (47386).
- WALKER, R. C., Austin, Tex.: Specimens of celestite (47021).
- WALKER, W. F. & Co., Allentown, Pa.: Sample of granite from a quarry near Allentown (46790); 2 specimens of granitic gneiss (46974).
- WALSINGHAM, Lord, Newton Hall, Thetford, England: 64 specimens of Microlepidoptera (46597); 24 co-types of Microlepidoptera (47220).
- WAR DEPARTMENT.
- BUREAU OF ORDNANCE: Westley-Richards double-barrel shotgun; model Harper's Ferry musket, U. S. M. R. 1856; Colt's revolver, with finger-grip handle; pair of Colt's revolvers with special finish and decoration (46225); small arms transmitted from the New York Arsenal through Col. John E. Greer, commandant (47226).
- WARD, J., jr., Oaxaca, Mexico: Large moth, *Erebus strinx* (46303).
- WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y.: Mounted skeleton of Gray's beaked whale, *Mesoplodon grayi*, from New Zealand (46205; purchase); 471 grams of Siderite (meteorite) from Santa Rosa, Bogota, South America (46387; purchase); medusæ (*Syncoryne mirabilis* Agassiz) and leeches, *Epibdella hippoglossi* (O. F. Müller) (46776).
- WARNER, W. V., Cuyahoga Falls, Ohio: 60 specimens of Microlepidoptera (46296).
- WASHINGTON BIOLOGICAL FIELD CLUB, Washington, D. C.: Red bat, *Lasiurus borealis* (46464).
- WASHINGTON, CHARLES, U. S. National Museum: Snake, *Storeria*, from Maryland (46404).
- WASHINGTON, WILLIAM LANIER, New York City: Uniform coat worn by the late Maj. James Barroll Washington, of Virginia, when a cadet at West Point, November 1, 1860; photograph of Lieut. James B. Washington and Capt. George A. Custer, at General McClellan's headquarters near Richmond, Va.; print from a plate made by St. Memin of Col. William Augustine Washington, nephew of Gen. George Washington (46896).

- WATERS, C. E., Washington, D. C.: Specimen of *Selaginella rupestris* from New Hampshire (46256).
- WATSON, W. F., Greenville, S. C.: 5 top minnows, *Gambusia affinis* (47118).
- WAYNE, A. T., Mount Pleasant, S. C.: Nest of Bachman's warbler (46668).
- WEBB, J. S., Disputanta, Va.: Snake from Florida (46347); larva of a moth, *Megalopyge opercularis* (46389); specimen of *Stagmomantis carolina* L. (46473).
- WEBB, W. F., Rochester, N. Y.: Cotypes of 8 species of land shells from Sumatra (47141).
- WEBER, S. E., Lancaster, Pa.: Slide of *Ocelloria gravonympha* Weber (46844).
- WECKEL, MISS A. L., Moline, Ill.: 4 specimens of *Gammurus ramellus* Weckel, cotypes, from Point Arenas, California (46280).
- WEITH, R. J., Elkhart, Ind.: 6 dragon-fly nymphs, *Nanothomis bella* Uhl. (46651).
- WELLER, S. A., Zanesville, Ohio: Piece of pottery made by the S. A. Weller Pottery Company (46832).
- WERNER, FRANZ, Vienna, Austria: Reptiles and batrachians (46942: purchase).
- WEST, FRED, Norfolk, Va.: Section of tree containing a plug and human hair supposed to have been placed there for magic (46187).
- WHEELER, C. F., Washington, D. C.: Specimen of *Viola* from Virginia (46226); 8 plants from the District of Columbia (46673).
- WHEELER, H. E., Montevallo, Ala.: Regal walnut moth (46241); dog-day harvest fly, *Cicada tibicen* Linn. (46262).
- WHITE, C. A., Washington, D. C.: Piece of fossil coral from near Iowa City, carved into book form (46892).
- WHITE, DAVID, U. S. Geological Survey, Washington, D. C.: Specimen of cone-in-cone in calc spar from near Rock Island, Ill. (47521).
- WHITE, HARRY P., Hanover, Ill.: Water-worn pebble (47329).
- WHITEAVES, J. F., Geological Survey of Canada, Ottawa, Canada: 6 specimens of *Sphærium tumidum* Baird, from British Columbia (46492).
- WHITEHORN, G. W., Spencer, Nebr.: Tail of a snake, *Coluber vulpinus*, usually known as the "fox-snake" (46452).
- WICKHAM, H. F., Iowa City, Iowa: 51 specimens of Coleoptera (46689: exchange).
- WILCOX, Brig. Gen. T. E., U. S. Army (retired), Washington, D. C.: Specimens of *Sisyrinchium* from the District of Columbia (47363); 2 specimens of *Primula* from Idaho collected by Mrs. Turner (47377).
- WILLIAMS, Mrs. E. M., Memphis, Nebr.: 4,400 plants from the mounted herbarium of the late T. A. Williams (46286: purchase).
- WILLIAMS, F. X., San Francisco, Cal.: 7 specimens of Lepidoptera from California (47459).
- WILLIAMS, RAMEY, Memphis, Tenn.: 2 human skeletons and objects of pottery and stone (47169).
- WILLIAMSON, E. B., Bluffton, Ind.: 3 specimens of *Anodonta marginata* Say (46330); 8 dragon-fles from Ontario, Canada, and Wells County, Indiana (46907); weasel, *Putorius noveboracensis* (47020); 4 specimens of *Gomphine odonata* from Burma and Cochin China (47328: exchange).
- WILLING, T. N., Saskatchewan, Canada: Specimen of *Epicauta fissilabris* (46938); 50 mosquito adults and larvæ (47485).
- WILLISTON, S. W., University of Chicago, Chicago, Ill.: Cotype of *Aedes pertinans* Will. (46604).
- WILMER, Col. L. WORTHINGTON, Lotherian House, Ryde, Isle of Wight, England: Fossils, land shells, small invertebrates, reptiles, and insects (46298); living shells, fossil shells from the Isle of Wight, and living seed pods from Calcutta, India (47467).

- WILSON, H., Schenactady, N. Y., Six-legged frog (47252: purchase).
- WILSON, Brig. Gen. JOHN M., U. S. Army, Washington, D. C.: Solid gold medal (replica) (12115: loan).
- WILSON, SADIE R., Forest Glen, Md.: Luna moth (47306).
- WINKLEY, R. H. W., Branford, Conn.: 6 marine shells from Prince Edward Island (46691).
- WIRTNER, M., Penns Station, Pa.: 9 insects, comprising *Barce annulipes* (?), *Hebrus pusillus*, *Empoasca coccinea*, and *Euperix flavoscuta* (47503).
- WOHLFARTH, GEORGE, Chicago, Ill.: Caterpillar affected with a parasitic hymenopteron belonging to the genus *Apanteles* (46429).
- WOOTON, E. O., Agricultural College, N. Mex.: 22 ferns, principally from New Mexico (46600).
- WORTHLEY, I. T., Forest Service, Washington, D. C.: 115 plants from Wyoming (47015).
- YALE UNIVERSITY MUSEUM, New Haven, Conn.: Model of *Pteranodon*, made by Mr. George F. Eaton, curator of osteology (46499); freshwater fossil ostracods from the Eocene at Green River, Wyoming (46857: exchange).
- YOUNG, C. H., Ottawa, Canada: 2 adults and 2 pupal skins of *Papilio appasionata* Harv. (46636); 49 specimens of Lepidoptera (46955).
- ZALESKY, Dr. WILLIAM J., U. S. Navy, Washington, D. C.: 2 mantids from Santo Domingo (46283); 10 mosquitoes, *Stegomyia calopus* and *Janthinosoma infine*, from Sanchez, Santo Domingo (46601).
- ZELNY, CHARLES, Bloomington, Ind.: 6 crabs, *Portunus sayi* (Gibbes) (47097).
- ZETEK, JAMES, Chicago, Ill.: Specimens of *Opeas subula* (46181).

LIST OF PUBLICATIONS OF THE U. S. NATIONAL MUSEUM ISSUED DURING THE FISCAL YEAR 1906-7, INCLUDING PAPERS PUBLISHED ELSEWHERE WHICH RELATE TO THE COLLECTIONS.

PUBLICATIONS OF THE MUSEUM.

ANNUAL REPORT.

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| <p>Annual Report of the Board of Regents of the Smithsonian Institution, showing the operations, expenditures, and condition of the Institution for the year ending June 30, 1905. — Report of the U. S. National Museum. [Seal.] Washington Government Printing Office. 1906. Svo., pp. 1-iv, 1-132.</p> | <p>Annual Report of the Board of Regents of the Smithsonian Institution, showing the operations, expenditures, and condition of the Institution for the year ending June 30, 1906. — Report of the U. S. National Museum. [Seal.] Washington Government Printing Office. 1906. Svo., pp. 1-iii, 1-120.</p> |
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PROCEEDINGS.

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| <p>Smithsonian Institution United States National Museum — Proceedings of the United States National Museum — Volume XXXI —</p> | <p> [Seal.] Washington Government Printing Office 1907. Svo., pp. 1-xii, 1-738, pls. 1-xx, figs. 138.</p> |
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BULLETINS.

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| <p>Smithsonian Institution United States National Museum — Bulletin of the United States National Museum. No. 53, Part II. — Catalogue of the type and figured specimens of fossils, minerals, rocks, and ores. Prepared under the direction of George P. Merrill, Head Curator of Geology. — Part II. Fossil vertebrates; fossil plants; minerals, rocks, and ores. [Seal.] Washington: Government Printing Office. 1907. Svo., pp. 1-iv, 1-370.</p> | <p>Army. — Part 1 Families Didelphiidæ to Muridæ [Seal.] Washington Government Printing Office 1907 Svo., pp. 1-xv, 1-530, pls. 1-xiii, figs. 1-126.</p> |
| <p>Smithsonian Institution United States National Museum Bulletin 56 — Mammals of the Mexican Boundary of the United States A descriptive catalogue of the species of mammals occurring in that region; with a general summary of the natural history, and a list of trees by Edgar Alexander Mearns, M. D. Major and Surgeon, U. S.</p> | <p>Smithsonian Institution United States National Museum Bulletin 57 — The families and genera of bats By Gerrit S. Miller, Jr. Assistant Curator, Division of Mammals U. S. National Museum [Seal.] Washington Government Printing Office 1907 Svo., pp. 1-xvii, 1-282, pls. 1-xiv, figs. 1-49.</p> |
| <p>Smithsonian Institution United States National Museum Bulletin 56 — Mammals of the Mexican Boundary of the United States A descriptive catalogue of the species of mammals occurring in that region; with a general summary of the natural history, and a list of trees by Edgar Alexander Mearns, M. D. Major and Surgeon, U. S.</p> | <p>Smithsonian Institution United States National Herbarium Volume XI — Flora of the State of Washington — By Charles V. Piper [Seal.] Washington Government Printing Office 1906 Svo., pp. 1-637, pls. 1-xxii.</p> |

PAPERS PUBLISHED IN SEPARATE FORM.

FROM VOLUME 31 OF THE PROCEEDINGS.

