
PART I.

REPORT UPON THE CONDITION AND PROGRESS OF THE
U. S. NATIONAL MUSEUM DURING THE YEAR
ENDING JUNE 30, 1903.

BY

RICHARD RATHBUN.

ASSISTANT SECRETARY OF THE SMITHSONIAN INSTITUTION,
IN CHARGE OF THE U. S. NATIONAL MUSEUM.

REPORT

UPON

THE CONDITION AND PROGRESS OF THE U. S. NATIONAL MUSEUM DURING THE YEAR ENDING JUNE 30, 1903.

BY

RICHARD RATHBUN,

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

GENERAL CONSIDERATIONS.

The United States National Museum had its origin in the act of Congress of 1846 founding the Smithsonian Institution, which made the formation of a museum one of the principal functions of the latter, and provided that—

Whenever suitable arrangements can be made from time to time for their reception, 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, which may be in the city of Washington, in whosoever custody they may be, shall be delivered to such persons as may be authorized by the Board of Regents to receive them, and shall be so arranged and classified in the building erected for the Institution as best to facilitate the examination and study of them; and whenever new specimens in natural history, geology, or mineralogy are obtained for the museum of the Institution, by exchanges of duplicate specimens, which the Regents may in their discretion make, or by donation, which they may receive, or otherwise, the Regents shall cause such new specimens to be appropriately classed and arranged.

The principal and accumulated interest of the Smithsonian fund amounted at that time to about \$750,000, a sum considered ample to meet the needs of the various operations in which it was proposed that the Smithsonian Institution should engage. In 1846 probably not more than one or two universities or learned establishments in America had so large an endowment, and it was apparently the idea of Congress that the fund was sufficient both for the erection of a building and for the care of the collections which would be turned over to it or acquired by the national surveys, and in other ways. The Museum thus began as an integral part of the Institution, coordinate with its library, and was required by law to provide for the Government collections which had previously accumulated, a duty which the

Institution did not see its way clear to fulfill until 1858, when Congress began to make small yearly appropriations to aid in this purpose. So inadequate, however, were the sums voted that for many years the slender income of the Institution continued to be drawn upon to insure the maintenance of what was then justly called the 'Smithsonian Museum, since the building was paid for out of the Smithson fund, a considerable portion of the collections was and still is the property of the Institution, through exploration and gift, and a number of the officials connected with the Museum were employed at its expense.

The first scientific collection to come into the possession of the Institution—and, in fact, it accompanied the bequest—was the small but valuable mineralogical cabinet of James Smithson, the founder, who was himself a chemist and mineralogist of repute and a Fellow of the Royal Society of London.

The nucleus of the National Museum was, however, virtually acquired by the National Institute, a society organized in Washington about 1840, having for its avowed purpose the direction of the Smithson bequest and the pursuit of objects in consonance with the terms of that foundation. One of these objects was the gathering of historical and natural history specimens from both official and private sources, most prominent among the former having been the United States Exploring Expedition around the world from 1838 to 1842. Rooms in the Patent Office building were secured for the museum of the society, which was practically recognized as the appropriate place of deposit for all Government collections retained in Washington. Another important service rendered by the society was, as the late Dr. G. Brown Goode has said, in the direction of educating public opinion "to consider the establishment of such an institution worthy of the Government of the United States." Failing, however, to secure the public recognition at which it aimed, it became inactive upon the establishment of the Smithsonian Institution in 1846, and its charter, which expired in 1861, was not renewed. The Government collections in its possession, which came practically under the care of the Commissioner of Patents, were turned over to the Smithsonian Institution in 1858. Other material directly under the control of the National Institute remained at the Patent Office until 1862, and a part of the historical objects were held there until 1883.

Previous to 1858, however, important materials for a museum were being accumulated at the Smithsonian Institution, at its own cost and through the activities of its assistant secretary, Prof. Spencer F. Baird, beginning even before his appointment to that office in 1850. The personal bent of Professor Baird was toward the collection of natural history specimens for purposes of study. With the approval of Secretary Henry he put into operation plans for the accomplishment of this object, which, fostered and encouraged, were soon yield-

ing regular and abundant returns. Professor Baird's own vacations were spent in field work. Officers of the Army and Navy and of other branches of the Government service, fishermen, fur traders, private explorers, and such powerful organizations as the Hudson's Bay Company and the Western Union Telegraph Company, were enlisted in the work and rendered valuable assistance. The influence exerted by these beginnings has been lasting and widespread, as shown in the extensive natural history operations of subsequent National and State surveys, the organization of the Fish Commission and Bureau of Ethnology, and the support given to scientific collecting by many other bureaus of the Government.

The discussion of plans for the organization of the Smithsonian Institution, which devolved upon the first Board of Regents, led, in January, 1847, to the unanimous adoption of the following resolution expressing approval of the museum feature as one of its important functions:

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.^a

The policy thus announced has prevailed to the present day.

In 1879, when most of the existing Government surveys, whose work included the collecting of specimens in the field, had been established, Congress deemed it important to practically reenforce the provisions of the act founding the Institution, in order that there might be no doubt as to the proper disposition of the material certain to be derived from these various sources, by the following enactment in the sundry civil appropriation act for 1880:

All collections of rocks, minerals, soils, fossils, and objects of natural history, archeology, and ethnology, made by the Coast and Interior Survey, the Geological Survey, or by any other parties for the Government of the United States, when no longer needed for investigations in progress shall be deposited in the National Museum.

Although the name "National Museum" was sometimes used in the earlier reports of the Smithsonian Institution, it did not appear in any of the laws of Congress until 1875. Its general employment may be said to date from the time of the Philadelphia Centennial Exhibition of 1876, the first exposition in this country in which the Government participated, and the first to make known to vast numbers of the people of the United States the existence of national collections at

^a Report of Committee on Organization, p. 20.

Washington, as well as new methods of installing and exhibiting museum materials, differing radically from the older cabinets of college or local museums, which had prevailed up to that period. After its close the Government exhibits brought back to Washington, together with the extensive gifts made to the United States by private persons and foreign governments, rendered necessary the early erection of a new and separate building, devoted entirely to museum purposes. Since that time Congress has mainly provided for the maintenance of the Museum, but its management remains, by the fundamental act, under the authority of the Regents of the Smithsonian Institution, administered through their Secretary, who is *ex officio* the keeper—a form of government insuring a consistent and uniform policy and a nonpartisan administration of its affairs. The greater part of the Smithsonian building is still used for museum purposes, and the Institution, as well as most of the scientific bureaus at Washington, cooperate, both through men and material, in enlarging and caring for the national collections.

The scope of the National Museum as defined by law comprises practically all branches of science and of the arts which admit of museum treatment. With exceedingly limited means for making purchases, and therefore almost entirely dependent as to the character of its collections upon Government explorations, personal donations, and exchanges, its different departments have had a very unequal growth. The subjects best represented are American ethnology and archeology, geology, zoology, and botany. A fair beginning has been made in the exceedingly important branches of the industrial arts and American history, and scarcely more is required to place these two departments on a proper basis than sufficient room to display the necessary collections, which are certain to be received, in greater part through gratuitous contributions, when it is known that the Museum is prepared to care for them. In the department of the fine arts the collection is still very small, but the subject is one which must sooner or later receive earnest consideration by the Government.

The specimens in all branches are classified in two series; one, comprising the bulk of the material, being arranged for the purposes of scientific research and reference in laboratories and storerooms, to which students are freely admitted; the other, selected with regard to their general educational value and public interest, and accompanied by descriptive labels, being displayed in glass-covered cases in the public halls. The duplicate specimens not required for exchanges are made up into sets for distribution to schools and colleges, as opportunity offers. Papers descriptive of the collections, both technical and popular, are published for gratuitous circulation to the extent of three or more volumes yearly, and, finally, the Museum has come to be regarded as a bureau of information in respect to all

subjects with which it is even in the remotest degree concerned, the correspondence which this involves now constituting one of its heaviest tasks.

The history of the Museum, as pointed out by the late Dr. Goode, may be divided into three epochs, which he characterized as follows:

First, the period from the foundation of the Smithsonian Institution to 1857, during which time specimens were collected solely to serve as materials for research. No special effort was made to exhibit them to the public or to utilize them, except as a foundation for scientific description and theory.

Second, the period from 1857, when the Institution assumed the custody of the "National Cabinet of Curiosities," to 1876. During this period the Museum became a place of deposit for scientific collections which had already been studied, these collections, so far as convenient, being exhibited to the public and, so far as practicable, made to serve an educational purpose.

Third, the present period (beginning in the year 1876), in which the Museum has undertaken more fully the additional task of gathering collections and exhibiting them on account of their value from an educational standpoint.

During the first period the main object of the Museum was scientific research; in the second, the establishment became a museum of record as well as of research, while in the third period has been added the idea of public education. The three ideas—record, research, and education—cooperative and mutually helpful as they are, are essential to the development of every great museum. The National Museum endeavors to promote them all.

In the same connection, Dr. Goode also defined the scope and objects of the Museum in the following concise manner:

It is a museum of record, in which are preserved the material foundations of an enormous amount of scientific knowledge—the types of numerous past investigations. This is especially the case with those materials that have served as a foundation for the reports upon the resources of the United States.

It is a museum of research, which aims to make its contents serve in the highest degree as a stimulus to inquiry and a foundation for scientific investigation. Research is necessary in order to identify and group the objects in the most philosophical and instructive relations, and its officers are therefore selected for their ability as investigators, as well as for their trustworthiness as custodians.

It is an educational museum, through its policy of illustrating by specimens every kind of natural object and every manifestation of human thought and activity, of displaying descriptive labels adapted to the popular mind, and of distributing its publications and its named series of duplicates.

AS A MUSEUM OF RECORD.

In its function as a museum of record the growth of the National Museum has been unprecedented, due mainly to the rapid exploration and development of a rich and extensive country under the liberal and progressive policy of the Government. From scientific institutions throughout the world, from foreign governments, and from individuals abundant stores of great value have been received, either as gifts or through the medium of exchange of specimens, and a small appropriation in recent years has permitted of some purchases to supply desiderata.

The principal sources of the collections may be briefly summarized as follows:

1. The explorations carried on more or less directly under the auspices of the Smithsonian Institution, or by the Institution in connection with educational institutions or commercial establishments, and the efforts, since 1850, of its officers and correspondents toward the accumulation of natural history and anthropological material.

2. The United States Exploring Expedition around the world from 1838 to 1842, the North Pacific, or Perry, Exploring Expedition from 1853 to 1856, and many subsequent naval expeditions down to and including the recent operations in the West Indian and Philippine waters.

3. The activities of members of the United States diplomatic and consular service abroad.

4. The Government surveys at home, such as the Pacific Railroad surveys, the Mexican and Canadian boundary surveys, and the surveys carried on by the Engineer Corps of the U. S. Army; and the activities of officers of the Signal Corps, and other branches of the Army stationed in remote regions.

5. The explorations of the U. S. Geological Survey, the U. S. Fish Commission, the Department of Agriculture, the Bureau of American Ethnology of the Smithsonian Institution, and other scientific branches of the Government.

6. Donations and purchases in connection with the several expositions at home and abroad in which the Museum and Fish Commission have participated, among these having been the Centennial Exhibition at Philadelphia in 1876, the International Fisheries Exhibitions at Berlin in 1880 and at London in 1883, the New Orleans Cotton Centennial Exposition in 1884 and 1885, the Cincinnati Exposition of 1888, the World's Columbian Exposition at Chicago in 1893, and the expositions at Atlanta in 1895, at Nashville in 1897, at Omaha in 1898, and at the Pan-American Exposition of 1901. The returns from the World's Fair in Philadelphia were of greatest extent, comprising, besides the collections displayed by the United States in illustration of the animal and mineral resources, the fisheries, and the ethnology of the native races of the country, valuable gifts from thirty of the foreign governments which participated, as well as the industrial collections of numerous manufacturing and commercial houses of Europe and America.

7. Exchanges with foreign and domestic museums and with individuals.

Immediately preceding the Centennial Exhibition of 1876, when the collections were entirely provided for in the Smithsonian building, the number of entries of specimens in the Museum record books was about 235,000. In 1884, when the additional room afforded by the new building gave opportunity for taking a provisional census of the large

accessions received from Philadelphia and from other sources, the number had grown to 1,471,000. At the close of the year covered by this report the total number of recorded specimens was 5,654,864.

While these figures convey no impression of the bulk of the collections, when it is considered that by 1885 all of the space in both buildings was completely filled, and in fact so overcrowded that a third building was already being asked of Congress, some conception may be had of the conditions now existing. The storerooms are packed to their utmost capacity, making it difficult to gain access to the specimens or to provide adequately for their safety. For many years most of the objects received have had to be stored in outside and unsafe structures, where they are mainly piled up in the original packing boxes, and where has already accumulated enough material of great intrinsic and scientific value to fill an additional building as large as that now occupied by the main collections.

AS A MUSEUM OF RESEARCH.

In order to permit of their examination and study, as provided in the act of establishment, the collections of the Museum are, to the extent of its accommodations, arranged systematically and in a manner convenient for reference. Access to the reserve or study series, so called, consisting of the main body of the collections and as complete in all the groups as the accessions have made possible, is given to all properly qualified persons engaged in original research. The opportunities thus afforded are widely availed of, the Museum being visited every year by many investigators, some of world-wide distinction, coming from the scientific centers of European and other foreign countries, as well as from all parts of the United States. Material is also occasionally sent out to representatives of other institutions having the means of providing for its safe-keeping, when required in the working up of special subjects, or for comparison in connection with their own collections.

The custodianship of the collections being the first and most imperative duty devolving upon the scientific staff of the National Museum, its members find comparatively little time during office hours for advancing knowledge, though they are mostly well qualified for such work, being selected with special reference to their ability to identify and classify the specimens under their charge in accordance with the latest researches. As a matter of fact, however, the staff does produce every year a large number of papers descriptive of the collections, which together constitute an important contribution to scientific literature.

Among the honorary officers having their laboratories at the Museum are a number of assistants employed by other scientific bureaus to conduct investigations on material kept here in their charge, and in whose results the Museum shares.

Many collections have, from time to time, been transferred by the Geological Survey, the Fish Commission, the Department of Agriculture, and other branches of the Government to the custody of the Museum in advance of their final working up, in order to provide for their safe storage and to secure the better facilities for study here afforded. Under this arrangement the amount of research work carried on in the Museum building has been greatly increased.

Though having little means to expend for field work, members of the Museum staff are occasionally given opportunities to participate in the explorations of other Government bureaus or of private expeditions, in connection with which special researches may be carried on, though the chief advantage results from the acquisition of new and valuable material and a knowledge of the conditions under which it occurred in nature.

AS AN EDUCATIONAL MUSEUM.

The educational side of the Museum is intended to consist mainly of an exhibition of all the classes of objects which it represents, so mounted, installed, and labeled as to directly interest and instruct the general public. The principal difficulty incident to the proper installation of such a collection, conceding all the space required, lies in the selection of its parts, so that while enough is displayed to convey the amount of information which it is intended to impart, the visitor shall not be overburdened or confused with details. While this policy is being followed in the National Museum so far as its means permit, the lack of room has always prevented a complete or satisfactory development of the plan, and every succeeding year the conditions in this respect grow worse instead of better through the increased crowding of the halls. The advances in recent years have been chiefly in the methods of display, in the character of individual and group mountings, and in the labeling, in all of which directions exceptional progress has been made.

Two years ago it was announced that all of the halls designed for public use were then for the first time permanently open, though none were above addition or improvement, while in some the arrangement was entirely provisional. This was only accomplished by the transfer of large quantities of material to outside storage, but during the past year it has unfortunately been again necessary to shut off one of the most attractive halls in order to furnish increased space for work-rooms.

In this connection it seems appropriate to refer to the work of Doctor Goode, than whom no museum administrator ever had a better understanding of the public needs. He labored earnestly and conscientiously to make this a museum for as well as of the people, and the plans now being carried out are, in all their essential features, of his making. While the assistants might be relied upon to arrange and

maintain the study series in a manner acceptable to the specialist, the interests of the public always remained in his immediate charge. He was ever occupied in devising ways for so presenting the features of nature and the activities of mankind that by the very force of his surroundings the visitor was bound to receive and carry with him some definite impressions, some new bit of knowledge. Doctor Goode's labors in this field ranged from the planning of the general scheme to the most minute details of case architecture and fittings. His official connection with nearly all the important expositions of the past quarter of a century and his exhaustive studies of all the principal museums of Europe and the United States gave him exceptional opportunities for observation and experiment. Though a young man when he died, none other had acquired so ripe an experience and none is more worthy of being followed.

An incidental though very popular educational feature of the Museum, having for its purpose the promotion of scientific teaching throughout the country, has been the distribution to schools and colleges of its duplicate specimens, properly identified and labeled, and put up in carefully selected sets. Inadequate means have prevented this measure from being carried out on the scale which the resources of the Museum would admit of, but many hundreds of such sets have already been given away.

Scarcely a year passes that some exposition, either at home or abroad, is not occupying the attention of the Museum, and through this means its existence and aims are brought constantly and prominently before the public. These expositions have of late followed one another so closely and have required such extensive preparations as to interfere greatly with the ordinary work of the Museum, but the practice of introducing new and varied features, of showing a fresh series of objects or improved groupings in connection with each one, insures a substantial gain, as the collections are returned to Washington, besides fulfilling the important function of making museum methods known to the people of the United States and stimulating the growth of museums in many quarters.

Though mainly technical and most useful to the investigator, the publications of the Museum can be classed, in a general way, as belonging to its educational side, being the medium through which the nature and extent of its collections are made known. The Annual Report, first printed as a separate volume of the Smithsonian Report in 1884, and now in its twentieth volume, consists, besides the administrative part, mainly of semipopular papers on interesting portions of the collections. The Proceedings and Bulletins are almost exclusively technical, the shorter papers being assigned to the former and the larger and more exhaustive works to the latter. Of the Proceedings twenty-four complete volumes have been issued, and of the Bulletins fifty-two numbers.

AN ADDITIONAL MUSEUM BUILDING.

For over two decades a few paragraphs in this report have been annually devoted to an account of the crowded and unsafe condition of the national collections, and the consequent impossibility of further complying with the law for their proper classification, arrangement, and care. Fortunately these conditions are soon to be remedied through the erection of an additional building, having a capacity far exceeding that of the existing structures combined, with exhibition halls to the extent of nearly 5 acres, and facilities for all kinds of museum work.

In the last report it was announced that Congress had authorized the preparation of plans for this new building, which was to be constructed of brick and terra cotta at a limit of cost of \$1,500,000, and to occupy a site on the north side of the Mall opposite the Smithsonian Institution. Such a building, though large enough to relieve the immediate demands for additional space, would provide very inadequately for the growth of the collections, and the material named for the fronts was not considered entirely suitable for a structure of the character proposed. Nearly a year was occupied in examining into the requirements of the collections and in studying the principal features of other museums. During the winter of 1902-3, a series of tentative plans was prepared, and accompanied by a supplementary report by the Secretary of the Smithsonian Institution was submitted to a special committee consisting of the Congressional Regents, "to represent to Congress the pressing needs of additional room for the proper exhibition of specimens belonging to the National Museum." On January 23, 1903, the same papers were transmitted to Congress and printed as Document 314 of the House of Representatives.

The plans provided for a large rectangular building, four stories high including the basement, which was to be in all essential features the equivalent of a story, well lighted and entirely serviceable for museum purposes. The cost of the whole building, constructed of brick and terra cotta, was estimated at \$3,000,000, but one-half of the structure, in symmetrical form, could be built for \$1,500,000, thus meeting the requirements of the act of 1902. The special committee of the Regents above mentioned adopted the report of the Secretary, though urging the larger building, in the following resolution:

That under the limitations of the law the committee hereby report to Congress Plan B for a new National Museum building as the best obtainable for the amount mentioned; but, in the judgment of the committee, the larger plan, A, is believed to be the one which should be adopted, and we therefore ask that Congress shall make the appropriation for it instead of for the smaller plan.

Hearings followed before the Committees on Appropriations of both the House and Senate, and a plea was made for the use of granite instead of brick and terra cotta. The House took no action, but a bill

for the erection of the entire building in granite, at a limiting cost of \$3,500,000, was adopted by the Senate, and the measure in this shape was finally agreed to in conference between the committees of the two Houses. The bill as passed, being an item in the sundry civil act for 1904, was as follows:

Building for National Museum: To enable the Regents of the Smithsonian Institution to commence the erection of a suitable fireproof building with granite fronts, for the use of the National Museum, to be erected on the north side of the Mall, between Ninth and Twelfth streets, northwest, substantially in accordance with the Plan A, prepared and submitted to Congress by the Secretary of the Smithsonian Institution under the provisions of the act approved June twenty-eighth, nineteen hundred and two, two hundred and fifty thousand dollars. Said building complete, including heating and ventilating apparatus and elevators, shall cost not to exceed three million five hundred thousand dollars, and a contract or contracts for its completion is hereby authorized to be entered into subject to appropriations to be made by Congress. The construction shall be in charge of Bernard R. Green, Superintendent of Buildings and Grounds, Library of Congress, who shall make the contracts herein authorized and disburse all appropriations made for the work, and shall receive as full compensation for his services hereunder the sum of two thousand dollars annually in addition to his present salary, to be paid out of said appropriations.

At a meeting of the Board of Regents held on March 12, 1903, a committee to represent the Board in connection with the work of construction was designated by resolution as follows:

That the Secretary, with the advice and consent of the Chancellor and the chairman of the executive committee, be authorized to represent the Board of Regents so far as may be necessary in consultation with Bernard R. Green, to whom the construction and contracts for the new Museum building are committed by Congress in the act making an appropriation for that purpose.

Messrs. Hornblower & Marshall, of Washington, who made the tentative plans, were selected as architects and before the close of the fiscal year their part of the work was well under way. It is expected that about four or five years will be required for the construction of the building.

SUMMARY OF THE OPERATIONS OF THE YEAR.

APPROPRIATIONS AND EXPENDITURES.

The Congressional appropriations for the maintenance of the National Museum during the fiscal year ending June 30, 1903, amounted to \$281,400, a decrease of \$8,000 as compared with the previous year, the changes being as follows: The bill for 1902 contained three specific appropriations, one of \$5,000 for the construction of two galleries, one of \$5,000 for electrical installation, and one of \$12,500 for new boilers, while the appropriations for 1903 comprised a new item of \$7,000 for preparing and printing the Contributions from the U. S. National Herbarium, heretofore published by the Department of Agriculture, \$5,000 for the preparation of plans for an additional Museum building, and an increase of \$2,500 in the appropriation for furniture and fixtures.

The following tables show the expenditures during the year 1902-3 under each item of the appropriations for the past two years:

Appropriations and expenditures for the fiscal year ending June 30, 1903.

Object.	Appropriations.	Expenditures.	Balance June 30, 1902.
Preservation of collections	\$180,000	\$170,402.80	\$9,597.20
Furniture and fixtures	22,500	20,803.76	1,696.24
Heating, lighting, and electrical service.....	18,000	16,037.37	1,962.63
Repairs to buildings, shops, and sheds	15,000	13,471.03	1,528.97
Books, pamphlets, and periodicals	2,000	1,393.38	606.62
Purchase of specimens	10,000	5,999.31	4,000.69
Rent of workshops, etc.....	4,400	4,399.92	.08
Postage.....	500	500.00
Publishing Contributions, National Herbarium.....	7,000	3,027.49	3,972.51
Plans for additional building, National Museum.....	5,000	4,956.80	43.20
Printing and binding	17,000	16,994.41	5.59
Total	281,400	257,986.27	23,413.73

Disbursements from unexpended balances of appropriations for the fiscal year ending June 30, 1902.

Object.	Balance June 30, 1902.	Expendi- tures.	Balance June 30, 1903.
Preservation of collections.....	\$5,709.78	\$5,550.62	\$159.16
Furniture and fixtures.....	2,136.15	2,131.08	5.07
Heating and lighting, etc.....	1,560.43	1,558.83	1.60
Building repairs, etc.....	1,938.30	1,911.07	27.23
Galleries.....	37.92	36.75	1.17
Books, pamphlets, and periodicals.....	1,142.97	944.70	198.27
Purchase of specimens.....	2,471.30	2,416.04	55.26
Rent of workshops, etc.....	.0808
Total.....	14,996.93	14,549.09	447.84

Disbursements from the appropriations for 1900-1901 were made as follows: Preservation of collections, \$49.61; books, pamphlets, and periodicals, \$86.74, leaving balances of \$24.88 and \$5.40 respectively. These balances, together with the unexpended balances of the appropriations for furniture and fixtures, heating and lighting, building repairs, purchase of specimens, and rent of workshops, amounting to \$74.41, have reverted to the surplus fund of the Treasury.

Appropriations for the year ending June 30, 1904.

Preservation of collections.....	\$180,000
Furniture and fixtures.....	22,500
Heating, lighting, and electrical service.....	18,000
Purchase of specimens.....	10,000
Books, pamphlets, and periodicals.....	2,000
Repairs to buildings, shops, and sheds.....	15,000
Rent of workshops and temporary storage quarters.....	4,400
Postage.....	500
Additional building for National Museum.....	250,000
Printing labels, blanks, and Bulletins and Proceedings, and for binding books for the Library.....	17,000
Total.....	519,400

BUILDINGS.

At its last session, ending March 4, 1903, Congress authorized, in the sundry civil act for 1903-4, the construction of an additional fire-proof building of granite for the National Museum, at a cost not to exceed \$3,500,000, and appropriated \$250,000 for the requirements of the first year. The preparation of the final plans was begun near the close of the fiscal year, and the work will be pushed as rapidly as possible.

The roofs on the several sections of the Museum building have continued to give trouble, as new leaks develop during every heavy rain and snow storm. This is more especially the case with the slate coverings over the main halls, but the tin roofs are also in bad condition

and both demand constant attention and repair, at some expense. Before many years a new roof will become absolutely necessary, but in the meantime it is proposed, should the regular appropriations suffice for the purpose, to gradually replace the slate coverings with better material, as only in this manner can the more pressing difficulties be even temporarily overcome.

The leaks which have occurred through many years, and the frequent repairs to walls and ceilings, had so defaced the interior of the greater part of the Museum building as to render it unsightly in the extreme. At the beginning of the fiscal year it was decided to remedy these conditions so far as possible by painting those parts of the building which required it, in accordance with a simple but artistic scheme of color. The rotunda and main halls were first completed, and next three of the courts, leaving only one of the latter to be done during the current year. The ranges do not call for any changes in this respect at present. With this improvement the building has now been placed in a far more presentable condition than ever before.

Another improvement in the Museum building has been the arrangement of inner screen doors at the eastern or freight entrance, so as to close off from the public or exhibition halls the vestibule in which packages are received. Some of the rooms over this same entrance, used by the Division of Plants, have also been modified and enlarged.

The archeological hall in the Smithsonian building has been closed to the public during nearly the entire year. In September, 1902, so many large pieces of plaster fell from the ceiling that its condition was declared unsafe, and though all of the loose plaster was subsequently removed, yet the appearance of the hall does not justify its reopening at present. It is expected, however, to make such temporary repairs before the close of another year as will permit of its being again made accessible.

ADDITIONS TO THE COLLECTIONS.

The number of accessions or separate lots of material received during the year was 1,643, being 234 more than in 1902. They comprised about 236,580 specimens of all kinds, bringing the total number of specimens in the several departments of the Museum up to about 5,654,864. There were also received for identification 886 lots of specimens, the most of which were returned to the senders with the information requested.

The most constant and important sources of material are the national surveys and explorations, whose collections are, by law, transferred to the custody of the Museum as soon as the necessary studies upon them have been completed. The bureaus which figure most prominently in this work are the Geological Survey, the Fish Commission, the Biological Survey, and the Divisions of Insects and Plants of the

Department of Agriculture, and the Bureau of American Ethnology of the Smithsonian Institution, though valuable contributions are occasionally obtained from other branches of the Government service, and officers of the Army and Navy stationed in the new possessions have, in their individual capacity, been rendering much assistance. A very large share of the additions to the collections is, however, received from private individuals and establishments through donation and exchange, and the exhibition series derives many of its attractive features from loans or deposits. Field collecting by members of the Museum staff is almost prohibited by the lack of funds, and the acquisition of specimens by purchase is seriously restricted because of the small amount appropriated for that purpose.

A complete list of the accessions for the year is given in Appendix II, and the important ones are described in the reports of the head curators. Only some of the more noteworthy ones will, therefore, be referred to in this connection.

The total number of specimens added in the Department of Anthropology was 24,319, of which 16,181 specimens belonged in the Division of Prehistoric Archeology, 4,547 in Ethnology, and 1,502 each in History and the Graphic Arts. One of the most valuable acquisitions consisted of material recently collected by Dr. W. L. Abbott in Sumatra and the Straits Settlements, and illustrated the native arts and industries of a region but poorly represented in American museums. The many objects, numbering over 1,500, secured in the Philippine Islands by the late Col. F. F. Hilder, of the Bureau of American Ethnology, for the Government exhibit at the Pan-American Exposition, have been turned over to the Museum by the Government Board. This collection is of especial interest in that it furnishes much authoritative information regarding the life and customs of the natives of the largest of our new possessions. Dr. Frank Russell, formerly of the Bureau of American Ethnology, secured important material from the Pima Indians of southern Arizona, which, together with many ethnological objects from other sources, have been transferred by the Bureau to the custody of the Museum. Several collections made by Lieut. G. T. Emmons, of the United States Navy, illustrating the arts of the Chilcat and other Alaskan tribes, have also been acquired.

An extremely noteworthy collection deposited in the Museum by Mr. S. S. Howland, of Washington, D. C., consists of objects representing Buddhist religious art, such as bronze and wooden images of Buddha and Buddhist saints, shrines, temple lamps, and sacred writings on palm leaves, and also of several oriental manuscripts in Hebrew, Arabic, and other languages. Miss Eliza R. Scidmore, of Washington, also deposited a number of examples of Buddhist and Hindu religious art. Twenty-eight Jewish ceremonial objects from North Africa were obtained from Mr. Ephraim Deinard, of Kearney, New Jersey, one of the most interesting pieces being an ark of carved

wood, containing a parchment scroll of the Pentateuch. The Egyptian exploration fund has presented some valuable Græco-Egyptian papyri.

Among the accessions in the Division of Prehistoric Archeology were a collection of implements and other objects obtained by Mr. W. H. Holmes from near Kimmswick, Missouri, with the assistance of Mr. Gerard Fowke, who also transmitted a number of hammerstones, flint nodules, and other objects from ancient quarries near Carter, Kentucky, and a series of implements and specimens of ore, which had been mined for use as paint, from aboriginal mines at Leslie, Missouri, collected by Mr. Holmes. About 3,000 specimens of stone implements, gathered by the late Mr. Frank Hamilton Cushing, including spearheads, arrowpoints, harpoons, and tools of various kinds, and a very important collection made by Dr. J. Walter Fewkes in Porto Rico and Santo Domingo were received from the Bureau of American Ethnology. The material from Santo Domingo comprises many types new to the Museum, while that from Porto Rico contains several stone rings or collars, sculptured pillow stones, the remains of human skeletons, and various other objects.

A collection of stone implements of various types, pottery, bowls, vases, etc., chiefly from the Mississippi Valley and the Pueblo region, was obtained from Mr. E. O. Matthews, of Parral, Mexico, and many objects illustrative of the stone age in Uruguay were received in exchange from the Museo Nacional at Montevideo, through the courtesy of Señor Luis A. de Herrera, secretary of the Uruguayan legation at Washington. Mr. H. W. Seton-Karr, of London, England, presented a series of paleolithic quartzite implements selected from a collection made by him in the Lateritic deposits near Madras, India.

A series of models of United States war vessels, including gunboats, monitors, protected cruisers, and rams, deposited in the Museum by the Navy Department, forms a very attractive exhibit, being of especial interest to the public. The War Department has also deposited a large number of models of heavy seacoast cannon, mountain howitzers, and other types of ordnance formerly used by the Army, and examples of small arms.

Many relics of General and Mrs. U. S. Grant, of great intrinsic as well as historic value, have been presented to the Museum by their children, through Brig. Gen. Frederick D. Grant, U. S. Army. They include clothing worn by General Grant during the civil war, commissions to different ranks in the Army, a cabinet present to Mrs. Grant by the Empress of Japan, said to be one thousand years old and valued at \$20,000; several Japanese vases presented by the Emperor of Japan, a lady's toilet set in gold from the King and Queen of Siam, and numerous other objects.

Eight hundred and thirty-seven gold, silver, and copper coins were donated to the Museum by Mr. E. M. Chapman, of New York City.

Casts of the Neanderthal and Prague ancient crania were purchased for the newly established Division of Physical Anthropology, which has also secured five valuable head-hunter's skulls from New Guinea, and a large series of crania and parts of human skeletons from the Army Medical Museum, the U. S. Fish Commission, and other sources.

The Department of Biology received about 110,000 specimens, of which approximately one-third were botanical. In zoology the Division of Insects led with 37,684 specimens, followed by marine invertebrates with 12,471 specimens, mammals with 7,435 specimens, mollusks with 6,332 specimens, and birds with 3,800 specimens.

The zoological specimens contributed by Dr. W. L. Abbott consisted of a large number of deer, squirrels, porcupines, and a new ape, collected in Sumatra and on the adjacent islands, and in the Riou Linga Archipelago, south of Singapore. Many of the species are new to science. The donations made by Doctor Abbott, as the result of his recent extensive explorations in the East Indies, now comprise about 2,500 mammals and nearly 4,000 birds, besides several thousand specimens in other branches of natural history.

Large collections of bird skins and eggs, fishes, corals, mollusks, crustaceans, and other marine invertebrates, obtained during the expedition of the U. S. Fish Commission steamer *Albatross* to the Hawaiian Islands and to Samoa, have been transmitted to the Museum and will be referred to more in detail in the next report. They include interesting series of the birds of the Laysan Islands.

Dr. E. A. Mearns, U. S. Army, presented a quantity of mammals from the Yellowstone National Park and from Fort Snelling, Minnesota, and the Hon. B. S. Rairden, United States consul at Batavia, two undescribed species of *Tragulus* from Java. An important collection of bats was obtained from Mr. William Foster, of Sapucay, Paraguay; and one of bats and rodents from Mr. T. Tsuchida, of Misaki, Japan. A valuable skeleton of the porpoise, *Pseudorca crassidens*, from the Hawaiian Islands, the first reported from that region, was contributed by Prof. C. H. Gilbert, of the Leland Stanford Junior University.

Several rare birds of paradise and other valuable specimens, including a pair of flightless cormorants, from the Galapagos Islands, were received from Mr. A. Boucard, Isle of Wight, England, and a Javan jungle fowl, a black-winged peacock, and other birds from Mr. Homer Davenport, Morris Plains, New Jersey. The Bishop Museum, of Honolulu, presented about 40 bird skins, including several species not previously represented in the Museum collection, and 295 interesting specimens from Chiriqui, Costa Rica, including a number of cotypes, and 52 bird skins from Honduras were obtained from Mr. Outram Bangs, of Boston, partly as a gift and partly in exchange. The most important accession to the zoological collection was a fossil egg of *Aepyornis maximus* from Madagascar. Valuable birds' eggs from

Australia, South America, and other countries were also received from different sources.

Reptiles from southern Florida were contributed by Mr. E. J. Brown, of Lemon City, and a fine series of salamanders was presented by Messrs. Brimley Brothers, of Raleigh, North Carolina. From Prof. P. Biolley, of the National Museum of San Jose, Costa Rica, there were obtained several very interesting specimens, including a new gecko, described by Doctor Stejneger as *Sphaerodactylus pacificus*. Eighteen snakes from the island of Cyprus were purchased from Giacomo Cecconi, of Florence, Italy, and 29 snakes from Jamaica and Michigan were donated by Prof. H. L. Clark, of Olivet College, Michigan.

The accessions to the collection of fishes were numerous and important. Dr. O. P. Jenkins, of Leland Stanford Junior University, donated 42 types of Hawaiian fishes, constituting a second installment of a series of types the first of which were transmitted in 1901. A valuable collection of types and cotypes of Japanese fishes was received from Dr. David S. Jordan, president of the same university. A large salmon, weighing about 50 pounds, taken at Cascapedia, Canada, was presented by Dr. S. Weir Mitchell, of Philadelphia. A deep-sea pelican fish, captured at a depth of between 2,000 and 3,000 fathoms, during the survey for the Pacific cable, was transmitted by the officers of the U. S. S. *Nero*, and a large conger eel was received from Mr. Louis Mowbray, of Bermuda, through the New York Aquarium.

Besides the mollusks obtained by the Fish Commission expedition to the Hawaiian Islands, a number of well-preserved land shells from the same region were donated by Mr. W. H. Henshaw, of Hilo, Hawaii. Interesting collections of shells were also received from Rev. Henry Loomis, Yokohama, Japan; Mr. F. A. Woodworth, San Francisco, California; Mrs. T. S. Oldroyd, Burnett, California, and the Imperial Academy of Sciences, St. Petersburg. A specimen of the rare *Voluta mammilla* Sowerby, from Tasmania, and other valuable Australian shells, were also added to the mollusk collection.

Among the most important additions to the Entomological Division were a collection of nearly 19,000 specimens of gall wasps, parasites, etc., from Canada, transmitted by the Department of Agriculture; a series of Costa Rican insects of different orders purchased from Mr. P. Schild, of New York City; about 2,000 specimens of Chilean insects from Mr. E. C. Reed, Concepcion, Chile; 277 specimens of African Lepidoptera received in exchange from the Royal Museum of Natural History, Stockholm, Sweden, through Dr. Yngve Sjöstedt, including examples of several species described by Doctor Aurivellius; a collection of mites, including types and cotypes, from Prof. Robert Wolcott, of the University of Nebraska; specimens of many orders and comprising types and cotypes from Prof. T. D. A. Cockerell, East Las Vegas, New Mexico; about 700 specimens of European Coleoptera

from Dr. W. H. Valway, Cleveland, Ohio, and a valuable series of Venezuelan Cicindellidae and Scarabaeidae from Mr. Edw. A. Klages, of Crafton, Pennsylvania. An important exchange was made with the American Entomological Society, whereby the Museum received 95 species of Mexican and Central American Hymenoptera, including many cotypes. Thirty-four cotypes of Coleoptera were presented by Prof. H. C. Fall, of Pasadena, California.

The Division of Marine Invertebrates obtained through exchange with the Museum of Natural History, Paris, France, about 50 species of fresh-water crabs. A series of Japanese crustaceans, including many interesting specimens collected by Dr. David S. Jordan and Mr. J. O. Snyder, was presented by the Leland Stanford Junior University. A number of crustaceans from the Maldive Islands, collected by Mr. Alexander Agassiz in 1901 and 1902, was received from the Museum of Comparative Zoology, Cambridge, Massachusetts, and similar material from Costa Rica and Cocos Island was acquired through exchange with the National Museum of Costa Rica. Among other accessions of special interest may be mentioned four lots of isopod crustaceans, including types obtained by the Harriman expedition, received from Prof. Trevor Kincaid, Seattle, Washington; 23 specimens of echinoderms and crustaceans from Great Britain and from various localities in the East, contributed by Mr. H. W. Parritt, of London, England; a quantity of foraminifera from Great Britain and the Seychelles Islands, presented by Mr. H. Sidebottom, Cheshire, England, and a collection of parasites of fishes, transmitted by Prof. Edwin Linton, of Washington, Pennsylvania. A very interesting series of European parasites, comprising trematodes, cestodes, and nematodes, was deposited in the Museum by the Bureau of Animal Industry, Department of Agriculture.

To the osteological collection were added a skeleton of the giant salamander, *Sicboldia japonica*, presented by the Imperial Museum of Tokyo; three skeletons of Harris's cormorant, *Nanopteron harrisi*, purchased from Mr. R. H. Beck, of Berryessa, California, and a skeleton of musk ox from Ellesmere Land, representing a species new to the Museum, from Mr. J. S. Warmbath, of Washington, District of Columbia.

The National Herbarium has been enriched by a collection of about 1,400 plants from the Philippine Archipelago, contributed by the Philippine Bureau of Agriculture, and by another collection from the same locality received from the Royal Botanical Gardens, Kew, England. Mr. William R. Maxon, of the Museum staff, obtained a large collection of ferns and other plants during a collecting trip of about two months' duration in Jamaica. Dr. E. A. Mearns, U. S. Army, presented a large series of plants collected in the Yellowstone National Park, and Capt. John Donnell Smith, of Baltimore, Maryland, who has made extensive contributions to the Herbarium, continued hi

donations during the past year, transmitting a series of plants from the West Indies and Central America.

The collections in the Department of Geology were increased by about 102,000 specimens, of which 97,000 were fossil invertebrates. As in past years, the principal accessions were from the U. S. Geological Survey. Among the more important ones were a series of minerals, rocks, and ores, constituting a portion of the exhibit made by the Survey at the expositions recently held in Buffalo and Charleston, and a collection of rocks from Arizona, California, Idaho, Colorado, Oregon, and Washington. An interesting lot of tourmalinitic quartz from Little Pipestone district, Montana, of which some of the specimens are covered on one side with parallel layers of amethysts of different hues, accompanied the former.

A valuable series of massive and cut polished stalactites and stalagmites from the Copper Queen mine was presented by Mr. James Douglas, of Bisbee, Arizona. Interesting examples of volcanic bombs and lavas from Cinder Buttes, Idaho, were received from Prof. I. C. Russell; specimens of fluorite and associated rocks, from Mr. R. S. Bassler and Mr. E. O. Ulrich; specimens of halloysite from Hart County, Kentucky, from Hon. J. H. Stotsenburg, of New Albany, Indiana; specimens of talc, from the North Carolina Talc and Mining Company, and a collection of igneous rocks from Holyoke, Massachusetts, from Prof. B. K. Emerson.

A specimen of pallasite, weighing 351 pounds, from Mount Vernon, Kentucky; a mass of meteoric iron from Arispe, Mexico, weighing 116 pounds; a mass of meteoric iron from Persimmon Creek, in North Carolina, weighing 9 pounds, and a meteoric stone weighing nearly 9 pounds, from Hendersonville, North Carolina, are among the most important additions to the meteoric collections.

A small piece of the only known specimen of footeite was donated by Mr. Warren M. Foote, of Philadelphia, and many very desirable minerals, some of which were not previously represented in the Museum collection, were obtained from different sources.

The largest and most valuable addition to the Division of Stratigraphic Paleontology was the second installment of the E. O. Ulrich collection of Paleozoic bryozoans, comprising about 75,000 specimens and 2,500 microscopic slides. The collection as a whole is the most extensive of its kind in existence and contains many unique specimens. About 14,000 corals, crinoids, mollusks, and other fossil invertebrates from the Mississippi Valley Paleozoic were received from Dr. Carl Rominger, of Ann Arbor, Michigan. Many of these have been figured and described in the reports of the Geological Survey of Michigan. The Andrew Sherwood collection of Pennsylvania Upper Devonian vertebrate and invertebrate fossils is also entitled to special notice. It was brought together by Mr. Sherwood, and includes many choice slabs filled with large brachiopods and mollusks, besides about 3,000

small specimens. Smaller collections of interesting fossil invertebrates were contributed by the U. S. Geological Survey; Dr. Charles E. Beecher, of Yale University; Mr. John M. Nickels, of Cincinnati, Ohio; Mr. W. T. Lee, of Trinidad, Colorado, and others.

The collection of vertebrate fossils was increased by several important additions, one of which, comprising the teeth of *Mastodon humboldti* and *Mastodon cordillerum* and casts of mandibular rami, was received from the British Museum, London, England. Dr. H. J. Herbein, of Pottsville, Pennsylvania, contributed a slab of sandstone showing reptilian footprints, from Mount Carbon, Pennsylvania, and Mr. Whitman Cross, of the U. S. Geological Survey, collected and transmitted a tooth of *Cladodus formosus* (Hay) from Needle Mountains quadrangle, Colorado.

About 500 specimens of Triassic plants, collected in Connecticut and Massachusetts by Mr. S. Ward Loper, of the U. S. Geological Survey, have been turned over to the Museum; a small series of fossil plants from the Permian of Ohio was donated by Mr. H. Herzer, of Marietta, Ohio, and about 80 specimens of Paleozoic plants were received with the Ulrich collection above mentioned. ▽

The number of entries made in the catalogue books of the various departments was 41,091.

The number of accessions received annually since 1881 has been as follows:

Year.	Accession Nos. (inclusive).	Number of accessions during the year.
1881.....	9890-11000	1, 111
1882.....	11001-12500	1, 500
1883.....	12501-13900	1, 400
1884.....	13901-15550	1, 650
1885 January to June.....	15551-16208	658
1886.....	16209-17704	1, 496
1887.....	17705-19350	1, 646
1888.....	19351-20831	1, 481
1889.....	20832-22178	1, 347
1890.....	22179-23340	1, 162
1891.....	23341-24527	1, 187
1892.....	24528-25884	1, 357
1893.....	25885-27150	1, 266
1894.....	27151-28311	1, 161
1895.....	28312-29534	1, 228
1896.....	29535-30833	1, 299
1897.....	30834-32300	1, 467
1898.....	32301-33741	1, 441
1899.....	33742-35238	1, 497
1900.....	35239-36705	1, 467
1901.....	36706-38175	1, 470
1902.....	38176-39584	1, 409
1903.....	39585-41227	1, 643

The approximate number of specimens received by the Museum during the year and the total number in the possession of the Museum at the close of the year are recorded in the following table:

Division.	Received in 1902-3.	Total.
Anthropology:		
Ethnology.....	4,547	478,064
Historic archeology.....	20	2,223
Prehistoric archeology.....	16,181	372,979
Technology.....	149	31,193
Graphic arts.....	1,502	8,896
Medicine.....	7	6,889
Religions.....	92	2,769
History and biography.....	1,502	43,048
Physical anthropology.....	99	2,770
Ceramics.....	146	4,610
Photography.....	9	1,800
Music.....	65	1,625
Biology:		
Mammals.....	7,435	82,435
Birds.....	3,800	133,535
Birds' eggs.....	1,470	64,045
Reptiles and batrachians.....	α872	44,425
Fishes.....	1,000	157,501
Mollusks.....	6,332	929,037
Insects.....	37,684	1,523,684
Marine invertebrates.....	12,471	518,726
Helminthology.....	α646	5,737
Comparative anatomy.....	α115	15,945
Plants.....	38,403	564,405
Forestry.....		749
Geology:		
Physical and chemical geology.....	2,820	78,559
Mineralogy.....	α415	35,878
Invertebrate paleontology.....	97,000	543,337
Vertebrate paleontology.....	α36	
Paleobotany.....	1,732	
Total.....	236,580	5,654,864

α Entries in catalogues.

EXPLORATIONS.

Fewer explorations than usual were carried on last year directly by the Museum, owing to insufficient means for that purpose. Field work under the Bureau of American Ethnology, which yielded interesting collections of objects, since deposited in the Museum, as before mentioned, was conducted by Mr. William H. Holmes, Mr. Gerard Fowke, and Dr. J. Walter Fewkes. Mr. Holmes visited the aboriginal hematite mines at Leslie, Missouri, and Doctor Fewkes an ancient quarry in Carter County, Kentucky, while Doctor Fewkes also spent considerable time in Santo Domingo and Porto Rico.

The important explorations of Dr. William L. Abbott in Sumatra and the adjoining islands, as well as on the mainland of the Straits

Settlements, have already been referred to under the heading of "Additions to the Collections." These explorations, which are carried on entirely at the expense of Doctor Abbott, have now been in progress for several years, and through his generosity the National Museum has been the fortunate recipient of the very large and extremely valuable collections that he has made.

In the spring of 1903 Mr. F. A. Lucas, accompanied by Mr. William Palmer and Mr. J. W. Scolliek, all of the Museum staff, visited one of the stations of the Cabot Steam Whaling Company on the coast of Newfoundland in the interest of the St. Louis Exposition for the purpose of securing as complete a representation as possible of a large sulphur-bottom whale. He was entirely successful, returning with a perfect skeleton of a specimen measuring about 78 feet long, and with molds of the exterior, from which a cast of the entire animal will be made. These specimens at the close of the exposition will be exhibited in the Museum.

Through the courtesy of the Geographical Society of Baltimore, the Museum was enabled to send Mr. B. A. Bean and Mr. J. H. Riley with an expedition to the Bahama Islands, where they were to make collection of the fishes and land animals of that region. The party was still absent at the close of the year.

Dr. H. G. Dyar, with Mr. Rolla P. Currie, of the National Museum, and Mr. A. N. Caudell, of the Department of Agriculture, accompanied an expedition to British Columbia under the auspices of the Carnegie Institution, and it is expected that they will bring back a large and important collection of insects.

Mr. S. Ward Loper, of the U. S. Geological Survey, made for the Museum an interesting collection of Triassic plants in Connecticut and Massachusetts, and through arrangements with the Director of the Survey, Hon. Charles D. Walcott, Mr. Charles Schuchert, of the Museum staff, spent several weeks in Virginia and Georgia with the special view of determining the geological horizons of the southern part of the Appalachians. Incidental to this study he collected many fossils. Several weeks were spent by Mr. R. S. Bassler in Ohio, Indiana, and Kentucky collecting invertebrate fossils. A small collection of natural history specimens, obtained about Franz Josef Land by the Baldwin-Ziegler expedition of 1902 to the Polar regions, was presented to the Museum by Mr. William Ziegler. It is hoped that the second expedition, now in progress under the same auspices, will result in additional accessions from that little-known region.

DISTRIBUTION AND EXCHANGE OF SPECIMENS.

The number of specimens furnished to specialists outside of the Museum for study was 12,529, almost twice as many as during the previous year, while the sets of duplicates distributed to educational

establishments in this country, together with those used in making exchanges with individuals and institutions both at home and abroad, comprised 33,228 specimens. The educational series consisted of marine invertebrates, fishes, and geological material illustrating the results of rock weathering and soil formation.

The following table shows the number of lots of specimens of all kinds sent to each State and foreign country:

Alabama.....	1	North Carolina.....	6
Arkansas.....	1	Ohio.....	11
California.....	12	Pennsylvania.....	25
Colorado.....	4	Texas.....	4
Connecticut.....	11	Utah.....	4
District of Columbia.....	18	Vermont.....	1
Delaware.....	1	Washington.....	2
Georgia.....	3	West Virginia.....	1
Illinois.....	46	Wisconsin.....	5
Indiana.....	7	Wyoming.....	2
Iowa.....	8	Hawaii.....	2
Kansas.....	1	Philippine Islands.....	1
Kentucky.....	2	Austria.....	5
Louisiana.....	1	Bavaria.....	1
Maine.....	2	Canada.....	3
Maryland.....	7	Denmark.....	2
Massachusetts.....	36	England.....	12
Michigan.....	11	France.....	7
Minnesota.....	5	Germany.....	4
Missouri.....	18	Holland.....	1
Montana.....	2	Italy.....	5
Nebraska.....	2	New South Wales.....	1
New Hampshire.....	4	New Zealand.....	1
New Jersey.....	12	Norway.....	2
New Mexico.....	2	Sweden.....	3
New York.....	99		

Among the more important exchanges received from foreign establishments were the following: From the British Museum of Natural History, London, four casts of the jaws and teeth of mastodons; the Royal Botanic Gardens, Kew, London, 983 plants from the Philippine Islands and Guiana, 21 duplicate plates from "Refugium Botanicum," and two living plants; the Museum of Natural History, Paris, four species of Argulidae from South America; the Botanical Museum, Berlin, Germany, 665 plants from Europe and Africa; the Royal Zoological and Anthropological-Ethnographical Museum, Dresden, small mammals and a specimen of *Scops manadensis* from Celebes; the K. K. Naturhistorisches Hofmuseum, Vienna, 100 specimens of European cryptogams; the Royal Museum of Natural History, Stockholm, 277 specimens of Lepidoptera; the Imperial Academy of Sciences, St. Petersburg, 102 specimens of land and fresh-water shells from Central Asia; the Royal Museum, Turin, specimens of fossil Nummulites and Orbitoides; the Royal Gardens, Calcutta, 120 plants from India; the

Botanic Gardens, Durban, Natal, 100 South African plants; the Botanic Gardens, Sydney, New South Wales, 30 plants from New South Wales; the Museo Nacional, Montevideo, Uruguay, 35 paleolithic implements.

The material obtained in exchange from individuals abroad was as follows: From Mr. W. E. Helman, London, 30 birds' eggs from Iceland and England; from Mr. H. W. Parritt, London, 23 specimens of echinoderms and crustaceans; from Mr. B. W. Priest, Norfolk, England, 4 boxes of foraminifera from the island of Jersey; from Mr. H. Sidebottom, Cheadle Hume, near Stockport, Cheshire, foraminifera from Great Britain and the Seychelles Islands; from M. Ernest André Haute-Saône, France, 10 specimens including 4 cotypes of Mutillids; from M. Georges Lachenand, Limoges, France, 30 specimens of European mosses and hepatica; from M. Stanislas Meunier, Museum of Natural History, Paris, a meteorite from Tadjera, Algiers; from M. Phileas Rousseau, Notre Dame de Mont, Vendee, 19 specimens of trilobites, 5 of *Bellerophon* and other fossils from the Silurian formation of France; from Mr. A. Callier, Rosswein, Saxony, 273 plants from Russia; from Dr. Aristides Brezina, Vienna, meteorites from Jellica, Merciditas, and San Juliao; from Mr. Julius Böhm, Vienna, a piece of meteorite from Erghes, Somaliland, Africa, weighing 427 grams; from Mr. Embr. Strand, Christiania, Norway, 261 specimens of Lepidoptera and 20 specimens of Orthoptera; from Mr. G. van Roon, Leiden, Holland, 120 specimens of Coleoptera; from Dr. K. Kishinouye, Imperial Fisheries Bureau, Tokyo, Japan, photographs of Japanese corals; from Dr. T. H. Holland, director of the Geological Survey of India, a meteorite from Shergooty, India; from Mr. F. H. McK. Grant, North Carlton, Melbourne, Australia, a specimen of Upper Silurian starfish and a specimen of Lower Silurian cephalopod; from Dr. A. Dugès, Guanajuato, Mexico, 32 insects.

RESEARCHES.

Under the act of Congress founding the Smithsonian Institution the Museum staff is charged with the classification and arrangement as well as with the care and preservation of the national collections, and although many of the accessions have been previously worked up, the greater number reach the Museum unstudied and unnamed.

In selecting the assistants in every grade, therefore, it has been necessary from the beginning to consider their qualifications with reference to expert knowledge of the groups of specimens to be placed under their charge, and in this manner a very effective though small staff of paid scientific workers has been assembled. The greater part of the time of these assistants has, naturally, to be given to the routine duties attendant upon the receipt, assorting, labeling, cataloguing, and disposition of the collection as received, but by working outside the

official hours, a characteristic of every zealous man of science, they are to be credited every year with important progress in classification and in other studies. Besides the paid assistants, however, there are nearly as many volunteer or honorary members of the scientific staff, filling positions for which the appropriations are insufficient to make provision, and from these also extensive results in the elaboration of collections are obtained. But notwithstanding these facts the Museum depends to a large extent, for the study of its collections, on the cooperation of scientific men belonging to other institutions, their work being done gratuitously, and frequent calls are made upon its resources to aid in researches conducted under other auspices.

In the Department of Anthropology, Prof. O. T. Mason, the Acting Head Curator, was mainly occupied in completing his revised paper on aboriginal basketry which is to appear as an appendix to the Annual Report for 1902. Dr. A. Hrdlicka, Assistant Curator of Physical Anthropology, made a study of the Lansing skeleton, including an examination of other material. A description of the Parsee creed and ceremonials represented in the collections of the Museum was prepared by Dr. I. M. Casanowicz and published in the *American Anthropologist*. Dr. Cyrus Adler and Dr. Casanowicz continued their work on a bibliography of Assyriology.

Among the investigators from other places who were given facilities for making studies on anthropological subjects were M. Pittier, head of the National Museum of Costa Rica; Dr. Carl von den Steinen, of Berlin; Dr. Hjalmar Stolpe, director of the Royal Museum of Sweden at Stockholm; Prof. Hartmann, of Stockholm; Dr. A. B. Hunter of Raleigh, N. C.; Dr. E. A. Bogue, of New York City; and Dr. Waldemar Bogoras, of the American Museum of Natural History. Doctor Bogoras's visit was made in the interest of his explorations among the tribes of northeastern Siberia and for the purpose of ascertaining whether any material of Siberian origin was contained in the extensive Eskimo collection of this Museum.

In the Department of Biology Mr. G. S. Miller, jr., Assistant Curator of Mammals, gave special attention to the working up of Doctor Abbott's collections of East Indian mammals, in which he has already discovered 17 new species of mouse deer (genus *Tragulus*), 16 new species belonging to other orders, and one new genus (*Lenothrix*). In the Museum collection of American bats, he has found 20 undescribed species, diagnoses of which have been published in the proceedings of the Philadelphia Academy of Natural Sciences. He has also prepared notes on a number of species of bats and rodents. Dr. E. A. Mearns, U. S. Army, made a study of the ocelots, the results of which were printed in the Museum Proceedings. Dr. M. W. Lyon, jr., has completed a list of the type specimens of mammals, exclusive of cetaceans, in the collections of the Museum, which number 469 species

and subspecies. Photographs of the types are still to be prepared. Doctor Lyon has also pursued investigations on the osteology of the rabbits, and has published two brief notes on other mammals. The head curator of biology, Dr. Frederick W. True, completed an extensive and important monograph on the North American and European species of whalebone whales, his manuscript being submitted for publication toward the close of the year. He also prepared papers on Doctor Philippi's species of Chilean porpoises, on a killer whale stranded on the coast of Maine, and on a species of *Prodelphinus* obtained at Honolulu; and notes on the name of the common porpoise of the genus *Tursiops*, and on the occurrence of the pollack whale, *Balaenoptera borealis*, in American waters.

The second volume of Mr. Robert Ridgway's manual of North and Central American birds, containing 854 pages of text and 22 plates, was issued during the year. It deals with the families of Tanagers, Troupials, Honey Creepers and Wood Warblers (Tanagridæ, Icteridæ, Cerebidæ and Mniotiltidæ), comprising 77 genera and 433 species and subspecies. The preparation of the third volume, covering 15 families, is well advanced, about 400 pages being now in type. A paper by Dr. Charles W. Richmond on the birds collected by Doctor Abbott and Mr. C. B. Kloss, in the Andaman and Nicobar Islands has been published, and Doctor Richmond has also spent much time in working up the Abbott collection of birds from the west coast of Sumatra, and a collection from the South Pacific. He has likewise made considerable progress with the card catalogue of the genera and species of birds. Dr. William L. Ralph continued the preparation of material for a volume on the life-histories of North American birds with special reference to their nests and eggs, supplemental to the unfinished work of the late Major C. E. Bendire, U. S. Army.

Dr. Leonhard Stejneger completed his report on the reptiles of Porto Rico and has been engaged in the investigation of the reptile fauna of Eastern Asia. Papers by Doctor Stejneger on Holbrook's salamander and on the reptiles of the Huachuca Mountains, Arizona, were published by the Museum during the year.

In connection with an extensive work on the Tertiary mollusks of Florida, Dr. W. H. Dall prepared reviews of the recent species of Veneridæ, Carditacea, Cyrenacea, and Astartidæ. Mr. Bartseh continued his studies on the Pyramidellidæ, which were nearly finished at the close of the year.

Dr. W. H. Ashmead continued his work upon the classification of the Chalcid-flies, which is now in course of printing by the Carnegie Museum, and published several papers on the wasps of the groups Vespoidea, Proctotrypoidea, and Cynipoidea. He had also in course of preparation monographs on the North American Braconidæ and the Japanese Hymenoptera, and a catalogue of North American Hyme-

noptera. Mr. D. W. Coquillett was occupied in identifying and arranging the Diptera and completed a revision of the genera of the family Empididæ. A paper by him descriptive of 4 new genera and 94 new species of North American diptera was printed in the Proceedings. Mr. Nathan Banks published 16 papers on spiders and other entomological subjects. A paper on dragon-flies and one on ant-lions, by Mr. Rolla P. Currie, were published by the Entomological Society of Washington. Mr. Currie continued work on a catalogue of North American Neuropteroid insects, and on a monograph of the ant-lions. Mr. August Busck published two papers on the codling-moth and one on a new species of the family Yponomeutidæ, and also a revision of the American moths of the family Gelechiidæ. The Museum Proceedings for the year contained a paper by Dr. H. G. Dyar on the larvæ of moths from Colorado, and an additional section of Dr. John G. Smith's monograph of the moths of the family Noctuidæ.

The researches by Dr. J. E. Benedict included a revision of the genus *Lepidopa*, descriptions of new Galatheidæ, Albuneidæ, and Dromidæ, and studies upon the Anomuran crabs collected in Japanese and Hawaiian waters by the Fish Commission steamer *Albatross*, and upon several interesting annelids. Miss M. J. Rathbun continued work on a monograph of the fresh-water crabs based on the collections of the U. S. National Museum, the Muséum d'Histoire Naturelle, Paris, the Museum of Comparative Zoology of Harvard University, and other institutions. She also prepared five short papers on crustaceans which were printed during the year.

Miss Harriet Richardson completed reports on the Isopod crustaceans collected in Hawaii and Japan by the Fish Commission steamer *Albatross*, and in Japan by the U. S. S. *Palos* in 1881, and by Dr. D. S. Jordan and J. O. Snyder in 1900, and also on some cymothoids collected by Dr. C. H. Gilbert on the west coast of Central America, and on the American Epicaridea in the U. S. National Museum.

Dr. C. W. Stiles, Custodian of the helminthological collections, made an extended investigation of a parasitic disease prevalent among the people of the Southern States, which he found to be due to the attacks of an undescribed species of hook-worm, *Uncinaria americana*, and carried on inquiries regarding the frequency of the occurrence of parasites in men. He published twelve papers during the year relating to parasitology, three of these having been prepared conjointly with Dr. Albert Hassall and Mr. Charles A. Pfender; and also the first three parts of an index-catalogue of medical and veterinary zoology, with Doctor Hassall as coauthor.

In the Division of Plants, an unusual amount of routine work, especially in connection with the rearrangement of the collections, prevented the accomplishment of much scientific research. A third section of Dr. J. N. Rose's studies of Mexican and Central American plants, and a paper by the same author in conjunction with Mr.

W. B. Hemsley on the genus *Juliania* were printed. Doctor Rose also continued work on the Crassulaceæ of North America conjointly with Doctor Britton, and completed a preliminary paper relating to that group of plants. Mr. C. L. Pollard contributed a number of notes to the Plant World, and described two new violets from the United States. With Mr. T. D. A. Cockerell he also published descriptions of four new plants from New Mexico. Mr. W. R. Maxon continued his studies on the Museum collection of ferns, and Mr. Edward S. Steele completed a monograph on a section of the genus *Laciniaria*.

Access to the collections in biology were accorded during the year to a considerable number of visiting naturalists. The meetings of the American Association for the Advancement of Science, the Society of American Naturalists, and other affiliated societies during convocation week brought together in Washington many prominent investigators, and while their time was limited, some of them took advantage of the opportunity to examine specimens in the line of their specialty. The committee on nomenclature of the American Ornithologists' Union during its meeting from April 16 to 18 made extensive use of the bird collection in determining the status of North American species. Among individual ornithologists to whom the same privilege was given were Prof. W. W. Cooke, Mr. E. W. Nelson, Mr. H. C. Oberholser, and Mr. W. H. Osgood, of the Department of Agriculture; Mr. Outram Bangs, of Boston; Dr. J. Dwight, jr., of New York City; and Mrs. Florence Merriam Bailey, of Washington.

Mr. Thomas Barber, of Cambridge, Massachusetts, was here for some time studying the Old World chameleons, which he proposes to monograph. Among students of entomology who conducted work at the Museum were Dr. W. J. Holland, Director of the Carnegie Museum, Pittsburg, Pennsylvania; Prof. John B. Smith, of Rutgers College, New Brunswick, New Jersey; Dr. James A. G. Rehn and Mr. J. Chester Bradley, of Philadelphia, Pennsylvania; Mr. H. H. Ballou, of Amherst, Massachusetts, and Dr. Walter Horn, of Berlin, Germany.