- No. 1479. Descriptions of new isopod crustaceans of the family Sphaeromidae. By Harriet Richardson. pp. 1-22, figs. 1-27.
- No. 1480. Schizopod crustaceans in the United States National Museum. The families Lophogastridae and Eucopiidae. By Arnold E. Ortmann. pp. 23-54, pls. I-II.
- No. 1481. Mammals collected by Dr. W. L. Abbott in the Karimata Islands, Dutch East Indies. By Gerrit S. Miller, jr. pp. 55-66, 1 map.
- No. 1482. Notes on a collection of fishes from Argentina, South America, with descriptions of three new species. By Barton W. Evermann and William C. Kendall. pp. 67-108, figs. 1-4.
- No. 1483. The Urocoptid mollusks from the mainland of America in the collection of the United States National Museum. By Paul Bartsch. pp. 109-160, pls. III-V, figs. 1-16.
- No. 1484. A review of the flounders and soles of Japan. By David Starr Jordan and Edwin C. Starks. pp. 161-246, figs. 1-27.
- No. 1485. The mammals collected by Dr. W. L. Abbott in the Rhio-Linga Archipelago. By Gerrit S. Miller, jr. pp. 247-286, 1 map.
- No. 1486. A review of the Pæciiliidae or killifishes of Japan. By David Starr Jordan and John O. Snyder. pp. 287-290, 1 fig.
- No. 1487. The digger wasps of North America and the West Indies belonging to the subfamily Chlorioninae. By Henry T. Fernald. pp. 291-423, pls. VI-X.
- No. 1488. On the diurnal lepidoptera of the Athabaska and Mackenzie region, British America. By Merrit Cary. pp. 425-457.
- No. 1489. List of fishes collected in Japan in 1903, with descriptions of new genera and species. By Hugh M. Smith and Thomas E. B. Pope. pp. 459-499, figs. 1-12.
- No. 1490. A new Costa Rican amphipod. By Thomas R. R. Stebbing. pp. 501-504, pl. XI, figs. 1-2.
- No. 1491. Fishes collected in the Philippine Islands by Maj. Edgar A. Mearns, Surgeon, U. S. Army. By Barton W. Evermann and Alvin Seale. pp. 505-512, figs. 1-4.
- No. 1492. Notes on a newly mounted skeleton of Merycoidodon, a fossil mammal. By Charles W. Gilmore. pp. 513-514, pl. XII.
- No. 1493. Notes on a collection of fishes from Port Arthur, Manchuria, obtained by James Francis Abbott. By David Starr Jordan and Edwin C. Starks. pp. 515-526, figs. 1-5.
- No. 1494. Notes on the slow lemurs. By Marcus W. Lyon, jr. pp. 527-538, pl. XIII.
- No. 1495. Anatomical observations on a collection of orang skulls from western Borneo, with a bibliography. By Aleš Hrdlička. pp. 539-568, figs. 1-8.
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- No. 1497. Note on an occurrence of graphitic iron in a meteorite. By Wirt Tassin. pp. 573-574, 1 fig.
- No. 1498. Mammals of Banka, Mandanau, and Billiton Islands, between Sumatra and Borneo. By Marcus W. Lyon, jr. pp. 575-612, 1 map.
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- No. 1501. Description of a new rock-fish of the genus *Sebastodes* from California. By Bar-
- No. 1501—Continued.
ton Warren Evermann and Edmund Lee Goldsborough. pp. 651-652, 1 fig.
- No. 1502. Mammals of Batam Island, Rhio archipelago. By Marcus W. Lyon, jr. pp. 653-657.
- No. 1503. An account of Amazon River fishes collected by J. B. Steere, with a note on *Pimelodus clarias*. By Carl H. Eigenmann and Barton A. Bean. pp. 659-668, figs. 1-5.
- No. 1504. North American parasitic copepods belonging to the family *Caligidæ*. Part 2—The *Trebiniæ* and *Euryphorinæ*. By Charles Branch Wilson. pp. 669-720, pls. xv-xx, figs. 1-19.

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- No. 1505. A specimen of typical Burchell's zebra in the United States National Museum. By Marcus W. Lyon, jr. pp. 1-3, pls. I-III.
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- No. 1507. The fresh-water Amphipoda of North America. By Ada L. Weckel. pp. 25-58, figs. 1-15.
- No. 1508. On a newly found meteorite from Selma, Dallas County, Alabama. By George P. Merrill. pp. 59-61, pls. VI-VII.
- No. 1509. New marine worms of the genus *Myzostoma*. By J. F. McClendon. pp. 63-65, figs. 1-2.
- No. 1510. Notes on fishes from the Island of Santa Catalina, southern California. By David Starr Jordan and Edwin Chapin Starks. pp. 67-77, figs. 1-8.
- No. 1511. Notes on the composition and structure of the Hendersonville meteorite. By George P. Merrill (with chemical analyses by Wirt Tassin). pp. 79-82, pls. VIII-IX, 1 fig.
- No. 1512. The Philippine mollusks of the genus *Planorbis*. By Paul Bartsch. pp. 83-85, figs. 1-2.
- No. 1513. Review of the *Mullidæ*, surmullets or goatfishes of the shores of Japan. By John Otterbein Snyder. pp. 87-102, figs. 1-3.
- No. 1514. A review of the bats of the genus *Hemiderma*. By Walter L. Hahn. pp. 103-118.
- No. 1515. Two new land shells from Mexico. By Paul Bartsch. pp. 119-120, figs. 1-2.
- No. 1516. Report on the mosquitoes of the coast region of California, with descriptions of new species. By Harrison G. Dyar. pp. 121-129.

- No. 1517. Note on Otohime, a new genus of gurnards. By David Starr Jordan and Edwin Chapin Starks. pp. 131-133, 1 fig.
- No. 1518. The Philippine pond snails of the genus *Vivipara*. By Paul Bartsch. pp. 135-150, pls. x-xi.
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- No. 1521. Measurements of the cranial fossæ. By Aleš Hrdlička. pp. 177-232, pls. xiv-xv.
- No. 1522. A new mollusk of the genus *Macromphalina* from the west coast of America. By Paul Bartsch. pp. 233, 1 fig.
- No. 1523. A review of the fishes of the family *Histiopteridae*, found in the waters of Japan; with a note on *Tephritis Günther*. By David Starr Jordan. pp. 235-239.
- No. 1524. On the meteorite from Rich Mountain, Jackson County, North Carolina. By George P. Merrill (with chemical analyses by Wirt Tassin). pp. 241-244, pl. xvi.
- No. 1525. A review of the fishes of the family *Gerridae* found in the waters of Japan. By David Starr Jordan. pp. 245-248, figs. 1-2.
- No. 1526. Some Madreporarian corals from French Somaliland, East Africa, collected by Dr. Charles Gravier. By T. Wayland Vaughan, pp. 249-266, pls. xvii-xxviii.
- No. 1527. A new brachiopod, *Rensselaeria mainensis*, from the Devonian of Maine. By Henry Shaler Williams, pp. 267-269, figs. 1-2.
- No. 1528. A new fossil stickleback fish from Nevada. By Oliver P. Hay. pp. 271-273, figs. 1-3.
- No. 1529. Notes on *Calypptrobothrium*, a cestode genus found in the torpedo. By Edwin Linton. pp. 275-284, figs. 1-7.
- No. 1530. The *Decticinae* (a group of *Orthoptera*) of North America. By Andrew Nelson Caudell. pp. 285-410, figs. 1-94.
- No. 1531. Additional notes on the development of the *Argulidae*, with description of a new species. By Charles Branch Wilson. pp. 411-424, pls. xxix-xxxii.
- No. 1532. The *pœciliid* fishes of Rio Grande Do Sul and the La Plata Basin. By Carl H. Eigenmann. pp. 425-433, figs. 1-11.
- No. 1533. A review of the cobitoid fishes of the basin of the Amur. By Leo Berg. pp. 435-438.
- No. 1534. Remarks on the giant squirrels of Sumatra, with descriptions of two new species. By Marcus W. Lyon, jr. pp. 439-445, pl. xxxiii.
- No. 1535. A new terrestrial isopod from Guatemala, the type of a new genus. By Harriet Richardson. pp. 447-450, 1 fig.
- No. 1536. A review of the species of the ten-spined sticklebacks, or *Pygosteus*, from East Asia. By Leo Berg. pp. 451-454.
- No. 1537. Notes on mammals of the Kankakee valley. By Walter L. Hahn. pp. 455-464.

- No. 1538. A new salamander from Nicaragua. By Leonhard Stejneger. pp. 465-466.
- No. 1539. Eighteen new species and one new genus of birds from Eastern Asia and the Aleutian Islands. By Austin H. Clark. pp. 467-475.
- No. 1540. The skull of *Brachauchenius*, with observations on the relationships of the Plesiosaurs. By Samuel W. Williston. pp. 477-489, pls. xxxiv-xxxvii.
- No. 1541. List of fishes recorded from Okinawa or the Riu Kiu Islands of Japan. By David Starr Jordan and Edwin Chapin Starks. pp. 491-504, figs. 1-5.
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- No. 1543. Two new crinoids from the North Pacific Ocean. By Austin H. Clark. pp. 507-512, figs. 1-2.
- No. 1544. A review of the lizard-fishes or Synodontidae of the waters of Japan. By David Starr Jordan and Albert Christian Herre. pp. 513-524, figs. 1-2.
- No. 1545. New and characteristic species of fossil mollusks from the oil-bearing tertiary formations of southern California. By Ralph Arnold. pp. 525-546, pls. xxxviii-li.
- No. 1546. On a peculiar form of metamorphism in siliceous sandstone. By George P. Merrill. pp. 547-550, pl. lii.
- No. 1547. A new species of crinoid (*Ptilocrinus pinnatus*) from the Pacific coast, with a note on *Bathyerinus*. By Austin H. Clark. pp. 551-554, 1 fig.
- No. 1548. A new parasitic mollusk of the genus *Eulima*. By Paul Bartsch. pp. 555-556, pl. liii.
- No. 1549. Descriptions of new species of Ordovician fossils from China. By Stuart Weller. pp. 557-563.
- No. 1550. Descriptions of new species of moths of the family Cochliidiidae. By Harrison G. Dyar. pp. 565-567.
- No. 1551. On a collection of crinoids of the genus *Eudiocrinus* from Japan, with description of a new species. By Austin H. Clark. pp. 569-574.
- No. 1552. Notes on the porcupines of the Malay peninsula and archipelago. By Marcus W. Lyon, jr. pp. 575-594, pls. liv-lvii.
- No. 1553. A catalogue of the Acarina, or mites, of the United States. By Nathan Banks. pp. 595-625.
- No. 1554. A new horned rodent from the miocene of Kansas. By James Williams Gidley. pp. 627-636, pls. lviii-lxv, 1 fig.
- No. 1555. The holothurians of the Hawaiian Islands. By Walter K. Fisher. pp. 637-744, pls. lxxvi-lxxxii.

FROM BULLETIN 51.

Supplement 1. A list of the publications of the United States National Museum, 1901-1906, with an index to titles. By Randolph I. Geare. pp. 1-40.

FROM VOLUME 10 OF CONTRIBUTIONS FROM THE NATIONAL HERBARIUM.

Part 2. The genus *Ptelea* in the western and southwestern United States and Mexico. By Edward L. Greene. pp. i-iv, 49-78, 1.

Part 3. Studies of Mexican and Central American plants, No. 5. By J. N. Rose. pp. i-viii, 79-132, ix-x, pls. XVI-XLIII, figs. 1-6.

Part 4. The Leguminosæ of Porto Rico. By J. Perkins. pp. i-vi, 133-220.