Prof. W. P. Hay, of Howard University, Washington, continued his studies upon crayfishes and other fresh-water crustaceans, and completed descriptions of the species collected by himself at Mammoth Cave, Kentucky, and Nickajack Cave, Tennessee, and by Dr. C. H. Eigenmann in Cuba. Prof. G. I. Hamaker, of Trinity College, Durham, North Carolina, examined the specimens of *Cerianthus*; Miss Katherine J. Bush, of the Peabody Museum of Yale University, certain type specimens of Annelids, and Dr. S. J. Holmes, of the University of Michigan, certain species of Amphipod crustaceans.

The principal visiting botanists have been Dr. N. L. Britton, Director of the New York Botanical Garden; Dr. L. M. Underwood, of Columbia University, New York City; Mr. Theodor Holm, of Brookland, District of Columbia; and Dr. E. L. Greene, of the Catholic University, Washington.

The herbarium has also been constantly utilized by the botanists of the Department of Agriculture.

A large amount of material from the Department of Biology was lent to specialists for study or sent to them for working up in the interest of the National Museum. The Biological Survey of the Department of Agriculture had the use of many specimens of mammals, and specimens of the same group were sent out of the city as follows:

To Mr. James A. G. Rehn, of the Philadelphia Academy of Natural Sciences, 41 specimens of several groups for use in his report on terrestrial vertebrates collected in portions of southern New Mexico and western Texas, besides 14 specimens of *Nyctinomus*; to Mr. D. G. Elliot, of the Field Columbian Museum, 35 specimens for use in connection with his work on the mammals of Middle America; to Dr. J. A. Allen, of the American Museum of Natural History, 108 specimens for use in connection with his study of the mammals of eastern Siberia; to Mr. J. L. Bonhote, of the British Museum of Natural History, who is making a study of the Malayan fauna, 18 skins and skulls of *Mus*; to Dr. John M. Ingersoll, of Cleveland, Ohio, who is working upon the comparative anatomy of the ithmoid region of the mammalian skull, 16 specimens of skulls; to Dr. Harris H. Wilder, of Smith College, for use in embryological studies, specimens of the embryo of *Manis javanica*; to Dr. E. A. Mearns, U. S. Army, stationed at Fort Snelling, Minnesota, 9 specimens of mammals from the Philippine region; and to Mr. Witmer Stone, of the Academy of Natural Sciences, Philadelphia, specimens of *Nycticebus*.

The Division of Birds furnished 13 specimens of *Parus hudsonicus*, and 68 specimens, mainly of *Otocoris*, to Mr. Frank M. Chapman, of the American Museum of Natural History; 8 specimens from the Malay Peninsula, Java, and Sumatra to Mr. Witmer Stone, of the Academy of Natural Sciences, Philadelphia; 29 specimens of plover to Dr. Jonathan Dwight, jr., of New York City; and smaller lots to Mr. Walter K. Fisher and Mr. Joseph Grinnell, of Palo Alto, California; Mr. Outram Bangs, of Boston; Mr. W. C. Ferril, of the State Historical and Natural History Society, Denver, Colorado; Dr. R. M. Strong, of Haverford College; Mr. Carl Hellmayr, of the Zoological Museum, Munich, Bavaria, and Mr. W. A. Bryan, of the Bishop Museum, Honolulu.

The loans from the Division of Insects have been numerous and included several large lots requested for monographic purposes. The principal sendings were as follows: A large quantity of material, chiefly representing Odonata and Plecoptera to Prof. James G. Needham, of Lake Forest University, Illinois; about 2,500 bees of the family Andrenidæ to Mr. H. L. Viereck, of the Academy of Natural Sciences of

Philadelphia: over 600 specimens, mostly of Dermaptera and Orthoptera, to Mr. James A. G. Rehn, of the same academy; 285 specimens of Odonata to Dr. Philip P. Calvert, also of the Philadelphia Academy, 1,883 specimens of Sphecidae to Dr. H. C. Fernald, of Amherst, Massachusetts; 1,570 specimens of Ptinidae to Prof. H. C. Fall, of Pasadena, California; 532 specimens of Jassoidea, for use in writing up the Mexican and Central American species of this group for the *Biologia Centrali-Americana*, to Prof. Elmer D. Ball, of the State Agricultural College of Utah; over 200 specimens of Nomadidae to Prof. T. D. A. Cockerell, of East Las Vegas, New Mexico; 1,000 specimens of Myriapoda to Dr. Karl M. Friedr. Kraepelin, Naturhistorisches Museum, Hamburg, Germany; specimens of the families Multillidae, Thynnidae, Myrmaridae, etc., to M. Ernest Andre, of Gray, France; 106 specimens of Ophionids, to Dr. E. P. Felt, New York State entomologist; 55 specimens of Fulgoridae to Mr. Otto H. Swezey, of the Ohio State University; 125 specimens of Tettigidae to Prof. J. L. Hancock, of Chicago, Illinois; specimens of Tabanidae to Prof. J. S. Hine, of the Ohio State University; specimens of Lepidoptera to Dr. W. J. Holland, of the Carnegie Museum, Pittsburg; specimens of Cephidae to Mr. J. Chester Bradley, of the Academy of Natural Sciences of Philadelphia; specimens of Fulgoridae to Prof. W. S. Blatchley, State geologist of Indiana; specimens of Noctuidae to Prof. John B. Smith, of Rutgers College, New Jersey; and specimens of Hemiptera to Prof. R. Uhler, of Baltimore.

A number of specialists connected with other institutions are engaged in studying for the Museum the entire material of several groups of marine invertebrates, and all report satisfactory progress at the close of the year. Prof. Charles L. Edwards, of Trinity College, Hartford, has the pedate holothurians; Prof. Hubert Lyman Clark, of Olivet College, Michigan, the apodal holothurians; Prof. C. C. Nutting, of the University of Iowa, the hydroids, of which he has nearly ready a monograph of the Sertularia; Dr. Charles B. Wilson, of the State Normal School, Westfield, Massachusetts, the parasitic copepods, one family of which, the Argulidae, was completed and reported on during the year; Mr. R. W. Sharpe, of Wilmette, Illinois, the ostracoda; Mr. T. Wayland Vaughan, of the U. S. Geological Survey, the madreporarian corals, and Prof. A. G. Mayer, scientific director of the museum of the Brooklyn Institute of Arts and Sciences, who is finishing the uncompleted studies of the late Prof. Alpheus Hyatt, on the Museum collection of Achatinellidae.

Material from the Division of Marine Invertebrates was also sent out during the year as follows: To Dr. R. P. Bigelow, of the Massachusetts Institute of Technology, the stomatopods collected by the Fish Commission steamer *Albatross* in Hawaiian and Samoan waters, for report; to Prof. H. Courière, of the *École Supérieure de Pharmacie*,

Paris, the Alpheidae obtained on the same expedition and the general museum collection of this group, for monographing; to the Rev. T. R. R. Stebbing, of Tunbridge Wells, England, new species of amphipods from Costa Rica and Cocos Island; to Dr. S. J. Holmes, of the University of Michigan, specimens of New England amphipods; to Dr. J. P. McMurrich, of the same university, specimens of Atlantic coast actinians; to Dr. C. B. Davenport, of the University of Chicago, specimens of fresh-water polyzoa from Maine.

From the Division of Plants the principal loans were as follows: To Mr. Oakes Ames, the Ames Botanical Laboratory, North Easton, Massachusetts, about 400 specimens of orchids; to Dr. L. M. Underwood, of the New York Botanical Garden, specimens of ferns from Porto Rico, Guatemala and Cuba; to Dr. P. A. Rydberg, of the same establishment, 217 specimens; to Dr. John K. Small, also of the New York Garden, several specimens of different groups; to Dr. B. L. Robinson, of the Gray Herbarium of Harvard University, 272 specimens; to Mr. C. S. Sargent, of Harvard University, specimen of *Hocoria*; to Mr. C. D. Beadle, of the Biltmore Herbarium, 287 specimens of *Rudbeckia*, 322 of *Coreopsis*, and representatives of other groups; to Prof. William Trelease, director of the Shaw Botanical Garden, St. Louis, specimens of yucca; to Mr. R. F. Griggs, of the Ohio State University, specimens of Porto Rican and Guatemalan plants; to Dr. C. E. Waters, of Johns Hopkins University, specimens of *Phegopteris*; to Mr. Aven Nelson, of the University of Wyoming, 69 specimens; to Mrs. Caroline W. Harris, of Ticonderoga, New York, specimens of *Umbilicaria* and *Sticta*; to Mr. E. G. Baker, of the British Museum of Natural History, specimens of *Laciniaria*; to the Royal Botanical Garden, Kew, London, four plants; to Mr. C. L. Shear, Bureau of Plant Industry, Washington, District of Columbia, specimens of fungi; to Mr. Theodor Holm, of Brookland, District of Columbia, specimens of *Carex*, *Scirpus*, *Betula*, *Lychnis*, etc.

In the Department of Geology Mr. Wirt Tassin conducted investigations upon the meteorites in the Museum collection and Mr. W. C. Phalen made a study of the rock specimens collected in Greenland in 1897 by Mr. Charles Schuchert and Mr. David White. Mr. Schuchert continued his researches on the Lower Devonian fauna and completed a study of the Cystidea of the Manlius and Coeymans formations. Mr. R. S. Bassler has in preparation papers on fossil Bryozoa and Ostracoda, one of these reviewing the Bryozoa of the Rochester shale being well advanced.

Among the visitors to this department were Mr. G. C. Martin and Mr. M. V. Twitchell, of the Maryland State Geological Survey, who worked upon the collection of fossils from the Miocene formation in Maryland; Mr. F. B. Laney, of the Geological Survey of North Carolina, who studied the collection of building stones in preparation

for work along this line in North Carolina; Dr. Arthur Hollick, assistant curator of botany in the New York Botanical Gardens, who made examinations of fossil plants in connection with his work on the island series of the Upper Cretaceous in preparation for his proposed investigations on the Yukon River during the summer of 1903; and Prof. H. F. Osborn, Dr. S. W. Williston, Dr. O. P. Hay, Mr. J. B. Hatcher, and Dr. William Patten, all of whom are carrying on researches of greater or less extent upon fossil vertebrates.

Among the most important loans and gifts made from this department during the year were material furnished to the Division of Chemistry and Physics of the U. S. Geological Survey, and the Division of Roads and the Bureau of Soils of the Department of Agriculture; specimens of Upper Carboniferous insects to Dr. C. E. Beecher, of the Peabody Museum of Yale University; specimens of Crinoids to Prof. A. W. Grabau, of Columbia University; specimens of Tertiary insects to Prof. S. W. Williston, of the University of Chicago, for monographic work; a large number of Carboniferous insects to Dr. Anton Handlirsch, of the Royal Austrian Museum, Vienna, also for monographic work; and a large number of Lower Siluric graptolites from New York, Vermont, and Massachusetts, to Dr. John M. Clarke, State paleontologist of New York.

PROGRESS IN THE INSTALLATION OF THE EXHIBITION COLLECTIONS.

The overcrowded condition of the public halls which began a number of years ago precludes any extensive additions to the exhibition series, and this must continue until the completion of the new building recently authorized by Congress. Small objects can be given a place here and there, but any considerable changes are rendered possible only through the withdrawal and transfer to storage of collections already on display. During the past year the principal progress made in this connection has had reference to improvements in the methods and details of installation.

In the Department of Anthropology temporary accommodations have been furnished on the gallery of the north-west court for the important ethnological collections from the Philippine Islands displayed at the Pan-American Exposition. The entire Eskimo collection has been gone over, and the large series of specimens secured by the Museum-Gates expedition has been arranged in the storage-cases of the Pueblo court. The labeling of the historical collections has been completed, and new case labels have been prepared for the Divisions of Historic and Prehistoric Archeology and for the section of historic religious ceremonials. The cases containing the manuscripts and various editions of the Bible were repainted, and the collections rearranged to facilitate their examination by visitors.

The work of completing the exhibition series in several of the divisions of the Department of Biology, and of improving their appearance by changes in methods of installation, has been vigorously pushed. Progress in this regard was most noticeable in the halls devoted to mammals, marine invertebrates, insects, and fishes. About 200 case labels have been added to the exhibits of mammals, birds, reptiles, batrachians, insects, and the lower invertebrates, and a series of case labels for the collection of comparative anatomy has been completed.

The interiors of the wall-cases, in the galleries of the south hall containing Old World mammals, have been repainted in a color similar to that used in the corresponding cases on the main floor, and this change has resulted in displaying the specimens to much better advantage. A similar change has also been made in regard to the floor cases in the gallery containing small mammals. Three new cases have been constructed against the south wall of this hall. One contains the North American weasels and related forms; the two others, the smaller South American mammals. The cases on the main floor of the south hall have been furnished with new fittings, so that they are now uniform in design and color. The labeling of the American small mammals has been greatly improved, while the labels for the Old World series have been revised and very largely replaced with new ones.

Considerable improvement has been made in the appearance of the exhibition of marine invertebrates, which occupies the west hall in the Smithsonian building. The interior of all the wall-cases has been repainted in black, as furnishing a better background for the corals and sponges than the maroon formerly employed. The display of insects in the next adjoining hall or corridor has been enlarged by extensive additions to the systematic series of North American insects, which it is hoped to complete during the coming year.

The wall cases in the south-east range of the Museum building have been reconstructed, and the systematic collection of casts of North American fishes has been rearranged and installed to much better advantage than formerly. A number of casts of large and striking species have been repaired and repainted. The labeling of the casts of reptiles and batrachians exhibited in floor cases in the same range has also been largely revised.

The bird groups displayed in the main hall of the Smithsonian building, sixteen in number, have been partly renovated, and one of them, consisting of three fine specimens of the Argus pheasant, presented to the Museum some years ago by Dr. W. L. Abbott, has been entirely remounted, making it the most striking feature of the room.

Many important changes have been made in the halls containing the geological collections. The exhibit of geographic ores in the south-west court has been carefully overhauled, the cases being thoroughly

cleaned and the specimens rearranged. The nonmetallic minerals, exhibited in the gallery of the same court, have been similarly worked over. The cases in the west-south range containing the stratigraphic and historical collections have been reconstructed and the specimens rearranged. The collection of fossil plants has been partially rearranged, and new labels have replaced the temporary ones on the Paleozoic specimens. Labels have also been printed for the Triassic plants. To the exhibition of vertebrate paleontology will soon be added a specimen of *Clasaurus*, the preparation of which has occupied nearly a year, and the mounted skeleton of a mastodon obtained at Church, Michigan, in 1901.

VISITORS.

There was, during the past year, a large increase in the number of visitors to the national collections. The total number of persons admitted to the Museum building was 315,307, against 173,888 for 1902, an increase of 81 per cent; and to the Smithsonian building 181,174, against 144,107 for the previous year, an increase of about 26 per cent.

The following tables show, respectively, the attendance during each month of the past year, and during each year beginning with 1881, when the Museum building was first opened to the public:

Year and month.	Smithsonian building.	Museum building.
1902.		
July.....	10,935	11,829
August.....	13,601	18,880
September.....	12,719	19,506
October.....	59,095	131,448
November.....	9,032	14,437
December.....	9,785	13,037
1903.		
January.....	8,712	13,631
February.....	9,286	14,455
March.....	10,722	16,527
April.....	16,122	26,684
May.....	11,256	17,443
June.....	9,909	17,430
Total.....	181,174	315,307
Approximate daily average on a basis of 313 days in the year.....	578	1,007

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

Year.	Museum building.	Smithsonian building.
1881	150,000	100,000
1882	167,455	152,744
1883	202,188	104,823
1884 (half year)	97,661	45,565
1884-85 ^a	205,026	105,993
1885-86	174,225	88,960
1886-87	216,562	98,552
1887-88	249,665	102,863
1888-89 ^a	374,843	119,618
1889-90	274,324	120,894
1890-91	286,426	111,669
1891-92	269,825	114,817
1892-93 ^a	319,930	174,188
1893-94	195,748	103,910
1894-95	261,744	105,658
1895-96	180,505	103,650
1896-97 ^a	229,606	115,709
1897-98	177,254	99,273
1898-99	192,471	116,912
1899-1900	225,440	133,147
1900-1901 ^a	216,556	151,563
1901-2	173,888	144,107
1902-3	315,307	181,174
Total.....	5,096,649	2,725,789

^a Years of Presidential inauguration.

MEETINGS AND LECTURES.

In accordance with the custom of previous years, certain scientific societies and other bodies were allowed the use of the lecture hall in the Museum building for the purpose of holding meetings and giving lectures, as follows:

On September 26, 1902, the associates and friends of Maj. John Wesley Powell gathered here to commemorate the life and services of this distinguished public man, the founder and director of the Bureau of American Ethnology and for some time Director of the Geological Survey, whose lamented death occurred but three days before.

From November 18 to 20 a national conference of the various Audubon societies of the United States was held, in conjunction with the American Ornithologists' Union.

On November 22 Prof. John Ritchie, jr., of the Yerkes Observatory, delivered under the auspices of the Smithsonian Institution an interesting lecture on Recent Celestial Photography.

On November 25 Dr. L. O. Howard, Entomologist of the Department of Agriculture and Honorary Curator of Insects in the National Museum, lectured on the subject of Entomology before an audience composed largely of officers of the United States Army and Navy.

On December 27 several interesting talks, illustrated with lantern slides, were given by members of the Society for the Preservation of Wild Flowers.

In the evening of January 1, 1903, an informal reception was tendered to the members of the American Association for the Advancement of Science, the American Society of Naturalists, and other affiliated societies, then in session in this city.

During February and March a course of free Saturday afternoon lectures was given, under the auspices of the Biological Society of Washington, as follows: February 14, An entomologist in China and Japan, by Mr. C. L. Marlatt; February 21, Ancient birds and their associates, by Mr. Frederic A. Lucas; February 28, Views of Liberia, by Prof. O. F. Cook; March 7, The making of new plants, by Mr. H. J. Webber; March 14, Three summers in Alaska, by Mr. Wilfred H. Osgood.

On April 4 the lecture hall was used for the graduating exercises of the Naval Medical School, and on April 14 for those of the Army Medical School.

The National Academy of Sciences held its annual meeting from April 21 to 23, 1903, the business meetings taking place in the offices of the assistant secretary, and the reading of papers in the lecture hall.

CORRESPONDENCE.

One of the most onerous duties which has devolved upon the Museum from the time of its establishment has been the furnishing of information in response to inquiries from the public at large upon all the various subjects within the scope of its several departments. The letters received containing such requests average several daily throughout the year, and are rarely confined to a single subject, often relating to collections of greater or less size which are transmitted for identification. Nearly 900 lots of specimens were received under these conditions during the past year. These communications also have reference, in many cases, to the building up and maintenance of collections, the construction of cases, the installation, labeling, and cataloguing of specimens, and other topics connected with museum administration. Every communication of this character, made in good faith, is responded to as promptly as possible, although the labor involved draws very heavily upon the time of both the scientific and the clerical staffs.

A considerable proportion of the work of furnishing information is accomplished through the medium of Museum publications, of which more than 20,000 volumes and pamphlets were distributed during the year, besides the sendings to regular correspondents.

PUBLICATIONS.

The publications of the Museum have consisted of an annual report, comprising the second part, or volume, of the annual report of the Smithsonian Institution; of a series of Proceedings for the ordinary technical papers, and of a series of Bulletins for the longer technical papers or monographs. In 1894 the National Herbarium, which, for lack of space, had been held at the Department of Agriculture since 1869, was returned to the National Museum, but the publication connected with it and entitled "Contributions from the National Herbarium" established in 1890, continued to be issued by the Department of Agriculture until this year, when Congress, upon the recommendation of the Secretary of Agriculture, transferred its management to the National Museum, in accordance with the following item in the sundry civil act for 1903:

For printing and publishing the contributions from the United States National Herbarium, the editions of which shall not be less than three thousand copies, including the preparation of necessary illustrations, proof reading, bibliographical work, and special editorial work, seven thousand dollars: *Provided*, That one-half of said copies shall be placed on sale at an advance of ten per centum over their cost.

Under this provision volumes II and VII previously published and entitled respectively Botany of Western Texas, by J. M. Coulter, and Systematic and Geographic Botany and Aboriginal Use of Plants, by Coulter, Rose, Cook, and Chesnut, the editions of which had become exhausted, were reprinted, and also the following new Contributions, parts 1, 2, and 3 of volume VIII, consisting of Studies of Mexican and Central American Plants, by J. N. Rose; Economic Plants of Porto Rico, by O. F. Cook and G. N. Collins; and A Study of certain Mexican and Guatemalan species of *Polypodium*, by William R. Maxon.

Of the Bulletins of the Museum the most important one issued was the second volume of Robert Ridgway's extensive monograph on the Birds of North and Middle America, covering the families Tanagridæ (Tanagers), Icteridæ (Troupials), Cœrebidæ (Honey Creepers), and Mniotiltidæ (Wood Warblers). The third volume, sent to the printer before the close of the fiscal year, treats of the Motacillidæ (Wagtails and Pipits); Hirundinidæ (Swallows), Vireonidæ (Vireos), Ampelididæ (Waxwings), Ptiliognatidæ (Silken Chatterers), Dulidæ (Palm Chatterers), Laniidæ (Shrikes), Corvidæ (Crows and Jays), Paridæ (Titmice), Sittidæ (Nuthatches), Certhiidæ (Creepers), Troglodytidæ (Wrens), Cinclidæ (Dippers), Chamæiidæ (Wrentits), and Sylviidæ (Kinglets, etc.).

Another noteworthy bulletin was that by Dr. Harrison G. Dyar, of the Division of Insects, entitled A List of North American Lepidoptera and Key to the Literature of this Order of Insects. It is numbered 52, and comprises 723 octavo pages.

The interest manifested in the history and anthropology of our Philippine and other insular possessions rendered desirable the issuance of instructions for the guidance of collectors of objects in these branches, and to secure this purpose there has been printed an additional part of Bulletin 39 (Part Q), prepared by Mr. W. H. Holmes and Prof. O. T. Mason, under the title *Instructions to Collectors of Historical and Anthropological Specimens*.

The twenty-fourth volume of *Proceedings*, printed in bound form at the beginning of the fiscal year, contains thirty-four papers (1241 to 1274, inclusive), all of which were issued in the form of separates during the preceding year. Fifteen of these papers were prepared by members of the Museum staff, ten by Dr. David Starr Jordan and his assistants, being mainly descriptions of Japanese fishes represented in the Museum collections, and the remainder by other correspondents and collaborators of the Museum.

Papers numbered from 1275 to 1305, constituting volume xxv, and those numbered from 1306 to 1332 of volume xxvi, were also printed by June 30. It is expected that numbers 1333 to 1349 will soon be published, and that volumes xxv and xxvi will appear in bound form during the summer of 1903.

There is a continuous demand for certain of the Museum publications no longer in stock, but the means this year have permitted the reprinting of only the following: Mr. Robert Ridgway's paper on the Humming Birds, from the Museum Report for 1900; Dr. Stejneger's paper on The Poisonous Snakes of North America, from the Report for 1893; Bulletin 37, entitled *A Preliminary Catalogue of the Shell-bearing Marine Mollusks and Brachiopods of the Southeastern Coast of the United States*, by Dr. William H. Dall; parts F, G, H, I, J, K of Bulletin 39, containing directions for collecting insects, shells, minerals, rocks, specimens illustrating the aboriginal uses of plants and fossils, and the first volume of Bulletin 47, entitled *Fishes of North and Middle America*, by Doctors Jordan and Evermann.

All the publications of the Museum are distributed by the Office of Correspondence and Documents, and it is estimated that during the year not less than 10,000 volumes and 35,000 separate papers were sent to libraries and individuals in the United States and foreign countries.

Appendix IV of this report contains a list of the publications of the Museum, of the members of its staff, and also of outside collaborators to the extent that the papers of the latter were based on Museum material. The number of authors is 90, and the total number of papers mentioned by title is 277.

In the following table the publications above mentioned are grouped by subjects:

Subject.	Papers by Museum officers.	Papers by other investigators.	Total.
Bibliography	1		1
Biography	5		5
Birds	15	22	37
Botany	11	3	14
Comparative anatomy	2	3	5
Ethnology	2		2
Exploration	1		1
Fishes	3	19	22
Fossils	14	4	18
General natural history		3	3
Geology	4	4	8
Insects	68	10	78
Mammals	22	1	23
Marine invertebrates	7	7	14
Mollusks	15		15
Parasites	13		13
Physical anthropology	1		1
Religious ceremonials	4		4
Reptiles and batrachians	7	1	8
Miscellaneous	5		5
Total	200	77	277

By permission of the Secretary the following twelve papers, prepared by members of the staff and relating to material in the possession of the Museum, were printed in publications other than those of the National Museum, namely: New Species of Plants from Mexico, by C. L. Pollard (published in the Proceedings of the Biological Society of Washington); An overlooked specimen of *Chilonycteris pilotis*, and six short notes and papers on Chiroptera, by G. S. Miller, jr. (published in the Proceedings of the Biological Society of Washington); Description of a new Quail-dove from the West Indies, by J. H. Riley (published in the Proceedings of the Biological Society of Washington); Pycraft's Classification of the Falconiformes, by Robert Ridgway (published in Science); Descriptions of a New Species of Gecko from Cocos Island, by Leonhard Stejneger (published in the Proceedings of the Biological Society of Washington); On the Manlius Formation of New York, by Charles Schuchert (published in the American Geologist); A newly found Meteorite from Mount Vernon, Christian County, Ky., by George P. Merrill (published in the American Geologist); two papers on new *Traguli*, by Gerrit S. Miller, jr. (published in the Proceedings of the Biological Society of Washington); Revision of the North American Crassulaceæ, by J. N. Rose, conjointly with Dr. N. L. Britton (published in vol. 2 of the Bulletin of the New York Botanical Garden); On the Faunal Provinces of the Middle Devonian

of America and the Devonian Coral Subprovinces of Russia, with two Paleographic Maps, by Charles Schuchert (published in the American Geologist); A New Land Shell from California, by Paul Bartsch (published in the Proceedings of the Biological Society of Washington).

LIBRARY.

The assignment to the library of two of the galleries erected last year, one in the west-north, the other in the north-west range, has added a considerable amount of space, which has long been needed. This area has been fitted up with convenient stacks, permitting a general overhauling and a more systematic rearrangement of the books and pamphlets. During the latter part of the summer of 1902 the library was closed for a time to enable this work to be carried out. Its contents were classified and a large number of volumes belonging to the Smithsonian deposit were turned over to the Institution for transmission to the Library of Congress.

The increase of the library has been mainly due to two very important gifts—the Hubbard and Schwarz and the Dall collections. The former, consisting of 300 books and 1,500 pamphlets, was brought together by Mr. H. G. Hubbard and Mr. E. A. Schwarz (Custodian of Coleoptera in the Museum), while carrying on their studies more or less conjointly, and forms an accessory to their large collection of insects, presented by them to the Museum several years ago. It is an entomological library, having reference mainly to the American Coleoptera. The contribution by Dr. William H. Dall, Honorary Curator of Mollusks, comprises about 1,600 bound volumes and about 2,000 pamphlets on the mollusca, a special library of great value, which has been accumulated by Dr. Dall during many years of research. It is accompanied by a card catalogue covering the literature of Conchology, both recent and fossil, down to about 1860, though materially added to since then.

The above collections and also the Goode library, purchased in 1898, have been provided with book-plates.

The Museum library now possesses 19,161 bound volumes, and 32,063 unbound pamphlets, periodicals, etc. The cataloguing done during the year comprised 916 books, 1,571 pamphlets, and 9,838 parts of periodicals, and 3,316 cards were added to the authors' catalogue.

The number of books, pamphlets and periodicals borrowed from the general library was 18,750, while the number assigned to the sectional libraries was 4,833. There has been no change in the sectional libraries, which are as follows:

Administration.	Birds.
Administrative assistant	Botany.
Anthropology.	Children's room.
Biology.	Comparative anatomy.

Editor.	Mollusks.
Ethnology.	Oriental archeology.
Fishes.	Paleobotany.
Geology.	Parasites.
History.	Photography.
Insects.	Prehistoric anthropology.
Manimals.	Reptiles.
Marine invertebrates.	Stratigraphic paleontology.
Materia medica.	Superintendent.
Mesozoic fossils.	Taxidermy.
Mineralogy.	Technology.

PHOTOGRAPHY.

Mr. T. W. Smillie, photographer of the Museum, reports that 1,689 negatives, 3,367 silver prints, 307 platinum prints, 49 lantern slides, and 1,016 blueprints have been made, and a large number of prints have been mounted. Under Mr. Smillie's direction much photographic work has also been done for the National Zoological Park and the Astrophysical Observatory, an assistant having been furnished by those bureaus for that purpose.

Mr. Smillie has continued to act as chairman of the board of examiners in photography for the U. S. Civil Service Commission.

COOPERATION OF THE EXECUTIVE DEPARTMENTS OF THE GOVERNMENT.

The Museum has received, as usual, important assistance from several of the Departments and Bureaus of the Government. Its relations to the U. S. Geological Survey, the U. S. Fish Commission, the Biological Survey, and the Divisions of Entomology and Botany of the Department of Agriculture, and the Bureau of American Ethnology, especially in regard to the transmission of collections, have been referred to elsewhere. Officers of the Army and Navy stationed in the new possessions have made valuable contributions, and representatives abroad of the Department of State have been instrumental in securing interesting material. The Departments of War and of the Navy have rendered generous help toward building up the collections of history and of the implements of war, having presented and deposited during the year many objects of exceeding interest and value. The Army Medical Museum has cooperated most liberally in promoting the welfare of the recently established Division of Physical Anthropology, and special acknowledgments are due to the Quartermaster's Department of the Army for many courtesies in connection with the transportation of specimens and outfits to and from distant points.

THE LOUISIANA PURCHASE EXPOSITION.

An act providing for the celebration in the city of St. Louis, Missouri, of the one hundredth anniversary of the acquisition by the United States of the "Louisiana Territory," purchased from France,

was approved by the President of the United States on March 3, 1901. The sundry civil bill for the year ending June 30, 1903, carried an appropriation of \$800,000 to enable the Executive Departments, and also the Smithsonian Institution and its bureaus, the U. S. Fish Commission, the Department of Labor, the Library of Congress, and the Bureau of the American Republics, to prepare suitable exhibits for the occasion. Out of this appropriation the sum of \$110,000 was allotted to the Smithsonian Institution. Congress also appropriated \$450,000 for the construction of a building for the display of the Government collections.

Dr. Frederick W. True, Head Curator of Biology, has been designated by the Secretary of the Smithsonian Institution to represent the Institution and its bureaus on the Government board. The exposition is expected to open on April 30 and to close on November 30, 1904. The preparation of the exhibits under the Smithsonian Institution was well under way at the close of the year, and it is intended that the display made shall surpass any previous efforts by this branch of the Government.

ORGANIZATION AND STAFF.

The organization of the Museum comprises an administrative office and three scientific departments, as follows: Anthropology, with 9 divisions and 4 sections; Biology, with 9 divisions and 13 sections, and Geology, with 3 divisions and 3 sections. This shows an increase of one division in Anthropology and of one section in Biology, the former relating to physical anthropology, the latter to the lower algae, which have been separated from the higher algae. At the close of the year the scientific staff consisted of 3 head curators, 17 curators, 13 assistant curators, 15 custodians, 12 aids, 4 associates, and 2 collaborators, a total of 66 persons, only about one-half of whom were under salary from the National Museum, the others, mainly employees of other Government bureaus, serving in a volunteer or honorary capacity.

Mr. W. H. Holmes, Head Curator of the Department of Anthropology, having been appointed Chief of the Bureau of American Ethnology, Prof. O. T. Mason, Curator of Ethnology, was on November 15, 1902, placed in charge of the Department as acting head curator. Dr. A. Hrdlicka, whose researches on the physical characteristics of man are widely known, was on May 1, 1903, designated as assistant curator of the newly organized Division of Physical Anthropology. Dr. G. T. Moore, of the Department of Agriculture, was appointed custodian of the section of lower algae on May 25, and at the same time the designation of Mr. W. T. Swingle was changed to custodian of the section of higher algae.

On December 31, 1902, Mr. Charles T. Simpson resigned his position as principal aid in the Division of Mollusks, being succeeded by

Mr. Paul Bartsch, whose place was in turn taken by Mr. William B. Marshall, appointed aid on April 1. Mr. R. G. Paine was made an aid in the Division of Reptiles and Batrachians on April 6, and Mr. T. Wayland Vaughan, Custodian of the Madreporarian Corals on June 30.

A list of the members of the Museum staff is given in Appendix I.

NECROLOGY.

It is gratifying to note that during the past year no deaths have occurred in connection with the Museum staff, though among its friends there have been several losses, only two of which will be mentioned here.

The first was that of Maj. J. W. Powell, explorer, geologist, and anthropologist, for some time director of the U. S. Geological Survey, and the founder and director of the Bureau of American Ethnology. An account of his life and work will be found in the first volume of the Smithsonian report for 1902, and it need only be recalled here that in nearly all the varied subjects of his personal studies and of his administrative oversight he was brought into close relations with the Museum, which is indebted to him for valuable collections, for wise suggestions, and for a continued interest in its welfare.

The second loss resulted from the death of Dr. James Cushing Merrill, of the United States Army, which occurred in Washington on October 27, 1902. Doctor Merrill was born in Cambridge, Massachusetts, in 1853, and after attending school in Germany, he entered the medical department of the University of Pennsylvania, from which he was graduated in 1874. About a year later he was appointed assistant surgeon in the United States Army. While stationed at various military posts in the west and southwest, he devoted much time to the study and collection of birds and eggs, generously giving away his collections, the National Museum being one of his favored beneficiaries. The accession records show that between 1875 and 1896 no less than 28 separate lots of specimens were received from him, these including a large number of valuable skins, eggs, and nests of birds, besides mammals, fishes, and other natural history material. Doctor Merrill was elected an active member of the American Ornithologists' Union at its first congress in 1883. He was a careful and accurate observer of the habits of birds and mammals, and also contributed several important papers to scientific literature. Two of these were published in the Proceedings of the National Museum, their titles being as follows: Notes on the Ornithology of Southern Texas, being a list of birds observed in the vicinity of Fort Brown, Texas, from February, 1876, to June, 1878, and On the Habits of the Rocky Mountain Goat.

REPORTS OF HEAD CURATORS.

REPORT ON THE DEPARTMENT OF ANTHROPOLOGY.....By OTIS T. MASON.
REPORT ON THE DEPARTMENT OF BIOLOGY.....By FREDERICK W. TRUE.
REPORT ON THE DEPARTMENT OF GEOLOGY.....By GEORGE P. MERRILL.

**REPORT ON THE DEPARTMENT OF ANTHROPOLOGY
FOR THE YEAR 1902-3.**

By OTIS T. MASON,
Acting Head Curator.

During the year a number of changes have taken place in the personnel of the Department of Anthropology. When Mr. W. H. Holmes, the Head Curator, was made Chief of the Bureau of American Ethnology, Prof. O. T. Mason, Curator of Ethnology, was designated as Acting Head Curator, Dr. Walter Hough, Assistant Curator, became Acting Curator of the Division of Ethnology; and Mr. Paul Beckwith, Aid in the Division of History, was temporarily assigned to the Assistant Curatorship of Ethnology. Owing to continued failing health, Mrs. Fanny Dinsmore, stenographer, was compelled to resign, and in January Mr. W. E. Wilson was selected to fill the place. In January Mr. H. W. Hendley, who had assisted the Department in preparing its exhibit for the Pan-American Exposition, was appointed preparator in the Department, and in February Dr. Ales Hrdlicka was called to the position of assistant curator in the newly established Division of Physical Anthropology.

The work of the Department during the year has consisted largely in cataloguing, caring for, and installing the collections received, although the preparation of an exhibit for the Louisiana Purchase Exposition has called for a large share of attention. This work is in charge of Mr. W. H. Holmes, who has undertaken to collect a series of exhibits illustrative of the highest artistic achievements of the American aborigines.

Until the present year the Department has been devoted entirely to the culture side of the science of man, collections illustrating the physical characters of the race, normal as well as abnormal, having been cared for in the Army Medical Museum; but a large part of this material has recently been transferred to the National Museum, and a laboratory for the study of this branch has been established under the curatorship of Dr. Ales Hrdlicka. Thus, for the first time in its history, the National Museum embraces the whole subject of anthropology, physical and cultural, so far at least as this branch can be represented and illustrated by material objects.

The collections assigned to the Department during the year number 24,319 specimens, and have been distributed among the several divisions and sections as follows:

Ethnology	4,547
Historic archeology	20
Prehistoric archeology	16,181
History and biography	1,502
Physical anthropology	99
Ceramics	146
Historic religions	92
Medicine	7
Graphic arts	1,502
Mechanical technology	149
Photography	9
Music	65
Total	24,319

These collections are classed as gifts, purchases, transfers, deposits, exchanges, and loans.

GIFTS.

Among the numerous gifts received in the Department during the year the following may be especially mentioned:

1. Collection of ethnological material from Sumatra and the Andaman and Nicobar islands, presented by Dr. W. L. Abbott, of Philadelphia, who is one of the most generous benefactors of the Museum. These collections number some 500 specimens, and illustrate the native arts and industries of various primitive peoples of whom little is generally known. Their value is greatly enhanced by the fact that they were obtained directly from the natives by a trained collector, and are accompanied by all essential historical and descriptive data.

2. A large collection made by the late Col. F. F. Hilder, of the Bureau of American Ethnology, in the Philippine Islands for the Pan-American Exposition, and presented to the National Museum by the Government board of the exposition. It includes upward of 1,500 specimens, and illustrates in an effective manner many of the native industries of the islands.

3. A small series of ethnological specimens collected among the Tlinkit Indians of southeastern Alaska by Lieut. G. T. Emmons, U. S. Navy. These specimens have especial value, because of the careful record of tribe, manufacture, and use furnished by the collector.

4. A series of stone implements, believed to be of paleolithic age, from the lateritic deposits near Madras, India, presented by Mr. H. W. Seton-Karr, of London, England.

5. Relics of General and Mrs. U. S. Grant, consisting in large part of objects presented to General and Mrs. Grant during their trip abroad, as follows: Cabinet presented to Mrs. Grant by the Empress

of Japan; pair of modern bronze vases from the Empress of Japan; gold toilet set from the King and Queen of Siam; lady's silver perfume case from the Maharaja of Dekkan; poems of Japanese authors; ball dress and slippers worn by Mrs. Grant at President Grant's second inauguration ball; lacquered bamboo case, gold-embossed, said to be one thousand years old, and valued at many thousand dollars, from the King and Queen of Siam; death mask of General Grant; riding boots worn by General Grant at Appomattox, Virginia; velvet belt worn by General Grant; saddle valise; two commissions; five addresses to General Grant received when abroad; five certificates to General Grant; menu cards, etc. Presented by the children of General and Mrs. Grant, through General Frederick D. Grant, U. S. Army.

6. Sword and shoulder straps worn by Gen. Frederick D. Grant, U. S. Army, during the war with Spain, while participating in the campaigns in Porto Rico and the Philippine Islands and in the Peking Relief Expedition; presented by Gen. Frederick D. Grant, U. S. Army.

7. Painting, "The March of Time," from the artist, Mr. Henry Sandham. London, England.

8. Plaster bust of George Washington, made from a life mask taken by Jean Antoine Houdon at Mount Vernon in 1785; from Miss Elizabeth Bryant Johnston.

9. Bronze bust of Hon. Horatio King; from his son, Mr. Horatio C. King.

10. Cane of Horace Greeley; from Mr. H. S. Manning.

11. Costume worn by Prof. S. F. B. Morse when at the courts of Europe; from his heirs, through Mrs. Franz Rummel.

12. Relics of Governor William Shannon, of Ohio and of Kansas; from Mrs. Osborn Shannon.

13. Six pieces of American made porcelain, decorated and presented by Mr. E. Lycett, Atlanta, Georgia.

14. Ten Græco-Egyptian papyri, from the Egyptian Exploration Fund.

15. The Division of Physical Anthropology has been enriched by gifts of crania and parts of the human skeleton from Mr. E. W. Nelson, Dr. John Walsh, Dr. Ales Hrdlicka, Mr. Clarence B. Moore, the U. S. Fish Commission, Dr. D. S. Lamb, L. C. Harris, and the Army Medical Museum.

16. Collection of 837 pieces of gold, silver, and copper coins, from Mrs. E. M. Chapman.

17. An Austrian flint-lock pistol used in the Napoleonic wars; presented by Baron P. Paumgarten, chancellor of the Austro-Hungarian Embassy.

18. Several Morse telegraph keys of the earliest type used in this country; presented by Mr. C. M. Lewis.

19. A number of important accessions which have been in the Museum for several years as deposits have, during the year, been presented to the Institution and thus have become permanent exhibits. Among these are: Dividing engine and slide rest invented by James Ramsden, presented by the executors of his estate; Morse telegraph register and relay, loaned by Mr. Charles Heaton and now presented by Mr. Charles M. Heaton, jr.; collections of decorations conferred upon Prof. S. F. B. Morse by various foreign governments, viz: Order of the Legion of Honor of France; the Royal American Order of Isabella the Catholic of Spain; Order of the Tower and Sword, Portugal; Order of Sts. Maurice and Lazarus, Italy; Order of Niehan-Iftikhar, Turkey; medal of merit established in 1884 by King Frederick William, of Wurttemberg; medal for scientific merit established by Frederick William IV of Prussia, set in the lid of a gold snuffbox; presented by J. E. F. Morse, Mrs. Franz Rummel, W. G. Morse, S. F. B. Morse, S. M. Perry, and L. L. Morse.

PURCHASES.

The purchases in ethnology were: Thirty-nine specimens of Pueblo pottery from Col. C. A. Deane; 13 specimens of Chippewa Indian quill work from Rev. D. C. Lee; 103 specimens of basketry, masks, etc., from Lieut. G. T. Emmons, U. S. Navy; 195 specimens of Buddhist art from Dr. Carl C. Hanson; 74 specimens of mission Indian basketry from Mr. H. N. Rust.

In ceramics: Five pieces of Syrian glass from Mr. Thomas B. Clark.

In historic religious ceremonials: Twenty-eight objects from North Africa illustrating Jewish religious ceremonials, from Mr. Ephraim Deinard.

In physical anthropology: Crania and other objects from Mr. C. A. Nelson, Mr. B. Sturtz, Mr. N. Dumarest, Mr. Walter G. Hill, Mr. Roy W. Kelley, and Mr. W. C. Hill.

In metrology: A set of German silversmith's weights of the sixteenth century and a rare surveyor's compass of French manufacture.

TRANSFERS.

A number of valuable collections transferred to the Museum by the Bureau of American Ethnology include the following:

1. Stone implements, ornaments, pottery, etc., numbering 1,364 specimens, from the Mississippi Valley and the Pueblo region, collected by Mr. E. O. Matthews.

2. Collection made by Dr. J. Walter Fewkes in the islands of Santo Domingo and Porto Rico, including elaborately carved stone pestles, zemes or mammiform stones with sculptured devices, a stone hatchet with human figure carved in low relief, stone hatchets with handle and blade in a single piece, stone "collars," amulets, polishing stones,

stone balls, pottery, a "regurgitating" or swallowing bone made from the rib of a manatee and finely carved with a human figure, etc. This remarkable collection comprises 1,287 specimens.

3. A series of implements and other objects collected by Mr. W. H. Holmes and Gerard Fowke from an aboriginal hematite mine at Leslie, Missouri. The mining tools include roughly grooved mauls, hammer stones, and picks of stone and hematite. There are also specimens of the ore mined and used as paint, a large mass of hematite weighing 1,600 pounds, showing marks of the ancient mining tools, and arrow points, leaf-shaped blades, and spearheads of flint.

4. An archeological collection comprising 3,058 specimens, obtained by Mr. Frank K. Cushing, from the shell heaps on Campbell and Torrey Islands, Maine. It consists of stone implements, such as knives, spearheads, arrow points, scrapers, and drills; an interesting series of bone objects, among which are harpoon heads, arrow points, awls, needles, and a large number of pieces of animal bones showing marks of cutting and sawing. There are also fragments of rude pottery.

Collections of Dr. Frank Russell, of Harvard, accessions 39990 and 39991, secured by him among the Pima Indians of southern Arizona. A description of the collection will appear in a forthcoming report of the Bureau of American Ethnology. The first of these consists of 289 specimens and was received as a deposit from the Bureau of Ethnology; the latter consisting of 44 specimens of Pima baskets, was purchased.

EXCHANGES.

1. Ethnological specimens, 41 in number, including baskets, a tobacco bag, a pipe, a woman's knife, and other Indian articles; from Lieut. G. T. Emmons, U. S. Navy.

2. Two fowling pieces and three Filipino swords; from Mr. Paul Beckwith.

3. Stone implements, from Uruguay, forwarded by the Museo Nacional of Montevideo through Señor Luis A. de Herrera, secretary of the Legation of Uruguay, in exchange for North American archeological and ethnological specimens.

LOANS.

1. One hundred and thirty-one specimens of oriental metal work, lacquer, and porcelain, including a number of examples of Buddhist and Hindu religious art; by Miss Eliza Rubama Seidmore.

2. Forty-seven objects of Buddhist religious art; by S. S. Howland.

3. Relics of Gen. Alexander Macomb, senior major-general of the United States Army from 1821 to 1848, consisting of swords, uniforms, chapeaux, etc.; by Mrs. F. G. d'Hautville.

4. Derringer pistol, once the property of Henry Clay; By Mr. B. B. Perrow.

5. Collection of 26 relics of the Revolutionary period; by the Daughters of the American Revolution, through Mrs. William Lindsay, chairman of the relic committee.

6. Pewter platter, land grant, etc.; by the National Society of Colonial Dames, through Miss Virginia Miller, chairman of the relic committee.

7. Fossil skull from an ancient river terrace at Lansing, Kansas; by Mr. M. C. Long.

8. Anthropometric apparatus; by the American Museum of Natural History, New York, and the Army Medical Museum, Washington.

9. Collection of pikes and lances used by Confederates during the civil war, uniforms of the same period, guns captured in various Indian campaigns, swords and an old musket from the ship *Somerset*, war of 1812; by the War Department.

10. A series of six models of United States war vessels, deposited by the Navy Department, is of special interest. The vessels represented are the cruiser *Baltimore*, gunboats *Yorktown*, *Petrel*, and *Bancroft*; double-turreted monitors *Miantonomoh* and *Monterey*; ram *Katahdin*; and dynamite gunboat *Vesuvius*.

11. Models of cannon and howitzers used in the United States Army between 1845 and 1865, and a large collection of rifles, muskets, and other small arms; by the War Department.

12. Samoan outrigger canoe, by Mrs. J. L. Jayne.

13. Daguerreotype of Mrs. Dolly Payne Madison, wife of President Madison, by Mrs. C. S. Brooks.

CARE OF THE COLLECTIONS.

The numerous accessions of the year, especially the large collections of Abbott, Hilder, and others, have made it necessary to contract the exhibition space in order to make room for the ever-growing study series and for laboratory purposes. The demands of the Louisiana Purchase Exposition and of the newly-established Division of Physical Anthropology for space have increased the embarrassment. The congestion has been somewhat relieved by fitting up the galleries over the south-west and west-north ranges, but overcrowding is still everywhere apparent.

The usual watchfulness over the ethnological collections to protect them from insects and rust has been exercised, and Mr. Joseph Palmer has devoted a large part of his time to the work of overhauling, renovating and poisoning.

Until additional exhibition space is provided the installation of new material is practically at an end, excepting where exhibits that have been long before the public are replaced by others of greater interest.

The work of labeling the exhibits has been carried forward with all possible energy during the year, and great advance has been made over previous years, especially in the labeling of the larger units, such as halls, alcoves, groups of exhibits, and cases.

In the Division of Ethnology the Philippine collection has been temporarily arranged in cases in the north-west court gallery; the collections obtained through the Museum-Gates expedition in Arizona during the previous year have been placed in good order in the storage series of the Pueblo court, and Mr. Thomas W. Sweeny has classified and rearranged the large Eskimo study collection in the storage bases of the north-west range. Mr. Joseph Palmer and Mr. Charles Luscombe have been engaged in mending, modeling, making facsimiles of specimens, and allied laboratory work.

During the entire fiscal year the hall of prehistoric archeology has been closed on account of repairs, but the work of cataloguing and caring for the collections has gone on without interruption under the supervision of Mr. E. P. Upham.

A large collection of Washington relics, transferred to the Museum from the Patent Office, has been installed in the hall of American history in connection with cognate exhibits, under the supervision of Mr. A. H. Clark and Mr. Paul Beckwith. The exhibition series in this division is all labeled and the crowded condition of the study series has been greatly relieved by removing portions of it to the new galleries. It has long been felt that a suitable catalogue of the historical collections should be prepared for publication by the Museum, and during the year this work was initiated by the employment of Miss Elizabeth Bryant Johnston, who has completed a descriptive catalogue of the personal relics of George Washington.

In the Division of Physical Anthropology there is as yet no exhibition series, the time of the new curator, Doctor Hrdlicka, having been devoted to organizing the division and fitting up a laboratory of anthropometry.

In the sections of historic religious ceremonials and classical archeology, few changes have been made save that the labeling has been carried practically to completion.

In the Division of Medicine the curator has been engaged in preparing a card catalogue of the collections. Each specimen, whether on exhibition, in the study series or in storage, has an individual card, giving name, number, collector, mode of acquisition, etc.

EXPLORATIONS.

During the year a very limited amount of field work has been undertaken by members of the Department's staff. Mr. W. H. Holmes continued his explorations in archeology on behalf of the Bureau of Ethnology. Under his direction numerous mound relics and fossil

bones of ancient mammals were obtained near Kimmswick, Missouri, by Mr. Gerard Fowke, and extensive collections were made in ancient flint quarries and workshops in Carter County, Kentucky, and in Harrison County, Indiana, illustrating all the phases of flint working.

Mr. Holmes, aided by Mr. Fowke, made investigations in a hematite mine at Leslie, Missouri, obtaining the collections referred to on a preceding page.

Dr. J. Walter Fewkes, of the Bureau of Ethnology, concluded important explorations in the islands of Santo Domingo and Porto Rico. It has long been known that the latter island was in some way a sacred retreat of the ancient inhabitants of the Antilles. Many years ago a large collection of objects of stone was presented to the Museum by George Latimer, and Doctor Fewkes was successful in supplementing this with valuable material, adding many new forms. In addition to his archeological explorations, Doctor Fewkes made careful studies of the natives, including the whites, blacks, and remnants of ancient aborigines.

Dr. W. L. Abbott, of Philadelphia, has continued his explorations in the northern portion of the island of Sumatra and the small islands adjoining, and the mainland in the Straits Settlements, contributing the valuable collections already described.

RESEARCHES.

One of the chief aims of the Department of Anthropology has always been to favor and encourage research, not only on the part of members of the staff but of investigators elsewhere. Much attention has been paid during the year to correspondence on every topic connected with anthropology, and to obtain, if possible, for the friends of the Institution information that is not within their reach. Literature published by the Smithsonian Institution and the National Museum on anthropological subjects has been freely distributed. This remark applies equally to the ethnology of America, the Philippine Islands, and incidentally to other parts of the world. The curators have been almost daily importuned for information concerning the nature and use of archeological relics.

A collection of Indian shields was sent to Mr. James Mooney, Mount Scott, Oklahoma, for study in the field.

In the Division of History questions arise constantly as to the meaning of inscriptions and the readings on coins and medals. Already, in the new Division of Physical Anthropology a beginning has been made in supplying special instructions to observers and students. In the Division of Ceramics errors with reference to the age and sources of pottery are corrected. With the public, great interest is manifested in the "Synoptic Series" of the Museum, and teachers are constantly receiving instructions with reference to the development of

various lines of industrial apparatus. All the divisions of the Department of Anthropology have been active in this regard during the past year.

In December Dr. Hjalmar Stolpe, director of the Royal Museum of Sweden, Stockholm, studied Polynesian and South American collections.

Professors H. Pittier, of Costa Rica, and C. V. Hartmann, of Stockholm, received instructions in casting archeological specimens in the anthropological laboratory.

In March Dr. A. B. Hunter, of Raleigh, North Carolina, received instructions in making casts, photographs, and other methods of ethnological investigation with a view to studying the negro of the South.

Mr. Wells F. Andrews, statistician of the Immigration Bureau in the Treasury Department, made studies in the Division of Ethnology in order to classify immigrants into the United States. The scheme furnished has been adopted by the Department.

Dr. Waldemar Bogoras, of the American Museum of Natural History, New York, made a careful examination of the Eskimo collection in order to find Siberian material. His results will appear in the publications of that institution.

Mr. Theodore Roosevelt, jr., and Mr. Ernest Thompson Seton received instructions in the methods of primitive fire-making.

Dr. Carl Von den Steinen, of Berlin, made a special study of the technological processes employed by the North American Indians, especially in weaving and basketry.

Subsequent to the meeting of the Society of Americanists in New York, many of the foreign delegates visited the Museum, where a reception was held in their honor.

Dr. E. A. Bogue made an examination of the denture in the Indian crania.

The Curator of the Division of Ethnology finished his comprehensive work on American Indian basketry and Doctor Hough submitted for publication his monograph on the results of the Museum-Gates expedition to Arizona in 1901, which was printed in the Annual Report of the National Museum for that year.

Dr. A. Hrdlicka published a report on the Lansing skeleton in the *American Anthropologist* for June.

An address delivered by Dr. Cyrus Adler in connection with the opening of the semitic museum of Harvard University was published by that institution.

Dr. I. M. Casanowicz published four papers based mainly on the collections in the National Museum.

STORAGE.

Numerous specimens have been stored in buildings outside of the Museum, but it has been the policy of the Department not to send out of the building any specimens which can not be replaced in case of loss. As a result of this policy, the crowding of the halls has become more embarrassing. Even the offices of the curators are being used as receptacles of valued material for which there is no present place of storage.

Since the death of Dr. Thomas Wilson, Curator of the Division of Prehistoric Archeology, in 1902, Mr. Holmes has given especial attention to the interests of this division and has been faithfully assisted by Mr. E. P. Upham.

REPORT ON THE DEPARTMENT OF BIOLOGY FOR THE YEAR 1902-3.

By FREDERICK W. TRUE.

Head Curator.

The principal features of the year covered by this report were the improvement of the installation of the exhibition series, brought about largely by placing the supervision of the work in the hands of a single officer, and the enlargement of the quarters for the National Herbarium. In the majority of classes the number of specimens added to the collections was less than last year; but in scientific value there was no appreciable decline. The number of zoological specimens added was not less than 70,000, of which 9,000 were vertebrates. About 35,000 botanical specimens were also received. Some important improvements were made in the installation of the great zoological study series, but the need of more space and better facilities were keenly felt. Preparations for the Louisiana Purchase Exposition, St. Louis, 1904, were actively begun, and were in an advanced condition at the close of the year.

EXHIBITION COLLECTIONS.

With the consent of the Assistant Secretary, Mr. F. A. Lucas, Curator of the Division of Comparative Anatomy, was placed in temporary charge of all exhibition work of the Department, November 1, 1902, and all the taxidermists and other natural history preparators were directed to report to him. By this change the work has been much better coordinated than hitherto, and the results obtained during the year have been very satisfactory. The curators of the several divisions are still called upon to select specimens for the exhibition series, to furnish technical information for labels, or for the use of the preparators, etc., but they are not expected to regularly supervise the work of the preparators or to install collections in the exhibition cases. There has been a growing recognition among the curators of natural history museums of the fact that the needs of the general public and of the special student and investigator are quite diverse, and that endeavors to combine in one series collections of interest to both are little better than a waste of time. The general public and the general student are only confused by a multiplicity of specimens representing small variations of one species, or illustrating small steps in a

single vital process, while the special student and investigator never has too many specimens, and can seldom make much progress with scant material.

The principal improvements during the year were in the halls devoted to mammals, marine invertebrates, insects, and fishes. The interior of the wall-cases of the South Hall gallery, containing Old World mammals, was repainted to correspond in color with the cases on the main floor and to set off the specimens properly, the color of the unpainted burlap background having proved too dull. At the same time the floor cases on the gallery containing the small mammals were refitted to correspond with those below. The result has been a great improvement in the general appearance of the cases and visibility of the collections. The very attractive group of African horse-tailed monkeys, *Colobus caudatus*, prepared some time ago with specimens presented by Dr. W. L. Abbott, was placed in a new case especially adapted for properly displaying it. The specimens were cleaned and the accessories renovated by the chief taxidermist. On the main floor, devoted to American mammals, the south wall-cases mentioned in last year's report were finished and filled with South American mammals, which are now installed in a satisfactory manner. No room has as yet been found, however, for such large forms as the tapir, pampas deer, etc. The majority of the floor-cases were furnished with new fittings, uniform in design and color. The group of Rocky Mountain sheep made originally for the World's Columbian Exposition, 1893, was taken from storage and erected at the northwest corner of the hall. The artificial rock-work was cut down and partially remodeled and the specimens renovated by the chief taxidermist. This completes the representation by groups of the principal large ruminants of North America, except that space has not been found for the White Goat group. The intention is to let this take the place of one of the two caribou groups. Numerous small mammals were added to the general North American series. A number of large mammals were mounted during the year for the St. Louis Exposition, but will not be displayed in Washington until the close of the exposition. New uniform printed labels for the entire American series of small mammals, revised and brought up to date as regards nomenclature, etc., were printed and placed with the specimens during the year. The labels for the Old World series were also revised, and, where necessary, new ones were prepared, printed, and put on the specimens. The entire mammal exhibit, therefore, with a few exceptions in some groups, is now thoroughly and satisfactorily labeled. The Indian rhinoceros, which had been on exhibition for many years, was withdrawn, as it had become unsightly through the cracking of the skin and could not be repaired satisfactorily.

In the hall in the Smithsonian building devoted to the lower invertebrates the interiors of all the wall-cases were repainted. As these

cases, for the most part, contain corals, it was decided to use black for the background as best suited to bring the specimens into relief. The corals and sponges were rearranged and some specimens added to the general North American series.

In the insect hall the exhibit of North American species was extended by the addition of representatives of the orders Lepidoptera, Euplexoptera, Orthoptera, Hemiptera, and Diptera.

After the collection of fishes exhibited at the Pan-American Exposition, Buffalo, 1901, was returned, a reclassification of all the casts was made, the series being divided into two sections—marine fishes and fresh-water fishes. The cases standing against the walls were reconstructed and furnished with large glass and paneled bases, so as to present a uniform appearance around the hall. A large shark and several other fishes of very large size were placed on top of the cases and provided with new framed labels. The descriptive labels used at Buffalo were mounted on standards of uniform design and placed beside the species to which they refer. The series now exhibited, aside from the small representation of deep-sea fishes, is entirely North American. While it is desired to exhibit various series from other parts of the world, there is not sufficient room for this purpose in the present quarters. For this reason the South American fishes preserved in formalin have been temporarily withdrawn. These preparations were in quite good condition when last examined, but they are not entirely satisfactory for exhibition on account of the bleaching of the colors, dullness of the eyes, etc. Experiments were made during the year in casting from formalin specimens. The results were quite satisfactory, and it is believed that a series of casts made in this way and painted might prove best for a permanent exhibit. A number of molds of fishes and some casts of large fishes, which have been used by the United States Commission of Fish and Fisheries in connection with various expositions, were transferred to the Museum by the Commissioner. Several of these casts were repaired and placed on exhibition, as already mentioned.

All the labels for the reptiles and batrachians were reprinted in the same style as the mammal labels, the object being to have all the faunal labels uniform as regards matter and general appearance. Instead of the particular locality in which a specimen exhibited was obtained, these labels contain a brief statement of the geographical range of the species represented, together of course with the common and scientific names, the catalogue number of the specimen, and in the case of gifts, the name of the donors. Specimens received from Government surveys are labeled with the names of the organizations which transmitted them.

Few changes of importance were made in connection with the exhibits of birds and mollusks, but copy was prepared for new labels for the entire North American series of birds. The labels had not

been printed when the year closed. The groups of birds, 16 in number, which were originally made for various expositions, were overhauled, and the cases made dust tight as far as possible and provided with new framed labels. Under present conditions it is not deemed expedient to build new cases for these groups. The beautiful specimens of the Argus pheasant presented some time ago by Dr. W. L. Abbott, were brought together by the taxidermists in the form of a group, with ground-work, and placed in a new case. This group is one of the most attractive and interesting objects in the entire exhibition series. The baseboards of all the large alcove-cases were repainted.

In order to find room for the enlargement of the National Herbarium it became necessary to abandon the limited space on the East Hall gallery previously allotted for botanical exhibits. This was done most reluctantly, but in view of the necessities of the case it was deemed unavoidable. With this change the Museum definitely abandoned making botanical exhibits for the present, but with the hope that after the new building provided for by Congress is erected, abundant room will be found for such collections.

During the year each of the exhibition halls was provided with a large sign, calling attention in a few words to its contents, as for example, "Lower Invertebrates," "American Mammals," etc. In addition, uniform framed case labels, about 200 in number, were provided for all the cases containing mammals, birds, reptiles, batrachians, insects, and lower invertebrates. The series of case labels for the exhibit of comparative anatomy was also completed.

A considerable number of requests were received during the year for photographs of various groups and single objects in the exhibition series, chiefly for purposes of publication. The Bureau of Engraving and Printing made photographs and sketches of the mounted bison as a basis for the figure of that animal placed on the new ten-dollar bill. An American eagle was mounted in a special attitude for a similar purpose. Prof. M. M. Metcalf, of the Woman's College of Baltimore, made a number of photographs of skeletons and other objects for a forthcoming work on evolution. Dr. D. G. Elliot, of the Field Columbian Museum, Chicago, obtained photographs of certain whale skulls for a work on the mammals of Central America.

EXPLORATIONS.

In the spring of 1903, Mr. F. A. Lucas, accompanied by Messrs. William Palmer and J. W. Scollick, visited one of the stations of the Cabot Steam Whaling Company, Newfoundland, to obtain a large whale for the St. Louis Exposition. Toward the close of the fiscal year Mr. Lucas reported that the skeleton and casts of the exterior of a sulphur-bottom whale, about 75 feet long, had been obtained. By invitation

of the Geographical Society of Baltimore. Messrs. B. A. Bean and J. H. Riley accompanied the expedition of the society to the Bahamas to collect aquatic and land vertebrates. By invitation of Dr. L. O. Howard, Dr. H. G. Dyar, accompanied by Mr. R. P. Currie, of the National Museum, and Mr. A. N. Caudell, of the Department of Agriculture, made an expedition to British Columbia to collect insects, and especially mosquitoes, under the auspices of the Carnegie Institution. Mr. G. S. Miller, jr., spent a few weeks in collecting small mammals in the vicinity of Hampton, Virginia. Messrs. Richmond. Ashmead, Bartsch, and Currie spent some days in Philadelphia in the study of the zoological collections of the Academy of Sciences, and Dr. Rose visited the Museum of the New York Botanical Garden. Mr. W. R. Maxon spent two months in Jamaica (April and May, 1903), where he made a very large collection of plants, and especially of ferns. He also obtained some fine examples of the large white ant nests found in the island.

ACCESSIONS.