CLASSIFIED LIST OF PAPERS BASED WHOLLY OR IN PART ON THE NATIONAL COLLECTIONS.

MUSEUM ADMINISTRATION.

RATHBUN, RICHARD. Report upon the condition and progress of the U. S. National Museum during the year ending June 30, 1905.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1905 (1906), pp. i-v, 1-132.

RATHBUN, RICHARD. Report upon the condition and progress of the U. S. National Museum during the year ending June 30, 1906.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1906, pp. i-iii, 1-120.

ETHNOLOGY, ARCHÆOLOGY, PHYSICAL ANTHROPOLOGY.

HEWETT, EDGAR L. Antiquities of the Jemez Plateau, New Mexico.

Bull. XXXII, Bur. Am. Eth., 1906, pp. 1-55, pls. I-XVII, figs. 1-31.

This work is the first of a series intended to embody brief descriptions of the antiquities of the southwest by culture areas. The section devoted to minor antiquities is accompanied by five plates representing Museum specimens.

HOLMES, WILLIAM H. Decorative art of the aborigines of Northern America.

Anthropological Papers written in honor of Franz Boas, New York, G. Stechert & Co., Aug. 9, 1906, pp. 179-188.

The ornamental art of the aborigines has recently received much deserved attention on the part of ethnologists, and the present paper is a brief review of the subject, referring especially to the origin, significance, and morphology of ornament as embodied in sculpture, plastic art, engraving, painting, textiles, inlaying, and other less important branches of art. Especial attention is given to the introduction of life forms into the decorations, the relation of these to the geometric forms, and the many strange modifications that result from the association.

— On the origin of the cross symbol.

Proc. Am. Antiquarian Soc., XVIII, n. s., Pt. 1, Oct. 24, 1906, pp. 98-105, figs. 1-5.

The origin of the cross as a symbol is traced back to very early times and to a common source, not, however, with

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a single people, but among many peoples. Such common source is to be sought neither in the picturing of natural forms in pictography, nor in the designs of the decorator, as in such use the figures employed have usually no deep significance or, at most, no widespread application, but in the use of symbols embodying religious concepts which are deeply impressed upon the primitive mind in general. Such a source is recognized in the separation of the primitive world or cosmos into four regions and the transference of the sacred character of the beings occupying these regions to the device which, in course of common usage, came to represent them.

— Aboriginal shell heaps of the Middle Atlantic tidewater region.

Am. Anthropologist, n. s., IX, No. 1, January-March, 1907, pp. 113-128, pls. 8-9, figs. 8-20.

This paper includes a summary of shell-heap phenomena in general, and more especially of such of these remains as are attributed to the known tribes of the Middle Atlantic tidewater region. The great midden deposit at Popes Creek, Maryland, which is taken as a type, is composed of oyster shells and is one of the most extensive known. The area covered is upwards of 30 acres, and the depth near the landing before removal of large portions for fertilizing purposes was about 20 feet. The tribes concerned in the accumulation of these deposits can not be identified, but they are doubtless represented by the Powhatans or neighboring tribes on the eastern side of the Potomac.

HOUGH, WALTER. [Short articles on the following topics: Altar, awls, bags and pouches, black drink, blanket, bolas, bowl, boxes and chests, bull roarer, cements, clothing, clubs, collecting, cotton, dishes, dyes and pigments, eagle, fermentation, fire making, fishhooks, food, grass work, gourds, hair work, lance, mesal moccasins.]

Handbook of American Indians North of Mexico. Bull. xxx, Pt. 1, Bur. Am. Eth., 1907.

These articles are almost entirely based on Museum collections.

[Abstracts of papers based on Museum material and published in the Proceedings of the Anthropological Society of Washington (Nov. 7, 1905-May 22, 1906).]

Am. Anthropologist, n. s., ix, No. 2, April-June, 1907.

HRDLIČKA, ALEŠ. Anatomical observations on a collection of Orang skulls from Western Borneo; with a bibliography.

Proc. U. S. Nat. Mus., xxxi, No. 1495, Nov. 17, 1906, pp. 539-568, figs. 1-8.

A study, from the anthropological point of view, of 26 orang crania collected for the National Museum by Dr. W. L. Abbott. The results show especially a great range of developmental, sexual and individual, normal varia-

HRDLIČKA, ALEŠ—Continued.

tion, and the presence of a number of interesting formations and anomalies.

— Measurements of the cranial fosse.

Proc. U. S. Nat. Mus., xxxii, No. 1521, March 13, 1907, pp. 177-232, pls. xiv-xv.

An investigation of the absolute and relative lengths of the cerebral and cerebellar fossæ in human adults of several races and both sexes, in human fetuses, in apes, and in other animals; also in the main types of the human skull.

The results of the measurements have a direct bearing on the subdivisions of the brain contained in the different fossa, and establish a number of new details of importance.

— [Short articles on Anatomy, pp. 53-56; Artificial head deformation, pp. 96-97; Health and disease, pp. 540-541; Medicine and medicine-men, pp. 836-839.]

Handbook of American Indians North of Mexico. Bull. xxx, Pt. 1, Bur. Am. Eth., 1907.

All of these papers are based in part on Museum material.

— Beauty among the American Indians.

Anthropological Papers written in honor of Franz Boas. New York, G. Stechert & Co., 1906, pp. 38-42, pls. iv-vi.

MAMMALS.

ANDERSEN, KNUD. Brief diagnoses of a new genus and ten new forms of stenodermatous bats.

Ann. Mag. Nat. Hist., ser. 7, xviii, December, 1906, pp. 419-423.

Based in part on material in the collection in the U. S. National Museum. A new genus, *Enchisthenes* (for *Artibeus harti*) and 5 new species and 5 new subspecies are described. New forms in collection of U. S. National Museum:—*Artibeus hirsutus*, p. 420; *Artibeus jamaicensis preceps*, p. 421; *Artibeus aztecus*, p. 422.

CARY, MERRITT. Some unrecorded Colorado mammals.

Proc. Biol. Soc. Wash., xx, March 27, 1907, pp. 23-28.

Twenty species and subspecies of mammals not previously recorded from Colorado are listed. Based mainly on mammals in the Biological Survey collection.

HAHN, WALTER L. A review of the bats of the genus *Hemiderma*.

Proc. U. S. Nat. Mus., xxxii, No. 1514, February 9, 1907, pp. 103-118.

A systematic account with remarks on distribution and habits of *Hemiderma*, a genus of neotropical bats, based mainly on specimens in the U. S. National Museum.

— Notes on mammals of the Kankakee valley.

Proc. U. S. Nat. Mus., xxxii, No. 1537, June 15, 1907, pp. 455-464.

A description of the Kankakee basin, Indiana, past and present, with a list of the mammals collected there for the U. S. National Museum by the writer in 1905.

HOWELL, ARTHUR H. Revision of the skunks of the genus *Spilogale*.

North American Fauna, No. 26, November 24, 1906, pp. 1-55, plates 1-x.

A systematic account of the genus *Spilogale*, with introductory remarks on distribution, food, and habits. Based mainly on specimens in the Biological Survey collection, supplemented by specimens from the U. S. National Museum and other museums in the United States. New species: *Spilogale microdon*, p. 34. New subspecies: *Spilogale angustifrons elata*, p. 27.

LYON, MARCUS WARD, JR. A peculiar mutation of the pine marten.

Science, n. s. XXIV, No. 611, September 14, 1906, p. 341.

Description of the abnormal pelage of a pelt of the Alaskan pine marten, sent to the U. S. National Museum for examination.

Notes on the slow lemurs.

Proc. U. S. Nat. Mus., XXXI, No. 1494, November 9, 1906, pp. 527-538, pl. XIII.

A systematic account of the slow lemurs, genus *Nycticebus*, based mainly on specimens collected and presented to the U. S. National Museum by Dr. W. L. Abbott. New species: *Nycticebus borneanus*, p. 535; *N. bancanus*, p. 536.

Note on the type specimen of the bat *Micronycteris microtis* Miller.

Ann. Mag. Nat. Hist., ser. 7, XVIII, November, 1906, pp. 371-373.

Remarks on history of the type of *Micronycteris microtis* Miller, and the condition of its ears, and remarks on the shrinkage of the ears of bats by Knud Andersen.

Description of a new species of great ant-eater from Central America.

Proc. U. S. Nat. Mus., XXXI, No. 1496, November 14, 1906, pp. 569-571, pl. XIV.

Description of the new species *Myrmecophaga centralis*, p. 570.

Mammals of Banka, Mendanau, and Billiton islands between Sumatra and Borneo.

Proc. U. S. Nat. Mus., XXXI, No. 1498, December 18, 1906, pp. 575-612, with map.

A list of the mammals collected on the islands of Banka, Mendanau, and Billiton by Dr. W. L. Abbott and presented to the U. S. National Museum. New species: *Tragulus bancanus*, p. 576; *T. billitonus*, p. 578; *T. luteicol-*

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lis, p. 579; *Muntiacus bancanus*, p. 582; *Ratufa polia*, p. 585; *Sciurus mendanauus*, p. 589; *S. tedongus*, p. 591; *S. billitonus*, p. 592; *Mus clabatus*, p. 596; *Paradoxurus canescens*, p. 597; *Arctogalidia minor*, p. 599; *Tupaia inflata*, p. 600; *T. discolor*, p. 602. New subspecies: *Ratufa polia bancana*, p. 587.

Type of the genus *Atherurus*, brush-tailed porcupines.

Proc. Biol. Soc. Wash., XIX, December 31, 1906, p. 199.

Type of the genus *Atherurus* shown to be *Hystrix macroura* Linnæus.

Mammals of Batam Island, Rhio Archipelago.

Proc. U. S. Nat. Mus., XXXI, No. 1502, January 16, 1907, pp. 653-657.

A list of the mammals of Batam Island, collected by Mr. C. Boden Kloss and presented to the U. S. National Museum by Dr. W. L. Abbott. New species: *Mus batamanus*, p. 654. New subspecies: *Tupaia ferruginea batamana*, p. 656.

A specimen of typical Burchell's zebra in the United States National Museum.

Proc. U. S. Nat. Mus., XXXII, No. 1505, January 16, 1907, pp. 1-3, pls. I-III.

Description of the color and the markings of a mounted female of the now extinct zebra, *Equus burchellii* (Gray).

Description of a new squirrel of the *Sciurus prevostii* group from Pulo Temaju, west coast of Borneo.

Smithsonian Misc. Colls., XLVIII, Quar. issue, pt. 3, No. 1659, February 4, 1907, pp. 275-276.

Based on two specimens collected and presented to the U. S. National Museum by Dr. W. L. Abbott. New species: *Sciurus proserpinæ*.

The squirrels of the *Sciurus vittatus* group in Sumatra.

Smithsonian Misc. Colls., XLVIII, Quar. issue, pt. 3, No. 1660, February 4, 1907, pp. 277-283, fig. 29 (map).

A systematic account of the plantain squirrels of Sumatra, with map to show distribution, based mainly on specimens collected and presented to the U. S. National Museum by Dr. W. L. Abbott.

New subspecies: *Sciurus vittatus tarussanus*, p. 279; *Sciurus vittatus tapanulius*, p. 280.

LYON, MARCUS WARD, JR. A new flying squirrel from the island of Terutau, west coast of Malay peninsula.

Proc. Biol. Soc., Wash., xx, February 23, 1907, pp. 17-18.

Description of a new flying squirrel from Pulo Terutau, collected and presented to the U. S. National Museum by Dr. W. L. Abbott. New species: *Petaurista terutaus*, p. 17.

— Notes on some squirrels of the *Sciurus hippurus* group, with descriptions of two new species.

Smithsonian Misc. Colls., L, Quar. issue, pt. 1, No. 1705, April 8, 1907, pp. 24-29, fig. 12.

A systematic account of a group of Malayan squirrels, based mainly on specimens collected by and presented to the U. S. National Museum by Dr. W. L. Abbott. New species: *Sciurus hippurosus*, p. 26; *Sciurus hippurellus*, p. 27.

— Remarks on the giant squirrels of Sumatra, with description of two new species.

Proc. U. S. Nat. Mus., xxxii, No. 1534, May 23, 1907, pp. 439-446, pl. xxxiii.

A systematic account of the genus *Ratufa* as found on the island of Sumatra, with map showing distribution of the species, based on specimens collected by and presented to the U. S. National Museum by Dr. W. L. Abbott. New species: *Ratufa arusinus*, p. 442; *Ratufa catemana*, p. 443.

— Notes on mammals collected at Mount Rainier, Washington.

Smithsonian Misc. Colls., L, Quar. issue, pt. 1, No. 1713, June 27, 1907, pp. 89-92.

A systematic list of mammals collected by the writer in Paradise Park, Mount Rainier, Washington, in the summer of 1905.

— Notes on the porcupines of the Malay peninsula and archipelago.

Proc. U. S. Nat. Mus., xxxii, No. 1552, June 29, 1907, pp. 575-594, pls. LIV-LVII.

A systematic revision of the porcupines of the Malay peninsula and archipelago, based mainly on specimens collected and presented to the National Museum by Dr. W. L. Abbott. New genus: *Thecurus*, p. 582; new species: *Thecurus sumatræ*, p. 583; *Atherurus terutaus*, p. 587.

MEARNS, EDGAR ALEXANDER. Mammals of the Mexican boundary of the United States.

Bull. U. S. Nat. Mus., No. 56, pt. 1, April 13, 1907, pp. i-xv, 1-530, pls. i-xiii (including two maps), figs. 1-126.

A descriptive catalogue of the species of mammals [families *Didelphidae* (opossums) to *Muridae* (rats and mice) inclusive] occurring along the boundary line between the United States and Mexico, with a general summary of the natural history, and a list of trees, based on material in the U. S. National Museum collected by and under the direction of Dr. E. A. Mearns, while attached to the International Boundary Commission, 1892-1894. New subspecies: *Ovis canadensis gailardi*, p. 240, figs. 35-38. New subgenus: *Ictidomoides*, p. 328.

MILLER, GERRIT S., JR. Mammals collected by Dr. W. L. Abbott in the Karimata Islands, Dutch East Indies.

Proc. U. S. Nat. Mus., xxxi, No. 1481, July 23, 1906, pp. 55-66, with map.

A systematic account of the mammals collected on the islands of Karimata and Serutu, off the west coast of Borneo, by Dr. W. L. Abbott, and presented by him to the U. S. National Museum. New species: *Tragulus carimate*, p. 55; *Sciurus carimate*, p. 57; *S. serutus*, p. 58; *Mus serutus*, p. 59; *M. carimate*, p. 59; *Tupaia carimate*, p. 61; *Myotis carimate*, p. 62; *Megaderma carimate*, p. 63; *Presbytis carimate*, p. 65.

— The mammals collected by Dr. W. L. Abbott in the Rhio-linga archipelago.

Proc. U. S. Nat. Mus., xxxi, No. 1485, September 11, 1906, pp. 247-286, with map.

A systematic list of mammals collected by Dr. W. L. Abbott, from 1899-1903 on various islands of the Rhio-linga archipelago, with remarks on the geography, and lists of mammals on each island as far as known. New species: *Tragulus nigrocinctus*, p. 250; *T. perflavus*, p. 251; *T. pretiellus*, p. 253; *Ratufa carimonensis*, p. 257; *R. condurensis*, p. 258; *R. confinis*, p. 259; *Sciurus condurensis*, p. 260; *S. carimonensis*, p. 261; *Sciuropterus amanus*, p. 264; *Arctogalidia fusca*, p. 269; *Paradoxurus brunneipes*, p. 269; *Presbytis cana*, p. 275.

MILLER, GERRIT S., JR. A new name for the genus *Rhynchonycteris* Peters.

Proc. Biol. Soc. Wash., xx, June 12, 1907, p. 65.

Rhynchiscus proposed as a substitute for the preoccupied *Rhynchonycteris*, a genus of Emballonurine bats.

— The families and genera of bats.

Bull. U. S. Nat. Mus., No. 57, June 29, 1907, pp. i-xvii, 1-282, pls. i-xiv, figs. 1-49.

Based chiefly on material in the U. S. National Museum, but also in part on material in the museums of London, Paris, Leiden, and Berlin. A new classification of existing bats, primarily based on skeletal and dental characters. Pp. 2-12, history of the classification of bats; pp. 12-43, the anatomy of bats, especially the structure of the teeth and of the shoulder; pp. 43-261, full synonymies, description, geographic distribution, and keys to all the genera, subfamilies, and families of the order Chiroptera, with lists of the recognized species in each genus, and the designation of its type. New genera: *Desmalopex*, p. 60; *Xenotenes*, p. 124.

OSGOOD, WILFRED H. Four new pocket mice.

Proc. Biol. Soc. Wash., xx, February 23, 1907, pp. 19-22.

Based on material in the Biological Survey collection. New species: *Perognathus bombycinus*, p. 19. New subspecies: *Perognathus penicillatus siccus*, p. 20; *P. penicillatus ammophilus*, p. 20; *P. spinatus magdalene*, p. 21.

— A collection of mammals from the region of Mount McKinley, Alaska.

Proc. Biol. Soc. Wash., xx, April 18, 1907, pp. 59-64.

A list of the mammals occurring about the northeastern base of Mount McKinley, Alaska, based mainly on specimens in the Biological Survey collection, received from Mr. Charles Sheldon. New subspecies: *Microtus miurusorcas*, p. 61.

— A specimen of *Bison occidentalis* from northwestern Canada.

Proc. Biol. Soc. Wash., xx, June 12, 1907, p. 65.

A record of *Bison occidentalis* from near Selkirk, Yukon Territory, received by the Biological Survey from Mr. Charles Sheldon.

STEJNEGER, LEONHARD. The origin of the so-called Atlantic animals and plants of western Norway.

Smithsonian Misc. Colls., XLVIII, pt. 4, No. 1699, May 4, 1907, pp. 458-513, pls. LXVII-LXX, fig. 124.

An attempt to account for the existence in western Norway of a complex association of plants and terrestrial animals not found elsewhere in Norway except as manifest peripheral radiations from a secondary center of distribution. The portion of this paper dealing with mammals is partly based on specimens in the Division of Mammals. *Cervus atlanticus*, Cat. No. 143179, is illustrated on pls. LXVII, LXVIII, and on fig. 124.

BIRDS.

ALLEN, J. A. The *Baeolophus bicolor-atricristatus* group.

Bull. Amer. Mus. Nat. Hist., XXIII, June 12, 1907, pp. 467-481.

Discusses the subject of hybridization, with especial reference to the present group, and gives a detailed account of the geographic variation, measurements, etc., of the material examined. The conclusion is reached that *Baeolophus bicolor texensis* and *B. atricristatus castaneifrons* are hybrids, thus bearing out Mr. Ridgway's recent determinations.

BANGS, OUTRAM. On the wood rails, genus *Aramides*, occurring north of Panama.

Amer. Naturalist, XLI, No. 483, March, 1907, pp. 177-187.

A review of the Mexican and Central American forms of the genus *Aramides*, of which five are recognized as valid. *Aramides albiventris mexicanus* (p. 185), is described as new.

— Notes on birds from Costa Rica and Chiriqui, with descriptions of new forms and new records for Costa Rica.

Proc. Biol. Soc. Wash., XIX, July 30, 1906, pp. 101-112.

Notes on 22 genera and species, of which the following are here described for the first time: *Pyrrhura hoffmanni gaudens*, p. 103; *Eumomota supercilii-aris australis*, p. 104; *Saucerottea cyanura impatiens*, p. 104; *Hypocnemis naevioides capnitis*, p. 107; *Xenicopsis variegaticeps idoneus*, p. 108; *Thryorchilus ridgwayi*, p. 108; *Cyanolyca blandita*, p. 109; and *Chlorospingus regionalis*, p. 112.

BISHOP, LOUIS B. *Uranomitra salvini* in Arizona.

Auk, XXIII, No. 3, July, 1906, pp. 337-338.

First record of this genus and species for the United States.

BREWSTER, WILLIAM. Notes on the black rail of California.

Auk, XXIV, No. 2, Apr., 1907, pp. 205-210.

Reviews the case of *Porzana coturniculus*, with the aid of much new material, and decides *coturniculus* to be the western form of *P. jamaicensis*.

CHAPMAN, FRANK M. The eastern forms of *Geothlypis trichas*.

Auk, XXIV, No. 1, Jan., 1907, pp. 30-34.

Discusses the relationships of the eastern forms of *Geothlypis trichas*, and comes to the conclusion that only two forms can be recognized, *G. trichas* (recently known as *G. t. ignota*), and *G. t. brachidactyla* (*G. trichas* and *G. t. brachidactyla* of recent authors).

CLARK, AUSTIN H. Eighteen new species and one new genus of birds from Eastern Asia and the Aleutian Islands.

Proc. U. S. Nat. Mus., XXXII, No. 1539, June 15, 1907, pp. 467-475.

Tisa, p. 467; a genus allied to *Emberiza*, and the following species and subspecies are described as new: *Ardea cinerea jouyi*, p. 468; *Phasianus karpocci buturlini*, p. 468; *Lagopus japonicus*, p. 469; *L. rupestris chamberlaini*, p. 469; *Esalon regulus insignis*, p. 470; *Cerchneis perpallida*, p. 470; *Bubo tenuipes*, p. 470; *Syrnium ma*, p. 471; *S. uralense japonicum*, p. 471; *S. u. hondoense*, p. 472; *Dryobates leucotos corencensis*, p. 472; *D. l. ussuriensis*, p. 473; *Gecinus canus griseoviridis*, p. 473; *Pericrocotus cinereus intermedius*, p. 474; *Olbiorchilus fumigatus peninsule*, p. 474; *O. f. amurensis*, p. 474; *Remiz consobrinus suffusus*, p. 474; and *Acredula trivirgata magna*, p. 475.

HOUGHTON, C. O. The masked duck in Maryland.

Auk, XXIII, No. 3, July, 1906, p. 335.

First record of *Nomonyx dimidicus* for Maryland.

OBERHOLSER, HARRY C. A monograph of the genus *Collocalia*.

Proc. Acad. Nat. Sci. Phila., for 1906, July 26, 1906, pp. 177-212.

OBERHOLSER, HARRY C.—Continued.