The accessions of the year, considered as separate lots of varying sizes received from different sources, were considerably less than last year, except in the Division of Plants and the Section of Birds' Eggs. The accessions of plants were greater in number than in any year since 1895, being in all 575, but the number of specimens comprised in them was less than in the previous year, viz, about 53,500 specimens in 1902, and about 35,000 in 1903. The accessions of birds' eggs, on the contrary, aggregated more specimens than in 1902. The whole number of zoological specimens received during the year was, as already stated, about 70,000; of plants about 35,000 specimens. A notable and most important feature of the accessions was an increase in the number of types and cotypes presented, which comprise insects, fishes, birds, and crustaceans. Among the largest zoological accessions received were a collection of about 19,000 gall wasps and parasites made in Canada, and transmitted by the U. S. Department of Agriculture; about 4,000 Costa Rican insects, purchased from Mr. P. Schild, of Hamburg, Germany; about 2,000 Chilean insects, presented by Mr. E. C. Reed, of Concepcion; a collection of about 2,000 fish, birds' eggs, mollusks, and other marine invertebrates from the Hawaiian Islands, transmitted by the U. S. Fish Commission; a collection comprising about 1,500 birds' eggs, insects and mammals from Paraguay; the East Indian collections of Dr. Abbott, consisting of more than 1,200 mammals, birds, reptiles, etc. Considering the character of Dr. Abbott's collections, which contain hundreds of mammals, they should perhaps have been mentioned first, as it is obviously more difficult to assemble large numbers of these animals than of any other class. The largest collection of plants received during the year was one made by

Dr. E. A. Mearns, U. S. Army, in the Yellowstone National Park. It comprises about 5,300 specimens, and was very generously donated to the Museum by the collector. This is probably the largest scientific collection of plants ever made in the park. Next in size was the collection made by Mr. William R. Maxon, of the Museum staff, in Jamaica, comprising about 2,000 specimens, chiefly ferns.

It is a pleasure to record the continued activity of Dr. W. L. Abbott in the exploration of the East Indies. The collections received during the year were chiefly from the coast and islands of northwestern Sumatra, as far south as Siboga, and from the Riou Peninsula, just south of Singapore. They comprise, as already mentioned, mammals, birds, reptiles, and batrachians, fishes, and insects. The Sumatran mammals, about 500 in number, were studied by Mr. G. S. Miller, jr., who discovered among them a new ape (*Macacus fuscus*), four new species of mose deer (genus *Tragulus*), nine new squirrels, a new genus and five new species of mice, and a new porcupine (*Trichys macrotis*). The birds from the same region also comprised about 500 specimens, representing 152 species, of which 19 were found by Dr. C. W. Richmond to be new to science. The collections from Pahang and the Riou Archipelago have already yielded four new species of mouse deer, and are probably as important as the preceding one for the light they will throw on the distribution of Malayan species. The National Museum has received from Dr. Abbott, since the beginning of his explorations in the East Indies, no less than 2,500 mammals, 3,900 birds, 800 reptiles and batrachians, besides very numerous specimens of other classes.

In 1902 the U. S. Fish Commission steamer *Albatross* was sent to the Hawaiian Islands for the purpose of continuing the investigation of the fisheries. In the course of this work large collections were made in various branches of natural history and transmitted to the Museum. Those received during the year covered by this report were a valuable collection of birds' eggs, about 1,500 marine mollusks in alcohol, many new to the Government collections, and about 100 species apparently undescribed; a collection of corals, and a second lot of crustaceans. The Commission also transmitted a collection of 85 birds, mainly from Laysan Island, north of Hawaii, including the type of a tern, *Procelsterna saxatilis* Fisher. From the *Albatross* Samoan Expedition of 1902 were received corals and crustaceans in addition to the specimens transmitted last year. The Commission also furnished about 800 specimens of the commoner species of marine invertebrates of Woods Hole, Massachusetts, for distribution to educational establishments, together with a small collection of fishes from the same locality, a specimen of the Tile fish (*Lopholatilus*), from 70 miles off Nomans Land, the type and cotype of a new species of white-fish (*Coregonus stanleyi*), from Aroostook County, Maine, and a cotype of a new fish (*Hydropterus evermanni*), from Tippecanoe Lake, Indiana.

Prof. T. D. A. Cockerell, of East Las Vegas, New Mexico, presented eight lots of insects of different orders, containing many new species, and including types and cotypes of species described by him; also three lots of amphipod crustaceans and leeches, the former representing a new form found in a warm spring.

An interesting collection of reptiles and batrachians from northern Mexico and North Carolina was purchased from Brimley Brothers, Raleigh, North Carolina. It contained a series of a salamander (*Desmognathus quadrimaculata*), which had not been recognized since Holbrook's time. From the same source was obtained a small collection of North Carolina fishes, one of which was found to be undescribed and was named *Notropis brimleyi* by Mr. B. A. Bean; also eight specimens of the very rare skipper, *Pamphila carolina* Skinner.

Among the most important purchases of the year were the zoological collections made by Mr. William Foster in the vicinity of Sapucay, a small town near Asuncion, Paraguay. They comprise about 800 insects, 600 birds' eggs, and 350 small mammals. The mammals were principally bats. The specimens were all carefully prepared and labeled and filled important gaps in the Government collections.

Mammals.—In addition to Dr. Abbott's East Indian mammals and those from Paraguay just mentioned, the Museum received several other accessions which deserve mention. Dr. E. A. Mearns, U. S. Army, added to his generous donations of previous years two collections of small mammals, one from the Yellowstone Park, comprising about 300 specimens, and the other from Fort Snelling, Minnesota, comprising about 200 specimens. The collections of European small mammals, already very rich, was increased by two collections, one from Switzerland and one from Norway. An excellent series of Japanese rodents and bats, purchased during the year, represents the first well-prepared collection of mammals received by the Museum from that country. Mr. B. S. Rairden, United States Consul at Batavia, Java, obtained for the Museum two specimens of a Javan mouse-deer, which proved to be an undescribed species of much interest, and was named *Tragulus focalinus* by Mr. G. S. Miller, jr. A somewhat imperfect but very valuable skeleton of a peculiar porpoise from the Hawaiian Islands was presented by Prof. Charles H. Gilbert of the Stanford University. It represents the species *Pseudorca crassidens*, a form intermediate between the killers and blackfish, which has not been obtained hitherto from the vicinity of the Hawaiian Islands.

Birds.—Mr. Homer Davenport, of Morris Plains, New Jersey, presented to the Museum during the year 22 large and valuable birds from his extensive aviary, among which were an Australian Goose, a Javan Jungle-fowl, a Black-winged Peacock, *Puvonigripennis*, regarded by some zoologists as a distinct species, and several beautiful pheasants, including Diard's Fire-back Pheasant, *Lophura diardi*. From

Mr. A. Boucard were purchased two rare birds of paradise, *Paradisæa guillemi* and *Rhipidornis guillemi*—III. A pair of rare flightless cormorants from the Galapagos Islands, and about 300 birds from this group and the islands off the west coast of Mexico, including a series of *Nesomimus trifasciatus*, were also purchased. The Bishop Museum, Honolulu, presented a collection of the birds of Guam, composing about 44 specimens, representing species not previously contained in the Government collection. Mr. Outram Bangs, of Boston, presented about 50 desirable Honduras birds, and about 300 specimens from Chiriqui, Costa Rica, were obtained from him in exchange. The Biological Survey, U. S. Department of Agriculture, transmitted a fine collection of birds' eggs from different parts of North America.

Reptiles and batrachians.—Messrs. Brimley and Sherman presented a fine series of salamanders from North Carolina, and Mr. E. J. Brown a number of rare reptiles from southern Florida. In a small collection from Cocos Island, Costa Rica, presented by Prof. P. Biolley, were five specimens of a new gecko, described by Doctor Stejneger under the name of *Sphærodactylus pacificus*.

Fishes.—The accessions of fishes were remarkable on account of the number of type specimens and cotypes included among them. An especially important accession consisted of 42 types of species of Hawaiian fishes, collected in 1889 and described by Dr. O. P. Jenkins, of Stanford University. These were donated to the Museum by Doctor Jenkins, and are a continuation of the series presented in 1901. A collection of Japanese fishes, comprising 75 species, of which 3 were represented by types and 16 by cotypes, was presented by Stanford University. They were collected by President D. S. Jordan, by the University of Tokyo, and by K. Otaki. Included with them were the types of *Bryostemma tarsodes* and *Bryolophus lysimus*, two species obtained near Unalaska Island by the *Albatross*. The types of the Japanese species *Draconetta venica* and *Cyttopsis itea* were also received during the year.

Among single specimens of interest should be mentioned a very large pipe-fish, *Pistularia tabaccaria*, 4½ feet long, from Campeche Bank, Mexico, presented by E. E. Saunders & Co. Dr. S. Wier Mitchell presented a large salmon weighing 47 pounds, taken by him at Casapedia, Quebec. Casts of this fine fish and of the pipe-fish were made for the exhibition series. A deep-sea pelican-fish, genus *Gastrostomus*, was received during the year from the U. S. S. *Nero*. It was obtained during the survey for the trans-Pacific cable at a depth of between 2,000 and 3,000 fathoms. Mr. Louis Mobray, of Bermuda, obtained a living specimen of the large Conger eel, *Channomuraena vittata*, and sent it to the New York Aquarium. Upon its death, which occurred in a few months, it was sent to the Museum by the director of the aquarium, at the suggestion of Prof. C. L. Bristol. Dr. J. C. Thomp-

son, U. S. Navy, presented a small but interesting collection of fishes from the Dry Tortugas, Florida. The accessions from the U. S. Fish Commission and from Mr. H. H. Brimley have been already mentioned. (See pp. 65 and 67.)

Mollusks.—In addition to the collections of the U. S. Fish Commission, already referred to, mention should be made of the donations of two constant contributors to the Museum, Mrs. T. S. Oldroyd and Rev. H. Loomis. Mrs. Oldroyd presented about 150 marine shells from California in exceptionally fine condition, and Mr. Loomis's specimens of about 50 species from Japan and the Loochoo Islands included many desiderata. California shells were also presented by Mr. F. A. Woodworth, of San Francisco, and Hawaiian land shells by Mr. H. W. Henshaw, of Hilo, Hawaii. A second consignment of land and fresh-water shells from central Asia was received from the Imperial Academy of Sciences, St. Petersburg, Russia. Among single specimens of special value should be mentioned a fine *Voluta mamilla*, a large and very rare shell from Tasmania. A collection of Australian land and fresh-water shells, comprising species not previously represented in the Museum, was purchased.

Insects.—The three largest accessions of insects—the U. S. Department of Agriculture collection from Canada (18,947 specimens), the Costa Rican collection purchased of P. Schild (4,000 specimens), and the collection from Chili presented by Mr. E. C. Reed (2,021 specimens)—have already been mentioned. Many of the remaining accessions, 254 in number, contain material of great interest and value, but it is obviously impossible to refer in detail to more than a few of them in this report. (For a complete list see Appendix II.) One of the most important was a collection of African butterflies received in exchange from the Royal Natural History Museum, Stockholm, which included examples of many species described by Doctor Aurivillius. Another important exchange was effected with the American Entomological Society, through which the Museum received examples of about 100 species of Mexican and Central American Hymenoptera, many of them cotypes of species described by Mr. Cresson. Prof. Charles Robertson, of Carleville, Illinois, presented cotypes of 19 species of Hymenoptera described by him. A similar collection of Coleoptera, presented by Prof. H. C. Fall, of Pasadena, California, contained 34 cotypes of his species. A collection of mites, containing types and cotypes, was presented by Prof. Robert H. Wolcott, of the University of Nebraska.

Lower invertebrates.—The accessions of lower invertebrates, like those of fishes, are noteworthy on account of the number of types and cotypes included among them. The collections transmitted by the U. S. Fish Commission have been already mentioned. From the Muséum d'Histoire Naturelle, Paris, France, was received a valuable

exchange comprising about 50 species of fresh-water crabs, nearly all of which were previously unrepresented in the Government collection. Many of the specimens were cotypes. The Stanford University presented a series of desirable specimens of Japanese crustaceans collected by Doctor Jordan and Mr. J. O. Snyder in 1900. It included several species previously undescribed. A small but interesting collection of crustaceans from the Maldive Islands, including several cotypes, was received in exchange from the Museum of Comparative Zoology. They were collected by Doctor Agassiz and party in 1901-2. Dr. S. J. Holmes, of the University of Michigan, presented 14 lots of New England amphipod crustaceans, among which were types of several species. Two smaller lots, with representations of other orders of crustaceans from Costa Rica and Cocos Island, were presented by the Museo Nacional, of San José, Costa Rica. Among them were types of species of amphipods described by T. R. R. Stebbings. Four lots of isopod crustaceans, including types, were presented by the Harriman Alaskan expedition. Dr. C. H. Eigenmann, of the Indiana State University, presented specimens of 4 species of crustaceans from Cuba, including types of 3 species.

A valuable collection of European parasites, comprising trematodes, cestodes, and nematodes, was received by the Bureau of Animal Industry, U. S. Department of Agriculture, and catalogued in the section of helminthological collections, National Museum. The Museum received a collection of parasites of fishes from Prof. Edwin Linton, of Washington, Pennsylvania. The study collection of parasites is considered the finest scientific collection of the kind now existing in the United States.

Plants.—The total number of accessions to the National Herbarium during the year was 595, a number which has not been reached for the last eight years. Of this number, 120 accessions, comprising about 5,000 specimens, were received through the U. S. Department of Agriculture.

Doctor Mearns's large collection from the Yellowstone National Park, which constituted the most extensive accession of the year, has already been mentioned. Probably next in interest is the collection made by Mr. W. R. Maxon, of the Museum staff, in Jamaica, which comprised about 2,000 specimens, chiefly ferns. Two important collections from the Philippine Islands, comprising about 1,400 specimens, were received in exchange from the Insular Bureau of Agriculture, Manila. These are believed to be the first collections from the islands made by American botanists. Another collection of Philippine plants, comprising about 1,000 specimens, was received from the Royal Botanical Gardens, Kew, England, in continuation of an exchange with that institution. Capt. J. Donnell Smith has continued his valuable donations of West Indian and Central American plants. He presented during the year a sixth series, consisting of 375 specimens.

Purchases of plants to the amount of \$1,000 were made during the year. The most important items were continuations of the California collections of Mr. A. A. Heller (1,055 specimens) and the Nevada collection of Prof. C. F. Baker (481 specimens). Other purchases were as follows: Plants in the United States (3,223 specimens), viz, Maine (639), California and Arizona (989), Georgia (497), Ohio (405), Mississippi (693); plants from Central and South America, viz, Mexico (296), Costa Rica (452), Venezuela (256).

Of the plants transmitted by the U. S. Department of Agriculture during the year, the most important are the collections of Messrs. F. A. Walpole and W. W. Gorman from Alaska (1,323 specimens) and those of Messrs. F. V. Coville, V. K. Chesnut, David Griffiths, and others, from Washington, Oregon, and California (1,368 specimens).

WORK ON THE STUDY SERIES.

In the Division of Mammals about 3,000 skulls of small species were cleaned during the year, two-thirds of which were those belonging to specimens in the collection of the Biological Survey, U. S. Department of Agriculture. All the large skulls of the regular Museum series, with the exception of about 100, have been cleaned, but about 1,500 small skulls still need cleaning. Little could be done toward continuing the rearrangement of the skins of small species for lack of room and cases, but the work of making over skins which were deteriorating on account of faulty preparation progressed satisfactorily, about 400 skins having been renovated during the year. It is a cause of much regret that nothing could be done toward improving the condition of the large skins in vats and in the cases of the upper laboratory, many of which are in imminent danger of destruction. There are known to be from 1,000 to 1,500 of the size of a wolf and upward which need attention. Some of these are large antelopes and other important mammals which are now difficult to obtain. The collection of mammals in alcohol was thoroughly overhauled, and is in an excellent condition as regards both preservation and arrangement. The large storage case behind the wall case in the South Hall, used for the storage of mammal skulls, was roofed over to exclude dust, and provided with shelving. It is intended to fit the alcoves with standard racks and drawers next year for the better installation of the valuable series of skulls kept there.

The laboratories of the Division of Birds are much overcrowded, and many devices have to be resorted to in order to accommodate the collections. It has been found necessary to place different parts of the collections in rooms widely separated, which greatly increases the difficulties of administration. Some little improvement was made in the arrangement of the collection of large birds in the west basement, but progress was slow on account of insufficient help and space. It is

a satisfaction to report that the Passerine birds, which are the ones most consulted, are at present well arranged and entirely accessible. About half the study collection, comprising, perhaps, 65,000 specimens, is without standard Museum labels, and many of the water birds need new labels. Some progress in replacing worn out labels was made during the year.

The condition of the collection of birds' eggs is very satisfactory. For a collection of such great size the proportion of perfect specimens is remarkably large. Considerable progress was made in the rearrangement of both eggs and nests, but more new cases will be required before it can be completed.

The curator of the Division of Reptiles and Batrachians was without assistants this year until April, and progress in the rearrangement of the study series was necessarily slow. A considerable advance has been made, however, and the collection is now in good condition and its accessibility increased.

In the Division of Fishes, the principal operation was the preparation of a series of 50 sets of specimens for distribution to educational institutions. These sets average about sixty species each, making a total of some 3,250 individual specimens in all. Until the staff of this division is increased, little can be done beyond keeping the collection from deteriorating.

The study series of mollusks is all in fairly good condition and is accessible, so that any specimens wanted can be brought to hand in a few moments. The collection of Naiades was put in perfect order, and the cataloguing and numbering of the boxes of duplicates brought up to date. The remainder of the Jeffreys collection of shells is now most in need of attention. On account of the intricacies of the case the work can not be done rapidly. As in other divisions the need of more space is keenly felt.

The great systematic collection of insects of all orders, with the exception of the Rhynchota, is at present in excellent condition, well arranged, and accessible to students. The curator of the Division of Insects, Dr. L. O. Howard, reports as follows on the work of the division:

The insect collections are in excellent condition, increasing rapidly in the different orders, and all being rearranged in the standard insect drawers, in systematic order. It is believed, if the same liberality is continued in supplying us with these standard insect drawers as last year, that the valuable collections in the different orders will be soon safely secured and permanently rearranged.

The Lepidoptera are now all arranged in these drawers and this order is in excellent shape. This work has been done almost entirely by Doctor Dyar, who deserves great credit, not only for making many additions to the collection through his friends and correspondents, but also for putting the collection in such admirable order.

Mr. E. A. Schwarz still continues the rearrangement of the beetles, and during the past few months has rearranged several families down to the Lampyridæ. It will, however, be a long time before this large order can be rearranged, and Mr. Schwarz

will require many more drawers before his task is completed. In a few days he will begin arranging the material from the Philippines, West Indies, and South America.

Dr. Ashmead is almost continuously at work on the Hymenoptera, and has rearranged the Chalcidoidea and part of the Cynipoidea. If room No. 3, now occupied by him, is fitted up with racks to contain standard insect drawers he could, the coming year, rearrange this whole order in these drawers. He considers it important that this be done immediately to more securely conserve the many hundreds of valuable types and cotypes represented in the collection.

The Schmidt boxes, in which many types are still kept, he considers unsafe for keeping valuable types. Hundreds of types and cotypes are now being sent to us from all over the world and proper facilities must be provided for the present preservation of all types intrusted to the Museum.

Mr. Currie still continues his work on the Neuropteroid insects and has made some important additions to the orders Odonata, Neuroptera, and Trichoptera.

The Orthoptera have been removed to Dr. Dyar's room and have been rearranged into the standard insect drawers by Mr. Caudell, who has done much work on these insects, made large additions of specimens, and is substantially in charge of the order.

Mr. Coquillett also continues his work on the Diptera with indefatigable industry and has worked up, named, and rearranged several families. The additions to the family Culicidæ, or the mosquitoes, are especially large and noteworthy.

Very little work is being done in the other orders of insects not mentioned, although Mr. Heidemann finds time to do something occasionally with the Rhynchota.

Our collection of Rhynchota, or bugs (Hemiptera and Homoptera), is large and valuable, and should be placed immediately in charge of a competent specialist.

In the Division of Marine Invertebrates a special cataloguer was employed for four months to bring up the cataloguing of the crustaceans, holothurians, etc., which had fallen behind on account of lack of sufficient clerical assistance. One hundred new sets of duplicate invertebrates were prepared for distribution to academical establishments. Some small sets were also prepared to meet special demands. The extensive collections in alcohol were thoroughly overhauled, the bottles replenished and new labels added where necessary. This important part of the zoological collections is now in good condition. Additional shelving was provided for the collection of anomuran crustaceans and worms in the rooms assigned in the north tower of the Smithsonian building. The Museum benefited by the gratuitous services of Mr. T. W. Vaughan, of the U. S. Geological Survey, who rearranged the collection of corals so as to make room for the reception of recent additions.

The scope of the Section of Helminthological Collections, under the custodianship of Dr. C. W. Stiles, was enlarged during the year by the introduction into the catalogues of the collections of the U. S. Public Health and Marine-Hospital Service. The collections of the Division of Zoology, Bureau of Animal Industry, U. S. Department of Agriculture, are also catalogued in this section of the Museum.

The need of enlarging the quarters for the National Herbarium was so urgent that the space allotted for an exhibition on the east hall balcony was, as already stated, added to the laboratory. One hundred and eleven new standard insect-proof cases were added during the year,

making a total of 225 now in use. About 125 additional cases will be required to complete the reinstallation of the herbarium, and it is hoped that these can be provided next year. The Honorary Curator, Mr. F. V. Coville, reports as follows regarding the work done on the collections during the year:

During the year we have added 111 standard insect-proof cases, making 255 now in use. It is hoped that some 125 new cases will be built during the coming year, which will about complete the installation of the collection. It will then be in a better condition than ever before. Very few insects are to be found in our new cases.

At the time the herbarium was actually transferred to the National Museum, July 1, 1894, we began to stamp every herbarium sheet added to the collection. It was assumed that there were then not less than 200,000 sheets in the herbarium, and the stamp therefore was set at 200,000. The number of specimens stamped and added to the herbarium since then is 220,000. Of these 17,055 have been added this year.

The work of recording the old part of the herbarium has almost ceased and specimens are only stamped in cases where they are sent away as a loan. This record extends from 1 to 27,218. In addition to this, 125,001 to 156,835 have been stamped.

It was decided at the close of the year that all the herbarium sheets hereafter printed should bear the legend "United States National Museum" as well as the impress of the numbering stamp, which bears the words "United States National Herbarium."

Blueprints of the standard herbarium cases adopted by the Museum were sent by request to the chief of the Insular Bureau of Agriculture, Manila.

At the suggestion of Dr. C. W. Stiles the matter of imperfections in the red labels used inside of receptacles containing type specimens of animals preserved in liquid was taken up by a special committee. The committee submitted a report recommending the sole use of labels printed with a permanent ink containing sulphide of mercury.

LOAN OF COLLECTIONS AND COOPERATION OF SPECIALISTS.

The loan of specimens to specialists in the United States and in foreign countries for purposes of scientific research continued during the year as usual. Only the more important transactions of this character can be noticed in this report. As explained last year, the Museum usually benefits quite as much by these transactions as the persons who obtain the use of the material, as the specimens are studied, identified, and also quite commonly labeled. The results of the investigations are sometimes published by the Museum, sometimes by the scientific organizations to which the specialists belong, and sometimes under private auspices.

In the Division of Birds, 11 loans were made, comprising 188 specimens. Mr. Frank M. Chapman, of the American Museum of Natural History, obtained the use of 68 specimens, chiefly shore larks, genus *Otocoris*. Forty-five specimens of warblers, genus *Dendroica*, were sent to Mr. Joseph Grinnell, of Palo Alto, California, to assist him

in determining the California forms of *D. aestiva*. Dr. Jonathan Dwight, jr., obtained the loan of 29 specimens of plovers (genus *Aegialitis*) for use in connection with his studies of the molting of birds. All the lots sent out, with one exception, were returned during the year. The loans of mammals were more numerous, amounting in all to 29 lots, comprising about 300 specimens. Dr. J. A. Allen obtained the use of 110 specimens of seals and other mammals for use in his work on the mammals of eastern Siberia. Forty-one specimens were sent to Mr. J. A. G. Rehn to assist him in the preparation of a report on the mammals of southern New Mexico and western Texas, and 14 bats, of the genus *Nyctinomus*, for use in identifying bats of that genus from the Bahama Islands. Dr. D. G. Elliot, of the Field Columbian Museum, borrowed 35 specimens in connection with his work on Central American mammals. Other loans were chiefly to the scientific assistants in the Biological Survey, Department of Agriculture. The majority of the material was returned during the year. The mollusks, of the family *Achatinellidae*, loaned to the late Alpheus Hyatt, were transferred after his death to Prof. A. T. Mayer, who is engaged in completing the work left unfinished by Professor Hyatt. Of insects, 9 loans were made, the most important being a collection of 626 Orthoptera and Dermaptera, which was sent to Mr. J. A. G. Rehn, of Philadelphia. Dr. Philip P. Calvert, of Philadelphia, received 285 specimens of dragon flies (Odonata), and Dr. E. P. Felt, of Albany, New York, 106 specimens of ophionid hymenoptera. The material loaned was, for the most part, still in the hands of the specialists at the close of the year. Of marine invertebrates, exclusive of mollusks, 9 loans were made, 2 of which deserve mention. Prof. H. Contière, of the École Supérieure de Pharmacie, Paris, received the crustaceans of the family Alpheidae collected by the Hawaiian and Samoan expeditions of the Fish Commission steamer *Albatross*, and also the general Museum collections of that family for report. All the specimens of the so-called *Holothuria atra* were sent to Prof. Charles L. Edwards, of Trinity College, in connection with his studies of variation. The stomatopod crustaceans, collected by the staff of the steamer *Albatross* in Hawaii and Samoa, were sent to Dr. R. P. Bigelow, of the Massachusetts Institute of Technology, who volunteered to report on them. Three lots of ostracoda were sent to Mr. R. W. Sharpe, of Wilmette, Illinois, who has undertaken to report on this group for the Museum.

A number of skulls of mammals were sent to Dr. J. M. Ingersoll, of New York, who is engaged in a comparative study of the sinuses of the nose. Plants were loaned during the year, chiefly to the botanists of the Ames Botanical Laboratory, North Easton, Massachusetts, the Biltmore Herbarium, the Gray Herbarium, Harvard University, the New York Botanical Garden, and to Dr. C. E. Waters, Mr. Karl W. Wiegand, and Mrs. Caroline W. Harris.

DISTRIBUTION OF DUPLICATES.

As already stated, 100 new sets of marine invertebrates from the duplicate collections, were made up during the year, for distribution to educational establishments, in accordance with the long-standing practice of the Museum. Each set contained about 200 specimens, representing from 92 to 99 species, making in all about 20,000 specimens. During the year 50 of these sets were distributed. About one-half of them were sent to high schools and other public schools throughout the United States, and the remainder to various universities, colleges, normal schools, public libraries, seminaries, academies, training schools, and science clubs.

About 50 sets of fishes were also made up for distribution.

A series of 60 skins of monkeys, and some other mammals which were without data as regards localities, etc., and hence of no especial value in the study collection of the Division of Mammals, were distributed to four colleges, which signified their desire to make use of the material in teaching.

LABORATORY USE OF COLLECTIONS BY INVESTIGATORS.

The collections of mammals, birds, insects and plants were frequently consulted by the naturalists of the U. S. Department of Agriculture, as in previous years. Mrs. Vernon Bailey pursued studies of birds in connection with her book on birds of the Western United States. Mr. Outram Bangs, of Boston, examined the collections of neotropical birds, and the committee on nomenclature, of the American Ornithologists Union, examined a large amount of material for the purpose of ascertaining, as in past years, the status of newly described North American species. The series of Old World chameleons was studied by Mr. Thomas Barber, of Cambridge, Massachusetts, who has in preparation a monographic work on these reptiles. In an endeavor to establish the real status of the snake, known as *Tropidonotus erythrogaster*, Prof. H. L. Clark, of Olivet College, Michigan, made comparisons of specimens in the Museum. Comparisons of insects were made by the following entomologists: Prof. John B. Smith (Noctuidae), Dr. W. J. Holland (Moths), Dr. J. A. G. Rehn (Orthoptera), Mr. J. C. Bradley (parasitic hymenoptera and sawflies), Mr. H. H. Ballou (Specidae). Dr. Walter Horn, of Berlin, Germany, examined the collections of Coleoptera and identified some of the exotic material. He spoke highly of the work of the late Martin L. Linell, who was for many years an aid in the Division of Insects.

As for some years past, Dr. N. L. Britton, director of the New York Botanical Garden, was a frequent visitor to the herbarium. During the past year he was principally interested in studying the Crassulaceae. Dr. E. L. Greene spent much time in reviewing certain of the

Papaveraceae, and Mr. Theodor Holm, the Carices. Dr. L. M. Underwood, of Columbia University, examined the collections of ferns.

Inquiries were received from Stanford University concerning the methods of cataloging and labeling employed in the Department, and were answered as fully as circumstances would permit.

SCIENTIFIC RESEARCHES AND PUBLICATIONS.

This very important branch of the work of the Department, the foundation, indeed, and the final aim of all its other activities, was carried on with no less ardor than in previous years. The segregation of work on the exhibition series, explained in a preceding page, left the scientific staff somewhat more time in which to pursue investigations, while the activity of systematists in various parts of the country, involving the use of the Government collections, showed no abatement.

It is only possible in this place to mention some of the more important investigations carried on by the members of the scientific staff of the Museum. A complete list of all papers based on the Museum collections published by the staff for the year will be found in Appendix II of this volume. It is interesting to note that the articles exceed 150 in number, and appeared in about thirty different journals, including the following: Proceedings of the U. S. National Museum, Bulletin of the U. S. National Museum, Proceedings of the Biological Society of Washington, Proceedings of the Philadelphia Academy of Natural Sciences, Science Yearbook of the Carnegie Institution, The Auk, Nature, Nautilus, American Journal of Pharmacy, Journal of Conchology, Smithsonian Report, Biographical Memoirs of the National Academy of Sciences, Canadian Entomologist, Journal of the New York Entomological Society, Psyche, Proceedings of the Entomological Society of Washington, Entomological News, Transactions of the Entomological Society, Country Life in America, Bulletin of the Museum of Comparative Zoology, Zoologischer Anzeiger, Public Health Report, Report of the Bureau of Animal Industry, U. S. Department of Agriculture, American Medicine, Bulletin of the Hygienic Laboratory, U. S. Public Health Service, Journal of Comparative Medicine, Contributions from the National Herbarium, Annals of Botany, Bulletin of the Torrey Botanical Club, Plant World, and Fern Bulletin.

The second volume of Mr. Robert Ridgway's extensive manual of North and Central American birds, containing 854 pages of text and 22 plates, was published during the year. It deals with the families of Tanagers, Troupials, Honey Creepers, and Wood Warblers (Tanageridæ, Icteridæ, Cœrebidæ, and Mniotiltidæ), comprising 77 genera and 433 species and subspecies.

The preparation of the third volume, covering 15 families, was in an advanced stage at the close of the year, about 400 pages being already

in type. Dr. Charles W. Richmond's paper on the birds collected by Doctor Abbott and Mr. C. B. Kloss in the Andaman and Nicobar Islands was published by the Museum during the year. Doctor Richmond spent considerable time in identifying the Abbott collection of birds for the west coast of Sumatra and in working up a collection from the South Pacific. He continued work on the card catalogue of the genera and species of birds. Two papers on South American birds in the Museum collection, by Mr. H. C. Oberholser, appeared during the year, and also one by Dr. W. K. Fisher on a new tern from the Hawaiian Islands. Dr. William L. Ralph continued the preparation of material for a supplementary volume on the life histories of North American birds, with special reference to their nests and eggs, to complete the important work left unfinished by the death of Major C. E. Bendire.

Dr. L. Stejneger completed his study of the reptiles of Porto Rico, and handed the manuscript in for publication in November. It is hoped that means will be found for its publication at an early date. When the year closed he was still engaged in the investigation of the herpetological fauna of eastern Asia. Papers by Doctor Stejneger on Holbrook's salamander and on the reptiles of the Huachuca Mountains, Arizona, were published by the Museum during the year.

In accordance with the arrangement made with President D. S. Jordan, the Museum published during the year 14 papers on Japanese fishes, prepared by himself and conjointly with other ichthyologists. Two papers on the osteology of fishes, by Mr. E. C. Starks, were published, and a brief paper by Dr. Theodore Gill on the use of the name "torpedo."

In connection with an extensive work on the Tertiary mollusks of Florida, Dr. W. H. Dall prepared reviews of the recent mollusks of the groups Veneridæ, Carditacea, Cyrenacea, and Astartidæ. Dr. Bartsch continued work on the Pyramidellidæ, and had nearly completed the investigation at the close of the year.

The researches carried on by Mr. G. S. Miller, jr., had for their principal object the elucidation of Doctor Abbott's collections of East Indian mammals. As stated on a previous page, he found in the collection studied 17 new species of mouse deer, genus *Tragulus*, and 16 new species in other orders, together with a new genus, *Lenothrix*. In going over the Museum collection of American bats, he detected 20 undescribed species, diagnoses of which are published in the Proceedings of the Philadelphia Academy of Natural Sciences. He also prepared a number of notes on different species of bats and rodents. Dr. E. A. Mearns, U. S. Army, made a study of the ocelots in the Museum collection and in other collections, the results of which were published in September, 1902, as Proceedings paper No. 1286. Dr. M. W. Lyon, jr., completed and handed in for publication his list of

type specimens of mammals, exclusive of cetaceans, in the collections of the Museum. As photographs of the types are to be prepared, this catalogue has not yet been published. It records the presence of type specimens, or type material, of 469 species and subspecies. (This is exclusive of the type specimens in the collection of the Biological Survey, U. S. Department of Agriculture, which are probably at least as many.) Dr. Lyon has also pursued investigations relative to the osteology of the rabbits, and published two brief notes on other mammals. The Head Curator completed his comparison of North American and European species of whalebone whales, and toward the close of the year submitted a manuscript of about 1,000 pages, with 50 plates. He also prepared papers on Dr. Philippi's species of Chilean porpoises, on a killer whale stranded on the coast of Maine, and on a species of *Prodelphinus* obtained at Honolulu; and notes on the name of the common porpoise of the genus *Tursiops*, and on the occurrence of the pollack whale, *Balaenoptera borealis*, in American waters.

Doctor Ashmead continued his study of the classification of the Chalcid flies, which was in course of publication by the Carnegie Museum at the close of the year, and a series of papers on the wasps of the groups Vespoidea, Proctotrypoidea, and Cynipoidea, was published in the Canadian Entomologist and other entomological journals. He continued work on his monographs of North America Braconidae, a Philippine Hymenoptera, Japanese Hymenoptera, and also a catalogue of North American Hymenoptera. Mr. D. W. Coquillett was occupied in identifying and arranging the Diptera, and completed a revision of the genera of the family Empididae. A paper by him describing four new genera and 94 new species of North America diptera appeared in the Museum Proceedings in September, 1902. Mr. Nathan Banks published 16 papers on spiders and on other subjects of a more general character. A paper on dragon flies, and one on ant lions, by Mr. R. P. Currie, were published by the Entomological Society of Washington during the year. Mr. Currie continued work on a catalogue of North American Neuropteroid insects, and on a monograph of the ant lions. Mr. August Busck published 2 papers on the codling moth, and one on a new species of the family Yponomeutidae. His revision of the American moths of the family Gelechiidae was published by the Museum during the year. The Museum Proceedings for the year also contained a paper by Dr. H. G. Dyar on the larva of moths from Colorado, and an additional section of Dr. John B. Smith's monograph of the moths of the family Noctuidae. Dr. J. E. Benedict published descriptions of new species of Galatheidæ, and completed a revision of the genus *Lepidopa*, and descriptions of other new Albuncidae. He also engaged in the study of the anomuran crabs from Japan and the Hawaiian Islands, collected by the *Albatross*, some new crabs of the family Dromidae, and some interesting annelids. Miss M. J. Rathbun

continued work on a monograph of the fresh-water crabs, based on the collections of the National Museum, the Muséum d'Histoire Naturelle, Paris, the Museum of Comparative Zoology, Harvard University, and other institutions. She also published five short papers on crustaceans during the year, one of which, describing new Hawaiian crabs, appeared in the Museum Proceedings. Dr. Harriet Richardson published descriptions of two new isopods. Two papers on crustaceans collected in and near Mammoth Cave and Nickajack Cave, by Prof. W. P. Hay, were published by the Museum.

Dr. Charles B. Wilson completed his study of the collection of North American copepod crustaceans of the family Argulidæ, the results of which were published by the Museum as Proceedings paper No. 1302. It occupies 107 pages, and includes a review of all the species of the family and a bibliography, and is accompanied by 20 plates.

Dr. C. W. Stiles, Custodian of Helminthological Collections, made an extended investigation of a parasitic disease prevalent among the people of the Southern States, which he found to be due to the attacks of a new species of hookworm, *Uncinaria americana*. He also carried on investigations regarding frequency of the occurrence of parasites in men. He published nine papers relating to parasitology during the year and three others along the same line conjointly with Dr. Albert Hassall and Mr. Charles A. Pfender; also the first three parts of an index catalogue of medical and veterinary zoology, Doctor Hassall being a coauthor. The staff of the National Herbarium was too fully occupied during the year with routine work and the rearrangement of the collections to devote a great deal of time to investigations. A third section of Doctor Rose's studies of Mexican and Central American plants was published, and a paper in joint authorship with Mr. W. B. Hemsley on the genus *Juliania*. He continued work on the Crassulaceæ of North America conjointly with Doctor Britton, and completed a preliminary paper relating to that group of plants. Mr. C. L. Pollard published a number of notes in the *Plant World*, and described two new violets from the United States. He also published conjointly with Mr. T. D. A. Cockerell descriptions of four new plants from new Mexico. Mr. W. R. Maxon continued studies on the Museum collection of ferns, and Mr. Edward S. Steele completed a monograph of the genus *Laciniaria*.

EXPOSITIONS.

As stated in the last report, a part of the collections displayed at the Pan-American Exposition at Buffalo, 1901, were later transferred to the Charleston Exposition, which closed May 31, 1902. The exhibit made at the latter place was returned to Washington in June.

In the meantime preparations were begun for the Louisiana Purchase Exposition, St. Louis, 1904. The schedule of exhibits for this exposition, approved by the Secretary of the Smithsonian Institution, includes the display of a series of specimens of the large game mammals of the world, the cast of an adult sulphur-bottom whale (the largest existing animal), a series of the largest and most attractive birds, such as the ostriches, pheasants, birds of paradise, etc.; large reptiles, such as the crocodiles, alligators, boas, pythons, cobras, and the like; a series of models of deep-sea fishes; a systematic series of invertebrates, arranged with the special view of illustrating modern methods of museum installation and labeling; a series of the eggs of vertebrates; a collection of butterflies. An exhibit from the National Herbarium, and some minor exhibits, will probably be decided upon later. A representation of the Children's Room, showing the methods to interest children in the study of animate nature, will also be made.

A report on the Pan-American Exposition was submitted during this year, and will be found in the Assistant Secretary's report for 1900-1901, pp. 177 to 231. The Head Curator, having been in charge of the exhibit of the Smithsonian Institution and National Museum at the Charleston Exposition, also submitted a report in that connection which will be found in the Assistant Secretary's report for 1901-2, pp. 165 and 166.

PERSONNEL.

Mr. F. A. Lucas, Curator of the Division of Comparative Anatomy, was, as already mentioned, placed in temporary charge of all exhibits of the Department of Biology, November 1, 1902.

Dr. L. Stejneger served as acting Head Curator during the month of August, 1902, and for about one week in October of that year.

Dr. G. T. Moore, of the U. S. Department of Agriculture, was appointed custodian of lower algae in the National Herbarium, May 25, 1903.

Dr. Marcus W. Lyon, jr., Aid in the Division of Mammals, was appointed chief special agent for the exhibit of the Smithsonian Institution and National Museum at the Louisiana Purchase Exposition, November 1, 1902.

Mr. Charles W. Simpson, Aid in the Division of Mollusks, resigned December 31, 1902.

Mr. R. G. Paine was appointed Aid in the Division of Reptiles and Batrachians, July 1, 1902.

Mr. W. B. Marshall was appointed Aid in the Division of Mollusks, April 1, 1903.

Mr. W. V. Warner was appointed preparator January 17, 1903, and was assigned to work on the permanent exhibit of insects.

Mr. W. E. Scollick was appointed preparator in the Division of Mammals, May 14, 1903, and was assigned to the work of cleaning skulls of small mammals.

Mrs. R. E. Earll, assistant in the National Herbarium, was given leave of absence without pay from July 1 to October 1, 1902.

Miss L. V. Schaeffer, preparator in the same division, was transferred to the library, July 1, 1902.

Miss J. Harvie served as a volunteer assistant in the Division of Marine Invertebrates for about nine months.

REPORT ON THE DEPARTMENT OF GEOLOGY FOR THE YEAR 1902-3.

By GEORGE P. MERRILL,
Head Curator.

The year that has just closed compares very favorably with those immediately preceding, both as to the number and value of the accessions. The Department is to be particularly congratulated on acquiring the Rominger and Sherwood collections of vertebrate and invertebrate fossils; another large portion of the Ulrich collection, and three entire meteorites from Kentucky and North Carolina, as noted below. The fine example of the Shergotty, India, meteorite, secured through the courtesy of Dr. T. H. Holland, and a fragment of the celebrated diamond-bearing meteorite from Novo Urei, Russia, are also worthy of mention.

ACCESSIONS.

The total number of accessions received by the Department is shown in tabular form below, those for 1900-1901 and 1901-2 being also given for purposes of comparison:

Divisions and sections.	1902-3.	1901-2.	1900-1901.
Geology	371	276	282
Mineralogy	110	137	149
Invertebrate paleontology	86	36	48
Vertebrate paleontology	22	65	93
Paleobotany.....	15	10	21
	604	524	593

As has been stated in previous reports, little idea of values can be obtained from these figures. I give below, therefore, a list of some of the more important materials received, either in the way of gift, purchase, or exchange.

DIVISION OF GEOLOGY.

1. A series of massive and cut polished stalactites and stalagmites from the Copper Queen Mine, Bisbee, Arizona, and copper ore from Nacozari, Mexico; the gift of James Douglas.

2. Two large specimens of pegmatite from Auburn, Maine; collected by the Head Curator.

3. A large series of economic materials exhibited by the U. S. Geological Survey at the Buffalo and Charleston expositions, and at the close of the latter turned over to the National Museum. It includes upwards of 400 specimens.

4. A collection of igneous rocks from Holyoke, Massachusetts, described by B. K. Emerson in a paper read before the Geological Society of America, December, 1902; the gift of B. K. Emerson.

5. A collection of volcanic bombs and lavas from Cinder Buttes, Idaho; collected by I. C. Russell.

6. One fine large specimen of native arsenic from the Double Standard Mine, Santa Cruz County, Arizona; through exchange with W. O. Crosby.

7. A collection of fluorite and associated rocks and minerals from Kentucky; made by R. S. Bassler and E. O. Ulrich.

8. A fine series of halloysite from Hart County, Kentucky; the gift of Hon. J. E. Stotsenburg.

9. A very complete series of tales from the North Carolina Tale and Mining Company, of Swain County, North Carolina; the gift of the company.

10. Quadrangle series of rocks from the U. S. Geological Survey, as follows: Globe Copper district, Arizona; San Luis Obispo, California; Silver City, Idaho; Telluride, Colorado; Silver City and De Lamar, Idaho; Coos Bay, Port Orford, and Roseburg, Oregon; Ellensburg, Washington; La Plata, Colorado; and Crater Lake, Oregon.

DIVISION OF MINERALOGY.

1. A collection of some 200 specimens of minerals from various American localities, received from the U. S. Geological Survey at the close of the Pan-American and Charleston expositions. Conspicuous in this series are the fine tourmalinitic quartzes from Little Pipestone district, Montana, the larger being some 2 feet in length and coated on one side with a parallel growth of small, richly-colored amethysts. A second example is a crystal of smoky quartz some 18 inches in length, with good terminations, but broken across the bottom so as to show the sagenitic black tourmaline. The series also contains several cross sections of crystals, 3 or more inches in diameter, showing to good advantage the zonal arrangement of the quartz and tourmaline; also a very complete series of aurichalcites and specimens of the comparatively rare minerals coloradoite and melonite, as well as fine tourmalines from California, endlichite from New Mexico, quartz from North Carolina and New York, parisite from Montana, cinnabar from Utah and California, fluorite from New Hampshire, gothite from Colorado, melanotekite from New Mexico, barite from Colorado, grafftonite from New Hampshire, etc.

2. A series of zeolites from the trap rocks of New Jersey; the gift of W. S. Disbrow.

3. A series of specimens of copper tellurides from the Good Hope mine, including the new species rickardite; the gift of Dr. L. M. Weiss.

4. A fragment from the only known specimen of footeite; the gift of Warren M. Foote, of Philadelphia.

5. Through purchase and exchange with the Foote Mineral Company, of Philadelphia, and other dealers, the following minerals, not before represented in the collections, were obtained:

Paramelaconite.	Graftonite.
Baddeleyite.	Vandiestite.
Lewisite.	Eulytite.
Derbylite.	Wittichenite.
Rammelsbergite.	Molysite.
Grünlingite.	Mazapilite.
Skutterudite.	Fuggerite.
Pentlandite.	Dundasite.
Zeophyllite.	Bavenite.
Lünebergite.	Larderellite.
Arsencopleite.	Footeite.
Pearceite.	Rickardite.
Nasonite.	Sternbergite.
Klinozoisite.	Pyropissite.
Szabélyite.	Langbeinite.
Pinakiolite.	Penfieldite.
Edingtonite.	Leucophanite.
Sapphirine.	

6. Through purchase and exchange, in part for the St. Louis Exposition, the following meteorites have been added to the collection:

Locality.	Weight.	Locality.	Weight.
	<i>Grams.</i>		<i>Grams.</i>
Aleppo, Syria.....	167	Kodaikanal, India.....	90
Arispe, Mexico:		Majalahti, Finland.....	316
Cross section.....	9,695	Merceditas, Chile.....	206
Entire individual.....	5,261	Mooresfort, Ireland.....	117
Baratta, New South Wales.....	451	Mount Vernon, Christian County, Ken- tucky.....	a159.21
Barbotan, France.....	273	Novo Urei, Russia.....	83.5
Bath Furnace, Kentucky.....	323	Orvinio, Italy.....	53
Chateau Renard, France.....	360	Persimmon Creek, North Carolina.....	4,252
Elbogen, Austria.....	71	Reed City, Michigan.....	263
Ergheo, Africa.....	416	Saline Township, Kansas.....	289
Gilgoin Station, New South Wales.....	290	Sao Juliao, Portugal.....	671
Hendersonville, North Carolina.....	4,479	Shergotty, India.....	286
Hex River, South Africa.....	332	Sokobanja, Servia.....	219
Holland's Store, Georgia.....	122	Tadjera, Algeria.....	79
Indian Valley, Virginia.....	569		
Jclicia, Servia.....	16		

a Kilograms.

SECTION OF INVERTEBRATE PALEONTOLOGY.

1. A collection of some 1,200 species (75,000 specimens) of bryozoa and 2,500 thin sections, from the E. O. Ulrich collection.

2. The Carl Rominger collection of Mississippi Valley Paleozoic invertebrates. This consists largely of corals (many of which are figured and described in the reports of the Geological Survey of Michigan), crinoids, and mollusks, representing not less than 14,000 specimens.

3. The Andrew Sherwood collection of Pennsylvania Upper Devonian vertebrate and invertebrate fossils. This contains many choice slabs filled with large brachiopods and mollusca, besides about 3,000 small specimens.

4. Collections of trilobites with limbs (*Triarthrus becki*) studied by Doctor Walcott and described in the Proceedings of the Biological Society of Washington, 1894; of Little Metis sponges, and some twenty boxes of Paleozoic fossils, from the U. S. Geological Survey.

5. One large slab containing 18 fine specimens of melonites and some 135 labeled specimens from the Marcellus limestone; received from Dr. C. E. Beecher, of Yale University.

SECTION OF VERTEBRATE PALEONTOLOGY.

1. Casts of mandibular rami; teeth of *Mastodon humboldti* and *Mastodon cordillerum*; received from the British Museum.

2. Cast of egg of *Emeus crassus*.

3. Reptilian footprints in sandstone, from Mount Carbon, Pennsylvania.

4. A tooth (type) of *Cladodus formosus*, from Needle Mountains quadrangle, Colorado; collected by Whitman Cross.

SECTION OF PALEOBOTANY.

1. Eighty-three specimens of Paleozoic plants, from the Ulrich collection.

2. A small series of fossil plants, from the Permian of Ohio.

3. Four hundred and eighty-eight specimens of Triassic plants, from Connecticut and Massachusetts; received from the U. S. Geological Survey.

ROUTINE.

During the year under consideration the geographic exhibit of economic minerals in the southwest court has been largely overhauled and cases and specimens cleaned and rearranged. The collection of non-metallic minerals on the balcony has likewise undergone rearrangement. The case containing the stratigraphic and historical collections, against the south wall in the west-south range, has been entirely reconstructed and the collections reinstalled. In the course of this work

some 2,500 blocks constructed on a new plan were introduced. These are made of a tripartate veneering and only about one-fourth inch in thickness.

In six floor upright exhibition cases and one wall-case, double doors have been replaced by single, thus more than doubling the size of the glass. The improvement is so great as to suggest the advisability of carrying out the work in all the cases of this type.

The collections on the west front of the Museum have been overhauled and many specimens removed to storage, whereby the appearance of the west front is considerably improved. The work has, as usual, been done under the direct supervision of Mr. Newhall.

Manuscript for about 1,300 labels has been prepared and sent to the Government Printer. Upward of 6,000 specimen and reference cards have also been prepared, and an equal number of specimens numbered.

The work of preparing the type catalogue has progressed but slowly, only about 300 slips having been written. The large influx of new and especially type material, has made it seem advisable to postpone the immediate publication of this list. This work, together with the general stenographic and clerical work of the department, has remained in the hands of Mrs. Jouy and Miss Graves.

In the section of invertebrate paleontology a large amount of work has been done in arranging the new materials, particularly those of the E. O. Ulrich collection. During the year there were identified or placed in final museum condition upward of 16,000 specimens. These are recorded in the registers, but, on account of lack of clerical help, have not been numbered, nor have cards been made for the card catalogue.

Dr. Peale reports that work on the paleobotanical series has continued along the same lines as last year. The exhibition series has been partially rearranged and new labels have been printed and exchanged for the temporary labels of the Paleozoic portion of the collection.

Work in the section of vertebrate paleontology has proceeded but slowly, owing to the small force engaged. Mr. Stewart has been at work during almost the entire year upon a mount of the *Claosaurus*. The work is now nearly completed, and it is expected that during the coming fall this very interesting vertebrate fossil will be placed on exhibition in the southeast court. The hind limb of a *Brontosaurus* has been prepared and placed on exhibition during the time under consideration.

No explorations have been carried on during the year at the expense of the Museum. Messrs. Schuchert and Bassler and the Head Curator have been in the field on various occasions, but either at their own expense or that of other organizations. Much valuable material has thus been obtained.

EXCHANGES AND LOANS.

There have been sent out from the Division of Geology during this period, to various individuals and students, some 1,262 individual specimens and 1,288 pounds of miscellaneous material—this entirely aside from such materials as are ordinarily loaned for study and investigation. For the last-named purposes there have been loaned during the year, from the Division of Geology:

To T. Nelson Dale, Pittsfield, Massachusetts, 6 specimens of roofing slates and thin sections.

To George I. Adams, U. S. Geological Survey, 9 specimens of gypsum.

To George F. Barker, University of Pennsylvania, 3 specimens of uraninite.

From the Division of Mineralogy, material has been furnished to the Chemical and Physical Department of the U. S. Geological Survey, to the Division of Roads of the Department of Agriculture, and to the Bureau of Soils of the same Department. Samples of the Putnam County, Georgia, and Admire, Kansas, meteorites were sent to Dr. E. Cohen, Greifswald, Germany, for use in his researches on meteoric iron.

From the Division of Stratigraphic Paleontology there were loaned to Dr. C. E. Beecher 43 specimens of Upper Carboniferous insects. To A. W. Grabau, Columbia University, 8 erinoids. To Dr. M. Cossman, Paris, 16 Cretaceous gastropods. To Prof. S. W. Williston, University of Chicago, 257 specimens of Tertiary insects. To Dr. John M. Clarke, State paleontologist, Albany, New York, a large lot of Lower Silurian graptolites; and to the Royal Austrian Museum (Dr. Handlirsch), 562 Carboniferous insects.

Portions of collections in the section of vertebrate paleontology have been studied by Dr. E. C. Case, Milwaukee, Wisconsin; Prof. S. W. Williston, University of Chicago; Dr. J. B. Hatcher, Carnegie Museum, Pittsburg, Pennsylvania; Prof. H. F. Osborn, of the American Museum of Natural History in New York City; and Dr. John M. Clarke, State paleontologist of New York.

The paleobotanical collections, as usual, have been continually available to the paleobotanists of the U. S. Geological Survey. In addition, Dr. Arthur Hollick, of the New York Botanical Gardens, has on several occasions visited the Museum in connection with his work on the island series of the Upper Cretaceous.

PRESENT CONDITION OF COLLECTIONS.

It may be safely stated that, as a whole, the collections are in better condition than ever before. The improvement has been constant, and though not as rapid as one could wish, is fairly satisfactory—perhaps as satisfactory as can be expected in the present building. Naturally

there must be a constant weeding out of old material and the insertion of new in order that the collections may be kept up to date, but expansion along any lines other than that of vertebrate paleontology is practically prohibited through lack of space. The work which is now being done in connection with preparations for the Louisiana Purchase Exposition will, on the assumption that the collections return to us in safety, fill the halls to their utmost extent, and it will unquestionably be necessary to store a considerable amount of less desirable material.

Mention may be made here of the mounted skeleton of the Church, Michigan, mastodon, collected by Mr. Alban Stewart in the spring of 1901, which is now in an advanced state of preparation. This gives the Museum its first complete mounted representative of this interesting group of quadrupeds.

The acquisition for the workshops of a one-half horsepower motor with flexible shaft and fittings for drilling and cutting, and a "Jenny Lind" polisher, together with a renewal of the large grinding bed and the remodeling of the reciprocating stone saw, have greatly facilitated the work of the preparators.

The work of the year, as on previous occasions, has been complicated by preparation for an exposition.

RESEARCH.

Various influences have prevented the Head Curator from taking an active part in research in connection with the Museum collections. Numerous brief papers have been published, but as they were not, for the most part, based upon Museum materials, they need not be mentioned here.

In connection with Mr. Tassin, investigations have been made upon the meteorite collections, but the results as yet are far from ready for publication.

The Head Curator has in course of preparation a work upon the History of American Geology. This is as yet so far from complete as to need no special notice at this time.

Mr. Schuchert has continued his studies on Lower Devonian fossils, as reported last year. A report to be published by the Geological Survey of Maryland on this subject is progressing satisfactorily, and it is expected will be ready for the printer some time during the coming year.

Mr. Schuchert has also completed a study of the Cystidea of the Manlius and Coeymans formations. The paper is about ready for publication.

Mr. R. S. Bassler has in preparation studies on the Bryozoa and Ostracoda. A paper reviewing the entire Bryozoa of the Rochester shales will, it is expected, be completed during the coming winter.

Mr. Phalen has made a study of rocks collected by Messrs. Schuchert and White in Greenland in 1897.

Papers by members of the U. S. Geological Survey upon materials in the section of paleobotany are noted in the bibliography.

The personnel of the Department remains the same as last year. Mr. J. W. Coleman, skilled laborer in the section of vertebrate paleontology, who had been away on leave of absence, returned to work on September 19, 1902, but finally severed his connection with the Museum during the latter part of June.

APPENDIXES.

APPENDIX I.

THE MUSEUM STAFF.

[June 30, 1903.]

S. P. Langley, Secretary of the Smithsonian Institution, Keeper Ex-officio.
Richard Rathbun, Assistant Secretary, in charge of U. S. National Museum.
W. de C. Ravenel, Administrative Assistant.

SCIENTIFIC STAFF.

DEPARTMENT OF ANTHROPOLOGY:

Otis T. Mason, Acting Head Curator.

- (a) *Division of Ethnology*: O. T. Mason, Curator; Walter Hough, Assistant Curator; J. W. Fewkes, Collaborator.
- (b) *Division of Physical Anthropology*: A. Hrdlicka, Assistant Curator.
- (c) *Division of Historic Archeology*: Paul Haupt, Honorary Curator; Cyrus Adler, Honorary Assistant Curator; I. M. Casanowicz, Aid.
- (d) *Division of Prehistoric Archeology*.
- (e) *Division of Technology (Mechanical phases)*: J. E. Watkins, Curator; George C. Maynard, Assistant Curator.
Section of Electricity: George C. Maynard, Custodian.
- (f) *Division of Graphic Arts*:
Section of Photography: T. W. Smillie, Custodian.
- (g) *Division of Medicine*: J. M. Flint, U. S. Navy (Retired), Honorary Curator.
- (h) *Division of Religions*:
Section of Historic Religious Ceremonials: Cyrus Adler, Custodian.
- (i) *Division of History and Biography*:
Section of American History: A. H. Clark, Custodian; Paul Beckwith, Aid.

DEPARTMENT OF BIOLOGY:

Frederick W. True, Head Curator.

- (a) *Division of Mammals*: Frederick W. True, Acting Curator; G. S. Miller, jr., Assistant Curator; Marcus W. Lyon, jr., Aid.
- (b) *Division of Birds*: Robert Ridgway, Curator; Charles W. Richmond, Assistant Curator; J. H. Riley, Aid.
Section of Birds' Eggs: William L. Ralph, Honorary Curator.
- (c) *Division of Reptiles and Batrachians*: Leonhard Stejneger, Curator; R. G. Paine, Aid.
- (d) *Division of Fishes*: Tarleton H. Bean, Honorary Curator; Barton A. Bean, Assistant Curator.
- (e) *Division of Mollusks*: William H. Dall, Honorary Curator; Paul Bartsch, Aid; William B. Marshall, Aid.
- (f) *Division of Insects*: L. O. Howard, Honorary Curator; W. H. Ashmead, Assistant Curator; R. P. Currie, 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.
Section of Arachnida: Nathan Banks, Custodian.

DEPARTMENT OF BIOLOGY—Continued.

(g) *Division of Marine Invertebrates*: Richard Rathbun, Honorary Curator; J. E. Benedict, Assistant Curator; Miss M. J. Rathbun, Assistant Curator; Miss Harriet Richardson, Collaborator.

Section of Helminthological Collections: C. W. Stiles, Custodian.

(h) *Division of Comparative Anatomy*: Frederic A. Lucas, Curator.

(i) *Division of Plants (National Herbarium)*: Frederick V. Coville, Honorary Curator; J. N. Rose, Assistant Curator; C. L. Pollard, Assistant Curator; W. R. Maxon, Aid in Cryptogamic Botany.

Section of Forestry: B. E. Fernow, Honorary Curator.

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

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

Section of Lower Algae: G. T. Moore, Custodian.

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

Associates in Zoology (Honorary): Theodore N. Gill, C. Hart Merriam, R. E. C. Stearns.

DEPARTMENT OF GEOLOGY:

George P. Merrill, Head Curator.

(a) *Division of Physical and Chemical Geology (Systematic and Applied)*: George P. Merrill, Curator; W. H. Newhall, Aid; W. C. Phalen, Aid.

(b) *Division of Mineralogy*: F. W. Clarke, Honorary Curator; Wirt Tassin, Assistant Curator; L. T. Chamberlain, Honorary Custodian of Gems and Precious Stones.

(c) *Division of Stratigraphic Paleontology*: Charles D. Walcott, Honorary Curator; Charles Schuchert, Assistant Curator.

Section of Vertebrate Fossils: F. A. Lucas, Acting Curator.

Section of Invertebrate Fossils: Paleozoic, Charles Schuchert, Custodian; 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: Lester F. Ward, Associate Curator; A. C. Peale, Aid; F. H. Knowlton, Custodian of Mesozoic Plants; David White, Custodian of Paleozoic Plants.

Associate in Paleontology (Honorary): Charles A. White.

ADMINISTRATIVE STAFF.

Superintendent, J. E. Watkins.

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

Librarian, Cyrus Adler.

Assistant Librarian, N. P. Scudder.

Disbursing Clerk, W. W. Karr.

Editor, Marcus Benjamin.

Photographer, T. W. Smillie.

Registrar, S. C. Brown.

Supervisor of Construction, J. S. Goldsmith.

Property Clerk, W. A. Knowles (Acting).

APPENDIX II.

LIST OF ACCESSIONS, 1902-3.

- ABBOTT, Dr. W. L., Singapore, Straits Settlements: Large and exceedingly valuable collections of natural history material from the coast and islands of northwestern Sumatra and the Riau Peninsula, south of Singapore, including several hundred mammals, birds, reptiles, and batrachians, fishes and insects, representing a large number of species, several being new to science; also very interesting collections of ethnological material from Sumatra, Andaman, and Nicobar Islands, comprising several hundred specimens illustrating the arts and industries of primitive tribes (39649, 40243); one large and two small Polynesian boats (41161).
- ABERT, CHARLES. (See under Smithsonian Institution.)
- ABERT, CONSTANTIA. (See under Smithsonian Institution.)
- ABRAMS, L. P., San Diego, Cal.: Two plants from California. 41199.
- ABRAMS, R. L., Inglewood, Cal.: Ten plants from California. 41222.
- AGASSIZ, Dr. ALEXANDER. (See under Museum of Comparative Zoology, Cambridge, Mass.)
- AGRICULTURE, BUREAU OF, Manila, P. I.: Seven hundred and sixty-eight plants from the Philippine Islands, obtained principally by the Bureau of Forestry (40645); 600 plants collected chiefly by Mr. E. D. Merrill (40646). Exchange.
- AGRICULTURE, DEPARTMENT OF, Hon. James Wilson, Secretary: Nine hundred and twenty-four specimens of Diptera collected in Texas and Mexico by Prof. C. H. T. Townsend (39656);
- AGRICULTURE, DEPARTMENT OF—Cont'd. received through the Biological Survey, dried specimens of invertebrates from Hudson Bay, collected by Mr. E. A. Preble (40020); 50 specimens of fresh-water and marine shells from the Hudson Bay region (40028); gall insects, parasitic Hymenoptera and Diptera, representing the collection of Dr. William Brodie, Toronto, Canada (40171); received through Dr. L. O. Howard, lizard, *Cnemidophorus gularis*, from Goliad County, Texas, collected by Hon. J. D. Mitchell (40188); 2 species of land shells from Guatemala (40193); 9 specimens of land shells from Mexico, collected by Messrs. E. W. Nelson and E. A. Goldman (41080); slugs in alcohol, from Cuba, Texas, and Florida (41151); received through the Biological Survey about 30 specimens, representing 5 species of land and fresh-water shells from Mexico (40406); 6 beetles (40423).
- Material deposited in the National Herbarium:* Plant, collected by Mr. H. Mertens at Unalaska (39616); 4 specimens of *Ribes*, collected in New Mexico by Prof. T. D. A. Cockerell (39666); 23 specimens of *Ribes*, collected by Mr. L. Spath, Berlin, Germany (39680); plants, collected by Mr. F. A. Walpole in Alaska (39770); plant, collected by Miss Dorothy Merriam in California (39775); 2 specimens of *Cotyledon*, collected by Mrs. Blanche Trask in California (39781); plant from South America (40059); 3 plants from the District

AGRICULTURE, DEPARTMENT OF—Cont'd.
of Columbia (40082); 168 plants, collected in Alaska by Messrs. A. H. Brooks and C. G. Pringle (40100); specimen of *Amphisbena* and specimen of *Typhlops* from Porto Rico, collected by Dr. August Busck (40116); plant from Mr. W. L. R. Lynd, Dover, New Jersey (40126); 143 plants, collected in the District of Columbia by Mr. George H. Shull (40172); 8 plants from Texas, collected by Mr. Vernon Bailey (40245); 326 plants from Oregon, collected by Mr. F. V. Coville (40246); 2 plants from California, collected by Mr. J. B. Davy (40247); 6 plants from New Mexico, collected by Mr. D. W. Caldwell (40248); 2 plants from California, collected by Dr. C. Hart Merriam (40249); 4 plants from California, collected by Mr. H. M. Hall (40250); 5 plants from Wyoming, collected by Messrs. T. A. Williams and David Griffith (40251); 214 plants from Washington, collected by Mr. J. B. Flett, of Tacoma (40268); 631 plants, collected in Alaska by Mr. M. W. Gorman (40285); 5 plants from the United States (40294); 176 plants, collected in Alaska by Mr. W. L. Poto (40302); 5 plants from Michigan and other localities (40318); 67 plants from the University of Minnesota, obtained by various collectors from different localities (40319); 130 plants, collected in Alaska by Mr. A. J. Collier (40320); about 100 plants, collected in Alaska by Mr. F. A. Walpole (40372); 2 plants from Washington, collected by Mr. J. B. Flett (40373); 34 plants from California, collected by Mr. H. M. Hall (40374); plant from California, collected by Mr. D. P. Barrows (40386); 41 plants, collected in Ontario and Washington by Mr. F. V. Coville (40387); plant from Canada, collected by Dr. J. Fletcher (40388); 3 plants, collected by Dr. C. Hart Merriam and Mr. E. A. Preble in California and British Columbia (40472); 69 plants, collected in Utah by Mr. H. I.