The author recognizes 33 species and subspecies in the genus *Collocalia*, of which 9 are placed in a new subgenus, *Aerodramus*, p. 182. The following new species and subspecies are described: *Collocalia agnota*, p. 183; *C. ocista*, p. 184; *C. fuciphaga elaphra*, p. 188; *C. origenis*, p. 191; *C. unicolor amelis*, p. 193; *C. thespesia*, p. 195; *C. francaia townsendi*, p. 197; *C. linchi cyanoptila*, p. 205; *C. l. elachyptera*, p. 207; and *C. l. isonota*, p. 208.

OSGOOD, WILFRED H. Identity of *Tyrannula mexicana* Kaup.

Auk, XXIV, No. 2, Apr., 1907, pp. 219-220.

Determines the *Tyrannula mexicana* of Kaup to be equivalent to the species long known as *Myiarchus cinerascens*.

RIDGWAY, ROBERT. Descriptions of some new forms of oligomyodian birds.

Proc. Biol. Soc. Wash., XIX, Sept. 6, 1906, pp. 115-120.

The following new genus, species, and subspecies are described, as a result of the author's recent studies of the families Tyrannidae, Pipridae, and Cotingidae: *Coryphotricus*, p. 115; *Todirostrom cinereum coloreum*, p. 115; *Atalotriccus pilaris venezuelensis*, p. 115; *Rhynchoocyclus klagesi*, p. 115; *Mionectes olivaceus venezuelensis*, p. 116; *Etænia frantzii stolzmanni*, p. 116; *Myiarchus ferox actiosus*, p. 116; *Megarynchus pitangua caniceps*, p. 116; *Pipra erythrocephala berlepschi*, p. 117; *Pipra pipra bahiæ*, p. 117; *Pipra p. anthracina*, p. 117; *Scotothorus olivaceus*, p. 118; *S. fuscus*, p. 118; *Attila tephrocephala*, p. 118; *A. citreopyga salvini*, p. 118; *A. c. luteola*, p. 119; *Tityra semifasciata columbiana*, p. 119; *T. s. costaricensis*, p. 119; *Platyparis aglaie yucatanensis*, p. 120; *Lathria unirufa clara*, p. 120; and *L. fusco-cinerea guayaquilensis*, p. 120.

REPTILES AND BATRACHIANS.

STEJNEGER, LEONHARD. A new salamander from Nicaragua.

Proc. U. S. Nat. Mus., XXXII, No. 1538, June 15, 1907, pp. 465-466.

Spelerpes collaris, new species, p. 465; type, No. 37350, U.S.N.M.

— A new gerrhonotine lizard from Costa Rica.

Proc. U. S. Nat. Mus., XXXII, No. 1542, June 15, 1907, pp. 505-506.

Gerrhonotus alfaroi, new species, p. 505; type, No. 37342, U.S.N.M.

STEJNEGER, LEONHARD. A new calamarine snake from the Philippine Islands.

Smithsonian Misc. Colls., L. Quar. Issue, No. 1703, Apr. 8, 1907, pp. 30-31.

Calamaria mearnsi, new species, p. 30, type, No. 36991, U.S.N.M.

FISHES.

BEAN, BARTON A. (See under C. H. Eigenmann.)

BERG, LEO. A review of the species of the ten-spined sticklebacks or Pygosteus from East Asia.

Proc. U. S. Nat. Mus., xxxii, No. 1536, May 23, 1907, pp. 451-454.

— A review of the cobitoid fishes of the basin of the Amur.

Proc. U. S. Nat. Mus., xxxii, No. 1533, May 23, 1907, pp. 435-438.

EIGENMANN, CARL H. The pœciliid fishes of the Rio Grande do Sul and the La Plata basin.

Proc. U. S. Nat. Mus., xxxii, No. 1532, May 23, 1907, pp. 425-433, figs. 1-11.

— and BEAN, BARTON A. An account of Amazon River fishes collected by J. B. Steere; with a note on *Pimelodus clariæ*.

Proc. U. S. Nat. Mus., xxxi, No. 1503, Jan. 16, 1907, pp. 659-668, figs. 1-5.

EVERMANN, BARTON WARREN, and GOLDSBOROUGH, EDMUND LEE. Description of a new rock-fish of the genus *Sebastes* from California.

Proc. U. S. Nat. Mus., xxxi, No. 1501, Jan. 8, 1907, pp. 651-652, 1 fig.

— and KENDALL, WILLIAM CONVERSE. Notes on a collection of fishes from Argentina, South America, with descriptions of three new species.

Proc. U. S. Nat. Mus., xxxi, No. 1482, July 25, 1906, pp. 67-108, figs. 1-4.

— and SEALE, ALVIN. Fishes collected in the Philippine islands by Maj. Edgar A. Mearns, Surgeon, U. S. Army.

Proc. U. S. Nat. Mus., xxxi, No. 1491, Sept. 24, 1906, pp. 505-512, figs. 1-4.

GILL, THEODORE. Some noteworthy extra-European cyprinids.

Smithsonian Misc. Colls., XLVIII, Quar. issue, pt. 3, Feb. 4, 1907, pp. 297-340, figs. 36-102.

— Parental care among freshwater fishes.

Rep. Smithsonian Inst., 1905 (1907), pp. 403-531, pl. I, figs. 1-98.

— Life histories of toadfishes (Batrachoidids) compared with those of weevers (Trachinids) and stargazers (Uranoscopids).

Smithsonian Misc. Colls., XLVIII, Quar. issue, pt. 4, May 4, 1907, pp. 388-427, figs. 103-123.

GOLDSBOROUGH, EDMUND LEE. (See under Barton Warren Evermann.)

HERRE, ALBERT CHRISTIAN. (See under David Starr Jordan.)

JORDAN, DAVID STARR. A review of the fishes of the family Histiopteridæ, found in the waters of Japan; with a note on *Tephritis Günther*.

Proc. U. S. Nat. Mus., xxxii, No. 1523, Mar. 14, 1907, pp. 235-239.

— A review of the fishes of the family Gerridæ found in the waters of Japan.

Proc. U. S. Nat. Mus., xxxii, No. 1525, Apr. 17, 1907, pp. 245-248, figs. 1-2.

— and HERRE, ALBERT CHRISTIAN. A review of the herring-like fishes of Japan.

Proc. U. S. Nat. Mus., xxxi, No. 1499, Dec. 18, 1906, pp. 613-645, figs. 1-5.

— A review of the lizard-fishes or Synodontidæ of the waters of Japan.

Proc. U. S. Nat. Mus., xxxii, No. 1544, June 15, 1907, pp. 513-524, figs. 1-2.

— and SNYDER, JOHN OTTERBEIN. A review of the Pœciliidæ or killifishes of Japan.

Proc. U. S. Nat. Mus., xxxi, No. 1486, Sept. 10, 1906, pp. 287-290, 1 fig.

— and STARKS, EDWIN CHAPIN. List of fishes recorded from Okinawa or the Riu Kiu Islands of Japan.

Proc. U. S. Nat. Mus., xxxi, No. 1541, June 15, 1907, pp. 491-504, figs. 1-5.

JORDAN, DAVID STARR, STARKS, EDWIN CHAPIN. Note on Otohime, a new genus of gurnards.

Proc. U. S. Nat. Mus., xxxii, No. 1517, Feb. 9, 1907, pp. 131-133, 1 fig.

Notes on fishes from the island of Santa Catalina, southern California.

Proc. U. S. Nat. Mus., xxxii, No. 1510, Feb. 7, 1907, pp. 67-77, figs. 1-8.

Notes on a collection of fishes from Port Arthur, Manchuria, obtained by James Francis Abbott.

Proc. U. S. Nat. Mus., xxxi, No. 1493, Oct. 8, 1906, pp. 515-526, figs. 1-5.

A review of the flounders and soles of Japan.

Proc. U. S. Nat. Mus., xxxi, No. 1484, Sept. 10, 1906, pp. 161-246, figs. 1-27.

KENDALL, WILLIAM CONVERSE. (See under Barton Warren Evermann.)

POPE, THOMAS E. B. (See under Hugh M. Smith.)

SEALE, ALVIN. (See under Barton Warren Evermann.)

SMITH, HUGH M., and POPE, THOMAS E. B. List of fishes collected in Japan in 1903, with descriptions of new genera and species.

Proc. U. S. Nat. Mus., xxxi, No. 1489, Sept. 24, 1906, pp. 459-499, figs. 1-12.

SNYDER, JOHN OTTERBEIN. A review of the Mullidæ, surmulletts, or goat-fishes of the shores of Japan.

Proc. U. S. Nat. Mus., xxxii, No. 1513, Feb. 7, 1907, pp. 87-102, figs. 1-3.

(See also under David Starr Jordan.)

STARKS, EDWIN CHAPIN. (See under David Starr Jordan.)

MOLLUSKS.

BARTSCH, PAUL. The Urocoptoid mollusks from the mainland of America in the collection of the U. S. National Museum.

Proc. U. S. Nat. Mus., xxxi, No. 1483, Sept. 10, 1906, pp. 109-160, pls. iii-v, figs. 1-16.

This paper cites the material in the collection of the U. S. National Mu-

BARTSCH, PAUL.—Continued.

seum and calls attention to the following new subgenera and species: Subgenera: *Dissotropis*, *Ptychodonta*, *Propylsbrya*, *Tristemma*, *Liostemma*, and *Stalactella*. Species: *Eucalodium decollatum guatemalensis*, *Anisospira* (*Dissotropis*) *stearnsi*, A. (D.) *blandi*; *Coelocentrum pittieri*, and *C. pittieri guatemalensis*; *Epirobia coahuilensis*, E. (*Propylsbrya*) *nelsoni*; *Holospira* (*Holospira*) *goldfussi anacachensis*, *mexicana*, *palmeri*, *infanta*, *painteri*, *nelsoni*, *oaxacana*, H. (*Bostrichocentrum*) *goldmani*, *hidalgocensis*, *tamaulipensis*, H. (*Liostemma*) *durangocensis*, *yucatanensis*, H. (*Haplocion*) *toussendi*, *lichenophora*, *tantalus*, H. (*Coelostemma*) *herreræ*, and H. (*Stalactella*) *rosei*.

The Philippine mollusks of the genus *Planorbis*.

Proc. U. S. Nat. Mus., xxxii, No. 1512, Feb. 7, 1907, pp. 83-85, figs. 1-2.

Planorbis (*Gyraulus*) *mindanensis* and *P. (Helicorbis) mearnsi* are described as new species with additional data regarding *P. (G.) quadrasi* Möll. and *P. (H.) luzonicus* Möll.

Two new land shells from Mexico.

Proc. U. S. Nat. Mus., xxxii, No. 1515, Feb. 9, 1907, pp. 119-120, figs. 1-2.

Describes and figures *Drymaeus herreræ* a new species and *D. herreræ veracruzensis* a new subspecies.

The Philippine pond snails of the genus *Vivipara*.

Proc. U. S. Nat. Mus., xxxii, No. 1518, Feb. 9, 1907, pp. 135-150, pls. x-xi.

This paper comprises a review of all the species of the genus hitherto known from the Philippine Islands, together with descriptions of the following new species and subspecies: *Vivipara zamboangensis*, V. (Z.) *tubayensis*, V. (Z.) *davaocensis* and V. (Z.) *surigensis*; V. *mindanensis* and V. (M.) *bagangensis*; V. *buluanensis*, *mearnsi* and V. (*mearnsi*) *misamisensis*; V. *pagodula*, *gilliana*, *lanaonis*, and *mainitensis*.

New mollusks of the family Vitrinellidæ from the west coast of America.

Proc. U. S. Nat. Mus., xxxii, No. 1520, Feb. 9, 1907, pp. 167-176, figs. 1-11.

In this paper *Scissilabra* is proposed as a new genus and *Docom-*

BARTSCH, PAUL.—Continued.

phala as a new subgenus of the family and the following eleven new species are added to the West American fauna: *Vitrinella oldroydi*, *eshnauri*, *alaskensis*, *V. (Docomphala) stearnsi*, *berryi*; *Cyclostrema xantusi*, *diegenis*; *Circulus cosmius*, *cerrocensis*; *Cyclostremella californica*, and *Scissilabra dalli*.

— A new mollusk of the genus *Macromphalina* from the west coast of America.

Proc. U. S. Nat. Mus., xxxii, No. 1522, Mar. 14, 1907, p. 233.

Describes and figures *Macromphalina occidentalis* from Point Abrejos, Lower California.

— A parasitic mollusk of the genus *Eulima*.

Proc. U. S. Nat. Mus., xxxii, No. 1548, June 15, 1907, pp. 555–556, pl. LIII.

Eulima ptilocrinicola is described as new, found parasitic upon a deep sea crinoid (*Ptilocrinus pinnatus* Clark).

DALL, WILLIAM HEALEY. Note on the genus *Glabaris* Gray, or *Patularia* Swainson.

Nautilus, xx, No. 4, Aug., 1906, pp. 39–40.

Shows that the genus *Patularia* Swainson, 1840, has for first species and type a *Glabaris*, and, since *Glabaris* dates only from 1847, the name *Patularia* should take precedence of it, thus correcting an item in Simpson's "Synopsis of the Naiades," published by the Museum.

— A new *Scala* from California.

Nautilus xx, No. 4, Aug., 1906, pd. 44.

Scala lowei from near Catalina Island, California, is described as new, from the collection of the U. S. National Museum.

— A new *Cardium* from Puget Sound.

Nautilus, xx, No. 10, Feb., 1907, pp. 111–112.

Cardium (Cerastoderma) fucanum is described as new and ranges from Bering Sea to Monterey, Cal., from the Museum collection.

— A review of the American *Volutidae*.

Smithsonian Misc. Colls., XLVIII, Quar. issue, pt. III, No. 1663, Feb. 4, 1907, pp. 341–373.

This paper includes a general review of the family, and a detailed ac-

DALL, WILLIAM HEALEY.—Continued.

count of the American species which comprise more than one-third of all the recent species known, most of which are in the National Museum. *Voluta musica damula*; *Enata reecci*; the subfamily *Caricellinae*; the section *Miomelon* of the genus *Adelomelon*, and *Adelomelon indigesta* (Ihering Ms.) are newly proposed names.

— Three new species of *Scala* from California.

Nautilus, xx, No. 11, Mar., 1907, pp. 127–128.

Scala berryi, *S. rectilaminata* and *S. (Cirsotrema) montereyensis* are described as new, from the collections of U. S. National Museum.

— Note on the genus *Psilocochlis*.

Nautilus, xx, No. 11, Mar., 1907, p. 128.

This form, originally described as a subgenus of *Turbinella*, is raised to generic rank, with *P. mcallei* Dall as the type, which is in the National Museum collection.

INSECTS.

ASHMEAD, WILLIAM H. Classification of the foraging and driver ants, or the family *Dorylidae*, with a description of a new genus.

Proc. Ent. Soc. Wash., VIII, July, 1906, pp. 21–31, fig. 4.

Gives a classification of these ants, with analytical tables or keys, for the recognition of the subfamilies, tribes, and genera, in all sexes (♂♀♂) when known.

— A new cryptine genus from Cuba.

Can. Ent., xxxviii, Sept., 1906, pp. 294–295.

BUSCK, AUGUST. A review of the *trictid* subfamily *Phaloniinae* with descriptions of new American species.

Journ. N. Y. Ent. Soc., xv, Feb. 7, 1907, pp. 19–36.

— New genera and species of American *microlepidoptera*.

Journ. N. Y. Ent. Soc., xv, June, 1907, pp. 134–140.

CAUDELL, A. N. A new species of the orthopterous genus *Dalhinia*.

Ent. News, xviii, Jan. 1907, pp. 11–13, figs. 1–1a.

- CAUDELL, A. N. The Decticinae (a group of orthoptera) of North America.
Proc. U. S. Nat. Mus., xxxii, No. 1530, May 23, 1907, pp. 285-410, figs. 1-94.
- On some forficulidæ of the United States and West Indies.
Journ. N. Y. Ent. Soc., xv, June, 1907, pp. 166-170.
- COQUILLET, D. W. Discovery of blood-sucking Psychodidæ in America.
Ent. News, xviii, Mar., 1907, pp. 101-102.
- New genera and species of diptera.
Can. Ent., xxxix, Mar., 1907, pp. 75-76.
- A new phorid genus with horny ovipositor.
Can. Ent., xxxix, June, 1907, pp. 207-208, figs. 12-13.
- CRAWFORD, J. C. New hymenopterous parasites of *Anthonomus grandis*, Boh.
Can. Ent., xxxix, Apr., 1907, pp. 133-134.
- A new Halictus from Nebraska.
Ent. News, xvii, Oct., 1906, pp. 275-276.
- DYAR, HARRISON G. Report on the mosquitoes of the coast region of California, with descriptions of new species.
Proc. U. S. Nat. Mus., xxxii, No. 1516, Feb. 9, 1907, pp. 121-129.
- Description of the larva of *Tortricidia fiskeana* Dyar.
Journ. N. Y. Ent. Soc., xv, Mar., 1907, p. 18.
- Notes on some species of Geometridæ.
Ent. News, xviii, May, 1907, pp. 204-205.
- *Botis toralis* Grote.
Journ. N. Y. Ent. Soc., xv, June, 1907, pp. 104-105.
- New American moths.
Journ. N. Y. Ent. Soc., xv, June, 1907, pp. 105-110.
- Geometrid notes.
Can. Ent., xxxix, June, 1907, p. 209.
- DYAR, HARRISON G. Descriptions of new species of moths of the family Cochlidiidæ.
Proc. U. S. Nat. Mus., xxxii, No. 1550, June 15, 1907, pp. 565-567.
- Life histories of North American Geometridæ.
Psyche, xiii, Aug., 1906, pp. 93-94, and Oct., 1906, pp. 117-118.
- Diagnoses of new species of mosquitoes.
Proc. Biol. Soc. Wash., xix, Sept. 25, 1906, pp. 133-142.
- The species of mosquitoes in the genus *Megarhinus*.
Smithsonian Misc. Colls., xlvi, Sept. 27, 1906, pp. 241-258.
- Notes on some American mosquitoes, with descriptions of new species.
Proc. Biol. Soc. Wash., xix, Nov. 12, 1906, pp. 159-172.
- and KNAB, FREDERICK. On the classification of the mosquitoes.
Can. Ent., xxxix, Feb., 1907, pp. 47-50.
- Descriptions of some American mosquitoes.
Journ. N. Y. Ent. Soc., xv, Mar., 1907, pp. 9-13.
- New American mosquitoes.
1907, pp. 100-101.
- HOWARD, L. O. A new species of *Copidosoma*.
Can. Ent., xxxix, Mar., 1907, pp. 102-103.
- KNAB, FREDERICK. Notes on *Deinocerites cancer* Theobald.
Psyche, xiii, Aug., 1906, pp. 95-97, pls. v-vi.
- The swarming of *Culex pipiens*.
Psyche, xiii, Oct., 1906, pp. 123-133.
- A new species of *Megarhinus*.
Can. Ent., xxxix, Feb., 1907, pp. 50-51.

KNAB, FREDERICK. An early account of the copulation of *Stegomyia calopus*.

Journ. N. Y. Ent. Soc., xv, Mar., 1907, pp. 13-18.

— The swarming of *Anopheles punctipennis* Say.

Pysche, xiv, Mar., 1907, pp. 1-4.

— The classification of the *Culicidæ* according to scale-vestiture characters.

Ent. News, xviii, Apr., 1907, pp. 151-154, pl. vii.

— A new genus and species of sabethid mosquito.

Journ. N. Y. Ent. Soc., xv, June, 1907, pp. 120-121.

— *Deinocerites* again.

Journ. N. Y. Ent. Soc., xv, June, 1907, pp. 121-123.

— (See also under Harrison G. Dyar.)

CRUSTACEANS.

ORTMANN, ARNOLD E. Schizopod crustaceans in the U. S. National Museum. The families *Lophogastridæ* and *Eucopiidæ*.

Proc. U. S. Nat. Mus., xxxi, No. 1480, July 23, 1906, pp. 23-54, pls. 1-II.

The first of a series of papers on the schizopods of the U. S. National Museum. The genus *Gnathopausia* is revised and the variations in some of its species described.

RATHBUN, MARY J. Descriptions of three new mangrove crabs from Costa Rica.

Proc. Biol. Soc. Wash., xix, July 30, 1906, pp. 99-100.

Based on specimens discovered by Prof. J. Fid. Tristan and Prof. P. Biolley while making a biological survey of the mangrove swamps of Costa Rica.

— A new *Scyllarides* from Brazil.

Proc. Biol. Soc. Wash., xix, Sept. 6, 1906, pp. 113-114.

A species allied to *Scyllarides equinoctialis* (Lund) and taken by the U. S. Fish Commission steamer *Albatross* during her voyage around Cape Horn in 1887-88.

— Catalogue des Potamonidés des collections du Muséum d'histoire naturelle de Paris, d'après les révisions

RATHBUN, MARY J.—Continued.

et déterminations de Mlle. Mary Rathbun.

Bull. Mus. d'Hist. Nat., Paris, 1906, No. 6, pp. 369-376.

Extracted from the monograph "Les Crabes d'Eau Douce (Potamonidæ)," which appeared in Vols. vi, vii, and viii, of the *Nouv. Arch. Mus. Hist. Nat. Paris*. Cotypes of many of the species are in the U. S. National Museum.

— Catalogue des Potamonidés des collections du Muséum d'histoire naturelle de Paris, d'après les révisions et déterminations de Mlle. Mary Rathbun. Seconde et dernière partie.

Bull. Mus. d'Hist. Nat., Paris, 1906, No. 7, pp. 500-504.

A continuation of the preceding.

RICHARDSON, HARRIET. Isopodes, in *Expédition Antarctique Française (1903-1905) commandée par le Dr. Jean Charcot*. Ouvrage publié sous les auspices du Ministère de l'Instruction Publique sous la direction de L. Joubin, Professeur au Muséum d'Histoire Naturelle, Paris. Dec., 1906, 4to. pp. 1-21, pl. 1, text figs. 1-26.

Four genera and two species are described as new. The material was collected at the Booth-Wandel and Wincke islands, and in Flanders Bay.

— A new terrestrial isopod from Guatemala, the type of a new genus.

Proc. U. S. Nat. Mus., xxxii, No. 1535, May 23, 1907, pp. 447-450, figs. a-g.

Spherarmadillo schwarzi collected by Dr. E. A. Schwarz and Mr. H. S. Barber at Livingston, Guatemala, in the spring of 1906.

— Descriptions of new isopod crustaceans of the family *Sphæromidæ*.

Proc. U. S. Nat. Mus., xxxi, No. 1479, July 23, 1906, pp. 1-22, figs. 1-27.