AGRICULTURE, DEPARTMENT OF—Cont'd.
D. Langille (40492); plants, collected in Oregon by Mr. F. A. Walpole (40493); 2 plants from Porto Rico, collected by Mr. C. F. Curt (40535); 9 plants from various localities (40536); 87 plants from Alaska (41540); 27 plants from Alaska (40541); 3 plants from El Paso, Texas, collected by Mr. J. H. Giant (40563); 256 plants from California, collected by Dr. V. K. Chesnut (40564); 772 plants, collected by Mr. David Griffith in Washington and Oregon (40591); 4 plants from New Mexico (40724); 2 plants from Vancouver Island (40794); 3 plants from Idaho (40795); about 200 plants, collected in Michigan by W. F. Wight in 1902 (40801); 3 plants (*Picea*) from Canada, collected by Mr. F. V. Coville (40827); 3 plants (conifers) from Arizona, collected by Mr. Coville (40828); conifers, principally from California, collected by Dr. C. Hart Merriam and Mr. Vernon Bailey (40829); 31 plants from California, collected by Mr. Vernon Bailey (40830); 3 plants from California, collected by Dr. A. K. Fisher (40831); 11 plants from California, collected by Messrs. C. Hart Merriam and Vernon Bailey (40832); 8 plants from British Columbia, collected by Mr. E. A. Preble (40833); 12 plants from Texas, collected by Mr. Vernon Bailey (40834); 24 plants from California, collected by Dr. C. Hart Merriam (40835); 32 plants from California, collected by Dr. C. Hart Merriam (40836); plant from California, collected by Mrs. M. H. Manning (40937); 95 plants, collected by Mr. F. V. Coville in the western section of the United States and Mexico (40940); 10 specimens of *Junci* from Louisiana, Utah, and Georgia, collected by Messrs. C. R. Ball, M. E. Jones, and A. H. Curtiss (40989); 9 plants from Maryland, collected by Mr. Coville (40990); 309 plants, collected in Texas, New Mexico, and California by Mr. Vernon Bailey (41027); 5 plants from Oregon and

- AGRICULTURE, DEPARTMENT OF—Cont'd.
 Washington (41028); 82 specimens of grasses, collected in the District of Columbia by Mr. L. H. Dewey (41101); plant, collected in the District of Columbia by Mr. E. L. Morris (41163).
 (See under W. J. Beal; Berlin, Germany, Botanical Museum; J. J. Crowley; E. M. Ehrhorn; H. O. Hall; R. M. Harper; John W. Harshberger; Sheldon Jackson; Minnesota, University of; Hon. J. D. Mitchell; E. N. Plank; Scientific American; J. F. Shaw; Jared G. Smith; J. A. Townsend; Mrs. Blanche Trask; F. M. Webster; F. L. Wyckoff.)
- ALEXANDER, WILLIAM H., San Juan, Porto Rico: Marine shells. 40226.
- ALFKEN, J. D., Städtisches Museum für Natur-Völker, Handelskunde, Bremen, Germany: Two cotypes of *Agriotes cremiodes* Meyer. 39995.
- ALLEN, THOMAS W., St. Joseph, Mo.: Carboniferous fossiliferous shales. Exchange. 40863.
- ALLEN, WILLIAM F., Pacific Grove, Cal.: About 50 plants from California. 41168.
- ALLISON, ANDREW, Bay St. Louis, Miss., and Lobdel, La.: Four specimens of Bat, *Pipistrellus subflavus*, from Georgia (39599); 10 plants (39620); 4 birds' skins (39646); toad (*Bufo tentiginosus*), from Bay St. Louis (39712); toad (39787); 33 birds' skins from Mississippi (39840); Tree frog, *Hyla gratiosa* (39872); mole (*Scalops aquaticus*), (39967); toad (*Engystoma carolinense*), (40704); bat (*Lasiurus borealis seminotus*), (40882); 2 specimens of Florida red bat, *Lasiurus borealis seminotus*, from Louisiana (41055); Spadefoot, *Scaphiopus holbrookii* (40103); snake (*Storeria dekayi*) (41157). (See also under Charles Marshall.)
- AMERICAN ENTOMOLOGICAL COMPANY, Brooklyn, N. Y.: Received through Mr. George Franck, manager. Four moths (new to the Museum collection). Exchange. 41174.
- AMERICAN ENTOMOLOGICAL SOCIETY, Philadelphia, Pa.: One hundred and twenty-one specimens, representing 95 specimens of Mexican and Cuban Ichneumonidae. Exchange. 40805.
- AMERICAN MUSEUM OF NATURAL HISTORY, New York City: Instrument for measuring skull capacity. Loan. 8411.
- AMERICAN WALTHAM WATCH COMPANY, Waltham, Mass.: Received through Mr. E. A. Marsh, general superintendent. Mounted and unmounted photographs of a large model watch movement. 41128.
- AMES, OAKES, North Eaton, Mass.: Seven specimens of orchids from Cuba. Exchange. 40814.
- AMI, Dr. H. M., Geological Survey of Canada, Ottawa, Canada: Two specimens of *Trocholites canadensis* from Montmorency River, Quebec. 40335.
- ANDERSON, C. R., Victoria, British Columbia: Plant from British Columbia. 41203.
- ANDERSON, J. R., Victoria, B. C.: Plants from British Columbia. (40675; 40804).
- ANDERSON, O. M., Wilmington, N. C.: Plant from North Carolina. 40138.
- ANDERSON, Rev. R. W., Wando, S. C.: Oak-galls (40866); Moth (*Manestra laudabilis* Gn.), and a Tortricid (40996).
- ANDRÉ, ERNEST, Haute-Saône, France: Ten specimens of Mutillids including 4 cotypes. Exchange. 39684.
- ANTRIM, Walter. (See under Pennsylvania Railroad Company.)
- ARMSTRONG, C. C. (See under W. N. Clute.)
- ARMY MEDICAL MUSEUM. (See under War Department.)
- ARNOLD ARBORETUM, Jamaica Plain, Mass.: Twenty-eight specimens of *Cratogeomys* from the United States. Exchange. 41000.
- ARNOLD, Ralph, Pasadena, Cal.: Specimens of Miocene ostracoda. 40792.
- ASPINWALL, F. E., Atlanta, Ga.: Four plants from Georgia. 39871.

- AUSTIN, W. M., McLallen Corners, Pa.: Water beetle, *Cybistes fimbriolatus* Say. 39601.
- BAARDA, P. J., van, Bedford, Mass.: One hundred and twenty-five specimens of mosses from Holland. 41141.
- BABCOCK, MRS. P. H., Washington, D. C.: Basket and bundle of Georgia pine straws (40364); coiled basket of wire grass from Sorrento, Florida (40696).
- BACKUS, H. H., Riverside, Cal.: Snake (*Lampropeltis multicinctus*) from California. 40187.
- BACON, S. E., Erie, Pa.: Specimens of *Nymphaea*. (39623; 39739).
- BAGLEY, Prof. W. S., Waterville, Me.: Specimen of *Obolus phaeon* (?). 40465.
- BAILEY, Gen. G. W., Waterville, Minn.: Four Chinese dolls and a portion of the tusk of a Mastodon (39619); pottery drinking cups, pottery idol, vase, and steel mirror (40042).
- BAILEY, VERNON, Washington, D. C.: Fourteen specimens of *Cacti* from Texas (39833); received through the Department of Agriculture, 3 plants from New Mexico (41030). (See also under Department of Agriculture.)
- BAKER, Maj. A. D., Dundee, N. Y.: Specimen of Ichneumon-fly, or "Long Sting," *Rhyssa persuasoria* Linnaeus. 39970.
- BAKER, C. F., Leland Stanford Junior University, Stanford University, Cal.: Two hundred and eighty-one plants from California (purchase) (39782); 82 specimens of Diptera from Ormsby, Nevada, and Santa Clara and Mateo counties, California (gift) (40308); 747 plants from Nevada and the Pacific slope, California (purchase) (40390); 6 specimens (2 species) of Hermit-crabs from Nicaragua (gift) (40928); 60 specimens (28 species) of marine, land, and fresh-water shells principally from Nicaragua (gift) (40948); specimen of *Sedum* from California (gift) (41103).
- BAKER, DR. FRANK, Superintendent, National Zoological Park: Bread bowl, stone hammer, stone hatchet, and a stone ax. 40890. (See also under
- BAKER, DR. FRANK—Continued.
Smithsonian Institution, National Zoological Park.)
- BAKER, F. C. (See under Chicago Academy of Sciences.)
- BAKER, L. E., Chester, Pa.: Photograph of tablet erected by the Daughters of the American Revolution, April 19, 1903, at Chester. 41194.
- BAKER, WILLIAM H. (See under Postal Telegraph Cable Company.)
- BALDRIDGE, MRS. MARIA, San Pedro, Cal.; Los Angeles, Cal.: Three specimens of *Cypraea spadicea* (40436); 3 specimens (2 species) of marine mollusks from Newport Beach, near San Pedro, Cal. (40763); 3 specimens of *Murex* from California (41036).
- BALDWIN-ZEIGLER POLAR EXPEDITION: Received through Mr. J. R. Champ, secretary. Miscellaneous invertebrates, mollusks, fishes, fossils, rocks, and fossil plants from Franz Josef Land. 40988.
- BALÉE, Miss M. V., Shepardsville, Ky.: Flint spearhead with core of nodule. 40920.
- BALL, C. R. (See under Department of Agriculture.)
- BALL, G. ARTHUR, Edmonton, Alberta, Canada: Nest and 3 eggs of Canada Jay, *Perisoreus canadensis*, from northwest Canada (purchase) (39891); skin of Canada Jay (gift) (40478).
- BALLAUF, D., Washington, D. C.: Model of the Jacobi electric motor. Purchase. 40789.
- BANCROFT, W. J., Lowell, Mass.: Jade tablets and jade seal. Purchase. 40837.
- BANG-HAAS, A. (See under A. Standing.)
- BANGS, OUTRAM, Boston, Mass.: Two hundred and ninety-four birds' skins from Central America and Colombia (exchange) (40076); 2 specimens of *Basileuterus melanotis* (40545); 52 birds' skins from Honduras (gift) (40641).
- BANNERMAN GRANITE COMPANY, Chicago, Ill.: Cube of granite from a quarry at Redgranite, Waushara County, Wis. 40077.

- BARBER, A. W., General Land Office, Interior Department, Washington, D. C.: Hearth of fire-drill and a specimen of Indian turnip or "Tipsinna." 40328.
- BARBER, H. S., U. S. National Museum: Copperhead snake, *Agkistrodon contortrix*, from Plummers Island, Maryland, (39705); Red bat, *Lasiurus borealis* (39794). (See also under Rolla P. Currie.)
- BARD, T. D., Chelsea, Ind. T.: Specimen of Franklin's Gull, *Larus franklini*. 40893.
- BARNES, GEORGE D. (See under W. C. Barnes.)
- BARNES, W. C., Decatur, Ill.: Three hundred and forty-three specimens of Lepidoptera. 40360.
- BARNES, W. C. and E. M. DUNCAN, Sanibel, Fla.: Received through George D. Barnes. Marine shells from Sanibel Island. 40278.
- BARROTT, A. F., Oswego, N. Y.: Rude grooved axe, double bladed, from McGuire's wharf, Westmoreland County, Va. 40869.
- BARROWS, D. P. (See under Department of Agriculture.)
- BARTLETT, H. H., Indianapolis, Ind.: Phyllopod from Fall Creek, near Indianapolis (40932); specimen of *Natrix kirklandii* from Indiana (41071).
- BARTLETT, RUTH A., Kittery, Me.: Specimen of Moth (*Eudryas grata* Fabr.). 39731.
- BARTSCH, PAUL, U. S. National Museum: Skull of black bear, *Ursus americanus*, from the Dismal Swamp, Va. 40602.
- BASSLER, R. S., U. S. National Museum: Fossils of the Cincinnati formation from Ohio, Indiana, and Kentucky (40227); Richmond and Clinton formation fossils from Indiana and Ohio (40228).
- BATES, Dr. E. N., Boston, Mass.: Fifty-one United States musket flints (40616); flint-lock gun formerly owned by John Burns (40659).
- BEAL, W. J., Agricultural College, Mich.: Received through Department of Agriculture. Two hundred plants from Michigan. Exchange. 40142.
- BEARDEN, C. E., Wylie, Tex.: Larva of a lepidopterous insect. 41106.
- BECK, R. H., Berryessa, Cal. Received through Ernst Hartert, Tring Museum, Tring, England: Five birds' skeletons from Galapagos and other Pacific coast islands (40326); 327 birds' skins from the Galapagos islands and vicinity (40912). Purchase.
- BECKWITH, PAUL, U. S. National Museum: Lithographic copy of an anniversary ode to the late President McKinley, executed by the Sisters of Mary of Baltimore, Maryland (gift) (39956); bronze official souvenir badge of the thirty-sixth annual encampment of the Grand Army of the Republic (gift) (40009); 2 single-barrel Spanish fowling pieces (exchange) (40224); collection of miscellaneous photographs (gift) (40354); 2 silver groats, Edward I of England, 1154-1179 A. D., and 2 copper coins, Ptolemy II to Ptolemy VIII, 285-247 B. C. (gift) (40709); half maravadi of Ferd VII, 1826, Spain (gift) (40819); land document, Baltimore County, Maryland, 1744, with the seal of the Province of Maryland (gift) (40821); invitation to the dedication ceremonies of the Louisiana Purchase Exposition, April 30 and May 1, 1903; complimentary card and admittance card to grounds (gift) (40985); pistol and a revolver (purchase) (41001); silver groat of Edward 1st, King of England, 1272-1307 (gift) (41190).
- BEECHER, Dr. C. E. (See under Yale University Museum.)
- BEDE, Prof. J. W., Indiana University, Bloomington, Ind.: Five specimens of *Pleurotomaria* from the Waverly formation near Bloomington (gift) (40178); specimens of foraminiferal washings from the St. Louis formation near Harrodsburg, Indiana. Exchange. 40198.

- BELDING, L., Stockton, Cal.: Nest and 3 eggs of *Wilsonia pusilla pileolata* from California (39760); 30 specimens of *Nymphaea polysepala* from Stockton, Cal. (39764).
- BELL, C. C., and C. S. TAINTER, Washington, D. C.: Bronze medal. Loan. 8399.
- BETZHOVER, G. M., jr. (See under John Strother.)
- BENEDICT, J. E., jr., Woodside, Md.: Forty-six specimens of *Emerita telpoida* (Say) from Asbury Park, N. J. 39878.
- BENJAMIN, MRS. MARCUS, Washington, D. C.: Three baskets. Exchange. 40163.
- BENJAMIN, DR. MARCUS, U. S. National Museum: Five samples of materials used in the manufacture of baskets (40690); badge of the American Association for the Advancement of Science, Denver, Colo., 1901 (41136).
- BENSON, Capt. H. C., U. S. A., Jefferson Barracks, Mo.: One hundred and thirty-three birds' eggs from New Mexico and Arizona (40427); 14 birds' eggs from the Philippine Islands (40483).
- BERGMAN, F. W., Suitland, Md.: Great Blue heron. 39724.
- BERLIN, GERMANY, BOTANICAL MUSEUM: Five hundred and seventy plants from Europe and Africa (39600); received through the Department of Agriculture, 95 plants from Europe and Africa (39665). Exchange.
- BERNICE PAUAI BISHOP MUSEUM, HONOLULU, HAWAIIAN ISLANDS: Received through Mr. William T. Brigham, director. Forty-four birds' skins, and 4 birds' nests and eggs, from the island of Guam, collected by Mr. A. Seale. Exchange. 40537.
- BIDDLE, H. B., Washington, D. C.: Digger-wasp, *Stizus speciosus* Drury. 39814.
- BIEDERMAN, C. R., Florence, Ariz.: Ten specimens of Cicindelas from Harrison, Ark., and 7 specimens from Rogue River, Oregon. 40987.
- BILLUPS, A., Lawrenceburg, Ind.: Fresh-water shells. 40044.
- BIOLEY, Prof. P., Instituto Físico-Geográfico de Costa Rica, San José, Costa Rica: Two species of lizards from Cocos Islands. 40400. (See also under San José, Costa Rica.)
- BIOLOGICAL SOCIETY OF WASHINGTON. (See under J. H. Schuette.)
- BIRD, HENRY, Rye, N. Y.: Four moths of the genus *Gortyna* and 3 larvae. Exchange. 40348.
- BITTENBENDER, HOWARD, Bloomsburg, Pa.: Spear head and 10 arrow points. 39943.
- BLACKWELL, W. A., Northeast, Md.: Specimen of Hellbender, *Cryptobranchus alleghaniensis*, from the Susquehanna flats. 40135.
- BLAKE, C. C., Woman's Temple, Chicago, Ill.: Two cubes of oolitic limestone; from Green River, Kentucky, and Bedford, Ind. 40173.
- BLANKINSHIP, J. W., Bozeman, Mont.: Fifteen plants from Montana. 41165.
- BLATCHLEY, Dr. W. S., State geologist, Indianapolis, Ind.: Specimen of "Blue racer," *Bascanion flaviventris*, from Indiana. 40780.
- BÖHM, Julius, Vienna, Austria: Piece of a meteorite from Ergheo, Somaliland, Africa, 427 grams. Exchange. 40844.
- BOLTON, Dr. H. C., Washington, D. C.: Specimen of dolomite from Cortina, Austrian Tyrol (40011); silver facsimile of a sealing-wax impression made by Dr. Joseph Priestley (40225); jewsbarp (40679).
- BONAR, Capt. R. M., assistant surgeon, U. S. A., Dosmarinos, Cavite, P. I.: Two katydids belonging to the family Locustidae. 39924.
- BOND, FRANK, Washington, D. C.: Weasel, *Putorius nigripes*, from Cheyenne, Wyo. 41014.
- BOTANIC GARDENS. (See under Sydney, New South Wales, Australia.)
- BOTANICAL MUSEUM. (See under Berlin, Germany.)
- BOUCARD, A., Oak Hill, Spring Vale, near Ryde, Isle of Wight, England: Three birds' skins. Purchase. L. P. X. 40600.

- BOULE, DR. M. (See under Paris, France, Museum of Natural History.)
- BOULENGER, G. A. (See under Sir George Newnes.)
- BOUVIER, Prof. E. L. (See under Paris, France, Museum of Natural History.)
- BOWDISH, B. S., New York City: Skin of *Euphonia sclateri* from Porto Rico. 40124.
- BOWER, JOHN, Sr., Philadelphia, Pa.: Badge of the Farragut Association of Naval Veterans, 1861-1865. 40107.
- BOWLES, J. H., Tacoma, Wash.: Two nests and 5 eggs of Streaked horned lark, *Otocoris alpestris strigata*, from Washington. 40157.
- BOWMAN, C. W., Devils Lake, N. Dak.: Golden-eye duck. 39673.
- BOWMAN, E. L., Clarion, Pa.: Specimen of *Cermtia forceps* L. 39658.
- BOWMAN, WILLIAM A., Lloyd, Mont.: Nineteen birds' eggs from Montana. 40112.
- BRACE, A. C., Canandaigua, N. Y.: Myriapod representing the species *Cermtia forceps* L. 40229.
- BRADFORD, Rear-Admiral R. B. (See under Navy Department.)
- BRADFORD, Mrs. SIDNEY, Avery Island, La.: Four negatives of baskets. Loan. 8457. (Returned.)
- BRAINERD, ERASTUS, Seattle, Wash.: Silver medal struck in Germany in commemoration of the visit of Prince Henry of Prussia to the United States (40614); 8 specimens of gold from Idaho Bar, Rampart district, Alaska, and 2 specimens of gold and silver from Slate Creek, same district (40608).
- BRAINERD, DR. EZRA, Middlebury College, Middlebury, Vt.: Two hundred and eight specimens of violets from Vermont (gift; exchange) (39988; 40060); 55 specimens of violets (exchange) (40078).
- BRAKELEY, J. TURNER, Hornerstown, N. J.: Living larvæ, pupæ and eggs of Culicidæ. 40213.
- BRANCH, H. SELWYN, Roseau, Dominica, West Indies: Eight birds' skins and 5 beetles. 39651.
- BRANDEGEE, T. S., San Diego, Cal.: Forty-six plants from Lower California (gift) (40559; 40577; 40578); 326 plants from Arizona and California, collected by C. A. Purpus (purchase) (40603); 122 plants from Lower California (exchange) (40729).
- BRANNER, Dr. J. C., Stanford University, Cal.: Two fossil crabs from Brazil. Deposit. 39624.
- BRAUNTON, ERNEST, Los Angeles, Cal.: Seven hundred plants from California (purchase) (40322); 12 plants from California (gift) (40758; 40884; 41050).
- BRESCIA, ATHENÆUM. (See under Smithsonian Institution.)
- BRETON, Miss ADELE, Peabody Museum, Cambridge, Mass.: Twelve obsidian flaked implements. 40300.
- BREZINA, ARISTIDES, Vienna, Austria: Meteorites from Jellica, Merceditas, and San Juliao. Exchange. 40676.
- BRIGHAM, Hon. J. H. (See under Government Board, Pan-American Exposition.)
- BRIGHAM, Dr. W. T. (See under Bernice Pauahi Bishop Museum, Honolulu, Hawaiian Islands.)
- BRIMLEY, C. S., Raleigh, N. C.: Four dragon-flies (gift) (39679); 6 specimens of dragon-flies, including *Nehalemia posita* Hagen, *Anomalagrion hastatum* Say, and *Lestes rectangularis* Say (gift) (40038); 8 specimens of *Pamphila carolina* Skinner (purchase) (40871); 5 dragon-flies (gift) (40915); 11 specimens of *Odonata* (gift) (41063).
- BRIMLEY, H. H. (See under State Museum, Raleigh, N. C.)
- BRIMLEY BROTHERS, Raleigh, N. C.: Reptiles and batrachians from Mexico and the United States (39697; 40041). Purchase.
- BRINK, T. F., Nashville, Ill.: Chrysalis of butterfly (*Grapta interrogationis* Fabr.) 39631.
- BRITISH MUSEUM. (See under London, England.)
- BRITTON, L. H., Edgewater, N. J.: Indian woven scarf. Loan. 8149.

- BRIZARD, BROUSSE, Arcata, Cal.: Unmounted photographs of Indian baskets. 40486.
- BRIZARD, PAUL A. (See under Phoenix Wood and Coal Company; also under "The Curio.")
- BROCKETT, PAUL, Smithsonian Institution: Woodcut design of Washington Monument; life of Jefferson Davis in five tableaux, and eight campaign badges. 40627.
- BRODIE, DR. WILLIAM. (See under Department of Agriculture.)
- BROOKS, A. H. (See under Department of Agriculture.)
- BROOMFIELD, G. W., Mackinaw Island, Mich.: Caddis-worms of a neuropteroid insect belonging to the order Trichoptera. 41127.
- BROWN, C. T., Richmond, Va.: Copper coin (Hindu-Britannic). 40666. (See also under Department of Agriculture.)
- BROWN, E. J., Lemon City, Fla.: Reptiles, birds, bats, and insects from Lemon City. 40301.
- BROWN, MRS. J. CROSBY, Orange, N. J.: Nyckelhaupa (purchase) (39663); fiddle of American make (gift) (39752); bass horn, gourd mandolin, and 2 cane flutes (exchange) (41172).
- BROWN, N. H., Lander, Wyo.: Specimens of Triassic fossils. 39774.
- BROWN, MRS. N. M., Ashtabula, Ohio: Three hundred and thirty-two plants collected in Mexico by E. W. Nelson and E. A. Goldman (purchase) (39718); 318 plants collected by the same persons (purchase) (39719); 248 plants from Mexico collected by Mr. Nelson (purchase) (40604); 128 plants from Mexico also obtained by Mr. Nelson (purchase) (40755).
- BROWN, THOMAS, Department of Agriculture, Auckland, New Zealand: Received, through Dr. L. O. Howard, five specimens of insects. 40995.
- BROWN, REV. WILLIAM, Northbend, Wash.: Three specimens of *Lycoperdon giganteum* from Spokane County. 40003.
- BROWNE, DR. W. G., Atlanta, Ga.: Two specimens of Lubber grasshopper, *Dictyopharus reticulatus* Thunb. (39670; 39671).
- BROWNLEY, E., Norfolk, Va.: Caterpillar of *Lagoa crispata* Packard. 39864.
- BRUES, C. T., Zoological Laboratory, Columbia University, New York City: Thirty-seven specimens of Hymenoptera and 3 specimens of Coleoptera. 40143.
- BRYAN, W. ALANSON, Bernice Pauahi Bishop Museum, Honolulu, Hawaii: Four lizards and specimens of crustaceans from Marcus Island (40394; 40737).
- BRYSON, MRS. MARY, Barton, Fla.: Pewter plate. 39795.
- BUCKMAN, MRS. M. N. (See under Smithsonian Institution, Bureau of Ethnology.)
- BULKLEY, MRS. A. L. (See under National Society of the Daughters of the American Revolution.)
- BULKLEY, BARRY. (See under Citizens' Executive Committee, G. A. R. Encampment.)
- BULLARD, CHARLES, Cambridge, Mass.: Thirty specimens of *Nymphaea* from Wisconsin. 39850.
- BUMGARDNER, EDWARD, Lawrence, Kans.: Six botanical specimens from Kansas, including *Staphylea trifolia* L.; *Euonymus atropurpureus* Jacq.; *Rhamnus lanceolata* Pursh; *Cornus amomum* Will (?); *Amorpha fruticosa* L., and *Cornus asperifolia* Michx. 39877.
- BUNNELL, J. H. & Co., New York City: received through A. J. Wise: Knox & Shain Morse telegraph registers Nos. 8032 and 8095. (40788; 40906.)
- BURGESS, L. S., Washington, D. C.: Painting on shell and a cutting knife. Loan. 7826.
- BURMEISTER, W. L. J., Chicago, Ill.: Digger Indian skull and some small bones. 40664.
- BURR, MRS. EBENEZER, Bridgeport, Conn.: Pomo Indian basket from Lake County, Cal.; three photographs. 40776.

- BUSCK, AUGUST, Department of Agriculture: Forty-six specimens of *Chilomycteris* from Baracoa, Cuba. 40691. (See also under Department of Agriculture.)
- BUTLER, Miss FAUSTINA, Portland, Me.: Plant. 39662.
- BUTTON, F. L., Oakland, Cal.: Five specimens, 2 species, of land shells from Mexico (39778); specimen of *Nettastomella darwini* Cpr. from Bolinas, Cal. (40338).
- CAHN, LAZARD, New Brighton, N. Y.: Fourteen specimens of minerals. Purchase. 40957. L. P. X.
- CALCUTTA, INDIA, ROYAL GARDENS: One hundred and twenty plants from India. Exchange. 39917.
- CALDWELL, D. W. (See under Department of Agriculture).
- CALDWELL, H. R., Foochow, China: Birds' eggs, insects, and coins of China. 40345.
- CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Cal.: Plant from Nevada, collected by Prof. P. B. Kennedy (gift) (40183); 20 plants from California (exchange) (40280); 4 specimens of *Cotyledon* from Monterey, collected by Miss Alice Eastwood (exchange) (40663).
- CALIFORNIA, UNIVERSITY OF, Berkeley, Cal.: Four specimens of *Cotyledons*. 39854.
- CALLAHAN, J. H., Baltimore, Md.: Evans pioneer gun. Purchase. 40743.
- CALLIER, A., Rossweil, Saxony, Germany: Two hundred and seventy-three plants from Russia. Exchange. 40647.
- CALVERT, Dr. P. P., Academy of Natural Sciences, Philadelphia, Pa.: Four species of dragon flies (new to the Museum collection). 40334.
- CALVERT, Lient. W. J., U. S. A., Fort McHenry, Baltimore, Md.: Moro gun made in Mindanao and captured at the surrender of Manila. Loan. 7688.
- CANBY, W. M., Wilmington, Del.: Forty specimens of *Crataegus* from Delaware. Exchange. 40817.
- CANNON, W. A., New York Botanical Garden, Bronx Park, N. Y.: Two hundred and thirty-five plants collected on Roan Mountain, North Carolina. (40964; 40965.) (Purchase and gift.)
- CARRICO, E. T., Stithton, Ky.: Five unmounted photographs taken during a storm in Stithton, 2 arrowheads, spearhead, and specimen of pottery. 40052.
- CARROLL, J. A., superintendent, Mescalero Indian Agency, Mescalero, N. Mex.: Mescalero Apache basket. Exchange. 40469.
- CARROLL, J. J., Waco, Tex.: Abnormal egg of White-necked Raven, *Corvus cryptoleucus*, from Texas (gift) (39627); 4 eggs of Mexican Jacana, *Jacana spinosa* (exchange) (39824).
- CARROLL, J. M., Washington, D. C.; received through W J McGee: Nails believed to have been used in the construction of the White House, and in making repairs after the partial burning of the building in 1813. 39742.
- CARRUTH, F. H. & J. H., Lobdell, La.: Bat (*Corynorhinus macrotis*). 40787.
- CARRUTH, G. H., Lobdell, La.: Carabid beetle, *Calosoma sayi* Dejean. 40972.
- CARTER, Dr. R. K., Blue Ridge Summit, Pa.: Chrysomelid beetle, *Coptocycla guttata* Olivier. 39856.
- CASTE, F. L., Sandyville, W. Va.: Specimen of Walking-stick, *Diapheromera femorata* Say. 39901.
- CASTO, Capt. MARK, Pleasantville, N. J.: Two marine shells from New Jersey. 40534.
- CATHCART, Miss E. W., Washington, D. C.: Plant from Maryland. 40315.
- CATTELL, G. W., Woodbury, N. J.: Specimen of wood from New Jersey. 39702.
- CAUDELL, A. N., Department of Agriculture: Two hundred and ninety-six insects (40147); 5 insects of the family Locustidae (40760).
- CECONI, Dr. GIACOMO, Vallombrosa, Florence, Italy: Bats and reptiles. Purchase. 39771.
- CHAMBERLAIN, E. B., Washington, D. C.: Two specimens of mosses from Maine. 40314.

- CHAMP, J. H. (See under Baldwin-Zeigler Polar Expedition.)
- CHANDLER, H. P., Lincoln School, Pasadena, Cal.: Plant from California. 40356.
- CHANDLER, HORACE, Fairville, New Brunswick: Clover-mite (*Bryobia pratensis* Garman). 39889.
- CHAPMAN, MRS. C. N., Sault Ste. Marie, Mich.: Thirteen specimens of Eskimo clothing and implements from Fort Churchill, Canada. Purchase. 41187.
- CHAPMAN, MRS. E. M., Washington, D. C.: Ancient and modern silver and copper coins. 41018.
- CHERRIE, GEORGE K., Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.: Six bats from Venezuela. 39808.
- CHESNUT, V. K., Bozeman, Mont.: Three plants from Montana (39874; 39890). (See also under Department of Agriculture.)
- CHICAGO ACADEMY OF SCIENCES, Chicago, Ill.: Received through Frank C. Baker, deep-sea shells from Yacatan Channel (gift) (40150); received through William K. Higley, 6 mounted birds (exchange) (41158).
- CITIZENS' EXECUTIVE COMMITTEE, G. A. R. Encampment, 1902: Received through Barry Bulkley, secretary, 38 badges of the Thirty-sixth National Encampment of the G. A. R., held at Washington, D. C., October 6-10, 1902. 39977.
- CLARK, Prof. HUBERT LYMAN, Olivet College, Olivet, Mich.: Received through Professor Wheeler, plant from Michigan (39964); lizards from Jamaica (40330); snake (*Eutania brachystoma*) from Michigan (40949); 4 batrachians from Michigan (41072); 11 fishes, including *Lycodontis moringa*; *Labrisomus pectinifer*; *Trachinotus*; *Monacanthus*; *Siphostoma*; *Fierasfer affinis*, and *Fundulus* (41227).
- CLARK, T. B., New York City: Four specimens of ancient glassware from Syria. Purchase. 39736.
- CLARK, Prof. WILLIAM B., Johns Hopkins University, Baltimore, Md.: Specimens of washings containing fossil Ostracoda. Exchange. 40395.
- CLARKE, HOPEWELL, St. Paul, Minn.: Rocks and ores from near Winston, Mont. (39635); specimens of malachite and malachite calcite (39882).
- CLEMENTS, F. E., Minnehaha, Colo.: Two specimens of *Sedum* from Colorado. 39768.
- CLOONAN, E. A., St. Louis, Mo.: Dragonfly, *Anax junius* Drury. 39865.
- CLUTE, W. N., Binghamton, N. Y.: Thirty-five ferns from New Zealand, collected by C. C. Armstrong. Purchase. 40284.
- COCKERELL, Prof. T. D. A., East Las Vegas, N. Mex.: Unio from New Mexico (39862); Coleoptera, Diptera, Hymenoptera and other orders (39888); 16 specimens (4 species) of hymenopterous parasites (39999); 90 specimens of insects from New Mexico (40115); 47 parasitic Hymenoptera, bred from coccids collected at Zapotlan, Mexico, by Prof. C. H. Tyler Townsend (40204); insects, mollusks, and crustaceans (40255); cotype of *Lamprenpis chichimeca* Wheeler and Melander, from Mexico (40257); carboniferous fossil, 3 mesozoic fossils and 7 fossil plants (40458); 471 specimens of insects, including Diptera, Trichoptera, Coleoptera, Orthoptera, Hymenoptera, Rhynchota, and Lepidoptera (40612); 3 specimens of cockleburrs, *Xanthium* (40687); miscellaneous insects (40703); amphipods, leeches, and a geophilid from Las Vegas Hot Springs (40707); plant from New Mexico (40722); 2 plants from New Mexico (40725); 91 specimens of Lepidoptera, 24 specimens of Orthoptera, 39 specimens of Diptera, 63 specimens of Hymenoptera, and 1 specimen of Neuroptera (40998); miscellaneous insects (41042); mollusks and crustaceans from San Pedro, Cal. (41075); 11 land shells from Pecos, N. Mex. (41170). (See under Department of Agriculture.)
- COCKS, R. S., New Orleans, La.: Two plants from Louisiana. 40803.

- COKER, R. E., U. S. Fish Commission, Beaufort, N. C.: Annelids from Beaufort. 40978.
- COLEY, JAMES, Norway, S. C.: Snake. 40841.
- COLLIE, G. L., Beloit College, Beloit, Mich.: Nine species of Mokawkian fossils from the Bellefont section, Pennsylvania. 41008.
- COLLIER, A. J. (See under Department of Agriculture; also under Interior Department, U. S. Geological Survey.)
- COLLINS, F. S., Malden, Mass.: Seventy-five specimens of Algae (39728); 100 specimens of plants (*Phycotheca Boreali-Americana*) (40362); 50 specimens of North American algae (41205). Purchase.
- COLLINS, G. N., and O. F. Cook, Department of Agriculture. Two dragonflies, stone-fly, and ant-lion from Tapachula, Mexico. 40096.
- COLLINS, J. F., Providence, R. I.: Twenty-one specimens of violets from Rhode Island. Exchange. 40857.
- COLLINS, WILLIAM A., Waterbury, Conn.: Spider, *Argiope auratia* Lucas (= *Argiope riparia* Hentz). 39907.
- COLT'S PATENT FIREARMS MANUFACTURING COMPANY, Hartford, Conn.: Received through L. C. Grover, president. Two automatic Colt pistols (40481; 40999).
- COLUMBIA COLLEGE, New York City. Plant obtained by Dr. M. Darlington at West Chester, Pa. 40898.
- COMSTOCK, Prof. J. HENRY, Cornell University, Ithaca, N. Y.: Type specimen of *Lysiognatha comstockii*. 40397.
- CONGDON, J. W. (See under Miss Alice Eastwood.)
- COOK, Prof. O. F., Department of Agriculture: Two specimens of Phryniids from Porto Rico (40098); 24 miscellaneous insects and arachnids from Porto Rico (40203). (See under New York Botanical Garden; also under G. N. Collins.)
- COOKE, A. C., East Liberty, Ohio: Luna moth, *Actias luna* Linnaeus. 39628.
- COOKE, Dr. P. M., Denver, Colo.: Specimen of Grapevine leafhopper, *Typhlocyba vitis* Harris. 40097.
- COOKE, W. W., Department of Agriculture: Nest and 3 eggs of *Helminthophila pinus*. 41225.
- COOPER, WILLIAM, Milo, Me.: Sample of rock with supposed traces of animal or plant life. 39743.
- COOPER, W. B., U. S. National Museum: Bronze 50 cash, issued 1850-1851, by the Tartar dynasty, Chinese Empire. 40412.
- COPPER QUEEN CONSOLIDATED MINING COMPANY, New York City. Received through James Douglas, president. Tinted stalactite and sections of Nacozari ores (39773); 2 sections of tinted stalactite (39755).
- COQUILLET, D. W., Department of Agriculture: 2,214 specimens of Diptera. 39585.
- CORBETT, L. L., Watkins, N. Y.: Seventeen stone implements. 40510.
- CORNING, J. H., Washington, D. C.: Cube of polished marble from quarry at Eakles Mills, Washington County, Md. 40237.
- COSSMANN, M. MAURICE, Paris, France: Three species of rare Eocene fossils from the Paris basin. 39918.
- COUGHLIN, Mrs. W. H. (See under Mather, Fred, estate of.)
- COVILLE, F. V. (See under Department of Agriculture.)
- COX, EMERY, Brightwood, D. C.: Screech owl, *Megascops asio*. 39797.
- COX, Miss HAZEL, Brightwood, D. C.: Oven-bird, *Seiurus aurocapillus*. 39870.
- CRAIGHEAD, ERWIN, Mobile, Ala.: Hoodoo charm used by the negroes of Alabama. 41160.
- CRAWFORD, JOSEPH, Philadelphia, Pa.: Plant. 39961.
- CRAWFORD, LAMAR, Washington, D. C.: Stone implements, fragments of pottery, etc., from a rock-shelter on Spuyten Duyvil Creek, near Fort George, Manhattan Island, N. Y. 41004.

- CRAWFORD, MRS. MARGARET, Brightwood, D. C.: Snowy owl, *Nyctea nyctea*. 40986.
- CROSBY, D. J., Department of Agriculture: Specimen of *Panax quinquefolium* collected in Virginia. 40454.
- CROSBY, F. W. Washington, D. C.: Trilobites from Mount Stephens on the Canadian Pacific Railroad (gift) (39980); glacial clay from West Seattle, Wash. (purchase) (40027); 2 specimens of concretionary diorite from near San Diego, Cal. (gift) (41049).
- CROSBY, W. O., Massachusetts Institute of Technology, Boston, Mass.: Specimen of native arsenic from Santa Cruz County, Ariz. Exchange. 40399.
- CROSS, L. T. (See under Montello Granite Company.)
- CROSS, WHITMAN. (See under Interior Department, U. S. Geological Survey.)
- CROWLEY, J. J., Logan, Mont.: Received through Department of Agriculture. Plant from Montana. 41146.
- CROZIER, Brig. Gen. WILLIAM, U. S. A. (See under War Department.)
- CUMMINS, M. D., Pierceton, Ind.: Arrowheads, hatchets, and fossils from Kosciusko County, Ind., and 3 specimens of ore from Colorado and Kansas. 39735.
- CURRIE, R. P., and H. S. BARBER, U. S. National Museum: 3,982 insects representing different orders from Plummers Island, Maryland. 40106.
- CURRY, Capt. GEORGE. (See under Hon. Bernard S. Rodey.)
- CURT, C. F. (See under Department of Agriculture.)
- CURTISS, A. H. (See under Department of Agriculture.)
- CUSHING, Mrs. F. H., Garrett Park, Md.: Forty-six blankets, baskets, pottery, and other articles. Purchase. 41193.
- CUSHING, FRANK H. (deceased). (See under Smithsonian Institution, Bureau of Ethnology.)
- CUSICK, W. C., Union, Oreg.: Two specimens of *Sedum* from Oregon (40034); 24 plants from Oregon (40500).
- CUTTS, Mrs. F. G., Riverside, Wash.: Pupa of Sphinx-moth. 41209.
- DAGGETT, Hon. JOHN, Black Bear, Cal.: Piece of twine used by the Indians of the Lower Klamath River in making their nets, and specimen of plant from which a fiber resembling hemp is obtained. 39798.
- DANIEL, J. W., jr., Washington, D. C.: Bat (*Molossus fosteri*); rat (*Oryzomys*), from Sapucay, Paragnay. 41062. (See under A. Royster.)
- DANIEL, Dr. Z. T., Siletz Indian Agency, Oreg.: Brass key and a potato masher. 39677.
- DANIELS, L. E., Indianapolis, Ind.: Twenty-five specimens of Carboniferous insects. Deposit. 40339.
- DANNEFAERD, S., Auckland, New Zealand: Two specimens of *Apteryx laryeri* from Stewart Islands, New Zealand. Purchase. 40075.
- DANNEHL, HENRY. (See under James McDonnell.)
- DARLINGTON, Dr. M. N. (See under Columbia College, New York.)
- DAVENPORT, Dr. C. B., University of Chicago, Chicago, Ill.: Four species of fresh-water bryozoans. 40611.
- DAVENPORT, H. C., East Orange, N. J.: Trapogan Pheasant, *Trapogan satyra* (40134); Sonnerat's Jungle fowl, *Gallus sonnerati*, and a Brazilian tree duck, *Dendrocygna riduata* (40467); Trapogan Pheasant (*Cerionis*) (40496); 7 birds, in the flesh, including 3 specimens new to the Museum collection (40683); Bean goose (40747); 3 specimens of Black-winged peacock, *Pavo nigripennis*; also 3 specimens of *Gallus lafayetti*, *Pavo cristatus* variety (41125); specimen of *Gallus varius* and a specimen of *Chrysolophus amherstii* (41178); Java peacock, *Pavo muticus*; 3 Jungle fowls (*Gallus bankiva*) and a hybrid *Gallus bankiva* × *sonnerati* (41184).
- DAVIDSON, A., Los Angeles, Cal.: Four plants from California (40934; 41069).
- DAVIS BROTHERS, Diamond, Ohio: Four-barrel Remington pepper-box pistol (40607); six-shot revolver, Maynard patent, 1845; six-shot Connecticut Arms Company revolver, 1834 (40944). Purchase.

- DAVY, J. B. (See under Department of Agriculture.)
- DAULEY, COLE, Dade City, Fla.: Spider (*Acrosoma gracile* Walkener). 40447.
- DAY, DR. D. T., U. S. Geological Survey: Two specimens of magnetite from the eastern section of Porto Rico (40854); minerals from Santa Catalina Island, California, collected by Mr. Splittstoesser (40874). (See also under Interior Department, U. S. Geological Survey.)
- DAYTON, C. N., New York City: Twenty-four photographs. Purchase. 41060.
- DEAM, C. C., Bluffton, Ind.: Three specimens of *Trillium* (40698); 4 plants representing the species *Cardamine pennsylvanica* Möhl and *Trillium sessile* L. (41021).
- DEANE, CECIL A. (See under Smithsonian Institution, Bureau of Ethnology.)
- DEDRICK, A. V., Seattle, Wash.: Specimens of stream tinstone and iron, from a placer deposit on Buck Creek. 40393.
- DEEMER, CHRISTIAN, National Military Home, Dayton, Ohio: Two brass screws and a gilded wooden ball from the U. S. S. *Cumberland*. 40132.
- DEINARD, EPHRAIM, Kearny, N. J.: Hebrew ceremonial objects. Purchase. 39909.
- DE KALB, W. C., U. S. Fish Commission: Leaves and flowers of *Nymphæ variegata* from Tar Kiln Pond, near Little Sebago Lake, North Windham, Me. 39608.
- DELAY, C. R., Nuthall, Ind. T.: Copy of ordinance to dissolve the union between the State of Mississippi and other States. 39790.
- DEMOKIDOFF, K., St. Petersburg, Russia: Five specimens of hymenopterous parasites representing 2 species (40708); 2 hymenopterous parasites (*Cutolaccus* (*Pteromalus*) *pellucidus* Förster) (41197).
- DEMPSEY, P. O., Langdon, D. C.: Piece of wood from Chancellorsville battlefield, transfixed by a ramrod. Purchase. 40741.
- DENTON, S. F., Wellesley Farms, Mass.: Six mounted fishes, including *Exocoetus volitans*, *Lactophrys tricornis*, *Scarus*
- DENTON, S. F.—Continued.
caruleus, *Scarus vetula*, *Pseudoscarus guacamaia*, and *Diodon hystrix*. Purchase. (See also under U. S. Fish Commission.) L. P. X. 40678.
- DE PEER, HOWARD, Carlock, Ill.: Specimens of *Leptocoris tririttata* Say. 40144.
- DESCHAMPS, EMILE, Shanghai, China: Fishes from India, and crustaceans, echinoderms, insects, and shells from Singapore and vicinity. Purchase. 39708.
- DEWEY, L. H. (See under Department of Agriculture.)
- DEY, J. H., Evergreen, Ala.: Eggs of *Microcentrum retinerve*. 40099.
- DEYROLLE, LES FILS D'EMILE, Paris, France: Twenty-two specimens of Mesozoic corals from France (40793); small collection of mammals (41017). Purchase.
- DICKINSON, W. E., New York City: Two Aleutian baskets (purchase, L. P. X.) (40876); Aleutian baskets (purchase) (40877).
- DIDCOTT, JOHN, Ottawa, Ohio: Carved elk horn. Purchase. L. P. X. 40781.
- DILLER, DR. J. S. (See under Interior Department, U. S. Geological Survey.)
- DINWIDDIE, COURTEXAY, Greenwood, Va.: Parasitic wasp (*Mutilla occidentalis* Linnaeus). 39843.
- DINWIDDIE, W. W., U. S. Naval Observatory, Washington, D. C.: Specimens of marcasite and lignite from Washington, D. C. (39906; 40376.)
- DISBROW, DR. W. S., Newark, N. J.: Two coin balances and an astronomical model. 40279.
- DITMARS, R. L., New York Zoological Park, New York City: Five young water snakes from South Carolina 39896; 39897.
- DOANE, R. W., Fisheries Experiment Station, Pearson, Wash.: Shrimps. 40533.
- DODGE, BYRON E., Davison, Mich.: Stone relics. Deposit. 8037.
- DODGE, C. K. (See under E. L. Morris.)
- DODGE, G. M., Louisiana, Mo.: Nine specimens of Lepidoptera. 40477.

- DOUGLAS, JAMES. (See under Copper Queen Consolidated Mining Company.)
- DOTY, C. E., Washington, D. C.: Forty-one photographs of scenes in Habana and vicinity. 40304.
- DOUVILLE, Prof. HENRI. (See under Paris, France, École des Mines.)
- DOWELL, PHILIP, U. S. National Museum: Plants from Connecticut, District of Columbia, and other localities. (39830; 39950; 39951.)
- DRAKE, C. M., Eureka, Cal.: Specimen of *Boschniaka strobilacea* Gray, from California. 39948.
- DRESDEN, GERMANY, Royal Zoological and Anthropological-Ethnographical Museum: Received through Dr. A. B. Meyer. Small mammals (40668); specimens of *Scops manadensis* from Celebes (40791). Exchange.
- DRIVER, F. W., Montserrat, West Indies: Three lizards. 39747.
- DUDLEY, J. G., National Zoological Park, Washington, D. C.: Red bat, *Lasiorus borealis*. 41088.
- DUGÈS, Dr. A., Guanajuato, Mexico: Fifty-three specimens of Mexican insects (gift) (39935; 40573); 32 insects (exchange) (40121); parasitic insects (gift) (40593); 14 wasps and a bee (gift) (40878).
- DUMAREST, Rev. M. (See under Smithsonian Institution, Bureau of American Ethnology.)
- DUNCAN, E. M. (See under W. C. Barnes.)
- DUPREY, H. F., Santa Rosa, Cal.: Twenty-seven flint arrowheads. 40742.
- DURBAN, NATAL, AFRICA, Natal Botanic Garden: Received through J. Medley Wood, curator. One hundred South African plants. Exchange. 39801.
- DURY, CHARLES, Cincinnati, Ohio: Thirty specimens, 8 species of Diptera (40375); 4 specimens of Diptera and Lepidoptera (1 species new to the collection) (40532).
- DYAR, Dr. HARRISON G., U. S. National Museum: One hundred and six specimens of Diptera from Center Harbor, New York (40014); 229 specimens of
- DYAR, Dr. HARRISON G.—Continued.
insects (40148); plant from British Columbia (41167).
- EAMES, Dr. E. H., Bridgeport, Conn.: Fifty-one plants from Connecticut. Exchange. 40317.
- EASTWOOD, Miss ALICE, California Academy of Sciences, San Francisco, Cal.: Two specimens of Cotyledons from Santa Barbara (exchange) (39603); 7 plants from California (gift) (39784); co-type of *Spraguea pulchella* Eastwood, collected in California by J. W. Congdon (gift) (39828); 14 plants from California (40800; 40813; 41112; 41149; 41202). (See also under California Academy of Sciences.)
- EATON, A. A., Seabrook, N. H.: One hundred specimens of *Pteridophyta* from New England (40389); 50 specimens of *Equisetum* from Massachusetts (40730). Exchange.
- EATON, Dr. T. T., Louisville, Ky.: Blank check on the Bank of Martinique. 41188.
- EDWARDS, VINAL N. (See under U. S. Fish Commission.)
- EGGLESTON, W. W., Rutland, Vt.: Four plants from Vermont. 40139.
- EGYPT EXPLORATION FUND, London, England: Received through Miss Emily Patterson. Ten pieces of Egyptian papyri. 39965.
- EHRHORN, EDWARD M., Mountain View, Cal.: Received through Department of Agriculture: One hundred and seventy-nine specimens of insects, including Rhynchota, Diptera, and Hymenoptera. 40702.
- EIGENMANN, Dr. C. H., Indiana State University, Bloomington, Ind.: Twenty-seven specimens (4 species) of crustaceans from Cuba. 40026. (See also under Indiana, University of.)
- EISEN, Dr. GUSTAV, San Francisco, Cal.: Received through Dr. L. O. Howard: Two hundred and twenty-three specimens of insects from Antigua and Guatemala, including Hymenoptera, Hemiptera, Orthoptera, and Neuroptera. 40174.

- ELLIOT, D. G., Field Columbian Museum, Chicago, Ill.: Two bats. 40186.
- ELLIOTT, C. B., Riverside, Conn.: Crab-spider, *Acrosoma rugosum* Htz. 39903.
- ELLIOTT, R. M., U. S. Fish Commission: Turtle, *Kinosternon pennsylvanicum*, from the Potomac River. 41057.
- ELLIS, GEORGE W., Monrovia, Liberia: Two hundred and fourteen ethnological specimens. Loan. 8512.
- ELMER, A. D. E., Paloalto, Cal.: Two hundred plants from California. Purchase. 40062.
- EMERSON, A. S. (See under National Marble Company, Murphy, N. C.)
- EMERSON, Prof. B. K., Amherst College, Amherst, Mass.: Fourteen specimens of diabase and associated rock from Massachusetts. 40343.
- EMMONS, Lieut. G. T., U. S. N., Princeton, N. J.: Tobacco bag, Kuskokwim lamp, 2 berry-winnowing baskets and 37 gambling sticks (exchange) (40054); Alaskan basket (gift) (40055); set of tools used by a Tlinkit Indian wood-carver in making dugout canoes, masks, etc. (gift) (40238); ethnological objects from British Columbia (purchase) (40349); baskets, masks, and other objects (purchase) L. P. X. (40383); South coast basket (exchange) (40881); 2 masks, 2 mortars, wand club, and a wooden figure (purchase) (41221). (See under Smithsonian Institution, Bureau of American Ethnology.)
- ENGLISH, G. L., & Co., New York City: Nineteen specimens of minerals (purchase) (40155); specimen of anargite and 2 specimens of fluorite (purchase) L. P. X. (40156); 8 specimens of minerals (purchase) L. P. X. (40590); 9 specimens of minerals from the Andes of Ovalle, Chile (purchase) L. P. X. (40958).
- EXTWISTLE, W. B., Washington, D. C.: Specimen of Florida galinule, *Gallinula galeata*. 39983.
- ESOPUS MILLSTONE COMPANY, Kingston, N. Y.: Received through Mr. A. Hayes. Small millstone from quarries near Accord, N. Y. 39921.
- ESTERLEY, G. W., Washington, D. C.: Caseworm (*Thyridopteryx epheremaformis* Hald). 39629.
- EVERMANN, Dr. B. W., U. S. Fish Commission, Washington, D. C.: Plants, land and fresh-water shells from California. (40324; 41044.)
- FAHS, R. Z., Kirkland, Wash.: About 50 specimens (11 species) of land and fresh-water mollusks from the north-western section of the United States. 40487.
- FALL, Prof. H. C., Pasadena, Cal.: Thirty-seven beetles, 30 being cotypes. 40210.
- FARGO, J. F.: Received through Mr. Wirt Tassin, U. S. National Museum. Cornudum in granite from San Antonio Canyon, San Bernardino County, Cal. Exchange. 40955.
- FARRINGTON, Prof. O. C. (See under Field Columbian Museum.)
- FAXON, Dr. WALTER. (See under Museum of Comparative Zoology.)
- FEATHERSTONHAUGH, Dr. THOMAS, Washington, D. C.: Three watch movements. 40325.
- FERGUSON, A. M., University of Texas, Dallas, Tex.: Specimen of *Sedum* from Texas (40629); plant from Texas (40629).
- FERGUSON, C. B., Sulzer, Prince of Wales Island, Alaska: Specimen of epidote. 40129.
- FERNALD, M. L., Gray Herbarium, Cambridge, Mass.: Twenty plants from Maine. Exchange. 40815.
- FERRIS, C. C., San Diego, Cal.: Butterfly (*Thecla humuli* Harris). 40161.
- FEWKES, Dr. J. WALTER, Bureau of American Ethnology: Eleven torches from Porto Rico and 2 saddle baskets (40914); 2 Spanish swords (40927); cylindrical basket made from a palm-leaf sheath, in open-coiled work with cover, made by prisoners in a Porto Rican prison (40113); bond indemnity for possession of slaves, issued in Porto Rico, April 6, 1876 (41054).
- FIBLE, Miss SARAH, Philadelphia, Pa.: Hat, belt, unfinished belt, baskets, and specimens of raphia. 39938.

- FIELD COLUMBIAN MUSEUM, Chicago, Ill.: Plaster cast of a stone collar (exchange) (40162); received through Mr. F. J. V. Skiff, director, cast of sculptured cylindrical stone (exchange) (40351); received through Prof. S. E. Meek, reptiles and batrachians from Mexico (exchange) (40379); meteorite from Saline Township, Kans. (exchange) (40585); received through Dr. O. C. Farrington, section of meteorite from Indian Valley, Floyd County, Va. (exchange) (40853).
- FINN, LOUIS D., Blacksburg, S. C.: Specimen of iron ore and asbestos from mines near Blacksburg. 40740.
- FISCHER, V. G., Washington, D. C.: Three baskets and a leather water bottle. 40043.
- FISH COMMISSION, U. S., Hon. G. M. Bowers, Commissioner: Paddle-fish, Dog-fish, and Gar-pike (39959); Cirripeds from Porto Rico, collected by the steamer *Fish Hawk*, in 1889 (39998); received through Vinal N. Edwards, crabs, shrimps, and fishes from Woods Hole, Mass. (40084); molds of fishes made by S. F. Denton for the Fish Commission exhibit at the World's Columbian Exposition (40186); dried plants from islands in the central Pacific Ocean, obtained during the cruise of the *Albatross* in 1899-1900 (40199); 4 specimens (type and cotypes) of *Procelsterna savatilis* from Necker Island (40215); crabs representing the genus *Panopeus*, from Sheepscot River, Maine, collected by W. C. Kendall (40363); crustaceans, corals, and mollusks collected during the *Albatross* Hawaiian Expedition of 1902 and the Samoan Expedition of the same year (40409); received through Dr. C. H. Gilbert, Hawaiian (*Albatross*) crustaceans and corals (40520); received through Dr. D. S. Jordan, Japanese fishes collected by the steamer *Albatross* (40525); types and several cotypes of fishes collected in Maine by W. C. Kendall (40673); specimen of darter, *Hadropterus evermanni*, cotype, collected in Lake Tippecanoe, Indiana, by W. J. Moenkhaus (40686); about
- FISH COMMISSION, U. S.—Continued.
1,000 specimens of land and freshwater shells from Indiana (40807); imperfect skeleton of a cetacean representing the species *Pseudorca crassidens* (40812); plants collected by Mr. Chan- cey Juday at Twin Lakes, Colorado (41091); 81 birds' skins, principally from Laysan Island, birds' eggs and nests from Laysan Island and Necker Island, and 2 human skulls and frag- ments of skulls from Lanai, Hawaiian Islands (41092). (See under Dr. O. P. Jenkins.)
- FISHER, Dr. A. K., Department of Agri- culture: Nest and 4 eggs of *Helmin- thophila pinus*. 41226. (See also under Department of Agriculture; and Hardin Irwin.)
- FLEMING, J. H., Lake Joseph, Muskoka, Ontario, Canada: Specimen of *Nymphaea variegata* from Lake Joseph. 39689.
- FLETCHER, Dr. JAMES, Central Experi- ment Farm, Ottawa, Canada: Speci- mens of *Nymphaea hybrida* and *Nymphaea variegata* (39704); received through Dr. L. O. Howard, cynipid gall (39758); 25 specimens of Lepidoptera (40484); 3 plants from Canada (40561). (See under Department of Agriculture.)
- FLETCHER, ORRIN K., Acting Hospital Steward, Manila, Philippine Islands: Two eggs of *Megapodius cunninggi* from the Philippine Islands. 40701.
- FLETT, J. B., Tacoma, Wash.: Specimens of *Nymphaea polysepala*, and 120 plants from Washington (gift and exchange). 39606; 40111. See under Department of Agriculture.)
- FLINT, Dr. JAMES M., U. S. N. (retired): Japanese martin (*Mustela*). 40352.
- FOLS, F. J., Marion, Ky.: Specimen of fluorite (gift) (40660); 19 species of subcarboniferous fossils and 2 speci- mens of prismatic sandstone (gift) (40721); specimen of fluorite (ex- change) (40798).
- FOOTE MINERAL COMPANY, Philadelphia, Pa.: Fourteen specimens of minerals from various localities (purchase) (40127); tourmaline in lepidolite from

- FOOTE MINERAL COMPANY—Continued.
Mesa Grande, Cal. (purchase) (40380); 11 specimens of minerals from various localities (purchase) (40571); 23 specimens of minerals from various localities (exchange) (40711); 6 specimens of minerals (purchase) (40956). L. P. X.
- FOOTE, WARREN M., Philadelphia, Pa.: Specimens of footite. 40713.
- FOREST AND STREAM PUBLISHING COMPANY, New York City: Two brook trout, *Salvelinus fontinalis*. 40784.
- FORESTRY BUREAU. (See under Bureau of Agriculture, Philippine Islands)
- FOSS, Capt. F. E., U. S. N., Washington, D. C.: Relic taken from a church in Parana province, Philippine Islands, 40424.
- FOSTER, FREDERIC DE P. (See under Saint Nicholas Society.)
- FOSTER, WILLIAM, Sapucay, Paraguay, South America: Mammal skins, birds' eggs, 23 birds' nests and 11 birds' skins, also collection of natural history specimens (39979; 40346; 41039); 721 specimens of insects (41122). Purchase.
- FOWKE, GERARD, Chillicothe, Ohio: Prehistoric Indian relics; 12 flint nodules from near Corydon, Ind. (40160; 41217). (See under Smithsonian Institution, Bureau of American Ethnology.)
- FRANCK, GEORGE. (See under American Entomological Company.)
- FRANK, H. L., President Montana Sandstone Company, Butte, Mont.: Received through J. E. Horsford, Helena, Mont. Samples of sandstone, onyx, and granite from Montana. 40342.
- FRANCESCO, Dr. C. F., Santa Barbara, Cal.: Seeds from California. 40726.
- FRASER, Dr. W., Corwith, Iowa: Sphinx-moth. 39835.
- FRENCH, Dr. CECIL, Washington, D. C.: Young wild turkey from near Warrenton, Va. (40123); canvas-back duck (40353); skin of Cinnamon teal, *Querquedula cyanoptera*, from Texas (40476).
- FRIEND, EDGAR N., Washington, D. C.: Specimen of lead-covered telephone cable. 40516.
- FRIERSON, L. S., Frierion, La.: Three specimens of *Meretrix* from China
- FRIERSON, L. S.—Continued.
(39605); fresh-water shells (40312); 8 specimens of weevils representing the species *Chalcodermus xneus* Boheman (41105).
- FRYER, Mrs. M. A. B., Kingston, Jamaica: Carved stone metate. Purchase. 40001.
- GALPIN, Rev. F. W., Hatfield Vicarage, Harlow, England: Two reproductions of musical instruments, viz, a zinck or zinker of German manufacture during the sixteenth century, and an Italian Cromornia. 40023.
- GANT, J. H. (See under Department of Agriculture.)
- GARDNER, N. L., University of California, Berkeley, Cal.: Two specimens of Cotypeleons from California. 41024.
- GARRETSON, CHARLES, Reliance, Va.: Wild cat, *Lynx rufus*. Purchase. 40408.
- GEARHART, PETER, Clearfield, Pa.: Worm belonging to the genus *Gordius*. 39933.
- GEE, N. GIST, Soochow University, Department of Natural Sciences, Soochow, China: Three small miniature figures carved in wood. 40550.
- GERRARD, E., & SONS, London, England: Skeleton of an Australian goose, *Cereopsis norw hollandia*. 39645.
- GILBERT, Mrs. A. P., Logan, Okla.: Specimen of *Eremobates pallipes* Say. 39746.
- GILBERT, Dr. C. H. (See under U. S. Fish Commission.)
- GILL, DE LANCY. (See under Smithsonian Institution, Bureau of Ethnology.)
- GILVE, A. P., Logan, Okla.: Sulphugid, *Eremobates pallipes* Say. 39819.
- GIRAULT, A. A., Virginia Polytechnic Institute, Blacksburg, Va.: Four specimens of parasitic Hymenoptera (40681); 4 specimens of *Synergus batatoides* Ashm. (40918).
- GLENX, Prof. L. C., Vanderbilt University, Nashville, Tenn.: Meteorite from 3 miles northwest of Hendersonville, N. C. Exchange. 41155.
- GOLDMAN, E. A., Washington, D. C.: Fourteen plats from Mexico and California. (39809; 40699.) (See under Department of Agriculture; also under Mrs. N. M. Brown).