One new genus and 9 new species are described, and fuller diagnoses are given of genera recently established.

STEBBING, THOMAS R. R. A new Costa Rican amphipod.

Proc. U. S. Nat. Mus., xxxi, No. 1490, Sept. 24, 1906, pp. 501-504, pl. xi, figs. 1-2.

STEBBING, THOMAS R. R.—Continued.

The new species, *Orchestia costaricana*, was collected by Prof. J. F. Tristan and Prof. P. Biolley at Boca Jesus Maria on mangroves, and is allied to *O. darwinii* F. Müller.

WECKEL, ADA L. The freshwater Amphipoda of North America.

Proc. U. S. Nat. Mus., XXXII, No. 1507, Feb. 2, 1907, pp. 25-58, figs. 1-15.

Keys are given to families, genera, and species, and all the species are described and also figured as far as possible. The 17 species fall into 8 genera and 3 families; 2 species are described as new.

WILSON, CHARLES BRANCH. North American parasitic copepods belonging to the family Caligidae. Part 2, The Trebinæ and Euryphorinæ.

Proc. U. S. Nat. Mus., XXXI, No. 1504, Jan. 17, 1907, pp. 669-720, pls. xv-xx, figs. 1-19.

This is the fourth paper of the series on the Parasitic Copepods of the U. S. National Museum. Of the 5 native species one, *Dysgamus arionimus*, is new to science, and 3 of the others have never before been figured. Both of the subfamilies are new. The artificial keys under subfamilies and genera are made to include all the known genera and species, respectively.

— Additional notes on the development of the Argulidae, with description of a new species.

Proc. U. S. Nat. Mus., XXXII, No. 1531, May 23, 1907, pp. 411-424, pls. XXIX-XXXII.

Gives an account of the newly hatched larvæ of two of our common Argulids, *Argulus funduli* and *A. maculosus*, and a description and figures of the male of *A. catostomi*. The new species described is *A. appendiculosus*, from a sucker at Montpelier, Vt.

WORMS, ECHINODERMS, HYDROIDS, PARASITES, ETC.

AGASSIZ, ALEXANDER, and CLARK, HUBERT LYMAN. Hawaiian and other Pacific Echini. The Cidaridae.

Memoirs Mus. Comp. Zool., XXXIV, No. 1, Feb., 1907, pp. 1-42, pls. I-XLII.

The Hawaiian echini are those collected by the steamer *Albatross* in 1902. Some deep sea Panamic Cidaridae are included, as well as a few

AGASSIZ, ALEXANDER, and CLARK, HUBERT LYMAN.—Continued.

other *Albatross* specimens from different parts of the Pacific. The pedicellariæ of each species are described and figured in detail. Two genera and four species are described as new.

— Preliminary report on the echini collected, in 1902, among the Hawaiian Islands, by the U. S. Fish Commission steamer *Albatross*, in charge of Commander Chauncey Thomas, U. S. N., commanding.

Bull. Mus. Comp. Zool., L, No. 8, Mar., 1907, pp. 231-259.

Based on a collection of 2,450 specimens distributed among 49 genera, 5 of which are new, and 67 species, of which 36 are new.

CLARK, AUSTIN H. Two new crinoids from the North Pacific Ocean.

Proc. U. S. Nat. Mus., XXXII, No. 1543, June 15, 1907, pp. 507-512, figs. 1 and 2.

Phrynocrinus nudus is the type of a new genus and new family, while *Bathyrinus pacificus* is the only representative of the genus known in the Pacific.

— A new species of crinoid (*Ptilocrinus pinnatus*) from the Pacific coast, with a note on *Bathyrinus*.

Proc. U. S. Nat. Mus., XXXII, No. 1547, June 15, 1907, pp. 551-554, figs. a-c.

The new species described is the only stalked crinoid known from the eastern Pacific. *Bathyrinus australis* is given as a new name for *B. adrichianus* Carpenter (not Wyville Thomson, type). Five species of *Bathyrinus* are enumerated.

— On a collection of crinoids of the genus *Eudiocrinus* from Japan, with description of a new species.

Proc. U. S. Nat. Mus., XXXII, No. 1551, June 15, 1907, pp. 569-574.

Three hundred and twenty-three specimens belonging to 3 species have been examined. Nearly all of these were taken by the U. S. Fisheries steamer *Albatross* in 1906. A list of the 7 known recent species of *Eudiocrinus* is given.

CLARK, HUBERT LYMAN. The starfishes of the genus *Heliaster*.

Bull. Mus. Comp. Zool., LI, No. 2, June, 1907, pp. 25-76, pls. I-VIII.

CLARK, HUBERT LYMAN.—Continued.

Contains a historical review, a systematic study of the species and their distribution, a discussion of the number of rays and the order of their succession, and a chapter on the relationships of *Hellaster*.

— (See also under Alexander Agassiz.)

FISHER, WALTER K. New starfishes from the Pacific coast of North America.

Proc. Wash. Acad. Sci., VIII, Aug. 14, 1906, pp. 111-139.

Based on a portion of the Pacific coast material belonging to the U. S. National Museum, and now being monographed by the writer. One new genus and 10 new species are described.

— The holothurians of the Hawaiian Islands.

Proc. U. S. Nat. Mus., XXXII, No. 1555, June 29, 1907, pp. 637-744, pls. LXVI-LXXXII.

The descriptions of genera and species are preceded by a synopsis of all Hawaiian holothurians, whether examined by the author or not. Nineteen species are described as new.

KOFOID, CHARLES ATWOOD. Reports on the scientific results of the expedition to the eastern tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer *Albatross*, from October, 1904, to March, 1905, Lieut. Commander L. M. Garrett, U. S. Navy, commanding. IX, New species of Dinoflagellates.

Bull. Mus. Comp. Zool., L, No. 6, February, 1907, pp. 163-207, pls. I-XVIII.

Based on pelagic collections made to a depth of 300 fathoms. In all 3 new genera, 84 new species, 9 new "forms" are described.

MCCLENDON, J. F. New marine worms of the genus *Myzostoma*.

Proc. U. S. Nat. Mus., XXXII, No. 1509, Feb. 6, 1907, pp. 63-65, figs. 1-2.

These myzostomes were attached to crinoids and ophiurans. Three new species and 1 new subspecies are described and 2 other forms noted.

REICHENSBERGER, AUGUST. Reports on the results of dredging, under the supervision of Alexander Agassiz in

the Gulf of Mexico and the Caribbean Sea, and on the east coast of the United States, 1877 to 1880, by the U. S. Coast Survey steamer *Blake*, Lieut. Commander C. D. Sigsbee, U. S. Navy, and Commander J. R. Bartlett, U. S. Navy, commanding. XLIII. Eine neue *Myzostoma* art.

Bull. Mus. Comp. Zool., XLIII, No. 5, December, 1906, pp. 199-201, text figs. 1-5.

Two specimens of this species, *Myzostoma vincentinum*, were taken from *Pentacrinus decorus* off St. Vincent, 124 fathoms.

STILES, CH. WARDELL. The American hook worm (*Necator americanus*) in Guam and China.

Bull. Johns Hopkins Hosp., Balt., XVII, No. 186, Sept., 1906, p. 313.

— *Agamofilaria georgiana* n. sp. An apparently new roundworm parasite, from the ankle of a negress. (Presented before the annual meeting of the American Society of Tropical Medicine, at Philadelphia, March 27, 1906.)

Bull. 34, Hygienic Laboratory, U. S. P. and M. H. S., May, 1907, pp. 9-30, figs. 1-25.

— The zoological characters of the roundworm, genus *Filaria* Mueller, 1787, with a list of the threadworms reported for man.

Bull. 34, Hygienic Laboratory, U. S. P. and M. H. S., May, 1907, pp. 31-51, figs. 26-34.

— Three new American cases of infection of man with horse hair worms (species *Paragordius varius*), with summary of all cases reported to date.

Bull. 34, Hygienic Laboratory, U. S. P. and M. H. S., May, 1907, pp. 53-68, figs. 35-55.

— The alleged rôle of intestinal worms as inoculating agents in typhoid fever.

Bull. 35, Hygienic Laboratory, U. S. P. H. and M. H. S., Feb., 1907, pp. 195-216.

VAUGHAN, T. WAYLAND. Reports of the scientific results of the expedition to the eastern tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer *Albatross* from October, 1904, to March, 1905, Lieut. Commander L. M. Garrett, U. S. Navy, commanding. VI. Madreporaria.

Bull. Mus. Comp. Zool., L, No. 3, Aug., 1906, pp. 61-72, pls. 1-x.

Of the 10 species found, 8 are described as new. The localities represented are Taboguilla Island, Bay of Panama; off the Galapagos Islands; deep water off Callao and the Galapagos; Easter Island, and Manga Reva.

Some Madreporarian corals from French Somaliland, East Africa, collected by Dr. Charles Gravier.

Proc. U. S. Nat. Mus., xxxii, No. 1526, Apr. 18, 1907, pp. 249-266, pls. xvii-xxviii.

Thirty-two species are enumerated, of which 4 are new. They comprise the Astreans, Fungids, Astreopores, and Goniopores. The types of new forms are in the Paris Museum, but paratypes or fragments of types are in the U. S. National Museum.

BOTANY.

GREENE, EDWARD LEE. New western plants.

Leaflets, I, Sept. 8, 1906, p. 221. *Senecio orthophyllus* from Arizona, *S. monoensis* from California, *S. liebergii* from Idaho, and *Erigeron tephrodes* from California.

A new genus of Rutaceæ.

Leaflets, I, Sept. 8, 1906, p. 222. Genus *Taravalia*, its type otherwise known as *Ptelea aptera*. These species are all endemic in Lower California.

The genus *Leiostemon* Raf.

Leaflets, I, Sept. 8, 1906, p. 223. Genus long ago founded by Rafinesque on *Pentstemon ambiguus*, and wrongly suppressed by others. Two species are recognized.

The genus *Batanthes* Raf.

Leaflets, I, Sept. 8, 1906, p. 224. Genus of *Polemoniaceæ* reduced by others to *Gilia*. Ten species are western.

GREENE, EDWARD LEE. Four streptanthoid genera.

Leaflets, I, Sept. 8, 1906, pp. 225-229.

Four new cruciferous genera, *Disacanthus* of Texas and Arizona, with 5 species, 3 new; *Cartiera* of the Rocky Mountains and westward, with 7 species, 2 of them new; *Guillenia* of Nevada and California, with 7 species, none new. *Turnites lasiophylla* Hook. and Arn. the type; *Agianthus* of southern California, 2 species, both new.

Certain rosaceous genera.

Leaflets, I, Sept. 24, 1906, pp. 237-245.

Seven new genera, *Callionia*, based on *Potentilla canadensis* L.; *Batiadaca*, with *Rubus idæus* L. for its type; *Melanobatus*, its type *Rubus occidentalis* L.; *Parmena*, its type *Rubus spectabilis* Pursh; *Cardiobatus*, with *Rubus nivalis* Dougl. for type (this is the only species); *Psychrobatia*, founded on *Rubus pedata* Smith; *Comerobatia*, founded on *Rubus lasiococca* Gray.

Some oriental *Rubus* allies.

Leaflets, I, Oct., 1906, p. 246.

On species of *Parmena* and *Bossekia* in Japan; also *Calyctenium*, a new genus based on *Rubus pectinellum*, Maxim.

A new Bland violet.

Leaflets, I, Oct. 17, 1906, p. 247. *Viola minuscula*, of northern New York.

A study of *Rhus glabra*.

Proc. Wash. Acad. Sci., VIII, Dec. 18, 1906, pp. 167-196.

A history of geranium, *Rhus glabra*, with restorations of various neglected segregates, and diagnoses of a number of new species of that alliance.

PAINTER, JOSEPH H. (See under Joseph N. Rose.)

ROSE, JOSEPH N. *Terebinthus macdougalii*, a new shrub from Lower California.

Torreya, VI, No. 8, Aug., 1906, pp. 169-171, fig. 5.

Contains description of one new plant.

Additional notes on Mexican plants of the genus *Ribes*.

Smithsonian Misc. Colls., L, May 1, 1907, p. 32.

Contains descriptions of *Ribes madrense* Coville and Rose.

ROSE, JOSEPH N., and PAINTER, JOSEPH H. *Morkillia*, a new name for the genus *Chitonina*; with description of a new species.

Smithsonian Misc. Colls., I, May 1, 1907, pp. 33-34.

Contains descriptions of *Morkillia mexicana* and *M. acuminata*.

— Cactus *maxonii*, a new cactus from Guatemala.

Smithsonian Misc. Colls. L, June 15, 1907, pp. 63-64, pl. 6.

Contains description of *Cactus maxonii* Rose.

— Studies of Mexican and Central American plants No. 5.

Contr., *U. S. Nat. Herb.*, 10, pt. 3, Dec., 1906, pp. 79-132, pls. 16-43, figs. 1-6.

Contains descriptions of many new Mexican plants.

SMITH, JOHN DONNELL. Undescribed plants from Guatemala and other Central American republics. XXVIII.

Botanical Gazette, No. 42, Oct., 1906, pp. 292-300.

Enumeratio Plantarum Guatemalensium necnon Salvadorensium Hondurensium Nicaraguensium Costaricensium quas edidit John Donnell Smith. Pars VIII. Index. Apr., 1907.

STEJNEGER LEONHARD. (See under Mammals.)

GEOLOGY AND MINERALOGY.

MERRILL, G. P., and others. Catalogue of the type and figured specimens of fossil vertebrates; fossil plants; minerals, rocks, and ores.

Bull. U. S. Nat. Mus., No. 53, pt. II, June 26, 1907, pp. i-v, 1-370.

This is the second volume of the catalogue. The lists of minerals and meteorites include those which have been the subject of special investigation and publication and are now in the Department of Geology.

— On a new found meteorite from Selma, Dallas County, Ala.

Proc. U. S. Nat. Mus., xxxii, No. 1508, Feb. 7, 1907, pp. 59-61, pls. vi-vii.

Describes the occurrence and petrographic nature of a recently found stone from the locality noted.

MERRILL, G. P. (with Wirt Tassin). Notes on the composition and structure of the Hendersonville, N. C., meteorite.

Proc. U. S. Nat. Mus., xxxii, No. 1511, Feb. 7, 1907, pp. 79-82, pls. viii-ix.

Gives the petrographic and chemical composition of the Hendersonville meteorite, the finding of which was described by Prof. L. C. Glenn, in March, 1904.

— (with Wirt Tassin). On the meteorite from Rich Mountain, Jackson County, N. C.

Proc. U. S. Nat. Mus., xxxii, No. 1524, Apr. 17, 1907, pp. 241-244, pl. xvi.

Describes the phenomena of the fall and gives the mineral and chemical composition of the stone from the locality mentioned.

— On a peculiar form of metamorphism in siliceous sandstone.

Proc. U. S. Nat. Mus., xxxii, No. 1546, June 15, 1907, pp. 547-550, pl. lii.

Describes a case of fusion and re-crystallization of a siliceous sandstone as found in the crater at Coon Butte and supposed to be due to the impact of a meteorite.

— [Microstructure of the Elm Creek Aerolite]. The Elm Creek Aerolite, by K. S. Howard.

Am. Journ. Sci., 4th series, xxiii, 1907, pp. 380-381.

The paper gives an account of the microstructure of a meteorite, the general description of which is given by Mr. Howard.

TASSIN, WIRT. Note on an occurrence of graphitic iron in a meteorite.

Proc. U. S. Nat. Mus., xxxi, No. 1497, Nov. 14, 1906, pp. 573-574.

The paper gives the composition and physical properties of a new graphitic iron found in the Canyon Diablo meteorite.

PALEONTOLOGY.

BASSLER, RAY S. The Bryozoan fauna of the Rochester shale.

Bull. U. S. Geol. Surv., No. 292, 1906, pp. i-iv, 1-137, i-iii, pls. i-xxxii.

This bulletin treats of all the known bryozoa of this Silurian formation of

BASSLER, RAY S.—Continued.

western New York, 48 genera and 80 species, of which 30 forms are new, being described. The work is, therefore, monographic in its scope. The study of this fauna brought out the fact that the Rochester shales of the New York province are equivalent to the Osgood beds along the western side of the Cincinnati axis, thus correcting former correlations. Further correlations were made with the Silurian of Europe, and the stratigraphy of these various regions was discussed.

BRITTON, ELIZABETH GERTRUDE, and HOLICK, ARTHUR. American fossil mosses, with description of a new species from Florissant, Colo.

Bull. Torrey Bot. Club, xxxiv, 1907, pp. 139-142, pl. ix.

One of the specimens upon which this paper is based is the Museum specimen of *Hypnum haydenii*.

DALL, WILLIAM HEALY. [Letter on some fossil Volutidæ.]

Nautilus, xx, No. 12, Apr. 1907, pp. 142-143.

This letter discusses some points raised in regard to these fossils by Mr. Burnett Smith, especially as to the relations of the genus *Athleta* Conrad, as illustrated by the Museum series.

— Notes on some Upper Cretaceous Volutidæ, with descriptions of new species and a revision of the groups to which they belong.

Smithsonian Misc. Colls., l, Quar. issue, pt. i, No. 1704, Mar., 1907; pp. 1-23, figs. 1-13.

This paper comprises a general review of the Volutidæ represented by the genus *Volutoderma* and its allies in the upper Cretaceous of various countries, and their later analogues. The new genera *Retipirula*, *Liomelon*, and *Mioptleona*, and the new sections of *Volutoderma*, *Rostellinda*, *Rostellaca*, and *Rostellana* are proposed. The following specific names are proposed for the final time: *Volutoderma stoliczkana*, *V. excavata*, *V. tenua*, *V. media*, and *V. teinostoma*, from India; *V. holzapfeli*, from Aachen; and *V. protracta* from the United States; *Volutomorpha retifera*, *V. dumasensis*, *V. aspera*, *V. turricula*, and *V. lioica* from the United States; new names are given to previously described forms as follows: *Volutoderma mulleri* from Gosau; *V. plicatula* and *constricta* from

DALL, WILLIAM HEALY—Continued.

Colorado; *V. californica* and *V. suci-ana* from the Pacific coast. *Volutoderma texana* Conrad and *Psilocochlis McCallei* Dall, are figured for the first time, the latter from the Eocene of Georgia; and *Mioptleona oregonensis* from the Tertiary of the Pacific coast is described. Types are in the National Museum collection.

GIDLEY JAMES WILLIAMS. Evidence bearing on tooth-cusp development.

Proc. Wash. Acad. Sci., viii, July 10, 1906, pp. 91-110, pls. iv-v.

A discussion of the development of the cusps on the teeth of mammals with special reference to the trituberculate theory. It deals largely with extinct mammals, but considerable reference is made to living forms. Figures 1-8 on plate iv are made from specimens in the Division of Mammals.

— A new horned rodent from the Miocene of Kansas.

Proc. U. S. Nat. Mus., xxxii, No. 1554, June 29, 1907, pp. 627-636, pls. LVIII-LXV, fig. 1.

Description of a new genus and species of fossil horned rodent, *Epigaulus hatcheri*. A few comparisons in the paper are based on specimens in the collection of the Division of Mammals, as well as the illustration of the skull of *Aplodontia*, fig. 2, plate LX.

— A new genus of horse from the Mascall beds, with notes on a small collection of equine teeth in the University of California.

Bull. Am. Mus. Nat. Hist., xxii, art. 22, 1906, pp. 385-388, figs. A-B.

A new genus of horse is described.

GILMORE, CHARLES W. Notes on a newly mounted skeleton of a fossil mammal (*Merycoidodon*).

Proc. U. S. Nat. Mus., xxxi, No. 1492, Oct. 8, 1907, pp. 513-514, pl. xii.

Gives a brief account of the first restoration of *Merycoidodon gracilis*.

— The type of the Jurassic reptile *Morosaurus agilis*. Redescribed with a note on *Camptosaurus*.

Proc. U. S. Nat. Mus., xxxii, No. 1519, Feb. 9, 1907, pp. 151-165, pls. xii-xiii, figs. 1-9.

A detailed description of the type is given. The presence of a second

GILMORE, CHARLES W.—Continued.

intercentrum in representatives of the Opisthocœlia and Orthopoda noted for the first time. A note is appended showing that *Ischia*, figured by Marsh as *Diplodocus*, really belong to a member of the Morosauriada.

—Description of a new species of Baptanodon from the Jurassic of Wyoming.

Am. Journ. Sci., xxiii, pp. 193–198, figs. 1–2.

Baptanodon reedi is described as a new species of the Baptanodontida.

HAY, OLIVER P. A new fossil Stickleback fish from Nevada.

Proc. U. S. Nat. Mus., xxxii, No. 1528, May 18, 1907, pp. 271–273, figs. 1–3.

Gasterosteus williamsoni leptosomus, a new subspecies, is here described and figured.

HOLLICK, ARTHUR. (See under Elizabeth Gertrude Britton.)

LYON, MARCUS WARD, JR. Mammal remains from two prehistoric village sites in New Mexico and Arizona.

Proc. U. S. Nat. Mus., xxxi, No. 1500, Dec. 18, 1906, pp. 647–649.

A list of mammal remains collected by Dr. Walter Hough in a cave on the upper Tularosa River, near Joseph, N. Mex., and from an ancient pueblo near Blue, Ariz.

TRUE, FREDERICK W. Remarks on the type of the fossil cetacean *Agorophius pygmaeus* (Müller).

Pub. No. 1694, Smithsonian Inst., pp. 1–8, 1 pl., 4°, 1907.

WILLISTON, SAMUEL W. The skull of *Brachuchenius*, with observations on the relationships of the Plesiosaurs.

Proc. U. S. Nat. Mus., xxxii, No. 1540, June 15, 1907, pp. 477–489, pls. xxxiv–xxxvii.

The type specimen in the National Museum is here described.

BIOGRAPHY.

DALL, WILLIAM HEALEY. Biographical memoir of Charles Emerson Beecher, 1856–1904.

Nat. Acad. Sci., Wash., 1906, 8, pp. 57–70. Portrait.

Read before the National Academy of Sciences, November 16, 1904. Includes a bibliography of Beecher's publications, some of which were based on Museum material.

EXPLORATION.

DALL, WILLIAM HEALEY. Reminiscences of Yukon exploration.

Popular Science Monthly, Aug., 1906, pp. 128–137.

A description of the conditions met with in 1865 to 1868, by the party under Robert Kennicott while exploring the valley of the Yukon, under the auspices of the Smithsonian Institution.