- GOLDSMITH, B., Washington, D. C.: Badge presented to Spanish War Veterans by the District of Columbia. Purchase. 39905.
- GORBY, S. S. (See under Hon. J. H. Stotsenburg.)
- GORDON, JAMES B., Stonington, Me.: Cube of granite from quarries at Crotch Island, Maine. 39952.
- GORMAN., M. W. (See under Department of Agriculture.)
- GOULD, Miss M. M. (See under Smithsonian Institution, Bureau of Ethnology.)
- GOVERNMENT BOARD, PAN-AMERICAN EXPOSITION, Buffalo, N. Y.: Received through Hon. J. H. Brigham, chairman. Philippine collection of ethnological objects and natural-history material exhibited under the Government Board at the Exposition. Deposit. 39609.
- GRABAU, Dr. A. W., Columbia University, New York City: Specimens of Rochester shale fossils from western New York. Exchange. 40864.
- GRANT, Brig. Gen. F. D., U. S. A. (Bequeathed by Mrs. Julia Dent Grant to the National Museum): Ancient Japanese gold cabinet presented to Mrs. Grant by the Empress of Japan; pair of modern bronze vases presented to Mrs. Grant by the Emperor of Japan; lady's gold toilet set and seven cups presented to Mrs. Grant by the King and Queen of Siam; lady's ornamental scent bottle made of filagree silver and sent to Mrs. Grant by the Maharaja of Dekkan; Japanese poems written by a celebrated Japanese poet and presented to General Grant during his visit in Japan; dress worn by Mrs. Grant at the second inaugural ball of General Grant; pair of white satin slippers worn by Mrs. Grant; Siamese chest of bamboo and gilt presented to Mrs. Grant by the King and Queen of Spain (40392); 24 relics of General Grant, including regulation riding boots and belt, saddle, valise, commissions, addresses of welcome, menu cards, certificates of membership to various military and other orders, etc. (40682).
- GRANT, Brig. Gen. F. D., U. S. A., San Antonio, Tex.: Shoulder straps worn by himself during the Porto Rican campaign and in the Philippine Islands (gift) (40692); sword worn by himself during the Spanish-American war (gift) (40838); death mask of the late Gen. U. S. Grant (deposit) (8152).
- GRANT, F. H. McK., North Carlton, Melbourne, Victoria, Australia: Specimen of Upper Silurian starfish and a specimen of Lower Silurian cephalopod. Exchange. 40295.
- GRANT, GEORGE B., Pasadena, Cal.: Plant from California. 40993.
- GRANT, JESSE R. (See under Brig. Gen. F. D. Grant.)
- GRANT, U. S. (See under Brig. Gen. F. D. Grant.)
- GRAVES, Dr. C. B., New London, Conn.: Sixteen specimens of violets from Connecticut. Exchange. 40219.
- GRAY HERBARIUM, Cambridge Station, Boston, Mass.: Two hundred and twenty-five plants from different localities (exchange) (40101); 3 plants from California and Mexico (gift) (40218); 34 plants from various localities (exchange) (40816).
- GREBLE, Mrs. E., Washington, D. C.: Three baskets. Loan. 7908. (Returned.)
- GREEN, R. A., U. S. National Museum: Bat (*Myotis subulatus*), from Maryland. 39841.
- GREGER, D. K., Fulton, Mo.: Three species of marine shells (gift) (39729); Cambrian fossils from Potosi, Mo., and vicinity (exchange) (39744); 5 specimens of *Rhynchonella striatocostata* from the Upper Choteau limestone of Tabius River, Knox County, Mo. (exchange) (40785).
- GREGORY, V. H., Chiswick, London, England: Ten meteorites. Purchase. 40619.
- GRIFFITH, DAVID. (See under Department of Agriculture.)
- GRINNELL, JOSEPH, Palo Alto, Cal.: Two skins (topotypes) of *Dendroica ustira brewsteri*. 40895.

- GRINOLD, EMERSON R., Grand Ledge, Mich.: Cast of Indian pipe in Grand Ledge fire clay. Exchange. 40488.
- GROUT, Dr. A. J., Brooklyn, N. Y.: Fifty specimens of mosses from the United States and Ecuador (exchange) (40046); 50 specimens of mosses from the United States (purchase) (40491).
- GROVER, L. C. (See under Colt's Patent Fire Arms Manufacturing Company.)
- GRUBBS, Dr. R. B., assistant surgeon U. S. A., Iligan, Philippine Islands: Snake, scorpion, and slug from the Philippine Islands. 40233.
- GRUMBACH, Ernest, Pueblo, Cal.: Opossum (*Marmosa murina*). 40179.
- GUERDRUM, S. C., Mount Pleasant, Washington, D. C.: Mammals from Iowa. Purchase. 39996.
- GUTHRIE, OSSIAN, Chicago, Ill.: Glacial boulders from Sacket Harbor, N. Y. 40497.
- HAGGETT, Mrs. G. B., Zuñi, N. Mex.: Three Zuñi baskets of modern manufacture. 39741.
- HALL, Miss Annie S., Cincinnati, Ohio: Gold medal presented to Charles Francis Hall by the Société de Géographie of France. 40030.
- HALL, H. M., University of California, Berkeley, Cal.: Fifty plants from California. (39831, 40628, 40759, 40885, 40904, 40935, 41084). (See also under Department of Agriculture.)
- HALL, H. O., Washington, D. C.: Received through Department of Agriculture. Plant from Maryland. 40035.
- HAMILTON, S. H., American Museum of Natural History, New York City: Two specimens of manganese from Panupo, Santiago, Cuba. Purchase. 39587.
- HAMMELL, John, Madison, Ind.: Specimens of Richmond fossils. Exchange. 40307.
- HANLEY, D. T., Baltimore, Md.: Five-barreled revolver. Purchase. 40851.
- HANSON, Dr. C. C., Ocoto, Wis.: Collection of Buddhistic religious objects. Purchase. 39920.
- HARDESTY, OWEN G. (See under Smithsonian Institution, Bureau of Ethnology.)
- HARDING, E. H., Washington, D. C.: Pair of silver spectacles worn by John Harding, aid to General Washington during the war of the Revolution. 40413.
- HARPER, R. M., Collegepoint, N. Y.: Twelve specimens of *Dryopteris floridana* from Georgia (exchange), (40047); 155 specimens of Algae, fungi, Bryophyta and Pteridophyta collected in Georgia (purchase), (40504); about 40 specimens of Cretaceous and Eocene fossils from western Georgia (gift), (40507); 505 plants from Georgia (purchase), (40685); 2 plants from Virginia, received through the Department of Agriculture (41129).
- HARRIMAN ALASKAN EXPEDITION. Received through Prof. Trevor Kincaid, University of Washington, Seattle, Wash.: Isopods. 40695.
- HARRINGTON, W. HAGUE, Ottawa, Canada: Received through Dr. L. O. Howard. Nine specimens of Diptera. 40333.
- HARRIS, Lieut. Jesse R., U. S. A., Washington, D. C.: Brass coin balance. 40498.
- HARRIS, L. C., Eldorado, Cal.: Cranium of a Digger Indian found in a cave, and a sacrificial bow from a medicine lodge. 41156.
- HARRISON, D. C., Bay Bank, Hampton, Va.: Three plants from Virginia. 41148.
- HARSIBERGER, J. W., University of Pennsylvania, Philadelphia, Pa.: Received through Department of Agriculture. Eighty-seven plants from Mexico and the West Indies. 39925.
- HARTERT, ERNST. (See under R. H. Beck.)
- HARTLEY, Frank, Cumberland, Md.: Material containing minute fossils (39685); fossils, corals, and ostracoda (39919).
- HARVEY, Frank, Albuquerque, N. Mex.: Nineteen photographs of Indian basketry. 39823.
- HARVEY, Fred, Kansas City, Mo.: Fourteen specimens of Washoe baskets. Purchase. 41185.

- HARVEY, Prof. R. V., Vancouver, British Columbia: Seven moths. (39654, 40093.)
- HASSALL, Dr. ALBERT, Bureau of Animal Industry, Department of Agriculture, Washington, D. C.: Eleven specimens (2 species) of *Calliphora fortunata* Walk. and *Calliphora dux* Esch., from the Philippine Islands. 40015.
- HASSE, Dr. H. E., Soldiers' Home, Cal.: Sixteen plants from California (39602; 39661; 39853; 39855).
- HATHAWAY, ISAAC, Lexington, Ky.: Cast of the Bath Furnace meteorite. Purchase. L. P. N. 40852.
- HATRY, OTTO, Pittsburg, Pa.: Forty-five plants from Pennsylvania. Exchange. 41171.
- d'HAUTVILLE, Mrs. F. G., received through Mrs. Frank Wheaton, Washington, D. C.: Personal relics of Gen. Alexander Macomb, U. S. A. Loan. 8501.
- HAY, Prof. W. P., Washington, D. C.: Two specimens of *Nymphaea advena* from near Pocomoke City, Md. (39829); 5 specimens of *Polypodium polypodioides* collected near Great Falls, Md., (40456); weasel from near Chevy Chase, Md. (41208).
- HAYCRAFT, C. P., Fellowship, Fla.: Echinoid of the genus *Macropneustes* from the Gulf coast near Fellowship. 39867.
- HAYES, A. (See under Esopus Millstone Company.)
- HAYWARD, JOSEPH M., St. George, Bermuda: Specimen of soft stone impregnated with sea shells; 2 specimens of hard sandstone, and 2 shells. 40757.
- HEATON, C. M., Takoma Park, D. C.: Morse register and a relay, 1848. 39777.
- HEIDEMANN, OTTO, Department of Agriculture: One hundred and sixty-one species of North American Hemiptera (39838); 2 types of *Perigenes gallae* Heidemann (40133).
- HEIDENHEIMER, E., Washington, D. C.: Sextant made by W. Desilva, of Liverpool, England. Purchase. 41038.
- HEISMAN, J. J., Lititz, Pa.: Six butterflies. 40752.
- HELLER, A. A., Lancaster, Pa.: Four hundred and fifty plants from California (purchase) (39709); plant (gift) (39769); 545 plants from California (purchase) (40081); 27 plants from Pennsylvania (exchange) (40201); 53 plants from California, collected by Messrs. Heller and Brown (gift) (40575); 109 plants from California (gift) (40576); 36 specimens of ferns, cassias, and umbelliferae from Porto Rico (gift) (40630); 460 plants from California and Porto Rico (purchase) (40636); 2 plants from California (gift) (41113).
- HELMAN, W. E., London, England: Thirty birds' eggs from Iceland and England. Exchange. 41020.
- HEMP, Miss A., Jefferson, Md.: Hair ball from the stomach of an ox. 40066.
- HENLY, Miss K., Fort Myer Heights, Va.: Saddle-back caterpillar, *Sabine stimulea* Clemens. 40146.
- HENSHAW, H. W., Hilo, Hawaii: Worms and crustaceans (39887); land and freshwater shells from the Hawaiian Islands (40063); hermit-crab from a large *Dalium* (40340); sea serpent, *Hydrus platurus*, from Laupahoehoe, near Hilo (40420); 150 specimens of *Succinea* (40428); lizards (40671); 15 specimens of *Vitrina tenella* (41140).
- HERBEIN, Dr. H. J., Pottsville, Pa.: Slabs showing fossil footprints. Purchase. 40570.
- HERRERA, LOUIS A. DE. (See under Montevideo, Uruguay, Museo Nacional.)
- HERZER, Rev. H., Marietta, Ohio: Mass of calcified seeds of hackberry, and 2 fossil plants (39754; 40655).
- HEWETT, F., Lehigh University, Bethlehem, Pa.: Three specimens of tellurium from Vulcan mine, near Iola, Colo. 40378.
- HIGGINS, W. (See under Interior Department, U. S. Geological Survey.)
- HIGLEY, WILLIAM K. (See under Chicago Academy of Sciences.)
- HILL, WALTER C., Brooklyn, N. Y.: Nine Dyak skulls (40410; 40845). Purchase.
- HILLEBRAND, Dr. W. F., U. S. Geological Survey: Specimen of yttrialite. 40128.

- HILLMAN, Prof. F. H., Department of Agriculture: Several specimens of parasitic Hymenoptera. 39817.
- HITCHCOCK, Prof. C. H., Hanover, N. H.: Sixteen specimens of fossils from the Upper Silurian of Littleton, N. H.; 15 specimens from the Onondaga formation at Owl's Head, Lake Memphremagog, Vermont. Exchange. 40810.
- HITE, P. T., jr., West Norwalk, Conn.: Saddle-back caterpillar of *Empretia stimulea* Clements. 39993.
- HODGE, F. W., Smithsonian Institution: Tumble beetle (39632); diminutive Navaho blanket, made in 1895, and used as a badge by the National Irrigation Congress at Albuquerque, New Mexico (41218).
- HOHIESEL, FRANK, New York City: Two pieces of cinder from Mount Pelée, Martinique. 40767.
- HOLLAND, Dr. T. H., Director, Geological Survey of India, Calcutta, India: Specimen of meteorite, weighing 293 grams, from Shergotty, India. Exchange. 40847.
- HOLLIGER, F. A., Findlay, Ohio: Trilobite (*Calymene niagarensis*). 40036.
- HOLM, THEODOR, Brookland, D. C.: Specimen of *Gerardia holmiiana*. 40068.
- HOLMES, J. S., Bowmans Bluff, N. C.: Skin of "Moon eye," or "Toothed hering," *Hiodon selenops* (39732); Specimen of *Ophioglossum pusillum* from Texas (40321); specimen of silicified palmwood from Jasper, Texas (40674).
- HOLMES, Dr. S. J., University of Michigan, Ann Arbor, Mich.: Amphipods from New England, including type specimens. 40579.
- HOLMES, W. H., Chief, Bureau of Ethnology: Collection of flaked flints, and flint nodules from Wyandotte Cave, Indiana and vicinity (39612); fragments of pottery and bone implements collected from a mound near Kimmswick, Mo. (39827); 16 flints collected in Missouri (40899); 34 archeological specimens and ores collected in Missouri (40900). (See also under Smithsonian Institution, Bureau of Ethnology.)
- HOLT, WILLIAM P., Geneva, Ohio: Clay-iron stone from Ashtabula Creek near Kingsville, Ohio. 39637.
- HOLTON, Miss NINA G., Department of Agriculture, Washington, D. C.: Specimen of Cynipid gall, *Callirhytis seminator* Harris. 41005.
- HOLZINGER, J. M. (See under Minnesota, University of.)
- HOOPES, H. E., Media, Pa.: Bound collection of photographs of New Mexico and Arizona pueblos. 40432.
- HORSFORD, J. E., Washington, D. C.: Psycho bicycle. 40967. (See under H. L. Frank.)
- HORTSMAN, W. J., Busch, Oklahoma: Received through Interior Department, U. S. Geological Survey. Specimen of selenite. 41040.
- HOTCHKISS, CHARLES R., Brownsville, Tenn.: Specimen of *Gordius*. 40896.
- HOUGH, Dr. WALTER, U. S. National Museum: Two photographs of Healy wolf. 30926.
- HOUSE, HOMER D., Oneida, N. Y.: Two specimens of *Hydrostis* and *Polygonella* from central New York. Exchange. 39851.
- HOUSTON, Col. A. J., Beaumont, Tex.: Commission of Gen. Samuel Houston, 1835, Texas State army; commission as second lieutenant, Seventh Regiment U. S. A.; commission as first lieutenant, First Regiment U. S. A. Loan. 8536.
- HOWARD, Dr. L. O. (See under Department of Agriculture; Thomas Brown; Gustav Eisen; Dr. James Fletcher; W. Hague Harrington; George B. King; G. van Roon.)
- HOWELL, E. E., Washington, D. C.: Five specimens of minerals. 40954.
- HOWLAND, FRANK, Little Rock, Ark.: Received through George F. Kunz. Silicified wood from 30 miles south of Little Rock. 40197.
- HRDLICKA, Dr. A., U. S. National Museum: Covered basket of palm leaf made by the Yaki Indians, Sonora, Mexico; cigarettes and corn husks for covers, from the same tribe, and saddle bags made from the ixtle fiber com-

HRDLICKA, Dr. A.—Continued.

monly used in Mexico (40941); gun-barrel flute from Pueblo de Taos, New Mexico (40970); Springfield 45 fixed ammunition; powder and projectile made by the Yaqui Indians (40975); unfinished basket made by the Apache Indians (41043).

HUBBARD, H. G. (See under E. A. Schwarz.)

HUMPHREY, CHARLES, New York City: Ninety-two butterflies, 12 dragon flies, and a fulgorid. 40513.

HUMPHREYS, J. W., Colon, Colombia: Bat (*Artibeus*). 39893.

HUNTER, CLAY, Clifton, Ariz.: Four cases of a trichopterous insect. 40969.

HUNTER, WILLIAM, Washington, D. C.: Plant from the District of Columbia. 40479.

HUNTINGTON, J. H., Baker City, Oreg.: Rocks from Oregon. 39638.

HURLOCK, Miss M. C., Church Hill, Md.: Four plants from Maryland. (39791; 39847.)

HURTER, JULIUS, St. Louis, Mo.: Reptiles and batrachians. Exchange. 40398.

HUTCHINSON, C. E., Los Angeles, Cal.: Two hundred and seven specimens of insects. 41041.

IMPERIAL ACADEMY OF SCIENCES. (See under St. Petersburg, Russia.)

INDIANA, UNIVERSITY OF, Zoological Department, Bloomington, Ind.: Received through Prof. C. H. Eigenmann. Parasite from the side of a specimen of *Odontostilbe* from Arroyo, Tremenina, Paraguay. 40744.

INTERIOR DEPARTMENT, U. S. Patent Office: Copies of 84 patents of autoharps and allied instruments. 40856.

United States Geological Survey: Four hundred specimens of Cambrian brachiopods (39642); whale vertebra—Pleistocene of Fort Caswell, N. C.; whale vertebra—Eocene of Castle Hayne, N. C.; tooth of *Deudon serratus* from the Eocene of Castle Hayne, and teeth of a Shark, *Carcharodon auriculatus*, from the Eocene of Castle Hayne (39648); eco-

INTERIOR DEPARTMENT—Continued.

nomie material exhibited at the Charleston Exposition (39908); specimens of quicksilver ores from Texas, collected by Dr. D. T. Day (39954); sample of kaolin from Edgar, Putnam County, Fla., collected by T. Wayland Vaughan (39686); specimen of selenite from Death Valley, California, and a specimen of tungsten ore from the Snake range, Nevada, collected by F. B. Weeks (40058); 103 specimens of minerals from various localities (40131); left humerus of a fossil bison, probably representing the species *Bison crassicornis*, obtained by Arthur J. Collier at the Palisades on the Yukon (40242); fossil sponges collected by Hon. Charles D. Walcott at Little Metis, New Brunswick (40298); specimen of Arfvedsonite from St. Peter's Dome, east side of the gulch opposite Eureka tunnel, El Paso County, Tex., collected by Whitman Cross (40464); 87 thin sections of rocks from San Luis quadrangle, California, collected by Mr. Cross (40523); 62 specimens of rocks from Silver City, Idaho, quadrangle, collected by W. Lindgren (40546); reserve and duplicate collections from the Telluride quadrangle, Colorado (40595); Triassic fossils collected by Prof. S. Ward Loper in 1890-91 (40450); rocks and ores from Globe copper district, Arizona (40494); specimen of sandstone from Iron Mountain, Menominee district, Michigan (40632); tooth of Shark, *Cladodus formosus* (type), from Lime Mesa, Needle Mountains, Colorado (40662); 2 specimens of gypsum from Oklahoma, collected by Bailey Willis (40684); ores and rocks from Silver City and De Lamar, Idaho, collected by W. Lindgren (40719); rocks from Roseburg, Coos Bay, and Port Orford quadrangle, Oregon, collected by Dr. J. S. Diller (40735); reserve and exchange collections of rocks from Ellensburg quadrangle, Washington, collected by George O. Smith (40859); rocks from La Plata quadrangle, Colorado, reserve and

INTERIOR DEPARTMENT—Continued.

- duplicates (40875); 3 specimens of minerals (40952); Crater Lake collection of rocks (40963); 140 specimens of *Triarthrus becki* from Rome, N. Y., with appendages, studied and described by Hon. C. D. Walcott (41011); rock-bearing gold (?) from Harris quarry, near Laceyville, Pa., collected by W. Higgins (41139); fossil wood and Hot Springs material from the Yellowstone National Park (41154); Lower Cambrian brachiopods of the genera *Obolus*, *Obolella*, *Lingulla*, *Lingulepis*, *Acrothole*, and *Orthis* (41173); collection of rocks from Asectney Mountain, Vermont (41181); Oriskany fossils from Keyser, W. Va., and vicinity, collected principally by Ira Sayles. (See under J. W. Horstman.)
- INTERNATIONAL ACHESON GRAPHITE Co. (See under W. O. Snelling.)
- IRWIN, HARDIN, Havre, Mont. Received through Dr. A. K. Fisher: Salamander (*Ambystoma tigrinum*), from Montana. 40006.
- JACKSON, J. W., Manchester, England: Fresh-water shells from England. (39820; 39926.)
- JACKSON, SHELDON, Sitka, Alaska. Received through Department of Agriculture: Four plants from Unalaska River, Alaska. 39716.
- JACKSON, SIDNEY WILLIAM, Sydney, Australia: Three hundred and twenty-nine shells (83 species) of Australian land shells (40806); 202 specimens (51 species) of fresh-water shells from Australia (41096). Purchase.
- JACKSON, MISS VICTORIA, Bowling Green, Ky.: Fifteen species of land and fresh-water shells. 40471.
- JAYNE, MRS. J. L., Washington, D. C.: Samoan outrigger canoe. Deposit. 8422.
- JENKINS, DR. O. P., Leland Stanford Junior University, Stanford University, California: Received through U. S. Fish Commission. Type specimens of new species of fishes collected at Honolulu, Hawaii, in 1889. 40470.
- JENKS, A. E. (See under Smithsonian Institution, Bureau of Ethnology.)
- JENNINGS, J. H., Washington, D. C.: Specimen of Tung-Kwan-San, a medicinal powder. 40275.
- JOHN, ANDREW, Washington, D. C.: Set of 8 pieces of Seneca Indian gambling dice. Purchase. 40840.
- JOHNSON, PROF. C. W., Wagner Free Institute, Philadelphia, Pa.: Seven specimens of Diptera, including four cotypes. 39748.
- JOHNSON, C. W., Boston Society of Natural History, Boston, Mass.: Nine specimens of Diptera. 40618.
- JOHNSON, J. T., Galesburg, Ill.: Plant. 39699.
- JOHNSTON, ELIZABETH BRYANT, Washington, D. C.: Two photographs of Indian groups (40739); plaster bust of George Washington made from the life mold by Jean Antoine Houdon at Mount Vernon in 1785 (41137).
- JOHNSTON, MISS LOUISE, Wooster, Ohio: Costume of the Yow people of China. Purchase. 39910.
- JONES, G. M., Richmond, Va.: Brass medal commemorating the departure of the American Army from Valley Forge. Purchase. 39611.
- JONES, M. E. (See under Department of Agriculture.)
- JONES, WYATT W., Bozeman, Mont.: One hundred and fifty plants from Montana. Purchase. 39857.
- JORDAN, DR. D. S. (See under U. S. Fish Commission; also under Leland Stanford Junior University.)
- JUDAY, CHANCEY. (See under U. S. Fish Commission.)
- KEARNEY, T. H. and W. R. MAXON, Washington, D. C.: Thirty specimens of plants collected on Plummers Island, near Cabin John, Md. 40460.
- KELLERMAN, DR. W. A., Ohio State University, Columbus, Ohio: Specimens of *Nymphæa advena* from Cadiz Junction, Harrison County, Ohio; Buckeye Lake, Ohio; and Martinton, W. Va. (39618; 39700; 39804); 2 specimens of *Nymphæa*

- KELLERMAN, Dr. W. A.—Continued.
variegata from Ohio (39805); 7 plants from Ohio and West Virginia (40369).
- KELLY, ROY W., Oregon City, Oreg.: Skull of a Flathead Indian. Purchase. 40720.
- KENDALL, Dr. W. C. (See under U. S. Fish Commission.)
- KENLY, Mrs. E. M., West End, W. Va.: Fossil shells, leaves, and ferns. 40680.
- KENNEDY, Dr. JAMES S., U. S. V., Saleedo, Samar, P. I.: Specimen of Reduviid, an insect representing the species *Dungada rubra* Amyot and Serville. 39922.
- KENNEDY, Prof. P. B. (See under California Academy of Sciences.)
- KENNEDY, Mrs. T. L., Opelika, Ala.: Specimens of a scale insect infesting water oaks. 41210.
- KENOYER, L. A., Independence, Kans.: Five plants from Kansas. 39863.
- KERRISON, DAVENPORT, Jacksonville, Fla.: Spider (*Phidippus audax* Hentz). 39803.
- KEW, ENGLAND, ROYAL BOTANIC GARDENS: About one thousand plants from the Philippine Islands and Guiana; 21 duplicate plates from "Refugium Botanicum" (40305); 2 living plants from Kew Gardens (40502). Exchange.
- KILLEY, W. H., Cleveland, Ohio: Medal conferred by the State of New Jersey on its citizen soldiers who participated in the Spanish-American war; 21 jasper and obsidian arrow points. 40377.
- KINCAID, Prof. TREVOR, University of Washington, Seattle, Wash.: Sixty-five specimens of moths. 40271. (See under Harriman Alaskan Expedition.)
- KING, CYRUS A., Winona Lake, Ind.: Specimens of *Nymphæa advena* from Lake Winona. 39691.
- KING, Capt. EDWARD L., U. S. A., War Department, Washington, D. C.: Iron bit from the Philippine Islands. 41110.
- KING, GEORGE B., Lawrence, Mass.: Received through Dr. L. O. Howard. Nine specimens of Phyllopoets representing the species *Branchipus vernalis* Verrill (?). 40736.
- KING, HORATIO C., Brooklyn, N. Y.: Bronze bust of the late Hon. Horatio King, by Dunbar, a Washington sculptor. 40716.
- KINGSLEY, WARREN S., Edwardsburg, Mich.: Specimen of *Viola*. 41166.
- KIPPER, F. G., Newport News, Va.: Copper ore from Wall Mine, Halifax County, Va. 40717.
- KIRKLAND, E. O., Baltimore, Md.: Swords and flag captured during the Civil War, 1861-1865 (40950); Colt's revolver, Walsh revolver, double-action revolver, pepper-box pistol, pair of flint-lock pistols, Hall's breech-loading carbine, and a Hall breech-loading rifle (40951). Purchase.
- KIRKPATRICK, HARRY C., Meadville, Pa.: Specimens of *Nymphæa advena*. 39617.
- KIRSCH, LOUIS. (See under Williamsburgh Scientific Society.)
- KISHINOUE, Dr. K., Imperial Fisheries Bureau, Tokyo, Japan: Three photographs of Japanese precious coral. 40230. Exchange.
- KJELLMAN, Prof. F. R., Upsala, Sweden: Nine plants from Europe representing species of cultivated *Ribes*. 39913.
- K. K. NATURHISTORISCHES HofMUSEUM. (See under Vienna, Austria.)
- KLAGES, E. A., Crafton, Pa.: Collection of Lepidoptera from Venezuela (purchase) (39806); specimen of wood affected with *Scolytus muticus* (gift) (40642); 48 specimens of Cicindelas from Venezuela (gift) (41175).
- KNIPOWITSCH, Dr. N. (See under St. Petersburg, Imperial Academy of Sciences.)
- KOCH, Miss EMMA A., Erie, Pa.: Received through J. H. KOCH. Album of dried flowers and 165 mounted photographs. 40922. Three albums of paintings on rice paper, by Chinese artists. Loan. 8423.
- KOCH, J. H., Erie, Pa.: East Indian copper coins and a betelnut (40749; 40820).
- KOCH, O., Sheboygan, Wis.: Fishhook and 3 fragments of pottery. Exchange. 39972.

- KREAGER, FRANK O., Pullman, Wash.: Four hundred and ten plants from northern Washington. Purchase. 40514.
- KUNZ, GEORGE F. (See under Frank Howland; also under Henry S. Manning.)
- KUNZE, Dr. R. E., Phoenix, Ariz.: Thirteen plants from Arizona and a specimen of the fruit of *Opuntia greggii*; photograph; 3 plants from Arizona; 34 specimens of Lepidoptera, 70 specimens of Orthoptera and 2 specimens of *Busera microphylla*. (40067; 40109; 40181; 40206; 40214; 40309; 40310.)
- KWIAT, A., Chicago, Ill.: Twenty-seven specimens of Lepidoptera. 40556.
- LACEY, HOWARD, Kerrville, Tex.: Three skins and skulls of *Odocoileus* from Kerrville. 40846.
- LACHENAND, GEORGES, Limoges, France: Sixteen specimens of Bryophyta from France (39812); 30 specimens of mosses and Hepatica from Europe (40371). Exchange.
- LAHEE, F. H., Brookline, Mass.: Specimen of *Corocordulia libera* Selys. 40258.
- LAMB, Dr. D. S., Army Medical Museum, Washington, D. C.: Anatomical and anthropological specimens (40921; 41066; 41133; 41159; 41215).
- LAND, JOHN, Wagersville, Ky.: Chrysalis of a butterfly (*Papilio asterias* Fabr.). 39902.
- LANDSBERG, FRED., Victoria, British Columbia: Antique Chilcat blanket. Purchase. L. P. X. 40526.
- LANEY, F. B. (See under North Carolina Tale and Mining Company.)
- LANGILLE, H. D. (See under Department of Agriculture.)
- LANGLEY, Dr. S. P. (See under Smithsonian Institution; and also under Stevens Institute of Technology.)
- LATCHFORD, Hon. F. R., Ottawa, Canada: Unionidæ from Canada. 39821.
- LAYNE, J. E., Marco, Fla.: Plant, and a piece of pottery from near Marco Island, Florida (39912; 41132).
- LEARY, J. L., superintendent, U. S. Fish Commission, San Marcos, Tex.: Botanical specimens consisting of root and seeds of *Nymphaea* (sp. nov.). 39707.
- LEE, D. C., Harbor Springs, Mich.: Eleven quill baskets, floor mat, and an Indian pipe. Purchase. 39776.
- LEE, W. McD., Irvington, Va.: Fossil crab from the Rappahannock River, near Chesapeake Bay. Purchase. 40341.
- LEE, W. T., Trinidad, Colo.: Seventy-five specimens of Mesozoic invertebrate fossils from Colorado, Wyoming, and Mexico; Lower Silurian brachiopod small slab from Palmer Lake. 40669.
- LEFROY, H. MAXWELL, Bridgetown, Barbados, West Indies: Bats, lizards, fish, mollusks, and other invertebrates from Barbados and other islands of the Lesser Antilles. 40276.
- LEHMAN, J. B., Edwards, Miss.: Snake (*Haldea striatula*) from Mississippi. 41002.
- LEIGHLEY, E. O., Baltimore, Md.: Sixteen fossils from Cleveland, Ohio. 39701.
- LELAND STANFORD JUNIOR UNIVERSITY, Stanford University, Cal.: Crustaceans from Japan collected by Messrs. Jordan and Snyder (39698); received through Dr. David S. Jordan, president, Japanese fishes collected by the steamer *Albatross* (40524); 16 specimens (7 species) of Isopods (40908).
- LE SOUËF, D., Parkville, Victoria, Australia: Birds' eggs from Australia. Purchase. 41183.
- LEWIS, C. M., Reading, Pa.: Morse telegraph keys made by Clark, and by Neff. 40609.
- LINDGREN, W. (See under Interior Department, U. S. Geological Survey.)
- LINDSAY, Mrs. WILLIAM. (See under National Society of the Daughters of the American Revolution.)
- LINN, Miss L. I., Highland, Md.: Luna moth. 41073.
- LINTON, Prof. EDWIN, Washington, Pa.: Parasitic worms. 39730.

- LONDON, ENGLAND, BRITISH MUSEUM.
Received through Dr. A. Smith Woodward. Four casts of jaws and teeth of Mastodons (39844); received through Oldfield Thomas; Alcoholic specimens of Bats (*Myotis*) from New Zealand, and *Didelphus* from Guatemala (40445). Exchange and Gift.
- LONG, M. C., Kansas City, Mo.: The Lansing Skull. Loan. 7915.
- LOOMIS, Rev. H., Yokohama, Japan: Sixty specimens (48 species) of mollusks and 2 barnacles from Japan and the Loochoo Islands (40623); specimens of Coleoptera from Japan (40626).
- LOPER, Prof. S. WARD. (See under Interior Department, U. S. Geological Survey.)
- LOUBAT, Duke of. (See under New York Botanical Garden.)
- LOUGHBOROUGH, Mrs. J. H., Tenallytown, D. C.: Death tag used during the Civil War. 40942.
- LUCAS, F. A., U. S. National Museum: Mole (*Scalops aquaticus*), from Virginia. 39966.
- LUCAS, J. J., Society Hill, S. C.: Plant. 39962.
- LUDINGTON, Quartermaster-General M. I. (See under War Department.)
- LUNELL, Dr. J., Leeds, N. Dak.: Ten plants from North Dakota. Exchange. 39858.
- LUSBY, GEORGE B., Olivet, Md.: Beetle (*Dynastes tityus*). 40753.
- LYCETT, EDWARD, Atlanta, Ga.: Seven small porcelain vases and a heart-shaped porcelain dish (40008); white porcelain vase (40085); 2 small "Murrhine" vases, carved out of natural rock by Persian or Chinese workers, and afterwards glazed and fired in a kiln by the donor. (40527.)
- LYND, W. L. R. (See under Department of Agriculture.)
- LYON, M. W., Jr., U. S. National Museum: Specimens of *Nymphaea variegata*, *Nymphaea advena* and *Castalia* from New Jersey (39723, 39740); plants from New Jersey (39780, 39811).
- MACDADE, CLARKE, Newport News, Va.: Larva of *Lagoa opercularis*. 40090.
- MCBRIDE, W. S., Marshalltown, Iowa: Three specimens of *Platyocrinus*. Exchange. 40929.
- MCCALLUM, D. M., Floresville, Tex.: Specimen of wild Plum, *Prunus glandulosa* Torr. and Gray. 40639.
- MCCOMB, G. T., Lockport, N. Y.: Specimens of Rochester shale fossils (exchange) (40850); specimens of Niagara fossils from Niagara County, N. Y. (exchange) (40901); Clinton and Niagara fossils from Lockport (exchange) (40943); 13 specimens of *Atrypa nodos-triata* from the Clinton lenses near Lockport (gift) (41126).
- MCCORMICK, JOHN, Washington, D. C.: American sporting rifle. Purchase. 40152.
- MCCUNE, Mrs. ALICE, Mosier, Oreg.: Pupae of beetle (*Prionus californicus*). 39813.
- MCDONNELL, JAMES, Fredericksburg, Va. Received through Mr. Henry Dannehl: Specimen of *Siren lacertina*. 40404.
- MCGEE, W. J. (See under Carroll, J. M.: also under Smithsonian Institution, Bureau of Ethnology.)
- MCGIRR, Hon. T. L., municipal court, Manila, P. I.: Shells from the Philippine Islands (40040); amulet or "Anting-Anting," Chinese playing-cards; copper coins, and a book ("Amiteiras") (40624).
- MCGREGOR, R. C., Museum of Natural History, Manila, P. I.: Reptiles from Hawaiian and Philippine Islands (purchase) (40911); petrel (deposit) (40019).
- MCKINNEY, R. E. B., Washington, D. C.: Three violets. 41152.
- MCLAUGHLIN, A. C., Houston, Tex.: Samples of oil from Texas. Exchange. 40032.
- MCCNEIL, MARY S., St. Joseph, Mo., received through W. H. McNeil: Five unmounted photographs of Indian baskets. 40461.
- MCCNEIL, W. H. (See under Mary S. McNeil.)
- MACKENZIE, KENNETH K. (No address given), Mo.: Umbelliferæ from Missouri. 39660.

- MACOUN, JOHN, Geological Survey of Canada, Ottawa, Canada: One hundred plants from Canada. Exchange. 40888.
- MAIDEN, J. H. (See under Sydney, New South Wales, Australia.)
- MALAMBER, JAMES M., Washington, D. C.: Rose-breasted grosbeak, *Zamelodia ludoviciana*. 39982.
- MANNING, HENRY S., New York City, received through George F. Kunz: Gold-headed cane which belonged to the late Hon. Horace Greeley. 40596.
- MANNING, MRS. M. H. (See under Department of Agriculture.)
- MARSH, E. A. (See under American Waltham Watch Company.)
- MARSH, Dr. W. H., U. S. M. H. S., Solomons, Md.: Badge of the U. S. Military Surgeons Meeting in Washington, D. C., in 1902 (39762); sutler's check for 5 cents, Fifth Regiment U. S. Cavalry, 1861-1865 (39942).
- MARSHALL, CHARLES, Bay St. Louis, Miss., received through Andrew Allison: Four specimens of *Castalia* from Lake Shore, Miss. 39594.
- MARSHALL, GEORGE, U. S. National Museum: Red squirrel, *Sciurus hudsonicus*, from Laurel, Md. (40347); 2 specimens of *Microtus* from Laurel (40568); Field mouse, *Microtus pennsylvanicus* (41077).
- MARVIN, Dr. MARION F., contract surgeon, U. S. A., Talisay, Province of Batangas, P. I. Centipede. 40613.
- MASON, MARCUS & Co., Worcester, Mass.: Two specimens of cocoa bean infested by a Phycitid moth, *Ephestia kuehniella*. 39900.
- MASON, Prof. O. T., U. S. National Museum: Badge of the reception committee of the Thirty-sixth Annual Encampment, Grand Army of the Republic, October 6, 1902 (40459); 2 Tuscarora snow snake sticks (40710); bitterwood cup from Jamaica (40754); British half farthing, 1901 (40818); 4 photographs of megalithic monuments of Brittany (40889); "hen and nest" puzzle (41191); photograph of "Kit Carson" (41192).
- MATHER, FRED, estate of, received through Mrs. W. H. Coughlin: Four diplomas awarded to Mr. Mather; gold gilt medal, Berlin, 1880; silver medal, Paris, 1879, and a copper medal, Berlin, 1880. (Bequest.) 40584.
- MATHEWS, H. H., Boston, Mass.: Sample of red roofing slate from quarries in Hampton County, N. Y. 40605.
- MATTHEWS, E. O. (See under Smithsonian Institution, Bureau of Ethnology.)
- MATTHEWS, W. A., Caney, Tex.: Plant from Texas. 41164.
- MAUDSLEY, ALFRED, London, England: Plate illustrating the ruined cities of Mexico. 40153.
- MAXON, W. R., U. S. National Museum: Specimens of *Nymphaea hybrida* and *Nymphaea variegata* from Thousand Island Park, New York (39607, 39621); 309 specimens of ferns collected in central and northern New York (39757); 20 phanerogams from Virginia (40452); 2 specimens of *Cypripedium hirsutum* and *Caulophyllum thalictroides* from Fairfax County, Virginia (40457); 60 specimens of phanerogams collected on Plummers Island, Maryland (40463); 6 birds' eggs, termites, about 2,500 plants, and other natural history specimens from Jamaica (41010; 41053; 41104).
- MAXON, W. R., and T. H. KEARNEY: Thirty plants collected on Plummers Island. 40460.
- MAXON, W. R., and C. L. POLLARD, U. S. National Museum: Specimen of *Cypripedium hirsutum*. 40796.
- MAXWELL, C. W., Lynchburg, Va.: Mississippi catfish, *Ictalurus punctatus*; also specimens of "Blazing Star," *Chamaelirium luteum* (L.) A. Gray. 40962.
- MAY, Capt. FREDERICK, Washington, D. C.: Spanish naval officer's chapeau and a double barreled Lafoucheux pistol. 40872.
- MAY, H. B., Washington, D. C.: Officer's uniform of the United States Navy, worn in 1800. Purchase. 39934.
- MEAD, Miss M. H., Washington, D. C. Received through Rev. A. G. Wilson: Ladies bicycle. 40667.

- MEARNS, Dr. E. A., U. S. A., Fort Snelling, Minn., and Fort Yellowstone, Wyo.: Six specimens of *Nymphaea polysepala*, mammals, birds, reptiles, plants, and shells from Yellowstone National Park, Wyoming (39738; 40331); 66 specimens, including skins and skulls of mammals and wapiti antlers from Wyoming (40433); rabbit (*Lepus*); 77 birds' skins; natural history specimens of different kinds, principally from Fort Snelling; poisoned bullets, geological material (40567; 40894; 40968; 40976; 41099; 41145), marine shells, and crustaceans from Washington (41189); mammals and birds from Oregon (41214); nest and 4 eggs of *Junco oregonus* (41224).
- MEDFORD, H. C., Tupelo, Miss.: Fossil plant from Birmingham, Ala. 39672.
- MEEK, Prof. S. E. (See under Field Columbian Museum.)
- MEEKER, J. C. A., Bridgeport, Conn.: Specimens of *Nymphaea variegata* from Pembroke Lake, near Bridgeport. 39688.
- MEMMINGER, E. R., Flat Rock, N. C.: Three plants. 41031.
- MERRIAM, Dr. C. HART, Department of Agriculture: Two Panamint Shoshone baskets. Purchase. 41186. (See also under Department of Agriculture.)
- MERRIAM, Miss DOROTHY. (See under Department of Agriculture.)
- MERRICK, H. D., New Brighton, Pa.: Fifty moths (40094); 40 specimens of Lepidoptera and 2 specimens of Neuroptera (40169); 25 specimens of Lepidoptera (40485).
- MERRILL, Mr. E. D. (See under Bureau of Agriculture, Manila, P. I.)
- MERRILL, Dr. G. P., U. S. National Museum: Two pieces of pegmatite from Auburn, Me. (39861); slabs of silicified wood from the vicinity of the National Zoological Park (40891); specimen of granite from Rowan County, N. C. (41058); fresh and weathered granite from Mount Airy, N. C. (41078); crude and ground talc from Cherokee County, N. C. (41100); geological specimens from Macon and Clay counties, N. C. (41124).
- MERTENS, H. (See under Department of Agriculture.)
- METCALF, Prof. M. M., Woman's College, Baltimore, Md.: Two hundred specimens of Lepidoptera from India. 40528.
- MEUNIER, STANISLAS, Museum of Natural History, Paris, France: Meteorite from Tadjera, Algiers. Exchange. 39799.
- MEYENBERG, E., Pecos City, Tex.: Received through Smithsonian Institution, National Zoological Park. Whip-tailed scorpion, and a specimen of *Jalus* (39767); horned toad, and larva of an insect (39659).
- MEYER, Dr. A. B. (See under Dresden, Germany, Royal Zoological and Anthropological-Ethnographical Museum.)
- MILLER, Prof. A. M., Kentucky State College, Lexington, Ky.: Four fossil plants from Kentucky. 39975.
- MILLER, Mrs. E. P., care Gerrit S. Miller, jr., U. S. National Museum: Two specimens of Shrew-moles, *Blarina*, and 2 White-footed mice, *Peromyscus*, from Peterboro, N. Y. (39595); specimens of *Castalia tuberosa* from Little Hunting Creek, Fairfax County, Va. (39721).
- MILLER, GERRIT S., jr., U. S. National Museum: Twenty-four plants from Geneva, N. Y. (39622; 39674); 3 specimens of *Allium*, plants, specimen of *Galinsoga*, 10 specimens of oaks, reptiles, mammals, birds, and plants, specimen of *Chamaelirium*, 3 specimens of *Oxalis* and *Thalietrum* from Virginia (39692; 39802; 39822; 39987; 41015; 41070; 40431); 2 specimens of *Lycopodium* collected in Ontario by C. V. Ogden (40466).
- MILLER, JOHN, Engineer Corps, U. S. A., Washington, D. C.: Ashes from the volcano of Mayon, Albay Province, P. I. 40547.
- MILLER, MARY F., Washington, D. C.: Two plants from New York. 40108.
- MILLER, O. O., Cambridge, Mass.: Two hundred and fifty-six plants collected in Venezuela. Purchase. 39726.
- MILLER, Miss VIRGINIA. (See under National Society of the Colonial Dames of America.)

- MILWAUKEE PUBLIC MUSEUM, Milwaukee, Wis.: Four snakes and a turtle. 39588.
- MIMMACK, MISS KATHERINE, Washington, D. C.: Uniform of Capt. Charles O. Collins, consisting of a dress coat, cocked hat and plume, pair of epaulets, sword and belt, aiguillette. Loan. 7861.
- MINNESOTA, UNIVERSITY OF, Minneapolis, Minn.: Seventy-two specimens of mosses from Minnesota, collected by J. M. Holzinger (exchange) (39615); 57 specimens of mosses from Minnesota, received through the Department of Agriculture (40031). (See also under Department of Agriculture.)
- MISSOURI BOTANICAL GARDEN, St. Louis, Mo.: Specimen of *Echeveria* (gift) (40425); plant (exchange) (40480).
- MITCHELL, Hon. J. D., Victoria, Tex.: Crustaceans (39639); received through Department of Agriculture, plant from Texas (39714); crustaceans (*Orchestia* sp., and *Apus equalis* Packard), toad (*Bufo compactilis*) from Sarco Creek, Texas (40073); invertebrates from Texas, including *Apus equalis* Packard, *Cypris*(?), and an aleyonarian coral; also treetoads, probably *Hyla semifasciatus* (40154); about 20 specimens (4 species) of land and freshwater shells from Mexico (40622). (See under Department of Agriculture.)
- MITCHELL, R. H., Memphis, Tenn.: Specimen of Skipjack or "Blue Her-ring," *Pomobobus chrysochloris* Rafinesque. 41207.
- MITCHELL, Dr. S. WEIR, Grand Cascape-dia, Quebec, Canada: Specimen of Salmon, *Salmo salar*. 39634.
- MOENKHAUS, W. J. (See under U. S. Fish Commission.)
- MONTAGUE, H. C., Washington, D. C.: Kentucky B. L. carbine; Harpers Ferry musket, 1847, and Lefauchaux pocket revolver. Purchase. 39610.
- MONTAVON, W. F., Siniloan, Laguna, P. I.: Two specimens of Scarabæid beetle, *Xylotrupes dichotomus* Linnaeus. 40190.
- MONTELLO GRANITE COMPANY, Montello, Wis.: Received through L. T. Cross, superintendent. Cube of granite from quarries at Montello. 40104.
- MONTEVIDEO, URUGUAY, MUSEO NACIONAL: Received through Louis A. de Herrera. Thirty-five paleolithic implements from Uruguay. Exchange. 40654.
- MOONEY, JAMES. (See under Smithsonian Institution, Bureau of Ethnology.)
- MOORE, CLARENCE B., Philadelphia, Pa.: Five plaster casts of rare forms of stone implements (39753); crania from an Indian mound in Florida (41068).
- MOORE, E. N., New Orleans, La.: Salamander (*Ambystoma opacum*) from the Mississippi River. 41012.
- MOORE, I. N., State Normal School, Slippery Rock, Pa.: Specimen of *Cladonia* from Pennsylvania. 40991.
- MOORE, Rev. T. V., Catholic University, Washington, D. C.: Forty-eight specimens of *Myxomycetes* from near Lake George, New York. 39759.
- MOOREHEAD, J. M., Greensboro, N. C.: Historical orations and photographs of monuments at Guilford battle ground. 40569.
- MOOREHEAD, WARREN K., Pineville, Mo.: Two specimens of stalactite containing bones and flint flakes. 40966.
- MOREIRA, CARLOS. (See under Rio Janeiro, Brazil, Museu Nacional.)
- MORGAN, Dr. A. P., Preston, Ohio: Twenty-four specimens of *Myxomycetes* from Ohio. 39957.
- MORREY, JOHN B., Washington, D. C.: Stone implements used by cliff-dwellers, San Juan River, Northern New Mexico. Exchange. 41121.
- MORRILL, R. W., Massachusetts Agricultural College, Amherst, Mass.: Specimen of parasitic Hymenoptera. 40574.
- MORRIS, E. L., Department of Agriculture: Large mass of Middle Devonian limestone with corals, brachiopods and ostracods, collected at Port Austin, Michigan (gift) (39860); 3 plants from Michigan, collected by C. K. Dodge (exchange) (40797). (See also under Department of Agriculture.)
- MORRISON, DONALD P., Washington, D. C.: Native Filipino costume, Morro cannon, and a Filipino spear. Loan. 7936.

- MORSE, E. O., Lorain, Ohio. Twenty-five specimens of Corniferous fossils from Johnson Island, Sandusky Bay, Ohio. Exchange. 41198.
- MORSE, HEIRS OF S. F. B.: Received through Edward Lind Morse. Collections of personal relics of the late S. F. B. Morse (41019); costume worn by the late S. F. B. Morse when visiting the courts of Europe, received through Mrs. Franz Rummel. (41083.) Gift of the heirs, James E. F. Morse, W. G. Morse, S. F. B. Morse, E. L. Morse, S. M. Perry, and C. M. Rummel.
- MORTON, DR. HENRY, received through Henry Samuel Morton, executor, and Quincy L. Morton. The original Ramsden dividing engine and slide-rest. 40282.
- MOSELEY, E. L., Sandusky, Ohio: Specimens of Leaf-nose bat from Guimaras, P. I. (gift) (40446); 405 plants from Ohio (exchange) (40732).
- MOSS, WILLIAM, Ashton-under-Lyne, England: Marine and land shells. 39669.
- MOWBRAY, LOUIS, St. George, Bermuda: Specimen of Moray (*Channomurana vittata*). Gift 40105. (See under New York Aquarium.)
- MOYER, S. J., Fort Grant, Ariz.: Pupa of Sphinx moth. 39834.
- MULFORD, Miss F. A., Hempstead, N. Y.: Five specimens of violets from New York. 40357.
- MUNROE, Miss HELEN, Smithsonian Institution: Model of mummy-case and tomb furniture. Deposit. 8007.
- MURRAY, S. H., Washington, D. C.: Worm (*Gordius* sp.) 39783.
- MUSEO NACIONAL. (See under Montevideo, Uruguay.)
- MUSEO NACIONAL. (See under San José, Costa Rica, Central America.)
- MUSEO NACIONAL. (See under Rio Janeiro, Brazil.)
- MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Mass.: Received through Dr. W. McM. Woodworth. Crabs from the Maldive Islands, collected by Alexander Agassiz (exchange) (40087); received through Dr. Walter Faxon, 21 specimens (13 species) of fresh-water Crabs (gift) (41196).
- MUSEUM OF NATURAL HISTORY. (See under Paris, France.)
- MYATTWAY, EMMA, Falls City, Nebr.: Chrysalis of *Papilio turnus* Linnaeus. 39992.
- NAST, THOMAS, Guayaquil, Ecuador: Collection of butterflies and moths. 40244.
- NATAL BOTANIC GARDEN. (See under Durban, Natal, Africa.)
- NATIONAL COLLATERAL LOAN AND JEWELRY COMPANY, Washington, D. C.: Pistol and revolver. Purchase. 39687.
- NATIONAL MARBLE COMPANY, Murphy, N. C.: Received through A. S. Emerson. Two specimens of blue marble from quarries near Murphy. 40358.
- NATIONAL SOCIETY OF THE COLONIAL DAMES OF AMERICA: Received through Miss Virginia Miller, chairman of the relic committee. Amsterdam dagger (1467), and a land grant signed by Thomas Green (8228); silver gravy boat, 2 pewter platters, and a framed photograph (8381). Loan.
- NATIONAL SOCIETY OF THE DAUGHTERS OF THE AMERICAN REVOLUTION: Received through Mrs. William Lindsay. Postal card signed L. L. R. Pitkin, and a piece of Dove Mill paper (7836); received through Mrs. Lindsay and Mrs. A. L. Bulkley, Brooklyn, N. Y.: Gravy dish and cover, Japanese punch bowl and two wine glasses (8004); relic of prison ship *Jersey*, two letters and four photographs of daughters of soldiers of the Revolutionary Army, metal tray, two photographs of Ebenezer Hubbard's house, and a piece of pine from Floating Bridge (8091; 8166); fragment of wood from the Old North Church (8137); frame containing copy of "South Carolina Gazette and Country Journal" of Tuesday, November 15, 1768; frame containing twelve pieces of Continental paper money used during the Revolutionary war; "Col. William Washington's Battle Flag" in frame (illustration); frame containing autograph of Mrs. F. M. Pickens, a newspaper clipping, and a button from a military overcoat worn by General Andrew Pickens at the battle of Cowpens;

NATIONAL SOCIETY OF THE DAUGHTERS OF

THE AMERICAN REVOLUTION—Cont'd.
framed engraving of Moultrie will;
framed portrait of Mrs. Iredell; "Copy
of Treaty of 1795 between the United
States and Spain;" bullet used during
the Revolutionary war; goblet made
from a piece of an oak tree at Mount
Vernon, planted by General Washing-
ton; strip of wood taken from a stool
made from a piece of timber from the
Mayflower; chip from a bench on which
wounded soldiers were laid during the
battle of Brandywine; bit of wood
from the British man-of-war *Somerset*,
which was lost off Cape Cod in 1783;
four pieces of wood from Independence
Hall, and a glass jar containing water
from Jasper Springs (8238). Loan.

NAVY DEPARTMENT, Washington, D. C.:

Received through Rear-Admiral R. B.
Bradford. Sample of volcanic dust
which fell aboard the American steam-
ship *Neradam* (39643); models of 8 U. S.
vessels, with cases and tables for same
(39676); two Locust gun-carriages cap-
tured by the U. S. Army, at Santiago,
Cuba, in 1898 (40039); received through
Bureau of Ordnance, Rear-Admiral
Charles O'Neil, chief, revolving gun
(small arms) (40555); received through
Bureau of Equipment, A. C. Wren, act-
ing chief, specimen of dust which fell
on the decks of the steamship *Hogarth*
while in the vicinity of Cape Verde
Islands (40762); received through Bu-
reau of Equipment, Rear-Admiral R. B.
Bradford, chief, 2 specimens of volcanic
dust, which fell upon the deck of the
steamship *Amazouense* on March 22,
1903, 190 miles to windward of St. Vin-
cent Island, and upon the deck of the
schooner *Marion Louise* on March 23,
about 80 miles to windward of the same
island (40910). Deposit.

NAVY-YARD, Washington, D. C.:

Received through Capt. E. C. Pendleton,
superintendent of naval gun factory.
Three photographs of revolving guns
of early type. 40102.

NELSON, CHARLES A., Eddyville, Ky.:

Collection of Indian relics from rock

NELSON, CHARLES A.—Continued.

quarry near Eddyville. Purchase.
40283.

NELSON, C. Z., Galesburg, Ill.: Four
plants from Illinois, including *Nem-
ophila menziesii* Hook. and Arn, *Calen-
dula officinalis* L., *Eupatorium agrato-
ides* and *Ambrosia trifolia* L. 40538.

NELSON, E. W., Department of Agricul-
ture: Twenty-six plants from North
America (39710); 86 plants, collected
in Mexico (40756). Purchase. (See
under Department of Agriculture; also
under Mrs. N. M. Brown.)

NE SMITH, H. M., Lone Grove, Tex.:
Specimens of copper ores from Texas
(40521); pecan nuts from Texas
(40560).

NEWCOMB, H. H., Boston, Mass.: Ten
specimens of *Chionobaskataluin*. 40332.

NEWCOMB, WILLIAM, Tenafly, N. J.: Two
microscopic mounts of *Polycistina*.
41093.

NEWLON, DR. W. S., Oswego, Kans.:
Specimen of *Naticopsis altionensis*
McChesney. 40391.

NEWMAN, H. W., post quartermaster-
sergeant, U. S. A., Fort Greble, James-
town, R. I.: Indian baskets. Loan.
7972.

NEWNES, SIR GEORGE, Wildcroft, Putney
Heath, London, England (received
through G. A. Boulenger, British
Museum): Fishes collected by the
Southern Crow expedition. 39766.

NEW YORK AQUARIUM, New York City:
Moray (*Channomurana vittata*), col-
lected in Bermuda by Mr. Louis Mow-
bray. 40105.

NEW YORK BOTANICAL GARDEN, Bronx
Park, N. Y.: Two plants (exchange)
(39614; 39694); 143 plants collected on
the Island of St. Kitts (exchange)
(39717); received through Prof. O. F.
Cook, plant from St. Kitts (gift)
(40061); 5 plants (exchange) (40045;
40281); 44 plants from Porto Rico and
St. Kitts (exchange) (40293); plant
(exchange) (40359); 150 plants from
the West Indies (exchange) (40361);

- NEW YORK BOTANICAL GARDEN—Cont'd.
9 plants (exchange) (40426; 40489; 40490; 40501; 40515); 102 plants from Mexico, presented to the New York Botanical Garden by the Duke of Loubat (exchange) (40731); 23 plants (exchange) (40887; 40902; 41085; 41130; 41153; 41204).
- NIBLACK, Lieut. Commander A. P., U. S. N.: Three Moorish flint-lock guns. Loan. 8119.
- NICKELS, JOHN M., Cincinnati, Ohio: Types of three species of fossil bryozoan (exchange) (39696); fossils from the Rochester shales, Lockport, N. Y., and fossil bryozoans, *Callopora* (exchange) (40337); 500 specimens of Paleozoic fossils (gift) (40355).
- NIXON, S. D., Baltimore, Md.: Two turtle shells, *Chelopus guttatus* (39955); stone axe, fossil shells, and a piece of petrified wood (40053); shells of a crab (*Geocarcinus ruricola* Linnaeus) from Navassa Islands (40212).
- NOLTE, EMILIO, Coyuca de Catalan, Guerrero, Mexico: Two specimens of tree cotton (39678); 9 specimens of minerals from Mexico (39953).
- NOON, A. H., Nogales, Ariz.: A meteorite weighing 113 pounds, from Arispe, Sonora, Mexico. Purchase. L. P. X. 41003.
- NORTH CAROLINA TALC AND MINING COMPANY, Hewitts, N. C.: Specimens of talc collected by F. B. Laney. 41111.
- NORTON, NED, Colebrook, N. H.: Nickel ore (39807); sample of molybdenum from near Lexington, Vt. (40025).
- O'NEIL, Rear-Admiral CHARLES, U. S. N. (See under Navy Department.)
- OBERTHOLSER, H. C., Biological Survey, Department of Agriculture: Ten birds' skins from Norway. 40517.
- OGDEN, C. V. (See under Gerrit S. Miller, jr.)
- OGDEN, Dr. H. C., Milwaukee, Wis.: Three plants from Wisconsin. 39779.
- OLDBROYD, Mrs. T. S., Burnett, Cal.: Marine shells from California (40435; 41037).
- OLEA de, Don Señor SERVERIANO, Montevideo, Uruguay: Miscellaneous shells and chalcedonic geodes. 40005.
- ORCUTT, C. R., San Diego, Cal.: Nineteen plants from California and Lower California (40723; 40826; 40886; 40903; 41023; 41026; 41076).
- ORR, LYCURGUS, Presto, Idaho. Bay guano from Idaho. 39880.
- OSBORNE, A. C., Washington, D. C.: Two carvings made from peach stones. 39915.
- OSLOR, E. J., Alcott, Colo.: Specimen of *Molucella lavis* L., from Oracle, Ariz. 41201.
- OSTERHOUT, GEORGE E., New Windsor, Colo.: Specimen of an umbelifer from Colorado. 41025.
- OWEN, F. D., War Department, Washington, D. C.: Frame containing badges and cards relating to the unveiling ceremonies of the Rochambeau statue. 39885.
- OWEN, Mrs. M. W., Sepacnlite, Panzos, Guatemala: Photographs illustrating the native arts of the wild Indian tribes in the interior of Guatemala (39881); Indian net bag (40421).
- PAGE, L. W., Division of Roads, Department of Agriculture: Rocks consisting of various road materials. 39968.
- PALMER, Dr. EDWARD, Washington, D. C.: Ten species of land and fresh-water mollusks, isopods from Alvarez, State of San Luis Potosi, Mexico, and an insect (gift) (40407); 296 plants from Mexico (purchase) (40495); 65 plants from Mexico (purchase) (40562); ethnological material collected in San Luis, Potosi, and San Felipe, Mexico (gift) (40581); 228 plants from Russia (purchase) (40658); fire fan (gift) (41109).
- PALMER, Dr. T. S., Department of Agriculture: Turtle (*Pseudemys concinna*) from Louisiana. 40824.
- PALMER, WILLIAM, U. S. National Museum: Skin of Bald eagle (39984); specimen of *Pinus strobus* collected in Virginia (40455); 4 birds' skins from South Carolina and Cuba (40474).
- PALMER, W. C., Goldsboro, N. C.: Geological material. 40706.
- PAN-AMERICAN EXPOSITION, Buffalo, N. Y. (See under Government Board.)

- PARIS, FRANCE, ÉCOLE DES MINES: Received through Prof. Henri Douville. Specimen and two pieces of the type specimen of *Heterotrypa frondosa*, Edwards and Haime. 40557.
- PARIS, FRANCE, MUSEUM OF NATURAL HISTORY: Received through Prof. E. L. Bouvier. Fresh-water crabs (41216); received through Dr. M. Boule, pieces of the type specimen of the bryozoan representing the species *Chatetes frondosus* and *Chatetes mammulatus* d'Orbigny (40417).
- PARISH, S. B., San Bernardino, Cal.: Plants from California (40207, 40508).
- PARKER, A. C., Bridgton, N. J.: Myriapod (*Julus*). 41211.
- PARKER, CHARLES V., Trinidad, Colo.: Foot bone of camel or llama-like animal common in western territory during the Pliocene period. 40208.
- PARKER, JOHN W., Sergeant, U. S. Infantry, Tanana, Samar, Philippine Islands: Beetle. 39816.
- PARKER, WILLIAM F., Montezuma, Colo.: Snow-fly, *Chionea niveicole* Dean. 40291.
- PARKHURST, J. H., U. S. National Museum: Judgment of a justice of the peace, dated October, 1826. 39898.
- PARKINSON, T. B., Detroit, Mich.: Silurian and Devonian fossils. Purchase. 41082.
- PARRITT, H. W., London, England: Twenty-three specimens (14 species) of echinoderms and crustaceans. Exchange. 40274.
- PARSONS, J. I., Colebrook, N. H.: Specimen of Bill-fish (Round White fish) *Coregonus quadrilateralis*. 40769.
- PARTRIDGE, R. H., Washington, D. C.: Specimen of gold in quartz, from Orange County, Va. Purchase. 40959.
- PATTERSON, Miss EMILY. (See under Egypt Exploration Fund.)
- PAUMGARTEN, BARON P., Washington, D. C.: Flint-lock pistol of Austrian make. 40694.
- PAYNE, E. J., Olympia, Wash.: Specimen of gypsum from Alaska. 40411.
- PECK, J. Y., St. Augustine, Fla.: Eight plants from Florida. 40802.
- PENDLETON, Capt. E. C., U. S. N. (See under Navy-yard, Washington, D. C.)
- PENNSYLVANIA RAILROAD COMPANY, Camden, N. J.: Received through Walter Antrim. Diploma awarded by the New Jersey State Agricultural Society, 1858, for the engine "John Bull." 40511.
- PERDEW, G. M., Cumberland, Md.: Two plants from the vicinity of Cumberland. 39845.
- PERROW, B. B., Louisville, Ky.: Pistol of Henry Clay. Loan. 8272.
- PETTIT, Miss KATHERINE, Lexington, Ky.: Three photographs illustrating the primitive life of the Kentucky mountaineers of Knott County, Ky. (40273); 12 photographs representing the process of making woollen cloth by hand in the Kentucky mountains (39796).
- PEYSTER, FREDERIC J. DE. (See under St. Nicholas Society.)
- PFORDTE, OTTO F., Rutherford, N. J.: Three specimens of wulfenite from Plumosa Mine, Huepac, Orizpe, Sonora, Mexico (exchange) (40919); specimens of chalcidony, paramelaconite, pectolite, and thaumasite from various localities (gift) (40953); 3 specimens of thaumasite from West Paterson, N. J. (exchange) (41097).
- PHALEN, W. C., U. S. National Museum: Specimens of pyramorphite from near Patagonia, Ariz. (49668); rocks illustrating the geology of Boston Basin (40553).
- PHOENIX WOOD AND COAL COMPANY, Phoenix, Ariz.: Received through Paul A. Brizard, secretary. Two Pima baskets. Purchase. L. P. X. 40633.
- PICKERELL, A. J., Prescott, Ariz.: Specimen of *Agave* from Arizona. 40182.
- PIERRE, Abbé, Moulins, France: Fourteen specimens of parasitic Hymenoptera. 40879.
- PIKE RIVER GRANITE COMPANY, Amberg, Wis.: Two specimens of granite from quarries at Amberg. 40263.

- PINYAN, A. H., Bisbee, Ariz.: Antler of deer (*Odocoileus*) from Arizona. 39792.
- PIPER, C. V., Pullman, Wash.: Specimen of *Sedum* from Washington. 40033.
- PITTIER, H., Director del Instituto Físico-Geográfico Nacional, San Jose, Costa Rica: Nineteen plants from Central America (gift) (40184); 228 plants from Costa Rica (gift; purchase) (40292; 40565); 156 plants from Costa Rica (purchase) (40566).
- PLANK, E. N., Decatur, Ark.: Received through Department of Agriculture. Plant from Arkansas. 39939.
- PLUMACHER, Hon. E., U. S. consul, Maracaibo, Venezuela: Seven photographs of Venezuelan natives (49837); received through Department of State, 2 models of Indian huts (40159).
- POLING, O. C., Quincy, Ill.: Eleven specimens of rare Lepidoptera (40013); 12 specimens of Coleoptera, 22 specimens of Neuroptera, 2 specimens of Rhynchota, 6 specimens of Hymenoptera, and 71 specimens of Diptera (40594).
- POLLARD, C. L., and W. R. MAXON, U. S. National Museum: Two specimens of *Cypripedium hirsutum* and *Caulophyllum thalictroides* from Fairfax County, Va. (40457); specimen of *Cypripedium hirsutum* (40796).
- POOLE, RICHARD, Poolesville, Md.: Bald eagle in immature plumage. 40621.
- POSTAL TELEGRAPH CABLE COMPANY, New York City: Received through William H. Baker, vice-president and general manager. Sample of the commercial Pacific cable laid between San Francisco and Honolulu. 40947.
- POTING, H. G., Sausalito, Cal.: Six photographic views in Japan. 40617.
- POTO, W. L. (See under Department of Agriculture.)
- POTOMAC ELECTRIC POWER COMPANY, Washington, D. C.: Received through L. E. Sinclair, superintendent. Fifteen obsolete forms of arc lamps, etc. 40913.
- POWELL, J. D., Archer City, Tex.: Beetle (*Dynastes tityus* L.). 39633.
- PREBLE, E. A.: Man's reindeer coat. Deposit. 8328. (See also under Department of Agriculture.)
- PREVER, Dr. PIETRO. (See under Turin, Italy, Royal Museum.)
- PRICE, Mrs. JOHN P., Florence, Ala.: Specimen of *Thelyphonus giganteus*. 40839.
- PRICE, Miss S. F., Bowling Green, Ky.: Fourteen specimens of ferns (exchange) (40004); 30 specimens, 5 species of fresh-water shells (gift) (40429).
- PRIEST, B. W., Norfolk, England: Foraminifera from Jersey, England. Exchange. 39997.
- PRINGLE, C. G., University of Vermont, Burlington, Vt.: One hundred and ninety-two plants and 50 seeds from Mexico (40849; 41029; 41219; 41220). Purchase. (See also under Department of Agriculture.)
- PROKES, J. N., Jackson, Minn.: Specimen of calcareous tufa from Des Moines River, Jackson. Exchange. 41052.
- PROUTEN, Mrs. BERTHA, Cleves, Ohio: Beetle (*Alaus oculatus* Linnaeus). 39630.
- PUGG, JOHN, Markleton, Pa.: Bat (*Lasiurus borealis*). 39772.
- PURDON, ARTHUR, Arthur City, Tex.: Royal horned caterpillar, *Citheronia regalis*. 39598.
- PURPUS, C. A., San Diego, Cal.: One hundred and eighty-four plants from California and Central America (purchase and gift) (40453; 41022). (See under T. S. Brandegee.)
- QUAINTANCE, Prof. A. L., Maryland Agricultural College, College Park, Md.: Types of *Aleyrodes marlatti* Quaintance, from Java, and *Aleyrodes spinifera* Quaintance, from Japan. 40644.
- RACUE, C. E., deputy minister of lands, mines, and fisheries, Quebec, Canada: Specimen of Salmon, *Salmo salar*. 40296.
- RAGAN, R. M., Greencastle, Ind.: Flint-chipped arrow point. 40000.

- RAIRDEN, Hon. B. D., U. S. Consul, Batavia, Java. Pair of Mouse deer obtained with the assistance of Dr. van Romburg, of the Botanic Gardens in Buitenzorg. 40434.
- RALPH, Dr. W. L., U. S. National Museum: Rabbit (*Lepus americanus*) from Spruce Lake, New York (39974); 4 eggs of Black-throated (green warbler, *Dendroica virens*, from New York (40862); egg of Short-tailed hawk, *Buteo brachyurus*, from Florida (40870); nest and 4 eggs of Russet-backed thrush, *Myloichla ustulata*, from California (40925).
- RAMIREZ, JOSÉ, Mexico, Mexico: Ashes from the volcano of Santa Maria in Guatemala. 40451.
- RAMSDEN, CHARLES D., Santiago, Cuba: Thirty-seven moths. 40095.
- RAMSEY, N. A., Durham, N. C.: Rose gall representing the species *Rhodites bedaguaris* L. 40994.
- RANSOME, F. L., U. S. Geological Survey: Specimens of lawsonite from Tiburon Peninsula, Marion County, Cal. 40779.
- RAPP, SEVERIN, Sanford, Fla.: Twenty-five plants from Florida (exchange) (39693); 37 plants from Florida (gift) (39788; 40110; 40205).
- RATHBUN, Mrs. RICHARD, Washington, D. C.: The "1,000" puzzle and the "15" puzzle. 40651.
- READ, FRANK L., Bocas del Toro, Republic of Colombia: Sixteen species of marine shells from Colombia. 40583.
- REED, E. C., Museo de Concepcion, Concepcion, Chile: Large and valuable collection of Chilean insects, including Coleoptera, Hymenoptera, and other orders, and consisting of 2,051 specimens. 40222.
- REGAN, Miss GENEVIEVE, Fort Trumbull, New London, Conn.: Specimen of *Galago kirkii* (Gray) from South Africa. Purchase. 40176.
- REVERCHON, J., Dallas, Tex.: Forty-two plants from Texas. (39727; 40267.)
- REYNOLDS, A. J., Connersville, Ind.: Arrows and spearheads. 40270.
- RHOADS, Dr. S. J., Beaver Dam, Ky.: Plant from Kentucky. 39873.
- RHOADS, S. N., Audubon, N. J.: Six specimens of *Nymphæa variegata* from Clementon, N. J. (39884); specimens of *Nymphæa advena* from Haddonfield and Newton Creek, near Collingwood, N. J. (39303.)
- RICHMOND, A. B., Patagonia, Ariz.: Specimens of native lead from Patagonia (39586; 39846); specimen of chalcantite from Santa Cruz County, Ariz. (40064).
- RICKER, P. L., Washington, D. C.: Six hundred and thirty-nine plants from Maine (purchase) (39695); 5 plants from Mississippi (gift) (40140); 27 plants from Maine (gift) (40239); 10 specimens of lichens and Hepatica, principally from Florida and Georgia (gift) (40449).
- RICKET, C. B., New York City: Two plants from New York. 40992.
- RICKSECKER, A. E., Redfield, S. Dak.: Two hundred and fifty plants from St. Croix, Dutch West Indies (purchase); 39 specimens from St. Croix (gift) (40503).
- RIDDLE, L. C., Ohio State University, Columbus, Ohio: Four specimens of Hymenoptera. 40809.
- RIDGWAY, ROBERT, U. S. National Museum: Twenty-one birds' skins, a bird's nest, and 2 sets of eggs, also a collection of plants (39604); skin of Great horned owl from Illinois (39986); specimen of Carolina parakeet, *Conurus carolinensis* (40518); 2 specimens of Carolina parakeets (41142).
- RILEY, J. H., U. S. National Museum: Common mole (*Scalops aquaticus*) from Falls Church, Va. (40200); 2 birds' skins from Virginia (40416); skin of Great crested flycatcher, *Myiarchus crinitus* (40475); specimen of Spreading adder, *Heterodon platyrhinus*, from Falls Church (40808); 9 eggs of Wild turkey, *Meleagris gallopavo silvestris*, from Fairfax County (40930); set of eggs of Cooper's hawk, *Accipiter cooperi*, from Virginia (41009).
- RILEY, Prof. R. R., Louisiana, Mo.: Fossiliferous clay from the Kinderhook formation at Louisiana. 39868.

- RIO JANEIRO, BRAZIL, MUSEO NACIONAL; received through Carlos Moreira. Specimens of recent Brazilian corals. 40191.
- RITCHIE, J., jr., Boston, Mass.: Marine shells. Exchange. 39756.
- ROBERTS, CHARLES G., Baltimore, Md.: Leaf of a South African plant representing the species *Leucadendron argentum* R. Br. (40649); specimens of Coccid, sometimes known as "ground pearls," from Cape Colony, Africa (40738).
- ROBERTS, GEORGE E. (See under United States Mint.)
- ROBERTS, MRS. PERCY, Monteagle, Tenn.: Plant. 39613.
- ROBERTS, DR. T. S., Minneapolis, Minn.: Twelve specimens of *Nymphæa variegata* from Lake Itasca, Minn. 39737.
- ROBERTSON, Prof. CHARLES T., Carlinville, Ill.: Nineteen species of Hymenoptera representing co-types, 4 species of Tiphiidae, 13 species of Eumenidae, and 2 species of Cerovalidae. 40842.
- ROBINETTE, F. M., Cochise, Ariz.: Eighty-one birds' skins from Arizona. Purchase. 40232.
- ROBINSON, J. H., Washington, D. C.: French bean from the District of Columbia. 39785.
- ROBINSON, T. R., Lanham, Md.: One hundred and twenty plants collected at Thousand Isles, New York. Purchase. 39886.
- ROBINSON, Capt. WIRT, U. S. A., West Point, N. Y.: Two skins of *Chordeiles minor* and *Blacicus pallidus*, and a bird's egg from tropical America (39969); miscellaneous insects (39971); specimen of *Papilio homerus* (40092); 100 specimens of Lepidoptera (exchange) (40269); 28 moths (40554); eggs of *Ampullaria* from Palm Beach, Fla. (40945).
- RODEY, Hon. BERNARD S., House of Representatives, Washington, D. C.: Sample of Manila hemp from the Philippine Islands, collected by Capt. George Curry, of Manila. 40638.
- ROGERS, Dr. A. F., Columbia University, New York City: Ostracode-bearing rock from the coal measures of Kansas (40418); 5 specimens of *Cyclus communis* from Kansas City, Mo. (40768).
- ROMBURG, Dr. VAN. (See under Hon. B. S. Rairden.)
- ROON, G. VAN, Rotterdam, Holland: One hundred and twenty specimens (42 species) of Coleoptera and 1 Cicada (40018); received through Dr. L. O. Howard, 55 beetles from Java, Borneo, and other localities (40170). Exchange.
- ROSE, A. G., Ferguson, S. C.: Pupa of a butterfly (*Papilio asterias*). 39892.
- ROSE, Dr. J. N., U. S. National Museum: Small Mexican basket and 20 specimens of tortilla or corn cakes. 40855.
- ROUSSEAU, PHILEAS, Notre Dame de Monts, Vendée, France: Nineteen trilobites, 5 specimens of *Bellerophon*, and 4 other fossils from the Siluric of France. Exchange. 39859.
- ROWLEE, W. W., Ithaca, N. Y.: One hundred and thirty plants from the Isle of Pines, West Indies. Purchase. 39916.
- ROWLEY, Prof. R. R., Louisiana, Mo.: Specimen of Lower Burlington decomposed chert, containing minute fossils. 40022.
- ROYAL BOTANIC GARDENS. (See under Kew, London, England.)
- ROYAL GARDENS. (See under Calcutta India.)
- ROYAL MUSEUM. (See under Turin, Italy.)
- ROYAL MUSEUM OF NATURAL HISTORY. (See under Stockholm, Sweden.)
- ROYAL ZOOLOGICAL AND ANTHROPOLOGICAL-ETHNOGRAPHICAL MUSEUM. (See under Dresden, Germany.)
- ROYSTER, A., Suffolk, Va.: Received through J. W. Daniel, jr. Plant from Virginia. 39800.
- RUDIFER, Mrs. M. L., Knoxville, Tenn.: "Old Line Whig flag," used during the Henry Clay campaign at Arlington, Va., in 1840. 40083.

- RUFFIN, Hon. J. N., U. S. consul, Asunción, Paraguay, South America. Native feather costumes from Paraguay (purchase; 41089; L. P. X. 41090).
- RUMMEL, Mrs. FRANZ. (See under Heirs of S. F. B. Morse.)
- RUMMEL, F. M., Washington, D. C.: Beetle (*Lycopsis villosa* Casey). 40843.
- RUSSELL, Dr. FRANK. (See under Smithsonian Institution, Bureau of Ethnology.)
- RUSSELL, Prof. ISRAEL, U. S. Geological Survey: Ethnological material, mammals, and a bird from the Eskimos of the Lower Yukon (39927); volcanic material from Cinder Buttes, Idaho (40344).
- RUSSELL, WILLIAM. (See under Smithsonian Institution, Bureau of Ethnology.)
- RUST, H. N. (See under Smithsonian Institution, Bureau of Ethnology.)
- RYERSON, R. G., Wayne, N. J.: Wampum belt of Seneca Indians. Loan. 7892.
- ST. MARY'S ACADEMY, Monroe, Mich.: Received through Sister M. Catherine. Specimens of calcite from Mouroe and a specimen of celestine from Scofield. 40007.
- ST. NICHOLAS SOCIETY, New York City: Received through the committee, Charles A. Schermerhorn, Frederic de P. Foster, and Frederic J. de Peyster. Medal of the St. Nicholas Society commemorating the two hundred and fiftieth anniversary of the granting of municipal government to New Amsterdam. 41067.
- ST. PETERSBURG, RUSSIA, IMPERIAL ACADEMY OF SCIENCES: Received through Dr. N. Knipowitsch. One hundred and two specimens (46 species) of land and fresh-water shells from central Asia. Exchange. 41051.
- SAN JOSÉ, COSTA RICA, MUSEO NACIONAL: Received through Prof. P. Biolley. Amphipods and crustaceans. (40625; 41098.)
- SAMPSON, FRANK R., Woodliffe, N. J.: Continental bill, 20 shillings, New London, 1776. 40588.
- SAMSON, HENRY W., Washington, D. C.: Copper coin of Persia. 40653.
- SANDERSON, Prof. E. DWIGHT, Agricultural and Mechanical College, College Station, Tex.: Hermaphrodite specimen of *Orgyia leucostigma*. 40401.
- SANDHAM, HENRY, London, England. (See under Smithsonian Institution.)
- SANDS, W. A., Auburndale, Fla.: Sphinx moth, *Protoparce rustica* Fabr. 39596.
- SARKIS, Dr. E. D., Philadelphia, Pa.: Two pairs of Persian stockings, Persian cap, and Persian coin. 40897.
- SARTORIS, Miss NELLIE GRANT. (See under Gen. F. D. Grant.)
- SAUNDERS, E. E. & Co., Pensacola, Fla.: Trumpet-fish or flute-mouth, *Fistularia tabacaria*. 40509.
- SAVAGE, J. G., Rosslyn, Va.: Beetle (*Copris carolina* L.). 39683.
- SAVILLE, M. H. (See under Smithsonian Institution, Bureau of Ethnology.)
- SAYLES, IRA. (See under Interior Department, U. S. Geological Survey.)
- SCHERMERHORN, CHARLES A. (See under St. Nicholas Society.)
- SCHUEBER, Miss E. W., Livingston, Mont.: Fifty-three plants from Yellowstone National Park. Purchase. 40542.
- SCHILD, P., New York City: Collection of insects from Costa Rica, including Coleoptera, Hemiptera, Diptera, and Hymenoptera. Purchase. 39653.
- SCHLÜTER, WILHELM, Halle-an-der-Saale, Germany: Ten mammals (purchase) (40051); cast of an egg of Moa, *Emeus craseus* (gift) (40065); 6 squirrels from Java (purchase) (40074); 14 mammals from Java (purchase) (41135); skeleton of a rabbit (purchase) (40419); 11 mammals from New Guinea (purchase) (40670); 4 specimens of *Traguli* from Ceylon (gift) (41059).
- SCHMID, E. S., Washington, D. C.: Parrot (*Amazona*) (39985); Australian ground pigeon, (*Geophaps scripta*) (40468); monkey (40558); nightingale (40745); Indian starling, *Temenuchus pagodarum* (41177).
- SCHNECK, Dr. J., Mount Carmel, Ill.: Bat (*Corynorhinus macrotis*) (39842); 5

- SCHNECK, Dr. J.—Continued.
plants from various localities in the United States (39960); specimen of *Corynorhinus macrotis* from Mount Carmel (40522).
- SCHUCHERT, CHARLES, U. S. National Museum: About 100 specimens of Helderbergian material from Cumberland, Md. (39641); fossils collected in Virginia, West Virginia, and Georgia (40177).
- SCHUETTE, J. H., Greenbay, Wis. (received through the Biological Society of Washington, D. C.): Thirty specimens of *Crataegus*. 41150.
- SCHUSTER, ADOLF and BENJAMIN, Holbrook, Ariz.: Two masks of Hopi Indians from Walpi, Ariz. Purchase. 40056.
- SCHWARZ, Dr. E. A., Department of Agriculture: Five seeds from the West Indies collected by H. G. Hubbard (40221); 53 specimens of Lepidoptera from Cuba (40867).
- SCIDMORE, Miss E. R., Washington, D. C.: Pencil outlines of a human foot (40606); brass fixed ammunition case for 4-pounder gun fired from the U. S. S. *Olympia*, May 1, 1898 (40909); regulation army shoe worn during 1861–1865 (40924); 113 specimens, including ethnological material, ceramics, and religious objects from China. Loan. 8373.
- SCIENTIFIC AMERICAN, New York City (received through Department of Agriculture): Specimen of *Cryptostegia grandiflora* Brown, from Mexico. 39876.
- SCOLLIICK, W. E., U. S. National Museum: Bat (*Nycticejus*) from Oxonhill, Md. 41079.
- SCOTT, T. A., Washington, D. C.: Myriapod found in a bunch of bananas. 40202.
- SEALE, A. (See under Bernice Pauahi Bishop Museum, Honolulu, Hawaiian Islands.)
- SEE, JAMES W. (See under Charles L. Whitaker.)
- SEEGER, G. A., Branchville, Md.: Garter snake from Maryland (39895); black snake, *Zamenis constrictor*, from Branchville, Md. (40422).
- SETON, E. T., Wyndygoul, Coscob, Conn.: Eleven deer from Montana. Purchase. 40938.
- SETON-KARR, H. W., Wimbledon, S. W., England: Fifteen paleolithic implements from the lateritic deposits of Poondi, India. 40597.
- SEYMOUR, A. B., Cambridge, Mass.: Specimen of *Trichomanes petersii* from Tallulah Falls, Ga. 40640.
- SHADROCK, T. T., Culpeper, Va.: Beetle (*Dynastes tityus* L.). 39636.
- SHANNON, Mrs. OSBORN, Washington, D. C.: Uniform worn by the late Governor Shannon, of Ohio and Kansas, when United States minister to Mexico in 1844. 39978.
- SHAW, CLARENCE H., Phoenix, Ariz.: Zuni shirt and a collection of photographs. 40718.
- SHAW, GEORGE R., Arnold Arboretum, Boston, Mass.: Fifteen plants, including pine cones, etc., from Cuba and various localities (40635; 40688).
- SHAW, J. F., Somerset, Tex. (received through Department of Agriculture): Three plants (*Cucumis dipsacens* Ehrenb. and *Quercus virginiana* Mill) from Texas. 41217.
- SHAW, R. E., Albemarle, Va.: Burrowing snake, *Carpophis amoenus*, from Virginia. 39786.
- SHECKLES, JOHN E., Washington, D. C.: Immature Osprey or Fishhawk, from Bay Ridge, Md. 39734.
- SHELDON, E. P., Portland, Oreg.: Four plants from Oregon (exchange) (40114); 8 plants from California and Oregon (gift) (40214; 40402; 40448); 250 plants from Oregon (purchase) (40677); 5 plants from Oregon (gift) (40883; 41169).
- SHEPHERD, T. M., Alexandria, Va.: Plants from Texas. 39793.
- SHERIDAN, Mrs. IRENE RUCKER, and MICHAEL V. SHERIDAN: Trustees. Four pieces of Flemish tapestry, representing scenes in the life of Alexander the Great. Deposit. 8458.
- SHERMAN, JOHN D., New York City: Twenty-three specimens (6 species) of North American beetles. 39923.

- SHERWOOD, ANDREW, Mansfield, Pa.: Prehistoric stone hammer (gift) (40382); collection of Upper Devonian vertebrate and invertebrate fossils from Pennsylvania (purchase) (41123).
- SHILLING, MRS. MARY A., Washington, D. C.: Haversack and knife with cartridge-case handle carried by the late Corp. George F. Shilling during the Cuban campaign. 39949.
- SHORT, JOHN W., Liberty, Ind.: Two plants. 40592.
- SHUFELDT, DR. R. W., New York City: Two specimens of *Alaus oculatus*. 41006.
- SHULAK, REV. FRANCIS X., St. Ignatius College, Chicago, Ill.: Specimens of smoky quartz and other minerals (40368; 49960).
- SHULL, GEORGE H., Havre de Grace, Md., Washington, D. C., and University of Chicago: Specimens of *Sabbatia dodocandra* (L) B. S. P., and *Pteridium aquilinum* (L) Kuhn (39899); plant from Virginia (39989); plant from New York (41114); 2 plants from New York (41131). (See under Department of Agriculture.)
- SIDEBOTTOM, H., Cheadle Hume, near Stockport, Cheshire, England: Foraminifera from Great Britain and the Seychelles islands. Exchange. 39640.
- SIGOURNEY, W. S., Washington, D. C.: Two hundred and thirty-one photographic views of the Philippine Islands. 40120.
- SIMMONDS, H. L., Los Angeles, Cal.: Rabbit-skin blanket. Purchase. 40811.
- SIMPSON, C. B., Department of Agriculture: Five butterflies from Idaho. 40868.
- SIMS, CLAUDE E., Doverhill, Ind.: Eighteen pentremites. Purchase. 39789.
- SINCLAIR, L. E. (See under Potomac Electric Power Company.)
- SISTER M. CATHERINE. (See under St. Mary's Academy, Monroe, Mich.)
- SJOSTEDT, DR. YNGVE. (See under Stockholm, Sweden, Royal Museum of Natural History.)
- SKIFF, F. J. V. (See under Field Columbian Museum.)
- SKINNER, DR. HENRY, Academy of Natural Sciences, Philadelphia, Pa.: Four specimens of *Tegrodera aloga* Skinner (cotypes). 41176.
- SLATER, WILLIAM M., Washington, D. C.: Specimen of rutile from Roseland, Nelson County, Va. 39941.
- SLOSSON, MRS. A. T., Franconia, N. H.: Specimen of Dipteron (*Elachiptera formosa* Loew.), from Mount Washington, New Hampshire (40016); 28 specimens of parasitic Hymenoptera (40089); 12 specimens of parasitic Hymenoptera from Biscayne Bay, Florida (new to Museum collection) (40259).
- SMITH, A. D., Peoria, Ill.: Myriapod (*Cermatia forceps* L.). 41007.
- SMITH, MISS ANNIE M., Brooklyn, N. Y.: Thirty specimens of mosses from North Carolina. Exchange. 41086.
- SMITH, C. L., Iowa City, Iowa: Plant from Mexico. 41147.
- SMITH, E. G., Arlington, Iowa: Prehistoric copper spearhead. Loan. 7833. (Returned.)
- SMITH, GEORGE O. (See under Interior Department, U. S. Geological Survey.)
- SMITH, HENRY, Milwaukee, Wis.: Three models of boomerangs. 40384.
- SMITH, HERBERT H., Pittsburg, Pa.: Two thousand one hundred and ninety-three plants from South America. Purchase. 41206.
- SMITH, JARED G., Agricultural Experiment Station, Honolulu, Hawaii. Received through Department of Agriculture: Plants from the Hawaiian Islands. (39720; 39722; 41102.)
- SMITH, Prof. J. B., New Brunswick, N. J.: One hundred and nineteen slides showing parts of Lepidoptera mounted in balsam (40414); five types of Noctuids (40643.)
- SMITH, Capt. J. DONNELL, Baltimore, Md.: Three hundred and seventy-five plants from Central America and the West Indies. 41048.
- SMITH, L. BERTRAND, New York City.: Skull of young walrus (*Odobenus*) from Franz Josef Land. 41107.

SMITH, MRS. RACHEL S., Lincoln, Va.:
Beetle (*Desmocerus palliatus* Forster).
41047.

SMITH, THORN, Isabella, Tenn.: Meteorite-
iron from the southwestern section of
Cherokee County, N. C. (purchase)
L. P. X. (40746); specimens of zoisite
(exchange) (41095).

SMITH & WESSON, Springfield, Mass.:
New military revolver. 40122.

SMITHSONIAN INSTITUTION, Mr. S. P. Lang-
ley, secretary:

Bronzed plaster bust of Cuvier. 39652.
Bequeathed to the Institution by Mr.
Charles Abert, through Miss Con-
stantia Abert, Washington, D. C.

Collection of weights and measuring
apparatus purchased by Mr. S. P.
Langley from Mr. J. Charles Wohl-
bold, Nuremburg, Germany. 40029.

Bronze medal commemorating the cen-
tennial anniversary of the Athenæum
of Brescia. 40973. Presented to the
Institution by the Athenæum.

Original oil painting of "The March of
Time." 40194. Presented by Mr.
Henry Sandham, London, England.

*Transmitted from the Bureau of American
Ethnology*, Mr. W. H. Holmes, chief.

Ancient Mexican stone yoke, received
through Mr. M. H. Saville (39590);
collection of relics from ruins in
Arizona, collected by Mr. Cecil A.
Deane, Denver, Colo. (39591);
through Miss Mabel M. Gould, war
bonnet obtained from a Sioux Indian
and a fur bag made by the Oglala In-
dians (39650); received through H.
E. Wadsworth, Indian war bonnet
(39681); received through O. G. Har-
desty, stone spearhead (39682);
through Lieut. G. T. Emmons,
U. S. N., Princeton, N. J., skin fur
blanket obtained from the Chileat
Indians and an unfinished basket
from the same tribe (39826); 50 bas-
kets from Thompson River, British
Columbia, 16 antique masks and a
wooden seat from British Columbia,
collected by Lieut. G. T. Emmons
(39904); ethnological collection ob-
tained by Dr. Frank Russell from
the Pima Indians of Arizona (39990);

SMITHSONIAN INSTITUTION—Continued.

collection of baskets from the Pima
Indians, obtained by Dr. Frank Rus-
sell (39991); specimens of quarry site
material from aboriginal quarries of
Carter County, Ky., obtained by Mr.
Gerard Fowke, Chillicothe, Ohio
(40021); received through E. O.
Matthews, collection of prehistoric
stone relics (40048); baskets made by
the Mission Indians, 2 pairs of yucca
sandals from Santa Rosa, willow grain
basket, 2 nets for carrying wild hemp,
and a wooden needle, collected by
Mr. H. N. Rust, Los Angeles, Cal.
(40049); 90 ethnological objects from
the middle West, obtained from the
Indians of that section through Rev.
Michael Dumarest (40071); 11 boxes
containing archeological material
from the shell heaps of Maine, col-
lected by the late Frank H. Cushing
(40192); 6 plastic figures of Egyptian
gods, obtained through Mrs. Marie
N. Buckman, Boston, Mass. (40231);
ethnological material and geological
specimens, collected by W. J. McGee,
James Mooney, and others (40264);
collection of pottery casts, etc.
(40329); ethnological material, birds,
and plants, collected by Mrs. M. C.
Stevenson (40350); ethnological ma-
terial, collected by Messrs. James
Mooney, DeLancy Gill, A. E. Jenks,
and others in Salt River Valley from
among the Chippewa Indians, Cher-
okee Indians, and from localities in
Mexico (40385); collected by Mrs.
M. C. Stevenson, sun shrine contain-
ing a number of concretions, Hopi
cotton kilt, embroidered and painted,
to be used at the base of a white
mask, tablet belonging to a plumed
serpent, red pottery bowl (archaic),
fragments of pottery from ruins west
and northwest of Zuñi, and a fetish
of Kolouise (40396); Pegan costume,
obtained from William Russell,
Washington, D. C. (40572); received
through Mr. W. H. Holmes bronze
medal of the Geographical Society of
Roumania, June 15, 1900 (41016);
stone implements from the West In-
dies, consisting of 800 specimens

SMITHSONIAN INSTITUTION—Continued.

(41087); photographs and other material pertaining to physical anthropology (41138). Deposit.

Transmitted from the National Zoological Park, Dr. Frank Baker, superintendent:

Specimen of *Tantalus loculator* (39625); monkey (*Cebus hypoleucus*); lynx (*Lynx rufus floridanus*); monkey (*Macacus maurus*); lynx (*Lynx canadensis*) (39626); specimen of *Lynx rufus*, llama; *Cebus*; specimen of *Lutra hudsonica*, specimen of *Felis leo* and *Macacus cynomolgus* (39928); specimen of nine-banded Armadillo and specimen of *Cebus* (39929); specimen of *Cebus* and a lion (39930); Lanzarotte pigeon, Great blue heron, and Bald eagle (39931); White stork and Sun bear (39932); Tasmanian wolf, *Thylacynus cynocephalus*, and Ocelot, *Felis pardalis* (39944); specimen of Nicobar pigeon (39945); Leadbeater's cockatoo (39946); boa constrictor (39947); Alligator lizard, *Sceloporus* and Glass snake, *Ophiurosaurus ventralis* (40164); Prairie dog (*Cynomys ludovicianus*); Black-handed Spider monkey, *Ateles geoffroyi*; Apella monkey, *Cebus apella*; Capuchin monkey, *Cebus capucinus*; kangaroo (*Macropus*); Prong-horn antelope, *Antilocapra americana* (40165); Roseate spoonbill, *Ajaja ajaja*, and specimen of Bull snake, *Pituophis sayi* (40166); 2 Bald eagles, *Haliaetus leucocephalus* (40167); buffalo (*Bison americanus*), and a specimen of *Phalangista* (40168); specimen of *Dasyprocta aguti* (40209); specimen of Hyacinthine macaw, *Anodorhynchus hyacinthinus* (40211); bittern (40252); specimen of Rocky Mountain sheep, *Ovis montana* (40253); Woodland caribou, Rangifer caribou, and skeletons of Woodland caribou and Rangifer caribou (40254); 2 specimens of American bison, *Bison americanus*; Sun bear, *Ursus malayanus*; and 3 specimens of *Felis leo*; Gray wolf, *Canis lupus griseo-albus* (40437); skin and skeleton of Red kangaroo, *Macropus rufus*, and Binturong, *Arctictes binturong*

SMITHSONIAN INSTITUTION—Continued.

(40438); gopher snake, *Spilotes corais couperii* (40439); 3 Parson finches and a California condor, *Pseudogryphus californianus* (40440); Golden eagle, *Aquila chrysaetos*; 2 specimens of Strawberry finch, 2 Painted finches and a Black duck (40441); 4 Painted finches, Gray-coated mounds, *Nasua narica*, and a boa constrictor (40442); Six-banded armadillo, *Dasyypus villosus*, and a boa constrictor (40443); Java sparrow (40444); specimen of Pea-fowl, *Paro cristatus* (40770); Black swan, King parrakeet, grouse, and Whistling swan (40771); turtle (*Chelone imbricata*); iguana (*Iguana tuberculata*); Gila monster, *Heloderma suspectum* (40772); Marsh hawk, *Circus* sp.; 2 Painted finches; White stork, *Ciconia alba*, and a Pea-fowl, *Paro cristatus* (40773); Rocky Mountain sheep, *Ovis montana*; 2 specimens of American bison, *Bison americanus*; Prong-horn antelope, *Antilocapra americana*; Black squirrel, *Sciurus carolinensis*; Bay lynx, *Lynx rufus*; Black bear, *Ursus americanus*; Agouti, *Dasyprocta* (40774); monkey (*Cercopithecus*) (40775); Mandarin duck, *Dendronessa galericulata* (40860); Roseate spoonbill, and Hawk-bill turtle (40861); Parrakeet, Flamingo (*Phaenicopterus ruber*), Golden eagle, *Aquila chrysaetos*, Loon (*Urinator imber*) (41116); Snowy owl, *Nyctea nyctea*; Mandarin duck, *Dendronema galericulata*; Parrakeet (Amazona); 2 specimens of *Phaenicopterus ruber* (41118); Spider monkey, *Ateles* (41117); kangaroo (*Macropus giganteus*); Gray wolf, *Canis lupus griseo-albus* (41115); Green heron, *Ardea virescens*, and common boa, *Boa constrictor* (41119); specimen of *Macacus cynomolgus*; Mexican Agouti, *Dasyprocta mexicana*; European porcupine, *Hystrix cristata*; Colared peccary, *Dicotyles tajaca*; Eyra cat, *Felis eyra*; and Fallow deer, *Dama vulgaris* (41120); Gray wolf, *Canis lupus griseo-albus* (41143); 2 specimens of Sandhill crane, *Grus canadensis* (41144). (See under E. Meyenberg.)

- SMYTH, C. H., Hamilton College, Clinton, N. Y.: Specimens of Syracuse dyke. 40236.
- SNELLING, WALTER O., Washington, D. C.: Carborundum, artificial corundum, and pencils made from artificial graphite, from the International Acheson Graphite Company, Niagara Falls, N. Y. 39958.
- SNODGRASS, Prof. R. E., Washington Agricultural Experiment Station, Pullman, Wash.: Three specimens of *Palmodes morio* Hohl. 41081.
- SNYDER, BLANDIN, Washington, D. C.: Three iron-pointed arrows used by Bornu negroes, Sudan. 40189.
- SNYDER, J. O. (See under Leland Stanford Junior University.)
- SOELNER, G. W. H., Washington, D. C.: Ten specimens (2 species) of land shells from the District of Columbia. 40589.
- SOMERS, MRS. H., Santa Barbara, Cal.: Plant from California. 40323.
- SOWERBY & FULTON, London, England: Specimen of *Voluta mammilla* Gray. Purchase. 40637.
- SPATH, L. (See under Department of Agriculture.)
- SPENCER, A. C., U. S. Geological Survey: Two plants (fruits of cycads) from Habana, Cuba. 40499.
- SPLITTSTOESER, MR. (See under Dr. D. T. Day.)
- "SPORTS AFIELD," Chicago, Ill.: Dipterous larva taken from the nasal cavity of a spike buck captured at Monterey County, Cal. 39911.
- STANDINGER, DR. A., and A. BANG-HAAS, Berlin, Germany: Seven hundred and sixty-eight butterflies and moths. Purchase. 41213.
- STANTON, DR. T. W., U. S. Geological Survey: Plant from California. 39664.
- STATE DEPARTMENT. (See under Hon. E. H. Plummer.)
- STATE MUSEUM, Raleigh, N. C.: Received through Mr. H. H. Brimley. Type specimen of *Notropis brimleyi* and representatives of several other species of Cane River fishes (40336); salamanders and snakes from North Carolina (40661).
- STEARNS, W. A., Atlanta, Ga.: Fossils and Unionidae. 39647.
- STEBBINS, JAMES K., Ashtabula, Ohio: Opal. Deposit. 40010.
- STEELE, E. S., Department of Agriculture: Fourteen plants from the District of Columbia and Maryland. (39761; 40220.)
- STEERE, J. B., Ann Arbor, Mich.: Three specimens of weasels (*Putorius*). 41013.
- STEJNEGER, Miss THORA, Christiania, Norway: Forty-six mammals from Övre Eggdale, Norway (40313); 66 small mammals from Norway (41032). Purchase.
- STERKI, DR. V., New Philadelphia, Pa.: Specimens of *Branchipus* and ostracods. 40931.
- STERRETT, J. A., Springland, Pierce Mill road, Washington, D. C.: Specimen of Hawkmoth, *Philampelus pandorus* Hübner (39839); 21 specimens of dragonflies from Raquette Lake, New York (40017).
- STEVENS, A. F., Pond, Ark.: Four specimens of Lower Carboniferous fossils from Pond. 40303.
- STEVENS, F. L., State Agricultural College, Raleigh, N. C.: Plant. 39675.
- STEVENS, I. W., Cedar, Colo.: Specimens of ores. 39592.
- STEVENS INSTITUTE OF TECHNOLOGY, Hoboken, N. J.: Received through Mr. S. P. Langley. Brass Barton button. 40223.
- STEVENSON, MRS. M. C. (See under Smithsonian Institution, Bureau of Ethnology.)
- STEWART, MRS. A. A., St. James, Long Island: Two specimens of beetle representing the species *Xyloryctes satyrus*. 40037.
- STEWART, FRANK H., Philadelphia, Pa.: Pottery fragments from Salem County, N. J. 40712.
- STEWART, SAMPSON T., Little Rock, Ark.: Two valves of a species of *Unio*, with attached pearls. Purchase. 40079.
- STILWELL, L. W., Deadwood, S. Dak.: About 700 specimens of Jurassic fossils from Wyoming and South Dakota. Purchase. 39733.

- STIRLING, E. B., Denver, Colo.: Horned toad and eight young ones. 39894.
- STOCKHOLM, SWEDEN, ROYAL MUSEUM OF NATURAL HISTORY: Received through Dr. Yngve Sjöstedt. Two hundred and ninety-seven specimens of exotic Lepidoptera. Exchange. 39657.
- STODDARD, H. L., Stuttgart, Ark.: Seven photographs of mound relics. 40288.
- STONE, MISS ELLEN, East Lexington, Mass.: Plan of Washington City, 1800, and figure of General Washington, stamped on linen. 40580.
- STOTSENBERG, Hon. J. H., New Albany, Ind.: Received through S. S. Gorby, Horsecave, Ky. Samples of halloysite from various localities in Hart County, Ky. 41035.
- STOY, CHARLES, Springvale, Va.: Stone ax found on Springvale farm, Fairfax County, Va. 41162.
- STRAND, EMBR., Christiania, Norway: Two hundred and sixty-one specimens of Lepidoptera and 20 specimens of Orthoptera. Exchange. 40823.
- STROTHER, JOHN, Charlestown, W. Va.: Received through G. M. Beltzhoover, jr. Autograph note dated January 28, 1788, signed by James Rumsey. Loan. 8467.
- STROUP, Miss LAURA, Jamesport, Mo.: Maple leaves infested with insects. 39597.
- STUART, Dr. S. C., Washington, D. C.: Alcoholic snakes from South Africa. 41195.
- STUBBLEFIELD, Mrs. ANNA, Cumberland, Md.: Specimen of *Edriocrinus sacculus*, and two large segments of a crinoid column from the Oriskany of Franklin, Pendleton County, W. Va. 40505.
- STURTZ, B., Bonn, Germany: Two casts of human skulls from the quaternary, near Prague. Purchase. 40403.
- SUTER, HENRY, Auckland, New Zealand: Five specimens (five species) of marine shells from New Zealand (40548); 18 specimens of Unionidae (40933).
- SWEZEY, OTTO H., Ohio State University, Columbus, Ohio: Eight specimens of parasitic Hymenoptera. 40552.
- SYDNEY, NEW SOUTH WALES, AUSTRALIA, BOTANIC GARDENS: Received through J. H. Maiden, director. Thirty plants from New South Wales. Exchange. 40473.
- TAFF, J. A., U. S. Geological Survey: Specimen of *Nymphaea dealbata* (39936); specimen of *Natholkenia dealbata* collected in Indian Territory (40002).
- TAINTER, C. S. (See under C. C. Bell.)
- TASSIN, WIRT, U. S. National Museum: Collection of pieces of rope made into square knots, splices, bends, hitches, etc. (40175); two diamond crystals (40873). (See under J. F. Fargo.)
- TAYLOR, C. B., Kingston, Jamaica: Four specimens of tree-toads and a snake, from Jamaica. 40531.
- TEDESCHE, LEON G., University of Cincinnati, Cincinnati, Ohio: Specimens of *Calymene niagarensis* Hall, from Grafton, Ill. 39589.
- THE CURIO, Phoenix, Ariz.: Received through Paul A. Brizard. Three Apache bowl-shaped baskets. Purchase. 41056.
- THOMAS, HENRY, Manomet, Mass.: Water-lizard, *Ambystoma maculatum*, from Massachusetts. 40689.
- THOMAS, OLDFIELD, British Museum of Natural History, London, England: Skeleton of *Lepus* and skeleton of *Pedetes*; also two skins and skulls of *Microtus* (40539); South American mammals (40665). (See under London, England, British Museum of Natural History.)
- THOMPSON, HUGH M., St. Louis, Mo.: Pseudomorph of pyrite-galena from southwestern Missouri. 40365.
- THOMPSON, Dr. J. C., U. S. N., Navy-yard, New York City: Fishes from the vicinity of Dry Tortugas, Florida, including *Auchenopterus*, *Malacoctenus*, *Microspathodon*, *Holocentrum*, *Elops*, and *Ogilbia*. 40601.
- THORN, A. E., U. S. National Museum: Two salamanders from Twining City, D. C. (40057; 40118).

- TILDEN, J. E., University of Minnesota, Minneapolis, Minn.: One hundred plants. Purchase. 39711.
- TOLLIN, O., Chokolaskee, Fla.: Three plants from Florida. 40958.
- TOUMBEY, J. W., Yale University, New Haven, Conn.: Two hundred and eighty plants from Arizona. 40336.
- TOWNSEND, C. H., U. S. Fish Commission: Specimen of *Petaurus*, supposed to be from New Guinea. 39973.
- TOWNSEND, Prof. C. H. T. (See under Department of Agriculture; also under Prof. T. D. A. Cockerell.)
- TOWNSEND, J. A., received through Department of Agriculture. Twenty-seven plants collected in Oregon. 40765.
- TOWNSEND-BARBER TAXIDERMY AND ZOOLOGICAL COMPANY, El Paso, Tex.: Imperial Woodpecker (39725); male specimen of Mountain Sheep, *Ovis mexicanus*, from Carrizal Mountains, Mexico (L. P. X.) (40289); through C. H. T. Townsend, president, female specimen of *Ovis mexicanus* from Carrizal Mountains (40290). Purchase.
- TRACY, N. B., Auburn, Me.: Six specimens of fribolite schist from Auburn. 40693.
- TRAPHAGEN, F., Bozeman, Mont.: Specimens of bismuthinite, stephanite, and corundum from Montana. Exchange. 40130.
- TRASK, MRS. BLANCHE, Avalon, Cal.: Four specimens of Cotyledons from California (39852); received through Department of Agriculture, 5 plants from San Clemente Island, California (40240); 84 plants (purchase) (40610); specimen of *Tyrodina fungina* Gabb (40714); 16 plants from California (40923; 41200); 4 marine shells from California (41046). (See also under Department of Agriculture.)
- TRELEAS, DR. WILLIAM, Missouri Botanical Garden, St. Louis, Mo.: Specimen of *Agave morrisii*. 39963.
- TRING MUSEUM, Tring, England. (See under R. H. Beck.)
- TRUE, DR. F. W., U. S. National Museum: Plant from Maine. 39883.
- TSUCHIDA, T., Zoological Laboratory, Misaki, Japan: Rodents and small mammals from Japan. (40137; 41033.) Purchase.
- TURIN, ITALY, ROYAL MUSEUM: Received through Dr. Pietro Prever. Specimens of fossil Nummulites and Orbitoides. Exchange. 40256.
- ULRICH, E. O., U. S. Geological Survey: About 1,250 species of Paleozoic plants, corals, echinoderms, pteropods, and crustaceans, including about 180 type lots and 10,000 specimens (purchase) (39866); meteorite from Christian County, Ky. (purchase) L. P. X. (40543); about 75,000 specimens of fossil bryozoans representing about 1,200 species, with nearly 670 types (purchase) (41179); crinoids, bryozoans, brachiopods, and trilobites, representing principally the Lower Silurian system of the Mississippi Valley (purchase) L. P. X. (41180).
- UNDERWOOD, JOHN, Washington, D. C.: Spencer rifle. Purchase. 40050.
- UNITED STATES MINT, Philadelphia, Pa.: Received through George E. Roberts, director. Bronze memorial medal of President McKinley, and a bronze copper medal of Lieut. Victor Blue. Purchase. 40311.
- UNITED STATES NATIONAL MUSEUM: The following models were made in the Anthropological Laboratories: Plaster cast of Egyptian scarab (39765); model of a Chinese musical instrument (34749); model in plaster of a Mexican collar or yoke (39750); model of drilled ceremonial butterfly and models of a polished stone knife and a stone club (39751); model of an arghool (39825); four models of a Jouet (40072); three plaster casts of a large Mexican idol and three plaster casts of a small Mexican idol (40145); two models of the "Tower of Silence" (40158); four casts of Costa Rican metate (40234); four casts of a stone yoke from Mexico (40235); two copies of a large whistle (Spapakuilla) and a copy of a double reed (40241); model of a marine trumpet (40261); three casts of a stone yoke (40286); two casts of stone "Palmas" (40287);

UNITED STATES NATIONAL MUSEUM—Continued.

- four casts of "Bear Mother" (40306); Eskimo head, cast and painted (40327); four casts of Costa Rican metate (40366); four casts from sculptured sandstone block (40381); four casts of Porto Rican collar (40397); four casts of a stone collar (40549); mold and two casts of the Lansing skull (40551); four casts or carved stone metate from Nicaragua (40598); four casts of stone "God of Water" from Mexico (40599); four casts of stone head (40620); four casts of a stone head (40650); four casts of an Effigy vase (40652); four casts of a large stone metate (40656); four casts of a stone chair from Ecuador (40657); four models of Papages flute or flageolet (40761); mold and cast of marble bust of Prof. S. F. B. Morse (40777); plaster cast of wooden handle for stone hatchet from the B. E. Dodge collection (40786); copy of flute (40822); set of Seneca gambling dice (40880); two Seneca horn rattles (40865); model of a dugout canoe (40905); Sioux shot stick (40907); bowl and six dice used in the Seneca Indian gambling bone game (40916); cast of stone sculpture of a human female figure (40917); models of obsolete Seneca implements with written history of each (40939); five models of obsolete implements used by the Seneca Indians (40974); cast of human figure (40979); cast of human figure (40980); cast of human figure (40981); cast of carved stone mask (40982); cast of tripod vase (40983); cast of pipe (41064); cast of pipe (41065); cast of large obsidian cutlass (41223).
- VALWAY, Dr. W. H., Cleveland, Ohio. Seven hundred specimens of European Coleoptera and 84 specimens of Lepidoptera. 40070.
- VAN DERBURG, E. C., New York City: Two plants from Guatemala. 39715.
- VAN DEMAN, H. E., Washington, D. C.: Four oyster shells from Terre Bonne Bay, Louisiana. 40405.
- VAN DYKE, Dr. E. C., East Oakland, Cal.: Three hundred and twenty-six specimens of insects, including Diptera, Coleoptera, Hymenoptera, Lepidoptera, and other orders. 39655.
- VAUGHAN, T. WAYLAND, U. S. Geological Survey: Six species of land shells from Salt Mountain, Alabama. 39593. (See under Interior Department, U. S. Geological Survey.)
- VEITCH, JAMES, AND SONS, Royal Exotic Nursery, Chelsea, England: Six hundred and fifty-nine plants from China. 40482.
- VENABLE, E. P., Vernon, British Columbia: Seven specimens of Hymenoptera. 40415.
- VERRILL, A. H., New Haven, Conn.: Fifty specimens of Lepidoptera. 40091.
- VERY, C. F., Big Clifty, Ky.: Samples of asphalt from Kentucky. 40299.
- VIENNA, AUSTRIA, K. K. NATURHISTORISCHES HOFMUSEUM: One hundred specimens of Cryptogams from Europe (39706); 115 specimens of *Kryptogamae exsiccate*, Cent. VIII (40733). Exchange.
- WADSWORTH, H. E. (See under Smithsonian Institution, Bureau of Ethnology.)
- WALCOTT, Hon. C. D., Director U. S. Geological Survey: Snake (*Eutamias vagrans*), from Grand Cañon, Arizona (40977); specimen of Middle Carboniferous sandstone slab with reptile tracks, collected on the Grand View trail, Grand Cañon, Arizona, by Mr. Walcott (41094). (See under Interior Department, U. S. Geological Survey.)
- WALCOTT, Mrs. H. L. T., Claremont, Cal.: Twenty-five specimens of land-shells from California. 40750.
- WALKER, Dr. R. L., Carnegie, Pa.: Ferruginous concretions and geological specimens (40728; 40799).
- WALLING, W. P., Comer, Oreg.: Specimen of arsenopyrite, or mispickel, and arsenide of iron. 40961.
- WALPOLE, F. A. (See under Department of Agriculture.)
- WALSII, HARRY, Washington, D. C.: Two fire sticks. 40506.

- WALSH, DR. JOHN, Washington, D. C.: Ten skulls and two lower jaws of Eskimos from Greenland, and a piece of a vertebra. 39976.
- WAR DEPARTMENT, received through Quartermaster-General Ludington, U. S. A. Two United States Army regulation rifles (40430); received through Brig. Gen. William Crozier, chief of Ordnance Department, collection of models of obsolete ordnance and ordnance stores (40848). Deposit.
Army Medical Museum: Instruments for temporary use in physical anthropology. Loan. 8439.
- WARD, CHARLES G., Rochester, N. Y.: Cast of the interior of brain cavity of the Neanderthal skull. Purchase. 40782.
- WARD, H. A., Chicago, Ill.: Meteorite from Aleppo, Syria (purchase) (39940); meteorite from Baratta, New South Wales (purchase) (40069); meteorite from Gilgoin station, New South Wales (exchange) (40086); slab of a meteorite from Arispe, Sonora, Mexico (purchase) L. P. X. (40297); meteorite from Bath Furnace, Kentucky (exchange) (40587); two meteorites (exchange) (40705); meteorite from Majalahti, Finland, weighing 346 grams (exchange) (40764).
- WARD, ROWLAND (LIMITED), London, England: Specimen of Norwegian elk, *Paralces* (40783); giraffe (*Giraffa*) from the northern part of Lake Baringo (40790). Purchase. L. P. X.
- WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y.: Trilobite (*Isotelus*) and a cystid from Trenton Falls, New York (39745); banded diabase dike in granite from Norway, Maine; orbicular diorite from Corsica; porphyritic diabase from Sault Ste. Marie, Canada (39848); skeleton of *Rhea*, or South American ostrich (40151); 3 specimens of quartz (L. P. X.) (40672); skin of *Platypus* and egg of *Apteryx* (L. P. X.) (40748); 11 casts of meteorites (41045). Purchase.
- WARMBATH, J. S., Wilmington, Mass.: Eight adult and 6 young Greenland hares, 3 white foxes and 2 blue foxes
- WARMBATH, J. S.—Continued.
(40024); 5 young Arctic hares (40119). Purchase.
- WARNER, W. V., Washington, D. C.: Six specimens of *Culex signifer* Coq. 40512.
- WARREN, E. R., Colorado Springs, Colo.: Plants from Colorado: 26 photographs of plants. 40634.
- WASHINGTON, DR. H. S., Locust Grove, N. J.: Two specimens of iron ore. 40727.
- WATERS, DR. C. E., John Hopkins University, Baltimore, Md.: Specimen of *Corallorhiza* (39832); 3 plants from Hampton, Maryland (40185); 15 plants principally collected in Maryland (40370.)
- WATKINS, W. G., Grizzly Flats, Cal.: Twenty-two ferns from California (39690; 40519; 40700.)
- WEAVER, J. M., Rileyville, Va.: Specimen of Neuropteran, *Corydalus cognata* Hagen. 39815.
- WEBER, J. H., Oroville, Cal.: Specimen of argentiferous-auriferous copper from Josephine County, Oregon. 40734.
- WEBSTER, Prof. F. M., Urbana, Ill.: Received through Department of Agriculture. Specimens of parasitic Hymenoptera. 39818.
- WEED, Prof. W. H., U. S. Geological Survey: Two specimens of Mexican pines. 40697.
- WEEKS, F. B. (See under Interior Department, U. S. Geological Survey.)
- WEISS, L. M., Good Hope Mine, Vulcan, Colo.: Ten specimens of native tellurium and copper telluride from Good Hope Mine. 40631.
- WELLS, MRS. JAMES H. (See under Mrs. Mary Bryson.)
- WENZEL, H. W., Philadelphia, Pa.: Sixteen specimens of Coleoptera. 40012.
- WESLEY, WILLIAM & SON, London, England: Graphometer and a hydrometer. Purchase. 40525.
- WHEATON, MRS. F. G. (See under Mrs. F. G. d'Nautville.)
- WHEELER, W. M., University of Texas, Austin, Tex.: Ten reptiles from Texas. 40586.

- WHEELER, Professor. (See under Hubert Lyman Clark.)
- WHITAKER, CHARLES L., Hamilton, Ohio: Received through James W. See. Spanish hand press electrotype from Cuba. 40272.
- WHITE BUFFALO, Watonga, Okla.: Cheyenne war bonnet. Purchase, L. P. X. 40544.
- WHITE, Dr. C. A., Washington, D. C.: Two specimens of clover from Europe and America. 40266.
- WHITE, DAVID, U. S. Geological Survey: Two specimens of ferns from Pennsylvania (39810); specimens of bituminous coal from Ohio and West Virginia (40195); 3 plants from Virginia (40367); slab of rock from Mahoning, Armstrong County, Pa. (40892); skull of Pine mouse, *Microtus pinetorum*, from Webster Springs, W. Va. (41108).
- WHITMORE, Miss C. R., Richfield Springs, N. Y.: Plant. 39667.
- WIDGEON, J., Maryland Academy of Science, Baltimore, Md.: Three specimens of Oriskany corals from Cumberland, Md. 40277.
- WIDMEYER, G. W., Elk City, Idaho: Specimens of kaolin. 41061.
- WIEBUSCH, CHARLES F., New York City: Twenty specimens (10 species) of Tertiary fossils from an asphalt mine, Mina Angela Elmira, near Bejucal, province of Habana, Cuba. 39849.
- WIGHT, W. F., Washington, D. C.: Two hundred and sixty-six plants from California. 40125. (See also under Department of Agriculture.)
- WILCOX, Miss ETHEL, Floralhome, Fla.: Gold-framed miniature of the brother of General Ripley. Loan. 8070.
- WILDER, Prof. FRANK A., University of North Dakota, Grand Forks, N. Dak.: Three specimens of *Unio priscus*, and two specimens of *Campeloma producta*; also fossil plants. 40080.
- WILKINSON, D. F., Montevallo, Ala.: Albino squirrel (*Sciurus*). 40751.
- WILLIAMS, T. A. (See under Department of Agriculture.)
- WILLIAMSBURG SCIENTIFIC SOCIETY, Brooklyn, N. Y.: Received through Louis Kirsch, president. Two specimens of cut and polished golden topaz (exchange) (39644); five cut and polished amethysts (gift) (39713.)
- WILLIAMSON, Prof. E. B., Bluffton, Ind.: Six specimens of dragon flies (40530); fragments of three species of *Cambarus* from near Bluffton (39763); two specimens of Crayfish (*Cambarus blandingii acutus*) from Wells County, Ind. (40984).
- WILLIS, BAILEY. (See under Interior Department, U. S. Geological Survey.)
- WILMER, Col. L. WORTHINGTON, Ryde, England: One hundred and twenty-five specimens (66 species) of Tertiary fossils from Barton, England. 41212.
- WILSON, Rev. G. A. (See under Miss Mary A. Mead.)
- WINSBORO GRANITE COMPANY, Rion, S. C.: Two dressed cubes of granite. 40715.
- WISE, A. S. (See under J. H. Bunnell & Co.)
- WOHLBOLD, J. CHARLES. (See under Smithsonian Institution.)
- WOLCOTT, ROBERT H., University of Nebraska, Lincoln, Nebr.: Collection of mites. 40117.
- WOLTZ, GEORGE, U. S. National Museum: Tin whistle. 40088.
- WOOL, J. MEDLEY. (See under Durban, Natal, Africa.)
- WOOD, N. R., U. S. National Museum: Twelve birds. 39981.
- WOODROW, GORDON B., Lowesville, Va.: Specimens of amethyst crystals. 39875.
- WOODRUFF, Maj., C. E., U. S. A., Batangas, P. I.: Filipino fire-syringe. 40778.
- WOODWARD, A. SMITH. (See under London, England, British Museum.)
- WOODWARD, Dr. R. M., Washington, D. C.: Collection of mound-builders' relics. 40149.
- WOODWORTH, F. A., San Francisco, Cal.: Twenty-five specimens (six species) of land-shells from California (40946); 40 specimens of *Vitreu draparnaldi* Beck, from San Francisco (41074).

- WOODWORTH, Dr. W. McM. (See under Museum of Comparative Zoology.)
- WOOLSON, Miss G. A., Pittsford, Vt.: Tree-frog. 39879.
- WORCESTER, Hon. DEAN C., secretary of the interior, Manila, P. I.: Two hundred and seventy-nine photographs of native Filipinos. 39994.
- WORTHEN, C. K., Warsaw, Ill.: Pair of Harris Cormorants (40462); Black bear, *Ursus americanus* (40615). Purchase. L. P. X.
- WREN, CHRISTOPHER, Plymouth, Pa.: Specimen of basanite, used by Indians in making implements. 40262.
- WRENN, A. C. (See under Navy Department, Bureau of Equipment.)
- WRIGHT, Prof. ALBERT T., Oberlin College, Oberlin, Ohio: Two specimens of dragon-flies and a Sialid, from Japan. 40260.
- WYCOFF, F. L., Port Townsend, Wash.: Received through the Department of Agriculture. Five plants from Washington. 40141.
- YALE UNIVERSITY MUSEUM, New Haven, Conn.: Received through Dr. C. E. Beecher. Large slab with 18 fine specimens of *Melonites* from the St. Louis limestone, at St. Louis, Mo., and 135 specimens (25 species) of Stafford limestone fossils from Leroy and Batavia, N. Y. 40648.
- YALE UNIVERSITY MUSEUM—Continued.
- YEATES, W. S., Atlanta, Ga.: Geological specimens. 39869.
- YOUNG, WILLIAM, Detroit, Mich.: Stone implements and a water-worn specimen of a cyathophylloid coral. Exchange. 39937.
- YOUNG BROTHERS, Cartersville, Ga.: Mole cricket, *Gryllotalpa borealis* Burm. 39836.
- ZALESKI, S. L., Fish Springs, Utah: Two specimens of *Yucca gilbertiana* and three other plants. (40265; 40316.)
- ZEUS, CARL C., Fredalba Park, Cal.: Reptiles and insects from San Bernardino Mountains, California (40825); specimen of an orthopteron (40971).
- ZOLLIKOFER, E. H., St. Gallen, Switzerland: Seventy mammal skins from Switzerland and 5 bats from Greece (41034); 102 mammals from Switzerland (40136). Purchase.

APPENDIX III.

BIBLIOGRAPHY, 1902-3.

PUBLICATIONS OF THE MUSEUM.

ANNUAL REPORT.

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, 1900. | — | Report | of the | U. S. National Museum. | — | Washington: | Government Printing Office. | 1902.

Svo., pp. I-XVI, 1-738, pls. 122, text figs. 126.

PROCEEDINGS.

Smithsonian Institution. | United States National Museum. | — | Proceedings | of the | United States National Museum. | — | Volume XXIV. | — | Published under the direction of the Smithsonian Institution. | — | Washington: Government Printing Office. | 1902. |

Svo, pp. I-XV, 1-971, pls. 1-56, text figs. 138.

BULLETIN.

The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Subspecies of Birds | known to occur in North America, from the | Arctic Lands to the Isthmus of Panama, | the West Indies and other islands | of the Caribbean Sea, and the | Galapagos Archipelago. | By | Robert Ridgway, | Curator, Division of Birds. | — | Part II. |

Family Tanagridæ—The Tanagers. | Family Icteridæ—The Troupials. | Family Cœrebidæ—The Honey Creeper. | Family Mniotiltidæ—The Wood Warblers. | — | Washington: | Government Printing Office. | 1902. |

Bulletin 50, Part II, Svo, pp. I-XX, 1-834, pls. I-XXII.

A List | of | North American Lepidoptera | and | Key to the Literature of this | Order of Insects. | By | Harrison G. Dyar, Ph. D., | Custodian of Lepidoptera, United States National Museum, | assisted by | C. H. Fernald, Ph. D., the late Rev. George D. Hulst, | and August Busck. | — | Washington: | Government Printing Office. | 1902.

Bulletin 52, Svo., pp. I-XIX, 1-723.

REPRINT.

A Preliminary Catalogue | of the | Shell-bearing Marine Mollusks and Brachiopods | of the | Southeastern Coast of the United States, | with illustrations of many of the species. | By | William Healey Dall, A. M., | Honorary Curator Division of Mollusks, U. S. National Museum. | — | Reprint | To which are added twenty-one plates [with explanations, and a supplementary list of species] not in the edition of 1889. | — | Washington: | Government Printing Office. | 1903.

Bulletin 37, Svo., pp. 1-232, pls. I-XCV.

CONTRIBUTIONS FROM THE UNITED STATES NATIONAL HERBARIUM.

VOLUME VIII.

- Part 1. Studies of Mexican and Central American Plants. By J. N. Rose. pp. 1-55, pls. I-XII, text figs. 1-11.
- Part 2. Economic Plants of Porto Rico. By O. F. Cook and G. N. Collins. pp. 57-269, pls. XIII-LX, text figs. 1-13.
- Part 3. A study of Certain Mexican and Guatemalan Species of *Polypodium*. By William R. Maxon. pp. 271-280, pls. LXI, LXII.

PAPERS PUBLISHED IN SEPARATE FORM.

FROM VOLUME 25, PROCEEDINGS OF THE U. S. NATIONAL MUSEUM.

- No. 1275. A list of the beetles of the District of Columbia. By Henry Ulke. pp. 1-57.
- No. 1276. Some new South American birds. By Harry C. Oberholser. pp. 59-68.
- No. 1277. The Casas Grandes meteorite. By Wirt Tassin. pp. 69-74, pls. I-IV.
- No. 1278. A review of the Oplegnathoid fishes of Japan. By David Starr Jordan and Henry W. Fowler. pp. 75-78.
- No. 1279. Descriptions of two new species of Squaloid sharks from Japan. By David Starr Jordan and John Otterbein Snyder. pp. 79-81, figs. 1, 2.
- No. 1280. New diptera from North America. By D. W. Coquillett. pp. 83-126.
- No. 1281. List of birds collected by William T. Foster in Paraguay. By Harry C. Oberholser. pp. 127-147.
- No. 1282. The reptiles of the Huachuca Mountains, Arizona. By Leonhard Stejneger. pp. 149-158.
- No. 1283. Contributions toward a monograph of the lepidopterous family Noctuidæ of Boreal North America. A revision of the moths referred to the genus *Leucania*, with description of new species. By John B. Smith. pp. 159-209, pls. v-vi.
- No. 1284. A list of spiders collected in Arizona by Messrs. Schwarz and Barber during the summer of 1901. By Nathan Banks. pp. 211-221, pl. vii.
- No. 1285. Observations on the crustacean fauna of the region about Mammoth Cave, Kentucky. By William Perry Hay. pp. 223-236, fig. 1.
- No. 1286. The Ocelot cats. By Edgar A. Mearns. pp. 237-249.
- No. 1287. A review of the trigger-fishes, file-fishes, and trunk-fishes of Japan. By David Starr Jordan and Henry W. Fowler. pp. 251-286, figs. 1-6.
- No. 1288. Birds collected by Dr. W. L. Abbott and Mr. C. B. Kloss in the Andaman and Nicobar islands. By Charles W. Richmond. pp. 287-314.
- No. 1289. Notes on a collection of fishes from the island of Formosa. By David Starr Jordan and Barton Warren Evermann. pp. 315-368, figs. 1-29.
- No. 1290. Descriptions of the larvæ of some moths from Colorado. By Harrison G. Dyar. pp. 369-412.
- No. 1291. A review of the cling-fishes (Gobiesocidæ) of the waters of Japan. By David Starr Jordan and Henry W. Fowler. pp. 413-416, fig. 1.
- No. 1292. Observations on the crustacean fauna of Nickajack Cave, Tennessee, and vicinity. By William Perry Hay. pp. 417-439, figs. 1-8.
- No. 1293. A review of the Blennoid fishes of Japan. By David Starr Jordan and John Otterbein Snyder. pp. 441-504, figs. 1-28.
- Nos. 1294 and 1295. A new fresh-water isopod of the genus *Manca-sellus* from Indiana, and a new terrestrial isopod of the genus *Pseudarnudillo* from Cuba. By Harriet Richardson. pp. 505-511, figs. 1-4 and 1-4.
- No. 1296. A review of the Chætodontidæ and related families of fishes found in the waters of Japan. By David Starr Jordan and Henry W. Fowler. pp. 513-563, figs. 1-6.

- No. 1297. The relationship and osteology of the Caproid fishes or Antigoniidae. By Edwin Chapin Starks. pp. 565-572, figs. 1-3.
- No. 1298. Notes on little-known Japanese fishes, with description of a new species of *Aboma*. By David Starr Jordan and Henry W. Fowler. pp. 573-576, fig. 1.
- No. 1299. Cambrian Brachiopoda: *Acrotreta*; *Limmarssonella*; *Obolus*; with descriptions of new species. By Charles D. Walcott. pp. 577-612.
- No. 1300. On certain species of fishes confused with *Bryostemma polyactocephalum*. By David Starr Jordan and John Otterbein Snyder. pp. 613-618, figs. 1-3.
- No. 1301. The shoulder girdle and characteristic osteology of the Hemibranchiate fishes. By Edwin Chapin Starks. pp. 619-634, figs. 1-6.
- No. 1302. North American parasitic copepods of the family Argulidae, with a bibliography of the group and a systematic review of all known species. By Charles Branch Wilson. pp. 635-742, pls. VIII-XXVII, figs. 1-23.
- No. 1303. A review of the Ophidioid fishes of Japan. By David Starr Jordan and Henry W. Fowler. pp. 743-766, figs. 1-6.
- No. 1304. A revision of the American moths of the family Gelechiidae, with descriptions of new species. By August Busck. pp. 767-938, pls. XXXIII-XXXII.
- No. 1305. A review of the dragonets (Callionymidae) and related fishes of the waters of Japan. By David Starr Jordan and Henry W. Fowler. pp. 939-959, figs. 1-9.

FROM VOLUME 26, PROCEEDINGS OF THE U. S. NATIONAL MUSEUM.

- No. 1306. A review of the Berycoid fishes of Japan. By David Starr Jordan and Henry W. Fowler. pp. 1-21, figs. 1-4.
- No. 1307. Japanese stalk-eyed crustaceans. By Mary J. Rathbun. pp. 23-55, figs. 1-24.
- No. 1308. A review of the Hemibranchiate fishes of Japan. By David Starr Jordan and Edwin Chapin Starks. pp. 57-73, figs. 1-3.
- No. 1309. Descriptions of new species of Hawaiian crabs. By Mary J. Rathbun. pp. 75-77, figs. 1-3.
- No. 1310. Contribution to a monograph of the insects of the order Thysanoptera inhabiting North America. By Warren Elmer Hinds. pp. 79-242, pls. I-XI, text figs. 1-127.
- No. 1311. Description of a new genus and 46 new species of crustaceans of the family Galatheidæ with a list of the known marine species. By James E. Benedict. pp. 243-334, figs. 1-47.
- No. 1312. Synopsis of the family Veneridae of the North American recent species. By William Healy Dall. pp. 335-412, pls. XII-XVI.
- No. 1313. On the lower Devonian and Ontarian formations of Maryland. By Charles Schuchert. pp. 413-424.
- No. 1314. Observations on the number of young of the Lasiurine bats. By Marcus Ward Lyon, jr. pp. 425-426, pl. XVII.
- No. 1315. Note on the sea anemone, *Sargatia paguri* Verrill. By J. Playfair McMurrich. pp. 427-428, figs. 1, 2.

- No. 1316. On a small collection of crustaceans from the island of Cuba. By William Perry Hay. pp. 429-435, figs. 1-3.
- No. 1317. Mammals collected by Dr. W. L. Abbott on the coast and islands of northwest Sumatra. By Gerrit S. Miller, jr. pp. 437-484, pls. xviii-xix, 1 map.
- No. 1318. Birds collected by Dr. W. L. Abbott on the coast and islands of northwest Sumatra. By Charles W. Richmond. pp. 485-524, 1 map.
- No. 1319. A review of the Syngnathous fishes of Japan. By David Starr Jordan and Edwin Chapin Starks. pp. 525-544, figs. 1-3.
- No. 1320. Notes on the osteology and relationship of the fossil birds of the genera *Hesperornis*, *Hargeria*, *Baptornis*, and *Diatryma*. By Frederic A. Lucas. pp. 545-556, figs. 1-8.
- No. 1321. Rediscovery of one of Holbrook's Salamanders. By Leonhard Stejneger. pp. 557-558.
- No. 1322. A new *Procelsterna* from the Leeward Islands, Hawaiian group. By Walter K. Fisher. pp. 559-563.
- No. 1323. The structural features of the bryozoan genus *Homotrypa*, with descriptions of species from the Cincinnatian group. By Ray S. Bassler. pp. 565-591, pls. xx-xxv.
- No. 1324. A review of the Elasmobranchiate fishes of Japan. By David Starr Jordan and Henry W. Fowler. pp. 593-674, pls. xxvi-xxvii, figs. 1-10.
- No. 1325. The cerebral fissures of the Atlantic walrus. By Pierre A. Fish. pp. 675-688, pls. xxviii-xxix.
- No. 1326. Description of a new species of sculpin from Japan. By David Starr Jordan and Edwin Chapin Starks. pp. 689-690, fig. 1.
- No. 1327. On the identification of a species of eucalyptus from the Philippines. By Joseph Henry Maiden. pp. 691-692.
- No. 1328. Supplementary note on *Bleekeria mitsukurii* and on certain Japanese fishes. By David Starr Jordan. pp. 693-696, pl. xxx, figs. 1-3.
- No. 1329. The use of the name "torpedo" for the electric catfish. By Theodore Gill. pp. 697-698.
- No. 1330. A review of the Cepolidae or band-fishes of Japan. By David Starr Jordan and Henry W. Fowler. pp. 699-702, fig. 1.
- No. 1331. A genealogic study of dragonfly wing venation. By James G. Needham. pp. 703-764, pls. xxxi-liv, figs. 1-44.
- No. 1332. A review of the Cobitidae or loaches of the rivers of Japan. By David Starr Jordan and Henry W. Fowler. pp. 765-774, figs. 1, 2.

FROM BULLETIN 39.

Part Q. Instructions to collectors of historical and anthropological specimens. (Especially designed for collectors in the insular possessions of the United States.) By William Henry Holmes and Otis Tufton Mason. pp. [1]–[16].

PAPERS BY OFFICERS OF THE NATIONAL MUSEUM AND OTHERS, BASED WHOLLY OR IN PART UPON THE NATIONAL COLLECTIONS.

ADLER, CYRUS. [Address on museums.]

Addresses delivered at the formal opening of the Semitic Museum of Harvard University. Cambridge, 1903, pp. 14–18.

ALLEN, J. A.; BANGS, OUTRAM; EVERMANN, BARTON WARREN; GILL, THEODORE; HOWELL, ARTHUR H.; JORDAN, DAVID STARR; MERRIAM, C. HART; MILLER, GERRIT S., JR.; NELSON, E. W.; RATHBUN, MARY J. and THOMAS, OLDFIELD. A method of fixing the type in certain genera.

Science (new series), XVI, No. 394, July 18, 1902, pp. 114–115.

When no type is indicated, but the name of an included species is used for the new generic name, that species shall be regarded as the type.

AMERICAN ORNITHOLOGISTS' UNION COMMITTEE ON NOMENCLATURE. Eleventh Supplement to the American Ornithologists' Union Check List of North American Birds.

Auk, XIX, No. 3, July, 1902, pp. 315–343.

A list of about 120 cases, involving changes of nomenclature or additions to the Check List of North American Birds, acted on by the Committee on Nomenclature at a meeting held in Washington, Apr. 17–23, 1902.

ASHMEAD, WILLIAM H. Classification of fossorial, predaceous, and parasitic wasps, or the superfamily Vespoidea. (Paper No. 6.)

Canadian Entomologist, XXXIV, July, 1902, pp. 163–166.

Treats of the family Vespidae, which is divided into two subfamilies, the Vespinae and the Polistinae. In all 17 genera are tabulated.

— Classification of the fossorial, predaceous, and parasitic wasps, or the subfamily Vespoidea. (Paper No. 7.)

Canadian Entomologist, XXXIV, Aug., 1902, pp. 203–210.

Treats of the family Eumenidae, which is divided into four subfamilies, viz: (1) Ischnogasterinae, (2) Discoelinae, (3) Raphiglossinae, and (4) Eumeninae. The subfamily Eumeninae is again divided into three tribes: Eume-

ASHMEAD, WILLIAM H.—Continued.

nini, Odynerini, and Alastorini. In all 38 genera are tabulated, two of which, *Micremenes* and *Monobidella*, are new.

— Classification of the fossorial, predaceous, and parasitic wasps, or the subfamily Vespoidea. (Paper No. 8.)

Canadian Entomologist, XXXIV, Sept., 1902, pp. 219–231.

Treats of the families Masaridae and Chrysididae. The Masaridae are divided into two tribes, the Masarini and the Euparagini. Twelve genera are tabulated, one, *Pseudomasaris*, being new. The family Chrysididae is divided into seven subfamilies: (1) Parnopinae, (2) Chrysidinae, (3) Hedychrinae, (4) Elampinae, (5) Allocoelinae, (6) Cleptinae, and (7) Ameseginae. In all, 39 genera are tabulated, of which number two, *Pseudomalus* and *Mesitiopterus*, are new. Two new species of *Mesitiopterus*, *M. kahtii* and *M. townsendi*, are described.

— Classification of the fossorial, predaceous, and parasitic wasps, or the superfamily Vespoidea. (Paper No. 9.)

Canadian Entomologist, XXXIV, Oct., 1902, pp. 268–272.

Treats of the family Bethylinidae which is divided into three subfamilies. The first subfamily or the Bethylinae is then taken up, one genus, *Probethylus*, being new.

— The Hymenopterous parasites of *Phenacoccus cavallii* Cockerell.

Canadian Entomologist, XXXIV, Dec., 1902, pp. 301–302.

Lists four species of hymenopterous parasites from this coccid, two, *Blepyrus phenacocci* and *Tetrastichus blepyri*, being new. *Xanthoencyrtus nigroclavus*, the type of a new genus, is also described.

— Classification of the fossorial, predaceous, and parasitic wasps, or the subfamily Vespoidea. (Paper No. 10.)

Canadian Entomologist, XXXIV, Dec., 1902, pp. 287–293.

Treats of the remaining subfamilies of the Bethylinidae, the Emboleminae, and the Dryininae; also of the family Trigonalidae.

Mr. Ashmead places in the Emboleminae Cameron's genus *Olixon*, which was described as a Braconid.

ASHMEAD, WILLIAM H. *Ceropales* versus *Agenioxenus*.

Ent. News, XIII, Dec., 1902, p. 318.

Refutes Mr. Verick's views that *Agenioxenus* Ashmead is synonymous with *Ceropales* Latreille.

— Classification of the fossorial, predaceous, and parasitic wasps, or the superfamily Vespoidea. (Paper No. 11.)

Canadian Entomologist, XXXV, Jan., 1903, pp. 3-8.

Treats of the families Sapygidae, Myziniidae, and Scoliidae. Four genera are tabulated in the Sapygidae and ten genera in the Myziniidae. The Scoliidae are divided into two subfamilies, the Scoliinae and the Elidiinae. Eight genera are tabulated, one, *Tetrascolia*, being new.

— Classification of the pointed-tailed wasp, or the superfamily Proctotypoidea (I).

Journ. New York Ent. Soc., x, Dec., 1902. (Published Jan., 1903), pp. 240-247.

Mr. Ashmead divides the superfamily into eight families and tabulates the genera of the Pelceinidae, Heloridae, and Belytidae. Twenty-eight genera are characterized.

— Classification of the fossorial, predaceous and parasitic wasps, or the superfamily Vespoidea. (Paper No. 12.)

Canadian Entomologist, XXXV, Feb., 1903, pp. 39-44.

Treats of the families Tiphidae, Cosilidae, and Rhopalosomidae. In the Tiphidae five genera are tabulated; in the Cosilidae nine genera are recognized, one, *Isotiphia*, being described as new. Only a single genus is known in the Rhopalosomidae.

— Classification of the gall-wasps and the parasitic Cynipoidea. (I.)

Psyche, x, 1903, Jan.-Feb., pp. 7-13.

Mr. Ashmead separates this superfamily into two families, the Figitidae and the Cynipidae. The first is then divided into six subfamilies: (1) Figitinae, (2) Onychiinae, (3) Anacharinae, (4) Liopterinae, (5) Eucioilinae, and (6) Xystinae. Tables for recognizing the genera of the first three subfamilies are given, in which 23 genera are tabulated, one genus, *Kiefferia*, being new.

— [Review of] Species des Hymenopteres d'Europe et d'Algerie Les Mutillides. Par Ernest André.

Canadian Entomologist, XXXV, Feb., 1903, pp. 49-50.

Mr. Ashmead notices and reviews this work.

ASHMEAD, WILLIAM H. [Review of] Monographie des Cynipides d'Europe et d'Algerie. Par l'Abbe J. J. Kieffer.

Psyche, x, Feb., 1903, pp. 43-46.

This represents a review of this work by Mr. Ashmead.

— Classification of the pointed-tailed wasps, or the superfamily Proctotypoidea. (II.)

Journ. N. Y. Ent. Soc., XI, Mar., 1903, pp. 28-35.

Treats of the families Diapriidae and Ceraphronidae. Two subfamilies, Spilosmicrinae and Diapriinae, are recognized in the Diapriidae, and 31 genera are tabulated. The Ceraphronidae are also divided into two subfamilies, the Megaspilinae and the Ceraphroninae, 13 genera being tabulated.

— Classification of the fossorial, predaceous, and parasitic wasps, or the superfamily Vespoidea. (Paper No. 13.)

Canadian Entomologist, XXXV, Apr., 1903, pp. 93-107.

Treats of the family Thynnidae, which is divided into three subfamilies: (1) Thynninae; (2) Methocinae, and (3) Rhagigasterinae. A table of the genera of the Thynninae is given in which 28 genera are characterized, 12 being new, namely, *Thynnidica*, *Zaspilothynnus*, *Pseudaelurus*, *Guerinulus*, *Cephalothynnus*, *Hemithynnus*, *Acolothynnus*, *Pseudelephoptera*, *Pynothynnus*, *Klugianus*, *Psammothynnus*, and *Spilothynnus*.

— Classification of the gall-wasps and the parasitic Cynipoids, or the superfamily Cynipoidea. II.

Psyche, vol. x, Apr., 1903, pp. 59-73.

Treats of the subfamilies Liopterinae and Encoilinae. In the former 3 genera are tabulated, in the latter 64 genera. Nine genera, namely, *Zamischus*, *Tropiducocla*, *Promio-moera*, *Odonteucoila*, *Trissodontaspis*, *Dicucocla*, *Zaecuocla*, *Pseuducocla*, and *Tetraplasta*, are described as new.

— A new Oryssid from Chatham Islands, Bismarck Archipelago.

Psyche, vol. x, Apr., 1903, p. 73.

Describes *Ophrynopus schauinslandi*, new species.

— Description of a new *Apanteles*.

Tech. Bull. New Hampshire Agric. Exp. Sta., No. 6, 1903, p. 229.

Describes *Apanteles ctisiocampae*, new sp.

— A new genus in the Vespidae.

Ent. News, XIV, June, 1903, p. 182.

This new genus is proposed for *Vespa doryloides* Saussure, collected by Dr. W. L. Abbott in Trong, Lower Siam.

ASHMEAD, WILLIAM H. Two new Hymenopterous parasites.

Ent. News, xiv, June, 1903, pp. 192-193.

Describes *Dryinus ornoidis* and *Cheiloncurus swazeyi*, bred by Mr. Otto H. Swzey, from *Ornoides septentrionalis*.

— Classification of the fossorial, predaeous, and parasitic wasps, or the superfamily Vespoidea. (Paper No. 14.)

Canadian Entomologist, xxxv, June, 1903, pp. 155-158.

Treats of the subfamilies Methocinae and Rhagigasterinae. Eleven genera are tabulated, of which one *Andreus*, from Congo, Africa, is described as new.

— Classification of the pointed-tailed wasps, or the superfamily Proctotrypoidea. III.

Journ. N. Y. Ent. Soc., xi, June, 1903, pp. 86-99.

Treats of the families Scelionidae and Platygasteridae. The Scelionidae are divided into four subfamilies: (1) Telenominae, (2) Bæinae, (3) Teleasina, and (4) Scelioninae. Forty-one genera are tabulated, *Cacellus* being a new name for *Cacus* Riley, which is preoccupied. The Platygasteridae are divided into two subfamilies: (1) Inostemmina and (2) Platygasterinae. Twenty-five genera are tabulated.

— Some new genera in the Cynipoidea.

Proc. Ent. Soc. Wash., v, 1903, pp. 221-222.

In this paper Mr. Ashmead briefly describes the 9 new genera indicated in Psyche, viz: *Kiefferiella*, *Zamischus*, *Tropideucoila*, *Promionera*, *Odonteucoila*, *Trissodontaspis*, *Diueucoila*, *Zæucoila*, and *Pseudeucoila*.

— Description of a new genus in the Pireninae.

Indian Museum Notes, Calcutta, India, v, 1903, pp. 61-62.

Describes *Eurycephalus alcocki*.

— The Homoptera of Alaska.

The Harriman Expedition, pp. 129-137.

Gives a list of the species found in Alaska and describes several new species.

BAILEY, FLORENCE MERRIAM. Handbook of Birds | of the | Western United States | including | the Great Plains, Great Basin, Pacific Slope, | and Lower Rio Grande Valley | By Florence Merriam Bailey | With thirty-three full-page plates by Louis Agassiz Fuertes | and over six hundred cuts in the text | [Vignette] | Boston and New York |

BAILEY, FLORENCE MERRIAM—Cont'd. Houghton, Mifflin and Company | The Riverside Press, Cambridge | 1902.

12mo., pp. i-xc+1-512.

A systematic treatise of the birds of the Western United States, with brief descriptions of the various species, their nests and eggs. The work is furnished with keys to the higher groups, as well as to the genera and species. Several local lists are included, and extended biographical notices of the more interesting species are given.

BANGS, OUTRAM. Description of a new thrush from Chiriqui.

Proc. New England Zool. Club, III, Oct. 10, 1902, pp. 91-92.

Merula leucuchen cucphosa is a new subspecies from the Volcan de Chiriqui.

— A new race of *Scotothorus verapacis* from Chiriqui.

Proc. New England Zool. Club, III, Feb. 6, 1903, pp. 103-104.

A new subspecies of *Scotothorus verapacis* from Divala, Chiriqui, is described as *S. v. dumicola*.

— Description of a new subspecies of *Manacus candei* (Parzud.).

Proc. New England Zool. Club, III, Feb. 6, 1903, pp. 105-106.

Manacus candei electilis is described as a new subspecies from Ceiba, Honduras.

— A new race of *Vireosylva josephae* from Chiriqui.

Proc. New England Zool. Club, IV, Mar. 24, 1903, pp. 9-10.

Vireo josephae chiriquiensis (p. 9) is described as new.

(See also under J. A. ALLEN.)

BANKS, NATHAN. New genera and species of Acarians.

Canadian Entomologist, July, 1902, p. 171-176, 4 figs.

Describes two new genera, and eight new species. Three other genera are new to the country.

— Notes on entomology.

Science (new series), July 25, 1902, pp. 154-156.

Reviews various recent papers.

— The common spiders of the United States.

Canadian Entomologist, Aug., 1902, p. 218.

Reviews this book by Prof. J. H. Emerton.

— A list of spiders collected in Arizona by Messrs. Schwarz and Barber during the summer of 1901.

BANKS, NATHAN—Continued.

Proc. U. S. Nat. Mus., xxv, No. 1284, Sept. 10, 1902, pp. 211-221, pl. VII.

New species: *Prosthesisina barberi*, *Matrissina albopilosa*, *Discopoma hirsuta*.

— A new Phalagid from the Black Mountains, N. C.

Journ. N. Y. Ent. Soc., Sept., 1902, p. 142.
Describes *scotolemon brunnea*.

— Daddy longlegs from Mt. Katabadin, Maine.

Ent. News, Dec., 1902, p. 308.
A record of five species.

— Sleeping habits of certain Hymenoptera.

Journ. N. Y. Entom. Soc., Dec., 1902, pp. 209-214, 1 fig.

Treats of the sleeping habits of some fossorial wasps and bees.

— An application of the law of priority.

Science (new series), Jan. 16, 1903, p. 115.

— Notes on entomology.

Science (new series), Jan. 23, 1903, pp. 154-155.

Notes on recent literature.

— Secondary sexual characters in spiders.

Proc. Ent. Soc. Wash., v, No. 2, pp. 104-107, Feb., 1903.

A consideration of the possible uses of the various secondary sexual characters in spiders of the United States.

— New Smythuridae from the District of Columbia.

Proc. Ent. Soc. Wash., v, No. 2, Feb., 1903, pp. 151-155.

Description of three new species.

— A new genus of Solfugida.

Ent. News, Mar., 1903, pp. 78-79, 1 fig.

Description of *Hemerotrecha californica*, new genus and species.

— Those manuscript names.

Science (new series), Mar. 27, 1903, p. 506.

A reply to articles by Professors Bather and Cockerell.

— Notes on Brachyneimuri of the *B. ferox* group.

Proc. Ent. Soc. Wash., v, No. 3, Mar., 1903, pp. 173-177, 1 pl.

Synopsis of the group and description of 3 new species.

— A revision of the Neatetic Chrysoptera.

Trans. Amer. Ent. Soc., xxix, Apr., 1903, pp. 137-162.

Monographic treatment of the 55 species, describing 2 new genera and 7 new species.

BANKS, NATHAN. Neuropteroid insects of Arizona.

Proc. Ent. Soc. Wash., v, No. 4, Apr., 1903, pp. 237-245, 1 pl.

Annotated list of the species with descriptions of 1 new genus and 10 new species.

— Notes on *Ceria willistoni* Kahl.

Proc. Ent. Soc. Wash., v, No. 4, June, 1903, p. 310.

A record of the occurrence of this species near Washington, D. C.

— Notes on entomology.

Science (new series), June 19, 1903, pp. 982-983.

Reviews of several recent papers.

BARTSCH, PAUL. A new land shell from California.

Proc. Biol. Soc. Wash., xvi, June 25, 1903, pp. 103-104.

In this paper *Somorclla wolcottiana* is described as new. The specimens were collected by Mrs. H. L. T. Wolcott, of Dedham, Mass., at Palm Springs, San Diego County, Cal. The type and a fine series are entered as No. 170007, U. S. N. M. The species is named in honor of Mrs. Wolcott.

— (See also under WILLIAM HEALEY DALL.)

BASSLER, RAY S. The structural features of the bryozoan genus *Homotrypa*, with descriptions of species from the Cincinnatian group.

Proc. U. S. Nat. Mus., xxvi, No. 1323, Mar. 28, 1903, pp. 565-591, pls. 20-25.

In this paper the genus *Homotrypa* is fully discussed with 26 species, of which 19 are either new species or varieties.

BENEDICT, JAMES E. Description of a new genus and 46 new species of crustaceans of the family Galatheidæ, with a list of the known marine species.

Proc. U. S. Nat. Mus., xxvi, No. 1311, Dec. 29, 1902, pp. 243-334, 47 text figs.

Based chiefly on material obtained by the U. S. Fish Commission steamer *Albatross* during the last twenty years. Artificial keys are given for the species examined.

BOWDISH, B. S. Birds of Porto Rico.

Auk, xix, No. 4, Oct., 1902, pp. 356-366; xx, No. 1, Jan., 1903, pp. 10-23.

Notes on 91 species collected or observed in Porto Rico by the writer, with a supplementary list of 70 additional species recorded by others.

BREWSTER, WILLIAM. Birds of the Cape Region of Lower California.

Bull. Mus. Comp. Zool., xli, No. 1, Sept., 1902, pp. 1-241, with one map.

A complete account of the avifauna of the

BREWSTER, WILLIAM—Continued.

Cape region of Lower California, based largely on the author's collection.

Totanus melanoleucus frazari (p. 65), *Megascops xantusi* (p. 93), *Bubo virginianus clachistus* (p. 96), and *Tachycineta thalassina brachyptera* (p. 167) are described as new, and many species are recorded for the first time from the Cape region. A full bibliography accompanies the paper.

BUSCK, AUGUST. Notes on the Cerosotoma group of Yponomeutidae with descriptions of new North American species.

Journ. N. Y. Ent. Soc., XI, No. 1, Mar., 1903, pp. 45-59.

Notes on Brackenridge Clemens types of *Tineina*.

Proc. Ent. Soc. Wash., v, No. 3, Apr. 3, 1903, pp. 181-220.

Dimorphism in the codling moth (*Cydia pomonella simpsonii*, n. var.).

Proc. Ent. Soc. Wash., v, No. 3, Apr. 3, 1903, pp. 225-236.

A revision of the American moths of the family Gelechiidae, with descriptions of new species.

Proc. U. S. Nat. Mus., XXV, No. 1304, May 9, 1903, pp. 767-938, pls. XXVIII-XXXII.

New genera: *Paralechia*, *Neodactyloia*, *Droctona*, *Prostomcus*.

New species: *Paltodora magnella*, *P. dietzella*, *P. antilella*, *Telphusa betnella*, *Aristotelia bifasciella*, *A. argentifera*, *A. cockerella*, *A. kearfottella*, *A. quinquepunctella*, *Recurvaria colubrinea*, *R. cratygella*, *R. nigra*, *Trypanisma fagella*, *Epüthectis sylvicolella*, *Gnorimoschema baehariseida*, *G. semicyclonella*, *G. dudrilla*, *G. florella*, *G. banksiella*, *G. balanella*, *G. tetradymla*, *Neodactyloia barberella*, *Droctona yuccascella*, *Prostomcus brunneus*, *Aproreuma kearfottella*, *Anacampsis cycella*, *A. paltodoriella*, *Gelechia arizonella*, *G. coloradensis*, *G. trophella*, *G. dentella*, *G. sistrella*, *G. abdoninella*, *G. panella*, *G. unifasciella*, *G. aristella*, *G. striatella*, *G. hibiscella*, *G. cockerelli*, *G. variabilis*, *G. barnesiella*, *G. lindencella*, *G. dyariella*, *G. nigrimaculella*, *G. seraticella*, *G. panella*, *G. abella*, *Trichotapha fernaldella*.

New name: *Autoneda*.

On the generic name of the codling moth.

Journ. N. Y. Ent. Soc., XI, No. 2, June, 1903, pp. 106-111.

(See also under H. G. DYAR.)

CASANOWICZ, I. M. The collection of oriental antiquities in the United States National Museum.

Journ. Am. Oriental Soc., XXIII, 1902, pp. 44-47.

The article gives a summary description of

CASANOWICZ, I. M.—Continued.

of the contents and the arrangement of the several sections of the divisions of historical antiquities and historic religions in the U. S. National Museum.

Die Irtysch-Ostjaken und ihre Volkspoesie.

Am. Anthropologist (new series), vol. 4, 1902, pp. 295-298.

Review and extracts of S. Patkanov's work of the same title, with especial reference to the state of mental culture and religious beliefs and customs among that people.

Jewish ceremonial objects in the United States National Museum.

Jewish Comment, XVI, 1903, pp. 5-6, with 1 pl.

Description of objects illustrating Judaism, especially from North Africa, which recently came to the Museum.

Parsee religious ceremonial objects in the United States National Museum.

Am. Anthropologist (new series), vol. 5, 1903, pp. 71-75, with 2 pls.

The article gives a review of the history and the fundamental beliefs, and of the sacred scriptures of the Parsees, and a description of the collection at the Museum.

CHAPMAN, FRANK M. List of birds collected in Alaska, by the Andrew J. Stone Expedition of 1901.

Bull. Am. Nat. Hist., XVI, Aug. 18, 1902, pp. 231-247.

A list of 68 species collected in Alaska, with the collector's field notes. *Lagopus leucurus peninsularis* (p. 236), and *Cyanocitta stelleri borealis* (p. 240) are described as new subspecies, and critical remarks are offered on the *Parus hudsonicus* group of chickadees.

CLARK, AUSTIN H. The birds of Margarita Island, Venezuela.

Auk, XIX, No. 3, July, 1902, pp. 258-267.

An account of 57 species observed by the author during a short visit to Margarita Island. Two species are described as new, viz, *Synallaxis albescens nesiotis* (p. 264), and *Icterus zanthornus helioides* (p. 265).

CLARK, HUBERT LYMAN. The water snakes of southern Michigan.

Am. Naturalist, XXXVII, Jan., 1903, pp. 1-23.

Considers the red-bellied water snake of southern Michigan to be identical with *Natrix erythrogaster* and distinct from *N. sipedon*. On pages 20-21 special reference is made to the specimens borrowed from the U. S. National Museum.

COCKERELL, THEODORE D. A. (See under CHARLES LOUIS POLLARD.)

COLLINS, G. N. (See under O. F. COOK.)

COOK, O. F., and COLLINS, G. N.

Economic plants of Porto Rico.

Contrib. U. S. Nat. Herb., VIII, Part 2, June 27, 1903, pp. 57-269, pls. XIII-LX, text figs. 1-13.

COQUILLET, D. W. New diptera from North America.

Proc. U. S. Nat. Mus., xxv, No. 1280. Sept. 12, 1902, pp. 83-126.

New genera: *Meigeniella*, *Paradmontia*, *Pseudapiniops*.

New species: *Orinarga arizonensis*, *Culex bimaculatus*, *C. fletcheri*, *C. squamiger*, *Ceratopogon glaber*, *C. inermis*, *C. exilis*, *C. stigmatis*, *C. pilosus*, *C. ancorus*, *C. bellus*, *C. squamipes*, *Heteromyia prattii*, *Tanyptera stellatus*, *T. discolor*, *T. algeus*, *T. barberi*, *T. venustus*, *T. pallens*, *T. occidentalis*, *T. guttularis*, *Orthocladus clepsydrus*, *O. platypus*, *O. politus*, *Cricotopus varipes*, *Chironomus pulchripennis*, *C. varipennis*, *C. atrimanus*, *C. palliatus*, *Bibio tenuipes*, *Scatopse varicornis*, *Simulium fulvum*, *S. virgatum*, *S. glaucum*, *Aochletus obscurus*, *Euparyphus tahocensis*, *E. apicalis*, *E. crucigerus*, *E. atriventris*, *E. amplus*, *Bombylius recurvus*, *Geron sigma*, *Pseudatrichia floriceps*, *P. pilosa*, *Mythicomya scutellata*, *M. picipes*, *Rhamphomyia albata*, *Cuterebra histrio*, *Meigeniellahinei*, *Admontia limata*, *Paradmontia brevis*, *Nevrea longicornis*, *Chatophelps polita*, *Pelatachina limata*, *Pseudapiniops nigra*, *Hyalomyzodes dorsalis*, *Oestrophasia calva*, *O. setosa*, *Exoristoides harringtoni*, *Eorista trisetosa*, *Nemorva setigera*, *Phorocera sternalis*, *Frontina setipes*, *Sturmia limata*, *S. austrina*, *S. discalis*, *Masicera polita*, *Euthera bicolor*, *Muscopteryx tibialis*, *M. obscura*, *Phorichata cinerosa*, *Brachyoma pubicornis*, *B. setosa*, *Gardiopsis cockerelli*, *G. facialis*, *G. ocellaris*, *Paraphyto sarcophagina*, *Meriania chalybea*, *Amobia aurata*, *Gynnomma quadristetosa*, *Myocera birittata*, *Megaparia flavicola*, *Chatoni flavipennis*, *Phaonia pallidula*, *Mydva flavicornis*, *Chirosia capito*, *Pselophephila similis*, *Calobata vittipennis*, *Spilograpta fractura*.

COUTIÈRE, H. Sur quelques espèces nouvelles du genre *Automate* de Man.

Bull. Mus. Hist. Nat. Paris, 1902, No. 5, pp. 337-342.

Three species are described, *A. gardineri*, *A. talismani*, and *A. rugosa*. The last is from the U. S. Fish Commission steamer *Albatross* dredgings in the Bay of Panama; *A. gardineri* is from Kingsmill Island.

CURRIE, ROLLA P. Myrmeleionidae from Arizona.

Proc. Ent. Soc. Wash., v, No. 4, pp. 272-284.

Author's extras of this paper were published June 13, 1903.

The paper consists of a list of the species of ant-lion flies occurring in Arizona, compiled from previous published records and from the material in the U. S. National Museum,

CURRIE, ROLLA P.—Continued.

the American Entomological Society collection, and in the collections of Mr. Nathan Banks and Mr. Charles C. Adams. Thirty species and two varieties are enumerated, of which number 7 species and two varieties are described as new. Three of the new species are from the collection made by Messrs. Schwarz and Barber in 1901. All of the types are in the U. S. National Museum.

— The Odonata collected by Messrs. Schwarz and Barber in Arizona and New Mexico.

Proc. Ent. Soc. Wash., v, No. 4, pp. 298-303.

Author's extras were published June 13, 1903.

This is a report upon a collection of dragon flies made during the summer of 1901. Twenty-four species and two varieties are listed. One new species is described and is named *Ichnura barberi*. The male appendages of *Ichnura damula* Calvert and *I. barberi* are figured. All of the specimens are in the U. S. National Museum.

DALL, WILLIAM HEALEY. Reports of the Princeton University expeditions to Patagonia. Paleontology, Part II. Tertiary Invertebrates, by A. E. Ortman, Ph. D.

Science (new series), xvi, No. 394, July 18, 1902, pp. 111-112.

A review of Doctor Ortman's monograph of the Tertiary Invertebrates of Patagonia.

— Letter to the editor.

Science (new series), xvi, No. 395, July 25, 1902, pp. 150-151.

A letter discussing views on nomenclature in zoology expressed in a previous article by Dr. O. F. Cook.

— Dr. J. G. Cooper.

Science (new series), xvi, No. 398, Aug. 15, 1902, pp. 268-269.

Obituary notice of the late Dr. J. G. Cooper, for many years a collaborator of the Smithsonian Institution.

— New species of Pacific coast shells.

Nautilus, xvi, No. 4, Aug., 1902, pp. 43-44.

Trivia atomaria, *T. panamensis*, and *Erato oligostata* from Panama Bay; *Cyclinella singleyi* from the Gulf of California, and the genus *Cyclinella*, which represents *Mysia* (of Europe) in American waters, are described as new.

— A question of nomenclature.

Revue critique de Paléozoologie, vi, Oct., 1902, pp. 223-224.

Letter to the editor favoring the view that names of masculine and feminine terminations, otherwise similar, should not be regarded when employed for different genera, as liable to be superseded on that account.

DALL, WILLIAM HEALEY. Note on viviparity in *Corbicula* and *Cardita*.

Science (new series) xvi, No. 410, Nov. 7, 1902, pp. 743-744.

Notes the discovery in *Corbicula* from Uruguay and *Venericardia* from Alaska of a large number of well-developed young shells in the atrium of the oviduct of gravid females. [Included in a notice of the Proceedings of the Bibliographical Society of Washington, meeting of Oct. 28, 1902.]

— Note on *Neocorbicula* Fischer.

Nautilus, xvi, No. 7, Nov., 1902, pp. 82-83.

Note on the discovery of large numbers of nepionic young shells in the atrium of the maternal ovary of *Neocorbicula*.

— Jack London's local color.

New York Times Saturday Review, vii, No. 49, Dec. 6, 1902, viii, No. 2, Jan. 10, 1903.

A criticism of the supposed "local color" of the ethnology of the publications of a popular writer on Alaska.

— The Grand Gulf formation.

Science (new series) xvi, No. 415, Dec. 12, 1902, pp. 946-947.

An attempt to clear up some of the confusion which has been caused in geological literature by the recent use of the name "Grand Gulf" to designate rocks of very different ages.

— Synopsis of the family Veneridae and of the North American recent species.

Proc. U. S. Nat. Mus., xxvi, No. 1312, Dec. 29, 1902, pp. 335-412, pl. xii-xvi.

A review of the history, distribution, bibliography, nomenclature, and classification of this family of bivalve mollusks, and a summary of the recent species known to exist on the east and west coasts, respectively, of the North American continent. The following groups, genera, subgenera, or sections are named and defined as new: Subgenus *Pelecycora*, sections (of *Dosinia*) *Austrodosinia*, *Dosinica*, *Dosinorbis*, *Dosinidia*, *Dosinella*; subgenus *Grateloupina* (for *Cytheriopsis* Conrad, not McCoy), section *Solanderina* (of *Sunetta*); section *Radiocrista*, section *Parmulina*, section *Eucallista*, section *Hyphantosoma*, section *Lamelliconcha*; subgenus *Lepidocardia*, subgenus *Cyclorisma* (for *Cyclothysis* Conrad, not McCoy), section *Macridiscus*, section *Anomalodiscus*, section *Mercimonia*, section *Samarangia*, section *Prolapes*, subgenus *Protothaca*, section *Callithaca*; are described as new and defined. *Transennella stimpsoni*, *Tivela abaconis*, *T. nasula*, *T. brasiliana*, *Callocardia zonata*, *Cytherea strigillina*, *C. callimorpha*, *C. mazyekii*, from the east coast of America; and *Clementia solida*, *Callocardia catharina*, *Pitaria tomeana*, *P. callicomata*, *Cytherea magdalene*, *C. lepidogypta*, *Cyclinella singleyi*, *Chione schottii*, *Chione obliterata*, *Chione pectinata*, *Venus apodema*, *Paphia sul-*

DALL, WILLIAM HEALEY—Continued.

cubosa, and *P. sephidia oralis* from the west coast of America are described and figured as new. A number of species hitherto unfigured or imperfectly delineated are now figured in an accurate manner.

— On the genus *Gemma* Deshayes.

Journ. Conchology, Manchester, England, x, No. 8, Dec. 1902, pp. 238-243.

A review and revision of the genus and the species belonging to it. The name *Psephidia* is substituted for *Psephis* Carpenter, not Guenée.

— On the preservation of the marine animals of the northwest coast.

Rep. Smithsonian Inst., 1901 (1902), pp. 683-688.

A summary of the conditions under which the marine mammals of the northwest coast of America exist and a discussion of the probability of being able to preserve them from extermination.

— A new *Crassatellites* from Brazil.

Nautilus, xvi, No. 9, Jan., 1903, pp. 101-102.

Crassatellites brasiliensis from off Rio de Janeiro, is described as new, from a region where the genus was previously unknown.

— Hawaiian Physidae.

Nautilus, xvi, No. 9, Jan. 1903, p. 106.

A note announcing the discovery of true *Physidae* in the Hawaiian Islands, where previously it had been supposed that the reversed shells (resembling *Physa*, and often so called by early writers on this fauna) occurring there all belonged to the *Limnæidae*.

— Synopsis of the Carditacea and of the American species.

Proc. Acad. Nat. Sci. Phila. for 1902, Jan. 1903, pp. 696-716.

This paper, on the same lines as the synopsis of the *Veneridae*, reviews the *Carditidae* and the *Cylocardiidae* and gives lists of the species found on the east and west coasts of North and South America, with numerous notes. The following are described and figured as new: *Venericardia armilla*, *V. moniliata*, *V. gouldii*, *V. incisa*, *V. stearnsii*, *V. alaskana*, and *Cardita sulcosa*. *Venericardia rudis* Gray, and *V. monilicosta* Gabb, are revived for valid species, and *Cardita grayi* is proposed for *C. crassa* Gray, not Lamarek. The new species named in this paper are figured on the plates accompanying the Synopsis of the *Astartidae* (q. v.).

— Review of the classification of the Cyrenacea.

Proc. Biol. Soc. Wash., xvi, Feb. 21, 1903, pp. 5-8.

This is a very condensed statement of the classification proposed for the *Cyrenidae* and *Spheriidae*. *Miodontopsis* is proposed for *Miodon* Sandberger (not Carpenter), and *Profisheria* for *Fischeria* Bernardi (not Desvoüy).

DALL, WILLIAM HEALEY—Continued.

The following groups are named and briefly diagnosed as new: Section *Corbiculina*, *Titlinoeyclus*, and *Cyrcnodonax*, under *Corbicula*; section *Cyclocalyx*, subgenera *Cymatoeyclus*, and *Tropidoeyclus*, under *Spharium*. It is also pointed out that *Cyclus* (Brugniere) Link, 1807, is based on *Venus islandica* Linnæus, which afterwards became the type of *Cyprina* Lamarek, *Arctica* Schumacher, and *Cyprinaidea* Rovereto.

——— Note on the name *Miodon*.

Nautilus, XVI, No. 12, Apr., 1903, p. 143.

The new name *Miodontiscus* is proposed for the genus *Miodon* Carpenter, 1865 (not Duméril, 1859).

——— Biographical memoir of Augustus Addison Gould, 1805–1866, by Jeffries Wyman, with additions by William Healey Dall, read before the National Academy of Sciences, April 22, 1903.

Biographical Memoirs, Nat. Acad. Sci., Washington, 1903, pp. 93–113.

Contains a revision and enlargement of Wyman's memoir, with Scudder's bibliography of Gould's writings, and the addition of a portrait and facsimile signatures. Also issued separately with cover.

——— A preliminary catalogue of the shell-bearing marine mollusks and brachiopods of the southeastern coast of the United States, with illustrations of many of the species. By William Healey Dall, A. M., Honorary Curator Division of Mollusks, U. S. National Museum. — Reprint. To which are added twenty-one plates [with explanations and a supplementary list of species] not in the edition of 1889. — Washington: Government Printing Office. | 1903.

Bull. U. S. Nat. Mus., No. 37, 1903, pp. 1–232, pls. 1–xcv.

DALL, WILLIAM HEALEY, and BARTSCH, PAUL. A new *Rissoa* from California.

Nautilus, XVI, 8, Dec., 1902, p. 94.

Rissoa kelseyi is described as new. It is named in honor of Mr. F. W. Kelsey, of San Diego, Cal., who collected the specimens at Pacific Beach, Cal. The type and two specimens are registered as No. 168605. U. S. N. M. States National Museum.

DYAR, HARRISON G. Descriptions of the larvae of some moths from Colorado.

Proc. U. S. Nat. Mus., xxv, No. 1290, Sept. 23, 1902, pp. 369–412.

New species: *Gnorimoschema coquilletella*, *Gracilaria (Dialectica) pnosmodiella*.

DYAR, HARRISON G. A list of North American Lepidoptera and key to the literature of this order of insects. By Harrison G. Dyar, Ph. D., eustodian of Lepidoptera, United States National Museum, assisted by C. H. Fernald, Ph. D., the late Rev. George D. Hulst, and August Busck, — Washington: Government Printing Office. | 1902.

Bull. U. S. Nat. Mus., No. 52, 1902 (1903), pp. 1–xix, 1–723.

EVERMANN, BARTON W. (See under J. A. ALLEN and DAVID S. JORDAN.)

FERNALD, C. H. (See under HARRISON G. DYAR.)

FISH, PIERRE A. The cerebral fissures of the Atlantic walrus.

Proc. U. S. Nat. Mus., xxvi, No. 1325, Apr. 9, 1903, pp. 675–688, pls. xxviii–xxix.

FISHER, WALTER K. A new *Procelsterna* from the Leeward Islands, Hawaiian group.

Proc. U. S. Nat. Mus., xxvi, No. 1322, Jan. 29, 1903, pp. 559–563.

Procelsterna saxatilis (p. 559) is described as a new species.

FOWLER, HENRY W. (See under DAVID STARR JORDAN.)

GILL, THEODORE. General history of birds.

Osprey, vi, No. 7, July, 1902, pp. 35–42.

The seventh chapter of a proposed work on ornithology.

——— The story of a word—Mammal.

Pop. Sci. Monthly, LXI, Sept., 1902, pp. 434–438.

The etymology and singular form of the word Mammalia have been erroneously given in all dictionaries as derived from the Latin adjective *mammalis* and as cognate with various words in living European languages. It is contended that the name was first given by Linnæus in 1758, and that he formed it in analogy with *Animalia* and derived it directly from the noun *Mamma* and added the suffix *-alia*. A history of the use of the word is given.

——— The first use of Mammals and Mammalians.

Science (new series), XVI, No. 417, Dec. 26, 1902, pp. 1034–1035.

The earliest use of the word Mammals seems to have been made by Good in 1813 in the *Pantologia*, and that of Mammalians by Kirby in 1835 in his *Bridgewater treatise*.

GILL, THEODORE. The hosts of Argulids and their nomenclature.

Science (new series), XVII, No. 118, Jan. 2, 1903, p. 33.

The names of the fish-hosts of many of the species described in the "Monograph of North American Parasitic Copepods of the family Argulidae," by C. B. Wilson, are corrected and the fishes identified.

— The bones of the shoulder girdle of fishes.

Science (new series), XVII, No. 424, Feb. 13, 1903, pp. 255-256.

The most characteristic system of bones of the pisciform vertebrates is manifest in the shoulder girdle, and the classes of selachians and typical fishes, or teleostomes, have been segregated under the name *Lyrifera*, on account of the character of this girdle. The consideration of the bones, however, militates decidedly against the acceptance of the views generally held. Scapula and coracoid were given originally to the composite bone and its process familiar from manifestation in man. The bones of fishes to which the names have been given are certainly not homologous. They, in fact, are only developed as such in fishes specialized as teleosts and very remote from the primitive stock of the terrestrial vertebrates. A special nomenclature is therefore necessary. The so-called scapula has been designated as *hypercoracoid*, the coracoid as *hypocoracoid*, and the Spangestuck, or precoracoid, as *mesocoracoid*. The mesocoracoid disappears in most fishes, all the acanthopterygians and offshoots from that stock being deprived of that ossicle.

— The systematic relations of the fish genus *Lampris*.

Science (new series), XVII, No. 424, Feb. 13, 1903, pp. 256-257.

Recently the foremost ichthyologist of Europe, Doctor Boulenger, reexamined the osteology of *Lampris*, and especially the shoulder girdle, and attained novel conceptions as to the affinities of that genus. The number of bones in the shoulder girdle of *Lampris* is the same as in ordinary acanthopterygian fishes, but two of them have been interpreted from a different standpoint than by his predecessors: (1) The very large bone which occupies the lower and posterior part of the girdle was considered by him to be a peculiar bone, named interclavicle, and homologized with a homonymous bone of the hemibranchs, and (2) the smaller one immediately above it and behind the bones supporting the pectoral fin was regarded as a "coracoid" or hypocoracoid. Therefore he considered it as the representative not only of a peculiar family (Lamprididae), but of an independent higher group named Selenichthyes and coordinated with the Hemibranchii and Lophobranchii, the three being associated together as representatives of a suborder to

GILL, THEODORE—Continued.

which the new name *Catosteomi* was given. To test this conclusion the skeleton of *Lampris* was submitted to renewed examination. That examination forced the author to acceptance of the principal ideas of the older ichthyologists; four actinosts, or pterygials, are recognized, and the coracoid of Boulenger is identified with the fourth. The hypocoracoid is found in the interclavicle of Boulenger. As a consequence, the genus is restored to the group of acanthopterygians. Nevertheless, the differences between *Lampris* and all other fishes are sufficiently great to entitle it to rank as the type of a family (Lamprididae), as well as a special superfamily (Lampridoidea).

— Origin of the name *Monotremes*.

Science (new series), XVII, No. 428, Mar. 13, 1903, pp. 433-434.

It is shown that the name *Monotremes* was given by E. Geoffroy as an ordinal designation (in French form only) in 1803, the order (ordre) diagnosed, and the genera "*Ornithorhynchus*" and "*Echidna*" referred to it.

— Homologies of the anterior limb.

Science (new series), XVII, No. 430, Mar. 27, 1903, p. 489.

It is contended that *Polypterus* gives us a key to the problem in question, as has been already urged by the writer in 1872, 1878, and 1882. This view, after long neglect, was independently urged later by others, especially Emery and Pollard, but with differences of detail. The humerus, radius, ulna, carpal, and metacarpal bones are found in a recognizable condition in *Polypterus*. That genus is the nearest of the living fishes in relationship to the amphibians and consequently all terrestrial vertebrates.

— The use of the name *Torpedo* for the electric catfishes.

Proc U S Nat Mus, XXVI, No. 1329, Apr. 9, 1903, pp. 697-698.

It is shown that the name *Torpedo* was used in "Purchas his Pgrimes" published in 1625, for the electric catfish of *Matapterurus electricus* of the Nile. Two sections descriptive of the fish occurring in that work (pp. 1183, 1545) are reproduced.

— Bibliographical memoir | of | John Edwards Holbrook. | 1794-1876.

| — | Read before the National Academy of Sciences, | April 22, 1903. | — | Washington, D. C. | Press of Judd and Detweiler | 1903. |

[8 vo., cover, title + 47-77 pp., 2 pl.]

An advance reprint from the Biographical Memoirs of the National Academy of Sciences, VI, pp. 47-77, with portrait and letter. Besides the biography of Holbrook a bibliography is appended, giving analyses and correlations of the different editions of Holbrook's works on reptiles and fishes.

GILL, THEODORE. Walbaum and binomialism.

Science (new series), xvii, No. 436, May 8, 1903, pp. 744-746.

In refutation of Mr. Henry W. Fowler's contention that "Walbaum is nonbinomial," it is demonstrated, by an analysis of his treatment of the genus *Colitis*, that he was binomial. Remarks on the attitude of Linnaeus with respect to binomial nomenclature are prefixed.

— The devilfish and some other fishes in North Carolina.

Forest and Stream, LX, No. 22, May 30, 1903, p. 431.

Reference is made to various fish names used in Brickell's "Natural History of North Carolina," published in 1737. The story of the devilfish running away with a "vessel for a league or two" is repeated. Information is asked if certain names are still used for fishes, viz, "Sea-Tench" for the Tautog, "Welchmen" for black basses, and "Irishmen" for crappies.

— The first edition of Holbrook's North American Herpetology.

Science (new series), xvii, No. 440, June 5, 1903, pp. 910-912.

Supplement to the Biographical Memoir of Holbrook. It had been universally supposed that the first edition had been discontinued with the third volume. Mr. Witmer Stone, however, found a copy of a fourth volume in the Academy of Natural Sciences of Philadelphia, and an analysis of this is published, with considerations on its bearing on nomenclature. The volume appears to have been suppressed.

(See also under J. A. ALLEN.)

GRINNELL, JOSEPH. The California Yellow Warbler.

Condor, v, No. 3, May 19, 1903, pp. 71-73.

A discussion of the California yellow warblers, with description of a new subspecies, *Dendroica aestiva brewsteri*.

HASSALL, ALBERT. (See under CHARLES W. STILES.)

HAY, WILLIAM PERRY. Observations on the crustacean fauna of the region about Mammoth Cave, Kentucky.

Proc. U. S. Nat. Mus., xxv, No. 1285, Sept. 12, 1902, pp. 223-236, 1 text fig.

Based on material obtained during a visit by the writer to Mammoth Cave in 1901. A new amphipod, *Gammarus propinquus*, is described, and also a new form of crayfish, *Cambarus bartoni tenebrosus*.

— Observations on the crustacean fauna of Nickajack Cave, Tennessee, and vicinity.

Proc. U. S. Nat. Mus., xxv, No. 1292, Sept. 23, 1902, pp. 417-139, 1 map and 8 figs. in text.

HAY, WILLIAM PERRY—Continued.

Describes visits made by himself to Nickajack Cave and other caves in Tennessee and Georgia. Among the crustaceans collected there is one new amphipod, *Gammarus purpurascens*, and two new subspecies of *Cambarus*, *C. bartonii cavatus*, and *C. latimanus striatus*.

— On a small collection of crustaceans from the island of Cuba.

Proc. U. S. Nat. Mus., xxvi, No. 1316, Feb. 2, 1903, pp. 429-435, 3 text figs.

The collection was made by Dr. C. H. Eigenmann, while investigating the fauna of limestone caverns in Cuba. Fourteen species are enumerated, of which three are new, *Cyrolana cubensis*, *Palaeomonetes eigemannii*, and *P. cubensis*; the first two are subterranean and blind.

HELLER, EDMUND. Papers from the Hopkins-Stanford Galapagos Expedition, 1898-99. XIV. Reptiles.

Proc. Wash. Acad. Sci., v, Feb. 26, 1903, pp. 39-98.

The account of *Phyllodactylus tuberculosus* is based on the specimens in the U. S. National Museum, lent for the purpose.

HEMSLEY, W. BOTTING. (See under JOSEPH N. ROSE.)

HENDERSON, JOHN B., Jr. (See under CHARLES T. SIMPSON.)

HINDS, WARREN ELMER. Contribution to a monograph of the insects of the order Thysanoptera inhabiting North America.

Proc. U. S. Nat. Mus., xxvi, No. 1310, Dec. 20, 1902, pp. 79-242, pls. 1-XI, text figs. 1-127.

HOLMES, WILLIAM H., and MASON, OTIS TUFTON. Instructions to collectors of historical and anthropological specimens.

Bull. U. S. Nat. Mus., No. 39, Part Q, Aug. 8, 1902, pp. [1]-[16].

HOWARD, L. O. The warfare against mosquitoes—A record of what has been accomplished the last two years—How to exterminate mosquitoes—A practical work for village improvement societies.

Country Life in America, Apr., 1903, III, No. 6, pp. 251-253, figs. 100-106.

— Our enemies the insects.

Youths' Companion, Apr. 30, 1903, pp. 211-212.

— The tomb of Thomas Say.

Canadian Entomologist, xxxv, No. 5, May 1, 1903, pp. 138-139.

- HOWARD, L. O. The world-wide crusade.
Proceedings First Anti-mosquito Convention, Brooklyn, N. Y., Jan., 1904, pp. 19-21; 1 fig. (portrait).
 A brief review of anti-mosquito work then going on in different parts of the world.
- HOWELL, ARTHUR H. (See under J. A. ALLEN.)
- HRDLICKA, ALES. The Lansing skeleton.
Am. Anthropologist (new series), v, No. 2, April-June, 1903, pp. 323-330.
 The paper is a description of the skeleton and a comparison of the skull with several Indian crania from the same general region.
 The conclusion is that the skeleton, so far as the physical characteristics are concerned, is practically identical in type with that of the modern Indian of the same region and presents no indications of any great antiquity.
- HULST, GEORGE D. (See under HARRISON G. DYAR.)
- JORDAN, DAVID STARR. Supplementary note on *Bleckeriamitsukurii* and on certain Japanese fishes.
Proc. U. S. Nat. Mus., xxvi, No. 1328, Apr. 9, 1903, pp. 693-696, pl. xxx, figs. 1-3.
 (See also under J. A. ALLEN.)
- JORDAN, DAVID STARR, and EVERMANN, BARTON WARREN. Notes on a collection of fishes from the Island of Formosa.
Proc. U. S. Nat. Mus., xxv, No. 1289, Sept. 24, 1902, pp. 315-368, figs. 1-29.
 New species: *Zacco evolans*, *Acheilognathus mesembrinum*, *Anguilla remifera*, *Gymnothorax pescatoris*, *Ophicephalus tadtianus*, *Channa formosana*, *Bleckeria mitsukurii*, *Penpheris nyctereutes*, *Nemipterus matsubarae*, *Plectorhynchus ocyurus*, *Polydactylus rhadinus*, *Cherops nyctembema*, *Hemipteronotus verrens*, *Silago wolus*, *Salarias namiyai*, *Brotula formosa*, *Cynoglossus diptasius*.
- JORDAN, DAVID STARR, and FOWLER, HENRY W. A review of the Oplegnathoid fishes of Japan.
Proc. U. S. Nat. Mus., xxv, No. 1278, Aug. 30, 1902, pp. 75-78.
 A review of the trigger-fishes, file-fishes, and trunk-fishes of Japan.
Proc. U. S. Nat. Mus., xxv, No. 1287, Sept. 17, 1902, pp. 251-286, figs. 1-6.
 New genus: *Rudarius*.
 New species: *Rudarius ereodes*, *Brachaluteres utarum*.
 A review of the cling-fishes (Gobi-oesocidae) of the waters of Japan.
Proc. U. S. Nat. Mus., xxv, No. 1291, Sept. 19, 1902, pp. 413-416, fig. 1.
 New genus: *Aspasma*.
 New species: *Aspasma ciconia*.
- JORDAN, DAVID STARR, and FOWLER, HENRY W. A review of the Chætodontidæ and related families of fishes found in the waters of Japan.
Proc. U. S. Nat. Mus., xxv, No. 1296, Sept. 30, 1902, pp. 513-563, figs. 1-6.
 New species: *Cyttopsis itea*, *Antigonia steindachneri*, *Chætodon dactalma*, *Coradion desmotes*, *Holacanthus rovin*.
 Notes on little-known Japanese fishes, with description of a new species of *Aboma*.
Proc. U. S. Nat. Mus., xxv, No. 1298, Oct. 2, 1902, pp. 573-576, fig. 1.
 New species: *Aboma snyderi*.
 A review of the Berycoid fishes of Japan.
Proc. U. S. Nat. Mus., xxvi, No. 1306, Nov. 25, 1902, pp. 1-21, figs. 1-4.
 A review of the Ophidioid fishes of Japan.
Proc. U. S. Nat. Mus., xxv, No. 1303, Dec. 2, 1902, pp. 743-766, figs. 1-6.
 New genus: *Hierichthys*.
 New species: *Hierichthys encryptes*, *Lyencichelys pacilimon*, *Bothrocara zesta*, *Otophidium asiro*, *Porogadus guntheri*.
 A review of the Elasmobranchiate fishes of Japan.
Proc. U. S. Nat. Mus., xxvi, No. 1324, Mar. 30, 1903, pp. 593-674, pls. xxvi-xxvii, figs. 1-10.
 A review of the Cepolidæ or band-fishes of Japan.
Proc. U. S. Nat. Mus., xxvi, No. 1330, Apr. 9, 1903, pp. 699-702, fig. 1.
 A review of the Cobitidæ, or loaches of the rivers of Japan.
Proc. U. S. Nat. Mus., xxvi, No. 1332, Apr. 9, 1903, pp. 765-774, figs. 1, 2.
 A review of the dragonets (Callionymidæ) and related fishes of the waters of Japan.
Proc. U. S. Nat. Mus., xxv, No. 1305, May 9, 1903, pp. 939-950, figs. 1-9.
 New genera: *Draconetta*, *Calliurichthys*.
 New species: *Draconetta xenica*, *Calliurichthys doryssus*, *Callionymus flagris*, *C. calliste*, *C. virgis*.
- JORDAN, DAVID STARR, and SNYDER, JOHN OTTERBEIN. A review of the Blennoid fishes of Japan.
Proc. U. S. Nat. Mus., xxv, No. 1293, Sept. 26, 1902, pp. 441-504, figs. 1-28.
 New genera: *Zacalles*, *Azuma*, *Zoarchias*, *Abryosis*.
 New species: *Tripterygion ethcostoma*, *T. bapturnum*, *Zacalles bryope*, *Petroscirtes elatus*, *Aspidontus trossutus*, *A. dasson*, *Scartichthys enosima*, *S. stellifer*, *Azuma emmion*, *Bryostemma otobime*, *B. saitone*, *Alectrias benjamini*,

JORDAN, DAVID STARR, and SNYDER,
JOHN OTTERBEIN—Continued.

Neozoarces steindachneri, *Zoarchias veneficus*,
Opisthocentrus zonocephalus, *Abryois azumai*, *Eriogranmus cyallax*, *Stichæus nozarwe*, *Lampanyctus fourieri*.

— Descriptions of two new species of
Squaloid sharks from Japan.

Proc. U. S. Nat. Mus., xxv, No. 1279, Sept.
2, 1902, pp. 79-81, figs. 1, 2.

New genus: *Deania*.

New species: *Ethmopterus lucifer*, *Deania eglantina*.

— On certain species of fishes con-
fused with *Bryostemma polyactcephalum*.

Proc. U. S. Nat. Mus., xxv, No. 1300, Nov
4, 1902, pp. 613-618, figs. 1-3.

New genus: *Bryolophus*.

New species: *Bryostemma tarsodes*, *B. decoratum*, *Bryolophus lysimus*.

JORDAN, DAVID STARR, and STARKS,
EDWIN CHAPIN. A review of the
Hemibranchiate fishes of Japan.

Proc. U. S. Nat. Mus., xxvi, No. 1308, Dec.
2, 1902, pp. 57-73, figs. 1-3.

— A review of the Synentognathous
fishes of Japan.

Proc. U. S. Nat. Mus., xxvi, No. 1319, Feb.
4, 1903, pp. 525-544, figs. 1-3.

— Description of a new species of
sculpin from Japan.

Proc. U. S. Nat. Mus., xxvi, No. 1326, Apr.
11, 1903, pp. 689, 690, fig. 1.

KNOWLTON, FRANK H. Change of
name of *Ficus? hesperia*, from the vicini-
ty of Ashland, Oreg.

Proc. Biol. Soc. Wash., xv, Apr. 25, 1902,
p. 86.

The name *Ficus? hesperia* has been used in the Bulletin of the U. S. Geological Survey on the Flora of the Montana Formation, for a plant from the North Fork of Dutton Creek in the Laramie Plains, Wyoming, and also for a different species from the vicinity of Ashland, Oreg., in the 20th Annual Report of the U. S. Geological Survey, and as the former antedates the latter, the change to *Ficus? applegatei* is made.

— Notes on the fossil fruits and lig-
nites of Brandon, Vt.

Bull. Torrey Botan. Club, No. 29, Nov., 1902,
pp. 635-641, pl. 25.

The occurrence and geological position of the lignites are described and the conclusion reached that in age they are younger than the Eocene. These Brandon lignites are also determined to be largely coniferous. Selected specimens upon examination were found to be only variety different from Schmaul-

KNOWLTON, FRANK H.—Continued.

hausen's *Pityoxylon microporosum*, and for the Brandon form the name *Pityoxylon microporosum brandonianum* is proposed. One small specimen was determined to be dicotyledonous, probably allied to *Betula*. The author had intended making an exhaustive microscopic study of the structure of the fruits so abundant in these lignites, but was prevented from completing the work, and therefore presents only some scattered notes on a few of the species, to one of which he gives the new name *Cucumites lesqueræi*.

— Report on a small collection of
fossil plants from the vicinity of Porcu-
pine Butte, Montana.

Bull. Torrey Botan. Club, No. 29, Dec., 1902,
pp. 705-709, pl. 26, fig. 1 (in text).

In this paper four species are enumerated, among them one that is new—*Tillia weedii*—and the age of the beds in which they occur is given as the Fort Union Tertiary.

— Fossil flora of the John Day basin,
Oregon.

Bull. U. S. Geol. Surv., No. 204, 1902, pp.
1-113, pls. I-XVII.

The John Day basin lies in north central Oregon between the north and south ranges of the Blue Mountains, covering an area of approximately 10,000 square miles, drained by the John Day River and its tributaries. The flora of the basin, as set forth in this paper, comprises 150 forms distributed among 37 natural families and the anomalous group of Phyllites. Of the 150 forms enumerated, 24 have not been specifically named, and 44 species and one variety are described as new, the previously known species numbering 81. The beds are all of Tertiary age, ranging from Lower Eocene to Upper Miocene. The conditions prevailing in the John Day basin in Tertiary times extended into central Washington, northwestern Idaho, and western Oregon.

KOTINSKY, JACOB. The first North
American Leaf-gall Diaspine.

Proc. Ent. Soc. Wash., v, 1903, pp. 149-150.

Describes *Cryptophyllaspis liquidambaris*, new species.

LUCAS, FREDERIC A. Palæontological
notes.

Sciencæ (new series), xvi, No. 402, Sept. 12,
1902, p. 435.

The name *Dacntrurus* is proposed to replace *Omosaurus*, this being preoccupied. *Hoplitosaurus marshi* is proposed to replace *Stegosaurus marshi*, this dinosaur being shown to be related to *Polacanthus*.

— Aves.

Text Book of Palæontology, by Karl von Zittel, Nov., 1902, pp. 256-278, figs. 362-373.

LUCAS, FREDERIC A.—Continued.

A brief description of the osteology and main divisions of the Class Aves, with special reference to fossil species. Based partly on palaeontological and osteological material in the Museum collections.

— Animals before man in North America.

D. Appleton & Co., Nov., 1902, pp. i-vii, 1-291, 6 pls. and numerous text figs.

A popular account of the succession of life in North America.

Many references to specimens in the U. S. National Museum.

— The weapons of birds.

Bird Lore, Nov.—Dec., 1902, pp. 182-185, 6 text figs.

— The Dinosaurs or Terrible Lizards.

Rep. Smithsonian Inst., 1901 (1902), pp. 641-647, pls. 1-4.

A popular account of the Dinosaurs, reprinted from "Animals of the Past."

— The Greatest Flying Creature, the Great Pterodactyl *Ornithostoma*.

Rep. Smithsonian Inst., 1901 (1902), pp. 654-659, pls. 1-3, 1 text fig.

A popular account of this flying reptile, comparisons being made with birds and bats as to size and power of flight.

— Notes on the osteology and relationships of the fossil birds of the genera *Hesperornis*, *Hayeria*, *Baptornis* and *Diatryma*.

Proc. U. S. Nat. Mus., xxvi, No. 1320, Feb. 4, 1903, pp. 545-556, 8 figs.

Additional information is given as to the structure of the skeleton in *Hesperornis* and *Baptornis*; the genus *Hayeria* is proposed for *Hesperornis gracilis*, and it is suggested that *Diatryma* belongs in the Stereonithes.

— Flight.

Article in *International Cyclopaedia*, Dodd, Mead & Co.

An account of the mechanism of flight as found in various animals, especially vertebrates, and the method by which it is performed.

LYON, MARCUS W., Jr. *Lophostoma venezuelae* changed to *Tonatia venezuelae*.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, p. 248.

— Observations on the number of young of the Lasiurine bats.

Proc. U. S. Nat. Mus., xxvi, No. 1314, Jan. 26, 1903, pp. 425-426, pl. xvii.

Four young usually are produced at a birth.

McMURRICH, J. PLAYFAIR. Note on the Sea Anemone, *Sagartia paguri* Verrill.

Proc. U. S. Nat. Mus., xxvi, No. 1315, Jan. 27, 1903, pp. 427-428, 2 text figs.

Description of specimens obtained by Dr. D. S. Jordan and Mr. J. O. Snyder in Japan, where the species lives adherent to the ehela and the shell of the hermit crab, *Diogenes edwardsii* (de Haan).

MAIDEN, JOSEPH HENRY. On the identification of a species of *Eucalyptus* from the Philippines.

Proc. U. S. Nat. Mus., xxvi, No. 1327, Apr. 11, 1903, pp. 691, 692.

MARLATT, C. L., Résumé of the search for the native home of the San Jose scale in Japan and China.

Bull. Div. Ent., U. S. Dept. Agric. (new series), No. 37, Oct. 3, 1902, pp. 65-78.

— Preliminary report on the importation and present status of the Asiatic ladybird (*Chilocorus similis*).

Bull. Div. Ent., U. S. Dept. Agric. (new series), No. 37, Oct. 3, 1902, pp. 78-84.

— Predatory insects which affect the usefulness of scale-feeding Coccinellidae.

Bull. Div. Ent., U. S. Dept. Agric. (new series), No. 37, Oct. 3, 1902, pp. 84-87.

— Report of the Acting Entomologist for 1902.

Ann. Rep. U. S. Dept. Agric. 1902, pp. 189-207.

This report was submitted Aug. 2, 1902, and published in Dec., 1902. Extras with title page and table of contents were printed.

— Collecting notes on mosquitoes in Oriental countries.

Proc. Ent. Soc. Wash., v, No. 2, pp. 111-123. Author's extras were published Jan. 31, 1903.

— Notes on the periodical cicada in the District of Columbia in 1902.

Proc. Ent. Soc., Wash., v, No. 2, pp. 124-126.

Author's extras were published Feb. 4, 1903.

— An early record of the periodical cicada.

Proc. Ent. Soc. Wash., v, No. 2, pp. 126-127. Author's extras were published Feb. 4, 1903.

— A chalcidid parasite of the Asiatic ladybird.

Proc. Ent. Soc. Wash., v, No. 2, pp. 138-139. Author's extras were published Feb. 4, 1903.

MARLATT, C. L. The lime, sulphur, and salt wash.

Circ. Div. Ent., U. S. Dept. Agric., Div. of Ent. (second series), No. 52, pp. 8, Feb. 20, 1903, pp. 1 to 8.

— The Entomological Club of the American Association for the Advancement of Science. Report by the secretary.

Can. Ent., xxxv, Mar., 1903, pp. 53-58; xxxv, Apr., 1903, pp. 79-87.

— Japan's foremost entomologist.

Ent. News, xiv, No. 3, Mar., 1903, pp. 65-68, pl. iv.

— How to control the San Jose scale.

Circ. Div. Ent., U. S. Dept. Agric., Div. Ent. (second series), No. 42, 7 pp., Mar. 25, 1903. Third edition, extensively revised.

— Scale insects and mites on citrus trees.

Farmers' Bull., U. S. Dept. Agric. Div. Ent., No. 172, Apr. 17, 1903, pp. 42, figs. 34.

Revision of the Yearbook article by Mr. Marlatt.

— Applied entomology in Japan.

Bull. Div. Ent., U. S. Dept. Agric. (new series), No. 40, pp. 56-63, pls. 1, 11. (Issued Apr. 25, 1903.)

— A house-boat collecting trip in China.

Can. Ent., xxxv, Apr., 1903, pp. 79-87.

— The San Jose scale—its natural home and natural enemy.

Yearbook U. S. Dept. Agric., 1902, pp. 155-174.

Author's extras were issued June 6, 1903.

MARSHALL, WILLIAM B. Tea.

Am. Journ. Pharmacy, lxxv, No. 2, Feb., 1903, pp. 79-91.

Part of a lecture before the Pharmaceutical Association of the Philadelphia College of Pharmacy. Describes the botany, geography and history, cultivation, preparation, chemistry, effects, social status, adulterants, and commerce of tea.

MASON, OTIS TUFTON. (See under WILLIAM H. HOLMES.)

MAXON, WILLIAM R. A Japanese *Polypodium*.

Pop. Sci. News, xxxvi, Oct., 1902, p. 221, 2 pls.

A popular account of the peculiar way *Polypodium japonicum* has of forming spirals by the sidewise torsion of its midrib.

— A botanists' mecca.

Plant World, vi, Feb., 1903, p. 38.

Note on the Hart's-tongue in Central New York.

MAXON, WILLIAM R. Notes on American ferns, vi.

Fern Bull., xi, Apr., 1903, pp. 38-40.

(1) Mention is made of a cristate form of *Woodwardia spiculosa* from California. (2) *Adiantum modestum* Underw. is reported from Arizona. (3) *Polystichum munitum solitarium* subsp. nov., is described from Lower California.

— A study of certain Mexican and Guatemalan species of *Polypodium*.

Contrib. U. S. Nat. Herbarium, viii, pt. 3, June 27, 1903, pp. i-v; 271-279, pls. LXI, LXII.

A summary of results attending a study of plants referred to, or closely related to, *Polypodium subpetiolatum* Hook. *Polypodium aequalis*, *P. teresae*, *P. firmatum*, *P. fissidens* and *P. adelphum* are described as new.

— (See also under LUCIEN M. UNDERWOOD.)

MAYER, P. Die Caprellidæ der Siboga-Expedition. Monographie xxxiv aus:

| Uitkomsten op Zoologisch, | Botanisch, Oceano-graphisch en Geologisch Gebied | verzameld in Nederlandsch Oost-Indië 1899-1900 | aan boord H. M. Siboga onder commando van | Luitenant ter zee I^e kl. G. F. Tydeman | uitgegeven door | Dr. Max Weber | Prof. in Amsterdam, Leider der Expeditie | Leiden | Juni 1903 |

Folio, 160 pp., pls. i-x.

A comprehensive work covering not only the results of the Siboga Expedition, but collections from many different museums. Keys to the genera and species are given, also a bibliography, faunal lists of species, as well as a list of the Siboga collection, and a chapter on the morphology, biology, and phylogeny of the Caprellidæ.

MEARNS, EDGAR A. The Ocelot cats.

Proc. U. S. Nat. Mus., xxv, No. 1286, Sept. 17, 1902, pp. 237-249.

New species: *Felis costaricensis*, *F. equatorialis*.

MERRIAM, C. HART. (See under J. A. ALLEN.)

MERRILL, GEORGE P. A newly found meteorite from Mount Vernon, Christian County, Ky.

Am. Geologist, xxxi, Mar., 1903, pp. 156-158.

A brief paper giving a preliminary notice of a 351-pound pallasite that had recently come into the possession of the National Museum.

— Stones | for | Building and Decoration. | By | George P. Merrill, | Curator of Geology in the United States

MERRILL, GEORGE P.—Continued.

National Museum and Professor of Geology | in Columbian University; author of "Rocks, Rock-weathering, and | Soils," "The Nonmetallic Minerals," etc. | Third edition, Revised and Enlarged. | New York: | John Wiley & Sons. | London: Chapman & Hall, Limited. | 1903.

8 vo., pp. 1-xi, 1-551. pls. 1-XXXIII, figs. 1-24.

This is a third edition of a work published in 1891 and based upon the author's catalogue of the Collection of building and ornamental stones in the U. S. National Museum forming a part of the Report of the U. S. National Museum for 1886.

MILLER, GERRIT S., Jr. Two new Malayan mouse deer.

Proc. Biol. Soc. Wash., xv, Aug. 6, 1902, pp. 173-175.

Tragulus rarus (p. 173) and *T. borneanus* (p. 174).

— Twenty new American bats.

Proc. Acad. Nat. Sci. Phila. May, 1902, pp. 389-412. (Issued Sept. 12, 1902.)

Described as new: *Antrozous minor* (p. 389), *Pipistrellus cinnamomeus* (p. 390), *Dasypterus floridanus* (p. 392), *Nyctinomops* (new genus) (p. 393), *Nyctinomops yucatanicus* (p. 393), *Molossus nigricans* (p. 395), *Molossus pretiosus* (p. 396), *Nyctinomus antillarum* (p. 398), *Natalus major* (p. 398), *Natalus mexicanus* (p. 399), *Chilonycteris portoricensis* (p. 400), *Chilonycteris mexicana* (p. 401), *Mormoops tumidiceps* (p. 403), *Dermanura rava* (p. 404), *Dermanura phacotis* (p. 405), *Vampyrops fumosus* (p. 405), *Stenoderma luciae* (p. 407), *Hemiderma tricolor* (p. 408), *Brachyphylla nana* (p. 409), *Monophyllus ebanus* (p. 410), and *Monophyllus luciae* (p. 411).

— A new bat from the Island of Dominica.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, pp. 243-244.

Myotis dominicensis, p. 243.

— Two new tropical Old World bats.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, pp. 245-246.

Nyctinomus pusillus (p. 245), and *Nyctinomus jobensis* (p. 246).

— The common *Nyctinomus* of the Greater Antilles.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, p. 248.

A distinct species which should be known as *Nyctinomus musculus* Gundlach.

— The external characters of *Brachyphylla nana* Miller.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, p. 249.

MILLER, GERRIT S., Jr. An overlooked specimen of *Chilonycteris psilotis*.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, p. 249.

— A second specimen of *Pterygistes azoreum*, Thomas.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, p. 250.

— The status of *Nyctinomus nevadensis* (H. Allen).

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, p. 250.

Identical with *Nyctinomops depressus* (Ward).

— The generic position of *Nyctinomus orthotis* H. Allen.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, p. 250.

A member of the genus *Promops*.

— Mammals collected by Dr. W. L. Abbott on the coast and islands of Northwest Sumatra.

Proc. U. S. Nat. Mus., xxvi, No. 1317, Feb. 3, 1903, pp. 437-484.

The following species are described as new: *Tragulus amoenus* (p. 439), *Tragulus jugularis* (p. 440), *Tragulus brevipes* (p. 443), *Tragulus russicus* (p. 444), *Ratufa femoralis* (p. 447), *Ratufa nigrescens* (p. 448), *Ratufa lenata* (p. 449), *Sciurus mansularis* (p. 451), *Sciurus bancarus* (p. 451), *Sciurus saturatus* (p. 453), *Sciurus pretiosus* (p. 454), *Sciurus ubericolor* (p. 455), *Sciurus crebus* (p. 456), *Mus simalurensis* (p. 453), *Mus surdus* (p. 460), *Mus domitor* (p. 461), *Mus catellifer* (p. 464), *Lenothrix* (new genus) (p. 466), *Lenothrix canus* (p. 466), *Trichys macrootis* (p. 469), and *Maccacus fuscus* (p. 476).

— Descriptions of eleven new Malayan Mouse Deer.

Proc. Biol. Soc. Wash., xvi, Mar. 19, 1903, pp. 31-44.

The following species are described as new: *Tragulus lutescens* (p. 32), *Tragulus flavicollis* (p. 33), *Tragulus formosus* (p. 34), *Tragulus focalinus* (p. 35), *Tragulus virgicollis* (p. 37), *Tragulus natuna* (p. 38), *Tragulus subrufus* (p. 39), *Tragulus rubicus* (p. 40), *Tragulus rarulus* (p. 41), *Tragulus lancavensis* (p. 41), *Tragulus lampensis* (p. 42).

— A new name for *Mus atratus* Miller.

Proc. Biol. Soc. Wash., xvi, Mar. 19, 1903, p. 50.

Mus atridorsum is substituted for *Mus atratus* Miller, 1902 (not *Mus atratus* Philippi, 1900).

— The technical name of the Indian Flying Fox.

Proc. Biol. Soc. Wash., xvi, Mar. 19, 1903, p. 50.

The species should be known as *Pteropus giganteus* (Brünnich).

MILLER, GERRIT S., JR. The short-leaved sundew in Virginia.

Proc. Biol. Soc. Wash., xvi, June 25, 1903, p. 102.

The plant is recorded from the vicinity of Hampton, Va.

— (See also under J. A. ALLEN and LEONHARD STEJNEGER.)

NEEDHAM, JAMES G. A genealogic study of dragon-fly wing venation.

Proc. U. S. Nat. Mus., xxvi, No. 1331, Apr. 16, 1902, pp. 703-764, pls. xxxi-liv, figs. 1-44.

NELSON, E. W. The nomenclature and validity of certain North American Gallinæ.

Auk, xix, No. 4, Oct., 1902, pp. 386-391, pls. xiv, xv.

Reply to Mr. Ogilvie Grant's "Remarks on the Species of American Gallinæ recently described and notes on their nomenclature" (*Ibis*, 1902, pp. 233-245), in which various errors appearing in Mr. Grant's paper are rectified.

— (See also under J. A. ALLEN.)

OBERHOLSER, HARRY C. Some new South American birds.

Proc. U. S. Nat. Mus., xxv, No. 1276, Aug. 30, 1902, pp. 59-68.

Descriptions of 12 new species and subspecies and 1 new genus, viz.: *Thamnophilus tephrogaster* (p. 59), *Synallaxis spixi notius* (p. 60), *Xenicopsis percnopterus* (p. 61), *Ochthoeca rufimarginata acrophila* (p. 61), *Mecocerculus alutus* (p. 62), *M. stictopterus euplastus* (p. 63), *Rhynchocyclus scotius* (p. 63), *Perisotriccus* (p. 64), *Hemitriccus panmictus* (p. 64), *Pogonotriccus allenii* (p. 65), *Syrstes sibilator atimastus* (p. 66), *Icterus pyrropterus compsus* (p. 68), and *Icterus pyrropterus argoptilus* (p. 68).

— List of birds collected by William T. Foster in Paraguay.

Proc. U. S. Nat. Mus., xxv, No. 1281, Sept. 8, 1902, pp. 127-147.

A list of about 60 species, with critical notes.

— A new cliff swallow from Texas.

Proc. Biol. Soc. Wash., xvi, Feb. 21, 1903, pp. 15-16.

Petrochelidon lunifrons tachina is described from Langtry, Tex.

— Description of a new Vireo.

Proc. Biol. Soc. Wash., xvi, Feb. 21, 1903, pp. 17-18.

Vireo bellii medius is described as a new subspecies from southwestern Texas.

— A review of the genus *Catherpes*.

Auk, xx, No. 2, April, 1903, pp. 196-198.

Condensed diagnoses and geographical distributions of five forms of this genus, of which

OBERHOLSER, HARRY C.—Continued.

Catherpes mexicanus polioptilus is indicated as new.

— A synopsis of the genus *Psaltriparus*.

Auk, xx, No. 2, April, 1903, pp. 198-201.

Notes on the seven recognized forms of this genus, to which are added the type localities and geographical distribution of each form.

PFENDER, CHARLES A. (See under CHARLES W. STILES.)

POLLARD, CHARLES LOUIS. Plants used for Cuban confectionery.

Plant World, v, July, 1902, pp. 131-132.

— A new station for the Gray Podody.

Plant World, v, July, 1902, pp. 133-134.

POLLARD, CHARLES LOUIS, and KNOWLTON, FRANK HALL.

Plant World, v, 168-170. Sept., 1902, pp. 168-170.

A sketch of F. H. Knowlton's scientific and literary work.

— Two new violets from the eastern United States.

Proc. Biol. Soc. Wash., xv, Oct. 10, 1902, pp. 201-203.

Describes *Viola tenuipes* and *V. mulfordæ*.

— The families of flowering plants. (Concluded from previous year.)

Plant World Supplement, July-Dec., 1902, pp. 235-253.

POLLARD, CHARLES LOUIS, and CÖCKERELL, THEODORE D. A. Four new plants from New Mexico.

Proc. Biol. Soc. Wash., xv, Aug. 6, 1902, pp. 177-179.

Viola wilmettæ, *Primula ellisæ*, and *Achillea laxiflora* are described as new species.

PREBLE, EDWARD A. Birds of Keewatin.

North Am. Fauna, No. 22, Oct. 31, 1902, pp. 75-131.

An annotated list of all birds known to occur in this portion of the Hudson Bay region, with copious references to previous records.

RATHBUN, MARY J. Note on the generic name of the horseshoe crab.

Proc. Biol. Soc. Wash., xv, Oct. 10, 1902, p. 196.

Gives references to three binomial writers who have used the name *Xiphosura* prior to the first description of *Limulus*.

— Descriptions of new species of Hawaiian crabs.

Proc. U. S. Nat. Mus., xxvi, No. 1309, Nov. 18, 1902, pp. 75-77, 4 text figs.

RATHBUN, MARY J.—Continued.

The crabs described, *Cyclograpsus henshaw*, and *Ozius hawaiiensis*, were obtained by Messrs. H. W. Henshaw and R. C. McGregor.

— Japanese stalk-eyed crustaceans.

Proc. U. S. Nat. Mus., xxvi, No. 1307, Nov. 28, 1902, pp. 23–55, 24 text figs.

Based on a collection made by Dr. David S. Jordan and Mr. J. O. Snyder in 1900. Nine shrimps and one hermit crab are described as new.

The first series of specimens is in the U. S. National Museum.

— Crabs from the Maldive Islands.

Bull. Mus. Comp. Zool., Harvard College, xxxix, No. 5, Dec. 1902, pp. 123–138, 1 plate.

A list of 28 species obtained by Prof. Alexander Agassiz and party in 1901–1902, chiefly in the lagoons of the Maldive atolls. Six species are described as new.

— (See also under J. A. ALLEN.)

RAVENEL, W. DE C. The Pan-American Exposition. Report of the representative of the U. S. Fish Commission.

Rep. U. S. Fish Com., 1901 (1902), pp. 289–651, pls. 6–20.

RICHARDSON, HARRIET. A new freshwater Isopod of the genus *Mancasellus* from Indiana (p. 1294). A new terrestrial Isopod of the genus *Pseudarmadillo* from Cuba (p. 1295).

Proc. U. S. Nat. Mus., xxv, Nos. 1294 and 1295, Sept. 25, 1902, pp. 505–511, 8 text figs.

The first species *Mancasellus danieli* was collected by Mr. L. E. Daniels at Lily Lake, Laporte, Ind.; the second, *Pseudarmadillo gillmanus*, was obtained at the Isle of Pines, Cuba, by Messrs. William Palmer and J. H. Riley.

RICHMOND, CHARLES W. Descriptions of eight new birds from islands off the west coast of Sumatra.

Proc. Biol. Soc. Wash., xv, Aug. 6, 1902, pp. 187–190.

Palawanis major (p. 188) *Psittinus abbotti* (p. 188), *Thriponax parvus* (p. 189), *Hypothymis abbotti* (p. 189), *Hypothymis consobrina* (p. 189), *Malacopteron notatum* (p. 190), and *Stachyris banjakensis* (p. 190) are described as new species from Simalur and other islands off the west coast of Sumatra.

— Birds collected by Dr. W. L. Abbott and Mr. C. B. Kloss in the Andaman and Nicobar islands.

Proc. U. S. Nat. Mus., xxv, No. 1288, Sept. 17, 1902, pp. 287–314.

A list of 101 species from the Andamans and Nicobars, with notes by the collectors. *Zos-*

RICHMOND, CHARLES W.—Continued.

terops ventralis (p. 288), *Sturnia erythropygia katchalensis* (p. 295), *Rhinomyias nicobarica* (p. 295), *Arachnocythra klossi* (p. 297), *Pitta abbotti* (p. 298), *Spilornis klossi* (p. 304), *Astur obsoletus* (p. 306), *Osmotreron chloroptera andamanica* (p. 308), and *Ereafactoria trinkutensis* are described as new. *Dissemurus malabaricus otiosus* is a new name for *D. affinis*, preoccupied.

— [Review of] Bertoni's "Aves Nuevas del Paraguay."

Auk, xix, No. 4, Oct., 1902, pp. 414–416.

— Note on *Pinaroloxias inornata* (Gould).

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, pp. 247–248.

Note showing that *Pinaroloxias inornata* is identical with *Cocornis agassizi*.

— Birds collected by Dr. W. L. Abbott on the coast and islands of North-west Sumatra.

Proc. U. S. Nat. Mus., xxvi, No. 1318, Feb. 4, 1903, pp. 485–524.

A list of 151 species collected or observed on the coast and islands of Northwestern Sumatra, with field notes by the collector. The following species are named for the first time: *Spilornis abbotti* (p. 492), *Pisorhina umbra* (p. 494), *Pterargopsis simalurensis* (p. 498), *P. sodalis* (p. 499), *Macropteryx perlunga* (p. 502), *Cyanoderma fulviventris* (p. 507), *Tchitrea procer* (p. 510), *Graucalus babiensis* (p. 513), *G. simalurensis* (p. 513), *Campophaga compta* (p. 514), *Oriolus mundus* (p. 517). *Columba grisea* and *Corvus tenuirostris* are renamed *C. plasma* and *C. compiler*, respectively, both of the former names being preoccupied.

RIDGWAY, ROBERT. Smithsonian Institution. | United States National Museum. | — | Bulletin | of the | United States National Museum. | No. 50. | — | Part II. | [Seal] Washington: | Government Printing Office. | 1902.

The Birds | of | North and Middle America: | A Descriptive Catalogue | of the | Higher Groups, Genera, Species, and Sub-species of Birds | Known to occur in North America, from the | Arctic Lands to the Isthmus of Panama, | the West Indies and Other Islands | of the Caribbean Sea, and the | Galapagos Archipelago. | By | Robert Ridgway, | Curator, Division of Birds. | — | Part II. | Family Tanageridæ—The Tanagers. | Family Icteridæ—The Troupials. | Family Cerebidæ—The Honey Creepers. | Family

RIDGWAY, ROBERT—Continued.

Mniotiltidae—The Wood Warblers. |
— | Washington: | Government Print-
ing Office. | 1902.

8 vo., pp. i-xx, 1-834, pls. i-xxii. (Pub-
lished Oct. 16, 1902.)

The present part of this monograph deals with four exclusively American families of Passeres (Tanagridæ, Icteridæ, Corvidæ, and Mniotiltidæ), embracing 77 genera and 433 species and subspecies. The treatment of species is similar to that followed in the first part of the work. Brief descriptions of the known plumages are given, followed by measurements, the geographical ranges, and a full synonymy. The following forms are introduced as new: *Phenicothraupis rubica nelsoni* (p. 115), *Compsothlypis americana ramulinae* (p. 486), *Geothlypis incompta* (p. 677), *G. crigata* (p. 677), *G. flavida* (p. 678), *G. nelsoni microthytha* (p. 685), *Wilsonia pusilla chrysolata* (p. 714), *Basileuterus culicivorus flurescens* (p. 755), and *Rhodinocichla rosea crinita* (p. 770). Outline drawings representing the characters of the 77 genera treated in this part are given in the 22 plates accompanying the volume.

— [Review of] Pycraft's Classification of the Falconiformes.

Science (new series), XVII, Mar. 27, 1903, 509-511.

A review of Pycraft's paper on the classification of this group, in which the reviewer points out the great similarity between the present arrangement and one formulated and published by him nearly thirty years before.

RILEY, J. H. The authority for the name *Geotrygon chrysis*.

Auk XIX, No. 1, Oct., 1902, p. 397.

Calls attention to the fact that Salvadori, not Bonaparte, should be quoted as authority for the above name.

— Description of a new Quail Dove from the West Indies.

Proc. Biol. Soc. Wash., XVI, Feb. 21, 1903, pp. 13-14.

Geotrygon sabæ described from Saba Island.

ROSE, JOSEPH N. Studies of Mexican and Central American plants. No. 3.

Contrib. U. S. Nat. Herb., VIII, No. 1, June, 1903, pp. 1-55, pls. 1-12, figs. 1-11.

Describes two new genera and 58 species, revises several genera such as *Polyanthus*, *Manfreda*, *Cologania*, and *Cornus*, and restores *Manfreda* to generic rank.

ROSE, JOSEPH N., with HEMSLEY, W. BOTTING. Diagnoses *Specierum generis juliana* Schlecht. Americae Tropicae.

Annals of Botany, XVII, No. 66, Mar., 1903, pp. 443-446.

The genus and species are redescribed and two new species are added.

This paper is to be followed by an illustrated monograph,

SCHUCHERT, CHARLES. On the Lower Devonian and Ontario formations of Maryland.

Proc. U. S. Nat. Mus., XXVI, No. 1313, Feb. 3, 1903, pp. 413-424.

Describes in detail the entire Upper Silurian strata of Maryland, which have a united thickness of 3,169 feet. These formations are followed by the Lower Devonian deposits, with a thickness of 608 feet (Helderbergian, 260 feet, and Oriskanian, 348 feet). The various formations are based on fossil content as fixed by the New York series, are of the North Atlantic type, and were laid down in the Cumberland-Mediterranean.

— [Review of] "Morse on living brachiopods."

Am. Geologist, Feb., 1903, pp. 112-121.

A review of "Observations on living brachiopods," by Edward S. Morse. The reviewer adds other observations based on fossil forms and especially regarding the pumetate shell of brachiopods.

— The I. H. Harris collection of invertebrate fossils in the U. S. National Museum.

Am. Geologist, Mar., 1903, pp. 131-135.

This paper presents a biographic sketch of Mr. Harris and an account of his large Cincinnati collection, as now installed in this Museum. Also a list of the many collectors and paleontologists born or raised in the region of the Cincinnati rocks.

— On the Manlius formation of New York.

Am. Geologist, Mar., 1903, pp. 160-178.

The "Coralline limestone" correlated with the Niagara, is here shown to be but a part of the Manlius formation as originally defined by Vanuxem. The Manlius formation is then redefined; the fauna of the Cobleskill member is also reviewed.

SIMPSON, CHARLES T. A new Naiad from New Zealand.

Nautilus, XVI, No. 3, July, 1902, p. 30.

Diplodon websteri is described as new.

SIMPSON, CHARLES T., and HENDERSON, JOHN B., Jr. A new Haitian Chondropoma.

Nautilus, XVI, No. 8, Dec., 1902, pp. 88-89.

Chondropoma superbum from Thomazeau, Haiti, is described and figured as new. The type is in the collection of the U. S. National Museum (No. 168798).

SMITH, JOHN B. Contributions toward a monograph of the lepidopterous family Noctuidæ of Boreal North America. A revision of the moths referred to the genus *Leucania*, with descriptions of new species.

Proc. U. S. Nat. Mus., XXV, No. 1283, Sept. 13, 1902, pp. 159-209, pls. v, vi.

SMITH, JOHN B.—Continued.

New genus: *Nleucania*.

New species: *Leucania luteopallens*, *L. rubripallens*, *L. obscurior*, *L. limitata*, *L. televa*, *L. neptis*, *L. megalia*, *L. anteroclara*, *L. calyariata*, *L. oreгона*, *L. pallisca*, *Nleucania nircocosta*, *N. citronella*.

New name: *Leucania lutina*.

SNYDER, JOHN OTTERBEIN. (See under DAVID S. JORDAN.)

STARKS, EDWIN CHAPIN. The relationship and osteology of the caproid fishes or Antigonidae.

Proc. U. S. Nat. Mus., xxv, No. 1297, Sept. 25, 1902, pp. 565-572, figs. 1-3.

The shoulder girdle and characteristic osteology of the Hemibranchiate fishes.

Proc. U. S. Nat. Mus., xxv, No. 1301, Nov. 4, 1902, pp. 619-634, figs. 1-6.

New species: *Macrorhamphosus sagifue*.

(See also under DAVID S. JORDAN.)

STEARNS, R. E. C. *Helix* var. *circumcarinata* and *Pyramidula elrodi*.

Nautilus, xvi, 6, Oct., 1902, pp. 61-62.

Pyramidula elrodi and *Epiphrogonophora circumcarinata*.

Nautilus, xvi, 7, Nov., 1902, pp. 83-84.

The Oriental Sycamore as a street tree.

Pacific Rural Press, Dec. 20, 1902, San Francisco.

Recommends the planting in California streets and describes the merits, etc.

Dracena australis for basketry purposes, etc.

Pacific Rural Press, Feb. 21, 1903, San Francisco.

Suggests the use of the leaves for making baskets, hampers, mats, etc.

Mollusks occurring in southern California.

Nautilus, xvi, 12, April, 1903, pp. 133-134.

Eucalyptus cultivated in the United States.

Science, xvii, May 29, 1903, pp. 858-860.

STEJNEGER, LEONHARD, Blue foxes on the Pribylof Islands.

Science (new series), xvi, Aug. 22, 1902, pp. 310-311.

Discusses the statistics of the number of blue foxes killed in the Pribylof Islands and considers the results obtained from sparing the females as satisfactory.

The reptiles of the Huachuca Mountains, Ariz.

Proc. U. S. Nat. Mus., xxv, No. 1282, Sept. 8, 1902, pp. 149-158.

STEJNEGER, LEONHARD—Continued.

Described as new: *Lampprolitis pyrrometana ceterops* (p. 153); type, U. S. N. M., No. 22375; and *Tantilla wilcoxi* (p. 156); type, U. S. N. M., No. 19671. New name: *Lampprolitis holbrookii* for *Corrnelia sagi* Holbrook, not of Schlegel (p. 152).

Ringduens forekomst omkring Bergen.

Naturen (Bergen), xxvi, Oct., 1902, p. 319.

A brief note on the occurrence of the ring-neck dove (*Columba palumbus*) in the neighborhood of Bergen, Norway,

Some generic names of turtles.

Proc. Biol. Soc. Wash., xv, Dec., 16, 1902, pp. 235-238.

Shows that *Sternotherus* is a synonym of *Kiaosternon*, and that *Pelusios* must be used for the genus usually known as *Sternotherus*; furthermore, that *Emys spengleri* is the type of *Geomyza* necessitating a new generic name for *G. spinosa*, for which *Hosemys* is proposed.

A salamander new to the District of Columbia.

Proc. Biol. Soc. Wash., xv, Dec. 16, 1902, pp. 239-240.

Notes that *Ambystoma maculatum* has been taken at Twining City, D. C.

Rediscovery of one of Holbrook's salamanders.

Proc. U. S. Nat. Mus., xxvi, No. 1321, Jan. 29, 1903, pp. 557-558.

The species rediscovered is *Desmognathus quadrimaucata* from the mountains of North Carolina.

Description of a new species of Gecko from Cocos Island.

Proc. Biol. Soc. Wash., xvi, Feb. 21, 1903, pp. 3-4.

Described as new: *Sphaerodactylus pacificus*; type, U. S. N. M., No. 31057.

A new name for the Hawaiian bird genus *Oreomyza*.

Proc. Biol. Soc. Wash., xvi, Feb. 21, 1903, p. 11.

Oreomyza Stejneger being preoccupied, the new name *Orcomyzitis* is substituted.

Ridgway's classification of the Falconiformes.

Science (new series), xvii, Apr. 17, 1903, pp. 628-629.

Shows that Ridgway's classification has been followed in the check list of North American birds published by the American Ornithologists' Union.

STEJNEGER, LEONHARD, and MILLER, GERRIT S., Jr., Plan for a biological survey of the paleartic region.

Yearbook Carnegie Institution, No. 1, 1902, pp. 240-266.

STEJNEGER, LEONHARD, and MILLER, GERRIT S., Jr.—Continued.

An elaborate scheme for a biotic survey of the Old World north of the tropics, presented in response to the invitation of the Carnegie Institution for "suggestions, opinions, and advice as to fields that it ought to occupy and the best methods for carrying forward its work in those fields."

STILES, CHARLES WARDELL. The type species of certain genera of parasitic flagellates, particularly Grassi's genera of 1879 and 1881.

Zool. Anzeiger, Leipzig., No. 682, xxv, Sept. 29, 1902, pp. 689-695.

— Hook-worm disease in the South. Frequency of infection by the parasite (*Uncinaria americana*) in rural districts.

Pub. Health Rep., xvii, No. 43, Oct. 24, 1902, pp. 2433-2434.

A preliminary report to the Surgeon-General, Public Health and Marine-Hospital Service.

— The significance of the recent American cases of hook-worm disease (uncinariasis or anchylostomiasis) in man.

15th Ann. Rep. Bureau Animal Indust., U. S. Dept. Agric., 1902, pp. 183-219, figs. 113-196.

— Frogs, toads, and carp (*Cyprinus carpio*) as eradicators of fluke disease.

15th Ann. Rep. Bureau Animal Indust., U. S. Dept. Agric., 1902, pp. 220-222, figs. 197-203.

— Further investigations on verminous diseases of cattle, sheep, and goats in Texas.

15th Ann. Rep. Bureau Animal Indust., U. S. Dept. Agric., 1902, pp. 223-229.

— A case of infection with the double-pored dog tapeworm (*Dipylidium caninum*) in an American child.

Am. Medicine, v, No. 2, Jan. 10, 1903, pp. 65-66, figs. 1-7.

— Report upon the prevalence and geographic distribution of hook worm disease (uncinariasis or anchylostomiasis) in the United States.

Bull. 10, Hyg. Lab., U. S. Pub. Health and Mar.-Hosp. Serv., Feb., 1903, pp. 1-121, figs. 1-86.

— A parasitic roundworm (*Agamomermis culicis*, n. g., n. sp.) in American mosquitoes (*Culex sollicitans*).

Bull. 13, Hyg. Lab., U. S. Pub. Health and Mar.-Hosp. Serv., May, 1903, pp. 15-17.

STILES, CHARLES WARDELL. The type species of the cestode genus *Hymenolepis*.

Bull. 13, Hyg. Lab., U. S. Pub. Health and Mar.-Hosp. Serv., May, 1903, pp. 19-21.

STILES, CHARLES WARDELL, and HASSELL, ALBERT. *Strongyloides stercoralis*, the correct name of the parasite of Cochin China diarrhea.

Am. Medicine, Phila., iv, No. 9, Aug. 30, 1902, p. 343.

— *Bertiella*, new name for the cestode genus *Bertia* Blanchard, 1891.

Science (new series), xvi, No. 402, Sept. 12, 1902, p. 434.

— Index-catalogue of medical and veterinary zoology.

Bull. No. 39, Bureau Animal Indust., U. S. Dept. Agric. Part 1, Authors, A to Azevedo, pp. 1-46 (issued May, 1902); Part 2, Authors, B to Buxton, pp. 47-198 (issued Feb., 1903); Part 3, Authors, C to Czygan, pp. 199-324 (issued May, 1903).

STILES, CHARLES WARDELL, and PFENDER, CHARLES A. The failure of thymol to expel whipworms (*Trichuris depressiuscula*) from dogs.

Journ. Comp. Med. and Vet. Arch., Phila., xxiii, No. 12, Dec., 1902, pp. 733-740.

STONE, WITMER. A collection of birds from Sumatra, obtained by Alfred C. Harrison, jr., and Dr. H. M. Hiller.

Proc. Acad. Nat. Sci. Phila. for 1902 (Jan. 20, 1903), pp. 670-691.

A briefly annotated list of about 140 species obtained in the Padang and Lampong districts of Sumatra. *Rhinomyias umbratilis* (Strickland) is found to be the correct name of the Bornean species, at present known as *R. pectoralis* (Salvadori), and the Sumatran form is described as *Rhinomyias umbratilis richmondi* (p. 686).

TASSIN, WIRT. The Casas Grandes meteorite.

Proc. U. S. Nat. Mus., xxv, No. 1277, Sept. 2, 1902, pp. 69-74, pl. 1-IV.

An analysis of the meteoric iron reported as having been found in the ancient Mexican ruins of Casas Grandes in the State of Chihuahua. A bulk analysis is given, together with other determinations of the nickel and cobalt, tending to show that the composition varies on different portions. The following minerals were isolated and analyzed separately: Troilite, schreibersite, taenite; graphitic carbon was also present in small amount, and an undetermined silicate.

THAYER, GERALD H. The coloration and relationships of Brewster's Warbler.

Auk, XIX, No. 4, Oct., 1902, pp. 401-402.

A note showing that the typical bird is without a trace of yellow on the under surface. The relationships of this warbler with *Helminthophila pinus* and *H. chrysoptera* are also discussed.

THOMAS, OLDFIELD. (See under J. A. ALLEN.)

ULKE, HENRY. A list of the beetles of the District of Columbia.

Proc. U. S. Nat. Mus., XXV, No. 1275, Sept. 2, 1902, pp. 1-57.

UNDERWOOD, LUCIEN M., and MAXON, WILLIAM R. Notes on a collection of Cuban Pteridophyta, with descriptions of four new species.

Bull. Torrey Bot. Club, XXIX, Oct., 1902, pp. 577-584, 1 fig.

Notes on a collection made by Messrs. Charles Louis Pollard, William Palmer, and Dr. Edward Palmer, in 1902. *Alsophila gracilis*, *Polypodium cryptum*, *Asplenium venustum*, and *Diplazium acutum* are described as new. The name *Polystichum aquifolium* is proposed for the homonym *Polystichum ilicifolium* of Fée. *P. cryptum* is figured.

VAUGHAN, T. WAYLAND. Fuller's earth of southwestern Georgia and western Florida.

U. S. Geol. Surv., Mineral Resources for 1901 (1902), pp. 922-934.

Gives a general account of the occurrences of fullers earth in the region covered by the report, with the results of practical tests and analyses made by Dr. Heinrich Ries.

— Evidence of recent elevation along the westward extension of Florida.

Science (new series), XVI, 1902, p. 514.

Presents evidence which tends to show that the Florida coast south of Tallahassee is rising at a rate of approximately 2 feet a century.

— An addition to the coral fauna of the Aquia Eocene formation of Maryland.

Proc. Biol. Soc. Wash., xv, 1902, pp. 205, 206.

Reviews the species of Eocene corals of Maryland, and cites an additional species, *Haimesiastraea conferta* Vaughan, from lower Marlborough.

— A redescription of the coral *Platytrachus speciosus*.

Proc. Biol. Soc. Wash., xv, 1902, pp. 207-209, 5 figs.

The types (two specimens) of this species, named by Gabb and Horn, are redescribed and referred to the genus *Trachocyathus*.

VAUGHAN, T. WAYLAND. Corals of the Buda Limestone.

Bull. U. S. Geol. Surv., No. 205, 1903, pp. 37-40, 89-92, pls. XXVI, XXVII.

The Buda limestone is the uppermost formation of the Cretaceous Comanche Series of Texas. The following species are described, *Parasmilia texana*, sp. nov., *Trachosmilia* (?) sp. indet., Coral sp., *Orbicella* (?) *texana* sp. nov., *Leptophyllia* sp. (No. 1), *Leptophyllia* sp. (No. 2).

— Fuller's earth deposits of Florida and Georgia.

Bull. U. S. Geol. Surv., No. 213, 1902 (1903), pp. 392-399.

This is practically a republication of the article cited above and published in the Mineral Resources of the U. S. Geological Survey for 1901.

— Corrections to the nomenclature of the Eocene fossil corals of the United States.

Proc. Biol. Soc. Wash., XVI, 1903, p. 101.

Proposes the generic name *Aldrichiella* for *Aldrichia* Vaughan, preoccupied, and shows that the type species of *Rhectopsammia* Vaughan, is the young of *Endopachys maclurei* (Lea). The former generic name is therefore abandoned.

VAUGHAN, T. WAYLAND, HAYES, C. WILLARD, and SPENCER, ARTHUR C. Report on a geological reconnaissance of Cuba, made under the direction of Gen. Leonard Wood, Military Governor.

Ann. Rep. Military Governor of Cuba, 1901, pp. 1-123, pls. XXIX, figs. 16.

Contains the results of a general geological reconnaissance of Cuba and the Isle of Pines, made during March, April, May, and June, 1901, by Dr. C. Willard Hayes, in charge, assisted by Messrs. Spencer and Vaughan. The following chapter or principal section headings give the scope of the work: Geography; Topography, including mountains, plains, drainage; General Geology, including stratigraphic and structural geology and geologic history. The greater portion of the report is devoted to the economic geology. The section headings are Gold, Copper, Lead, Manganese, Iron, Chromium, Bitumen (including asphalt, mineral tar and petroleum), and there are notes on coal, asbestos, salt, and structural materials. A section is devoted to a description of the geology of the Isle of Pines, and numerous elevations along the principal lines of railway are given in an Appendix.

Published also in separate form.

WALCOTT, CHARLES D. Cambrian Brachiopoda: *Acrotreta*, *Linmarsonella*, *Obolus*; with descriptions of new species.

Proc. U. S. Nat. Mus., XXV, No. 1299, Nov. 3, 1902, pp. 577-612.

WALCOTT, CHARLES D.—Continued.

In this paper Doctor Walcott continues his studies of Cambrian brachiopods. He defines the genus *Aerolreta*, 21 new species or new varieties and 12 old species; the new genus *Linnarsonella*, with 2 new and 1 previously described species; *Brüggeria*, a new subgenus of *Obolus*, with 1 species. Of *Lingulella* 4 new and 4 old species are described, and of *Westonia* 1 new species.

WHITE, DAVID. Description of a fossil alga from the Chemung of New York, with remarks on the genus *Haliscrites* Sternberg.

Bull. N. Y. State Museum, No. 52, 1901, 1902, pp. 595-610, pls. 3, 4.

The principal specimens described in this paper, which was published in the Report of the State Paleontologist, are from the Chemung strata of East Windsor, Broome County, N. Y., and are referred to a new genus, *Thamnocladus*, and are named *Thamnocladus clarkii*. The new genus is differentiated from *Buthotrephis*, *Psilophyton*, and *Haliscrites*, to the latter of which specimens of the new genus have hitherto been referred. The name *Teniocrada* is proposed for the membranaceous alga conforming to the genus *Haliscrites* as defined by Penhallow. The type species is said to be *Teniocrada lesqueuzii*, formerly illustrated as *Haliscrites dechenianus*.

The following references to papers by Dr. Theodore Gill, published between September, 1899, and May, 1902, were not furnished in time to be included with the bibliographies accompanying the reports for those years, and are therefore printed in connection with the Museum bibliography for 1903, at his request.

GILL, THEODORE. Desirability of extension of study of eggs. (Editorial.)

Osprey, IV, No. 1, Sept., 1899, pp. 9-10.

The desirability of extending the study of eggs beyond their shells is urged. The investigations of Valenciennes and Frémy on the contents of the egg, published in 1854, are referred to, and the difference between the reaction to boiling is indicated in the case of the albumen of the Lapwing. Data are asked for as "to the absolute and relative time required by the white and yellow to become hard in boiling, the degree of hardness acquired, and the behavior of white and yellow to reagents." It is also added that "the edibility and taste of eggs of different kinds would also be interesting subjects for investigation."

——— Popular ignorance of birds. (Editorial.)

Osprey, IV, No. 3, Nov., 1899, pp. 43-44.

The wide publication of a note on "A bird with a monkey face" is taken as the text of an editorial on the general ignorance of common birds. The bird in question was a common Barn Owl.

WHITE, DAVID. Memoir of Ralph Dupuy Laeoe.

Bull. Geol. Soc. America, xiii, 1901 (Feb., 1903), pp. 509-515.

In addition to an account of the life of R. D. Laeoe, a bibliography is given and reference made to the collections donated by him to the U. S. National Museum. These collections embraced about 17,000 Paleozoic plant fossils, including over 575 described or figured specimens; 800 Dakota plants, including a large number of types; nearly 5,000 specimens of fossil insects, of which over 200 are types; 400 specimens of fossil vertebrates; a large amount of unpublished plant material, and several thousands of insects partially reported on by Doctor Scudder.

WILSON, CHARLES BRANCH. North American parasitic copepods of the family Argulidae, with a bibliography of the group and a systematic review of all known species.

Proc. U. S. Nat. Mus., xxv, No. 1302, Nov. 25, 1902, pp. 635-742, pls. VIII-XXVII, 23 text figs.

A comprehensive report on the Argulidae, comprising a historical sketch, bibliography, an account of their ecology, ontogeny, and morphology, and a systematic review of the species. The following species are described as new: *Argulus niger*, *A. muculosus*, *A. versicolor*, *A. americanus*.

GILL, THEODORE. The largest birds. (Editorial.)

Osprey, IV, No. 4, Dec., 1899, pp. 57-59.

The opinion of J. E. Harting that the *Dinornis maximus* was "the largest known bird that had ever lived" is noted. The *Thrasaetus harpyia*, or Harpy Eagle, is declared to be apparently the largest bird of prey, weighing 28 to 30 pounds. Attention is called to the overlooked fact that the common turkey may be "the largest bird that flies," as it sometimes may exceptionally attain a weight of 70 pounds. Such a turkey, however, could scarcely fly.

——— Esthetic birds: The Bower Birds of Australia and New Guinea.

Osprey, IV, No. 4, Jan., 1900, pp. 67-71.

A summary of the knowledge acquired respecting the nesting habits of the Bower Birds, or Ptilonorhynchinae, is given and the "bowers and playing grounds" as well as "nests and eggs" of species described and illustrated by 3 figures representing the Satin Bower Bird and its nest and eggs, as well as the Bower of the Great Bower Bird.

GILL, THEODORE. Origin of the Hawaiian fauna.

Osprey, IV, No. 5, Jan., 1900, p. 78.

An editorial comment on the character of the vertebrate fauna of the Hawaiian Islands in correlation with the ornithology.

— Esthetic birds: the hut and the garden of the Gardener bird of New Guinea. After Odordo Beccari.

Osprey, IV, No. 6, Feb., 1900, pp. 83-85.

A description is given of "the bird," "the hut," and "the garden" of the Gardener bird, *Amblyornis inornatus*. In an introductory editorial note additional information is given.

— The origin of the Hawaiian fauna (editorial.)

Osprey, IV, No. 6, Feb., 1900, pp. 90-91.

A continuation of a former editorial article on the same subject, in which the land shell-bearing Gasteropods are considered. The conclusion is reached that "the extent of differentiation and segregation of the predominant Achatinellines almost compels us to believe that their progenitors came upon the islands very early. With the present feeble light to guide us, it seems to be more likely that these progenitors came from the west of the islands." This is in contrast with the indications furnished by the birds as at present understood. We are thus left in an unsettled condition, and must await future more detailed studies.

— Mercantile value of eggs.

Osprey, IV, No. 7, Mar., 1900, pp. 109-110.

In response to an inquiry why a great auk's egg should be considered more valuable than that of an *Aepyornis*, the circumstances regulating value in the nature of demand and supply are indicated.

— Love of nature.

Osprey, IV, No. 9, May, 1900, pp. 141-142.

An editorial on the cause and manifestation of love for nature.

— On the zoo-geographical relations of Africa.

Science (new series), XI, June 8, 1900, pp. 900-901.

An abstract of "a communication to the National Academy of Sciences made April 18, 1900." It is contended that the African fauna "has two sides, facing in opposite directions, and it can not be understood without taking both into consideration." The association of Africa with Asia or Europe is "illogical and falsifies the record." "Whatever facts a classification may be intended to embody, the African fauna must be isolated. If we wish to express, in our terminology, a former condition of affairs, Eogæa is a term adapted to do so."

GILL, THEODORE. Eogæa and Antaretica.

Science (new series), June 8, 1900, p. 913.

A list of articles by the writer on the geographical areas in question.

— The African tiger fish.

Forest and Stream, LV, June 23, 1900, p. 488.

The African fresh-water "tiger fish," regarded as a superior game fish, is a "member of a genus peculiar to Africa (*Hydrocyon*)," belonging to "the family of Characiniids."

— Significance and etymology of the word mammal.

Osprey, IV, No. 10, June, 1900, pp. 157-159.

The etymology imagined in the Century Dictionary and others is shown to be erroneous. The name *mammalia* is declared to have been formed by Linnæus in analogy with *Animalia*, from the word *mamma* with the suffix *alia*. The singular, consequently, should be *mammal* and not *mammale*. The history of the anglicized form *mammal* and *Mammifer* is also indicated.

— Edward Drinker Cope.—Herpetological and ichthyological contributions.

Proc. Am. Philosoph. Soc., Memorial Volume, I, 1900, pp. 274-296 (Printed Aug. 3, 1900).

An address delivered at a meeting in memory of Edward Drinker Cope, in the hall of the American Philosophical Society, held at Philadelphia, Nov. 12, 1897, under the auspices of eight institutions with which Cope had been intimately connected.

The nature of the contributions and the influence which they exerted on the sciences under consideration are set forth.

— Correspondence of and about Audubon and Swainson.

Osprey, V, No. 2, Nov. and Dec., 1900, pp. 23-35.

A summary is given of the letters from Audubon to Swainson, written between 1829 and 1838, and preserved in the collections of the Linnean Society of London; comments are given on the relations of the naturalists of that period. In an editorial in the same volume (pp. 29-30) further comments are added.

— Titles of magazines and collections.

Osprey, V, No. 4, Mar. and Apr., 1901, p. 62.

Comments are made on the titles on various magazines and collections.

— Names of magazines.

Osprey, V, No. 5, May, 1901, pp. 77-78.

The discussion of the subject commenced in the preceding number of the *Osprey* is continued and suggestions for improvement offered.

GILL, THEODORE. The proper name of *Bdellostoma* or *Hepptatrema*.

Proc. U. S. Nat. Mus., XXIII, No. 1234, June 6, 1901, 735-738.

The name *Hepptatrema* is traced back to its origin and the history of the nomenclature of the genus detailed. It is shown that the earliest name was *Eptadretus* (1819) and that consequently the family name should be *Eptadretidae*.

— Note on the genus *Hollandia* of Karsh.

Science (new series), XIII, June 14, 1901, pp. 949-950.

The name *Hollandia*, having been applied in 1892 to one genus, could not be given to a second, and consequently the genus of butterflies named *Hollandia* by Karsch in 1897 is renamed *Hollandella*. The family *Hollandiidae* is degraded to the rank of a subfamily named *Hollandellinae*.

— The popularity of White's *Selborne*.

Osprey, V, No. 7, July, 1901, p. 107.

In view of the publication of over a hundred editions (and of three within the past year), an inquiry is instituted into the cause of the popularity of Gilbert White's celebrated work.

— Nomenclature at Berlin.

Osprey, V, No. 8, Aug., 1901, pp. 126-127.

Comments are made on some of the rules promulgated by the recent Zoological Congress at Berlin, as well as certain names published by French ornithologists. The criticized names are such as were formed by "compounding the first part or syllables of one word and the final elements of another," such as *Embernagca* composed of *Ember[iza]* and [*Ta*]*nagra*.

— The Osprey or Fishhawk; its characteristics and habits.

Osprey, V, in the following numbers: No. 1, Sept., 1900, pp. 11-12; No. 2, Nov., 1900, pp. 25-28; No. 3, Jan., 1901, pp. 40-42; No. 4, Mar., 1901, pp. 60-61; No. 5, May, 1901, pp. 73-76; No. 6, June, 1901, pp. 92-93; No. 7, July, 1901, pp. 105-106; No. 8, Aug., 1901, pp. 124-125; No. 9, Sept., 1901, p. 141 (end).

— Life and Letters of Thomas Henry Huxley. By his son, Leonard Huxley. [A review.]

Osprey, V, No. 3, Jan. and Feb. 1901, pp. 47-48.

— Work and worry for the classicists.

Osprey, V, No. 9, Sept., 1901, pp. 112-113.

An editorial on nomenclature induced by some remarkable names recently published involving given and family names, such as *Edwardocoptia* after Edward D. Cope. Incidentally some other curious names are referred to, especially a number of familiar bird and crustacean names which are ex-

GILL, THEODORE—Continued.

actly anagrams of previous ones. A fact, not previously recognized, is that nearly a dozen names of crustaceans (*Cyrolana*, *Antilocera*, *Corilana*, etc.) are simply anagrams of *Caroline* or *Carolina*.

— Alewives.

Notes and Queries (9), VIII, No. 206, Nov. 30, 1901, pp. 451-452.

In answer to a previous inquiry (Vol. VII, p. 406) the etymology and true name of the American Alewife are given. In correction of the great New England Dictionary it is remarked that Alewife was and still is a name applied in some places in England to one of the Shads, and quite naturally it was brought over to the United States by the immigrants from England. Aloofo, given as an etymon and an Indian name, is nothing but Alose, the antique s having been mistaken for an f. Alose, Alose, and Alice, as well as Alewife, are derivatives from the old Latin *Alosa*.

— William Swainson and his times.

Osprey, IV, V, in the following numbers: (I) IV, No. 7, Mar., 1900, pp. 104-108; (II) IV, No. 8, Apr., 1900, pp. 120-123; (III) IV, No. 9, May, 1900, pp. 135-138; (IV) IV, No. 10, June, 1900, pp. 154-156; (V) IV, No. 11, July, 1900, pp. 166-171; (VI) V, No. 1, Sept., 1900, pp. 8-10; (VII) V, No. 3, Jan., 1901, pp. 37-39; (VIII) V, No. 4, Mar., 1901, pp. 58-59; (IX) V, No. 5, May, 1901, pp. 71-72; (X) V, No. 9, Sept., 1901, pp. 136-137; (XI) V, No. 10, Oct., 1901, pp. 152-155; (XII) V, No. 11, Nov., 1901, pp. 167-172; (XIII) V, No. 12, Dec., 1901, pp. 176 (end).

— General history of birds.

Osprey, VI, in the following numbers: (I), Jan., 1902, pp. 1-4; (II), Feb., 1902, pp. 5-12; (III), Mar., 1902, pp. 13-14; (IV), Apr., 1902, pp. 15-20; (V), May, 1902, pp. 21-26; (VI), June, 1902, pp. 27-34; (VII), July, 1902, pp. 35-42.

The chapters of a general work.

In Chapter I are considered: (p. 1-4) "The English names;" (4-5) "The bird's place in nature;" (5-6) "Characters of the class;" (7-8) "The general characters of birds;" (8) "The plumage of birds;" (8-10) "The feathers of birds;" (10-13) "The arrangement of feathers;" (13, 14) "The color of the plumage;" (15-17) "Moulting or molting;" (17-19) "Molting periods;" (19-20) "Individual molt;" (20-21) "Color change without molt."

In Chapter II are discussed: (p. 21) "General anatomy;" (33-35) "The muscles;" (35-37) "The brain and the rest of the nervous system;" (37-38) "The alimentary system;" (38-39) "The vascular system;" (39-40) "The respiratory system;" (40) "The generative system."

In Chapter III is treated the "Ecology of birds" under separate headings, viz: (10-41) "Contrast between uniformity of structure and variety of habits;" (41-42) "Variation in flight."

GILL, THEODORE. Life and ornithological labors of Sir John Richardson.

Osprey, VI, No. 1, Jan., 1902, pp. 13-17, with portrait plate.

Richardson's characteristics are considered under two categories: (1) "His life" and (2) "His ornithological work."

——— Biographical notice of John Cassin.

Osprey, VI, No. 3, Mar. 1902, pp. 50-53.

An account is given of Cassin's personal characteristics.

——— The works of John Cassin.

Osprey, VI, No. 5, May, 1902, pp. 80-84.

A chronological summation of contributions to societies, and full titles of separately published works are given.

GILL, THEODORE, and SMITH, HUGH M. The Moringuoid eels in American waters.

Science (new series), XI, June 22, 1900, pp. 973-974.

The Moringuoid eels have been hitherto found only in the seas of India and the Molucca-Indian archipelago. A species of one of the genera, *Aphthalmichthys*, was recently discovered at Porto Rico and is named *A. caribbaeus*. The *Stilbiscus edwardsii*, referred by Jordan and Evermann to the family *Muraenocoridae*, is a species of *Moringua*. *Leptoconger* and *Gordlichthys* also belong to the family Moringuidæ.

LIST OF AUTHORS.

- ADLER, CYRUS, U. S. National Museum.
ALLEN, J. A., American Museum of Natural History, New York City.
AMERICAN ORNITHOLOGISTS' UNION, Committee on Nomenclature.
ASHMEAD, WILLIAM H., U. S. National Museum.
BAILEY, FLORENCE MERRIAM, Washington, D. C.
BANGS, OUTRAM, Boston, Mass.
BANKS, NATHAN, U. S. Department of Agriculture.
BARTSCH, PAUL, U. S. National Museum.
BASSLER, RAY S., U. S. National Museum.
BENEDICT, JAMES E., U. S. National Museum.
BOWDISH, B. S., New York City.
BREWSTER, WILLIAM, Cambridge, Mass.
BUSCK, AUGUST, U. S. Department of Agriculture.
CASANOWICZ, I. M., U. S. National Museum.
CHAPMAN, FRANK M., American Museum of Natural History, New York City.
CLARK, AUSTIN H., Newtonville, Mass.
CLARK, HUBERT LYMAN, Olivet College, Olivet, Mich.
COCKERELL, THEODORE D. A., Colorado Springs, Colo.
COLLINS, G. N., U. S. Department of Agriculture.
COOK, O. F., U. S. Department of Agriculture.
COQUILLET, D. W., U. S. Department of Agriculture.
COUTIÈRE, H., 4 Avenue de l'Observatoire, Paris, France.
CURRIE, ROLLA P., U. S. National Museum.
DALL, WILLIAM HEALEY, U. S. Geological Survey.
DYAR, HARRISON G., U. S. Department of Agriculture.
EVERMANN, BARTON W., U. S. Bureau of Fisheries.
FERNALD, C. H., Agricultural College, Amherst, Mass.
FISH, PIERRE A., Cornell University, Ithaca, N. Y.
FISHER, WALTER K., Paloalto, Cal.
FOWLER, HENRY W., Leland Stanford Junior University, Stanford University, Cal.
GILL, THEODORE, Smithsonian Institution.
GRINNELL, JOSEPH, Pasadena, Cal.
HASSALL, ALBERT, U. S. Department of Agriculture.
HAY, WILLIAM PERRY, Washington, D. C.
HELLER, EDMUND, Leland Stanford Junior University, Stanford University, Cal.
HEMSLEY, W. BOTTING, Royal Botanic Gardens, Kew, England.
HENDERSON, JOHN B., JR., Washington, D. C.
HINDS, WARREN ELMER, Agricultural College, Amherst, Mass.
HOLMES, WILLIAM HENRY, Chief, Bureau of American Ethnology.
HOWARD, LELAND O., U. S. Department of Agriculture.
HOWELL, ARTHUR H., U. S. Department of Agriculture.
HRDLICKA, ALES, U. S. National Museum.
HULST, GEORGE D. (deceased).

- JORDAN, DAVID STARR, President Leland Stanford Junior University, Stanford University, Cal.
- KNOWLTON, FRANK HALL, U. S. Geological Survey.
- KOTINSKY, JACOB, U. S. Department of Agriculture.
- LUCAS, FREDERIC A., U. S. National Museum.
- LYON, MARCUS W., Jr., U. S. National Museum.
- McMURRICH, J. PLAYFAIR, University of Michigan, Ann Arbor, Mich.
- MAIDEN, JOSEPH HENRY, Director Botanic Gardens, Sydney, New South Wales.
- MARLATT, C. L., U. S. Department of Agriculture.
- MARSHALL, WILLIAM B., U. S. National Museum.
- MASON, OTIS TUFTON, U. S. National Museum.
- MAXON, WILLIAM R., U. S. National Museum.
- MAYER, P., Naples Zoological Station.
- MEARNS, EDGAR A., U. S. Army.
- MERRIAM, C. HART, U. S. Department of Agriculture.
- MERRILL, GEORGE P., U. S. National Museum.
- MILLER, GERRIT S., Jr. U. S. National Museum.
- NEEDHAM, JAMES G., Lake Forest College, Lake Forest, Ill.
- NELSON, E. W., U. S. Department of Agriculture.
- OBERHOLSER, HARRY C., U. S. Department of Agriculture.
- PFENDER, CHARLES A., U. S. Department of Agriculture.
- POLLARD, CHARLES L., U. S. National Museum.
- PREBLE, EDWARD A., U. S. Department of Agriculture.
- RATHEUN, MARY J., U. S. National Museum.
- RAVENEL, W. DE C., Administrative Assistant, U. S. National Museum.
- RICHARDSON, HARRIET, U. S. National Museum.
- RICHMOND, CHARLES W., U. S. National Museum.
- RIDGWAY, ROBERT, U. S. National Museum.
- RILEY, J. H., U. S. National Museum.
- ROSE, JOSEPH N., U. S. National Museum.
- SCHUCHERT, CHARLES, U. S. National Museum.
- SIMPSON, CHARLES T., Lemon City, Fla.
- SMITH, HUGH M., U. S. Fish Commission.
- SMITH, JOHN B., Rutgers College, New Brunswick, N. J.
- SNYDER, JOHN OTTERBEIN, Leland Stanford Junior University, Stanford University, Cal.
- STARKS, EDWIN CHAPIN, Leland Stanford Junior University, Stanford University, Cal.
- STEARNS, R. E. C., Los Angeles, Cal.
- STEJNEGER, LEONHARD, U. S. National Museum.
- STILES, CHARLES WARDELL, U. S. Public Health and Marine-Hospital Service.
- STONE, WITMER, Academy of Natural Sciences, Philadelphia, Pa.
- TASSIN, WIRT, U. S. National Museum.
- THAYER, G. H., Monadnock, N. H.
- THOMAS, OLDFIELD, British Museum (Natural History), South Kensington, London, S. W., England.
- ULKE, HENRY, Washington, D. C.
- UNDERWOOD, LUCIEN M., Columbia University, New York City.
- VAUGHAN, T. WAYLAND, U. S. Geological Survey.
- WALCOTT, CHARLES D., Director, U. S. Geological Survey.
- WHITE, DAVID, U. S. Geological Survey.
- WILSON, CHARLES BRANCH, State Normal School, Westfield, Mass.