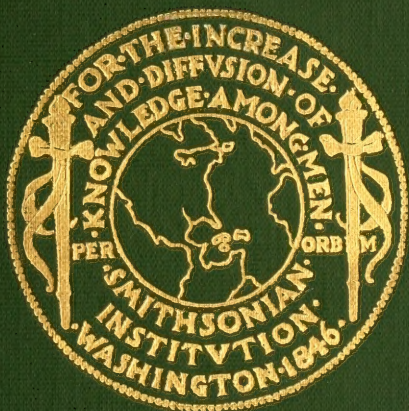


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SMITHSONIAN INSTITUTION
UNITED STATES NATIONAL MUSEUM

REPORT ON THE PROGRESS AND CON-
DITION OF THE UNITED STATES
NATIONAL MUSEUM FOR THE
YEAR ENDING JUNE 30, 1912



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WASHINGTON
GOVERNMENT PRINTING OFFICE

1913

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UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,
Washington, D. C., May 10, 1913.

SIR: I have the honor to submit herewith a report upon the present condition of the United States National Museum and upon the work accomplished in its various departments during the fiscal year ending June 30, 1912.

Very respectfully,

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

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

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REPORT ON THE PROGRESS AND CONDITION OF THE UNITED STATES NATIONAL MUSEUM FOR THE YEAR ENDING JUNE 30, 1912.

By RICHARD RATHBUN,
*Assistant Secretary of the Smithsonian Institution,
in charge of the U. S. National Museum.*

INCEPTION AND HISTORY.

The Congress of the United States in the act of August 10, 1846, founding the Smithsonian Institution recognized that an opportunity was afforded, in carrying out the large-minded design of Smithson, to provide for the custody of the museum of the Nation. To this new establishment was therefore intrusted the care of the national collections, a course that time has fully justified.

In the beginning the cost of maintaining the museum side of the Institution's work was wholly paid from the Smithsonian income; then for a time the Government bore a share, and during the past 36 years Congress has voted the entire funds for the expenses of the Museum, thus furthering one of the primary means "for the increase and diffusion of knowledge among men" without encroaching upon the resources of the Institution.

The museum idea was inherent in the establishment of the Smithsonian Institution, which in its turn was based upon a 10 years' discussion in Congress and the advice of the most distinguished scientific men, educators, and intellectual leaders of the Nation of 70 years ago. It is interesting to note how broad and comprehensive were the views which actuated our lawmakers in determining the scope of the Museum, a fact especially remarkable when it is recalled that at that date no museum of considerable size existed in the United States, and the museums of England and of the continent of Europe were still to a large extent without a developed plan, although containing many rich collections.

The Congress which passed the act of foundation enumerated as within the scope of the Museum "all objects of art and of foreign and curious research and all objects of natural history, plants, and

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

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

"In obedience to the requirements of the charter,¹ which leaves little discretion in regard to the extent of accommodations to be provided, your committee recommend that there be included in the building a museum of liberal size, fitted up to receive the collections destined for the Institution. * * *

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

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

¹ Since the Institution was not chartered in a legal sense, but established by Congress, the use of the word "charter" in this connection was not correct.

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

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

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

In the resolutions which were adopted upon the presentation of the report, a museum was mentioned as “one of the principal modes of executing the act and trust.”¹ The work was to go forward as

¹ *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.

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

Since that early day the only material change in the scope of the Government Museum has been the addition of a department of American history, intended to illustrate by an appropriate assemblage of objects the lives of distinguished personages, important events, and the domestic life of the country from the colonial period to the present time.

The development of the Museum has been greatest in those subjects which the conditions of the past 60 years have made most fruitful—the natural history, geology, ethnology, and archeology of the United States, supplemented by many collections from other countries. The opportunities for acquisition in these directions have been mainly brought about through the activities of the scientific and economic surveys of the Government, many of which are the direct outgrowths of earlier explorations, stimulated or directed by the Smithsonian Institution. The Centennial Exhibition of 1876 afforded the first opportunity for establishing a department of the industrial arts on a creditable basis, and of this the fullest advantage was taken, though only a part of the collections then obtained could be accommodated in the space available. The department or gallery of the fine arts had made little progress, though not from lack of desire or appreciation, until within the past six years, during which its interests have been markedly advanced.

With the completion of the new large granite structure on the Mall, the Museum has come virtually into possession of a group of three buildings, in which there is opportunity for a proper systematic arrangement of its vast and varied collections as well as a comprehensive public installation, and under these favorable conditions it may be considered to have entered upon an era of renewed prosperity and usefulness.

While it is the primary duty of a museum to preserve the objects confided to its care, as it is that of a library to preserve its books and manuscripts, yet the importance of public collections rests not upon the mere basis of custodianship, nor upon the number of specimens

assembled and their money value, but upon the use to which they are put. Judged by this standard, the National Museum may claim to have reached a high state of efficiency. From an educational point of view it is of great value to those persons who are so fortunate as to reside in Washington or who are able to visit the Nation's Capital. In its well-designed cases, in which every detail of structure, appointment, and color is considered, a selection of representative objects is placed on view to the public, all being carefully labeled individually and in groups. The child as well as the adult has been provided for, and the kindergarten pupil and the high-school scholar can be seen here, supplementing their classroom games or studies. Under authority from Congress, the small colleges and higher grades of schools and academies throughout the land, especially in places where museums do not exist, are also being aided in their educational work by sets of duplicate specimens, selected and labeled to meet the needs of both teachers and pupils.

Nor has the elementary or even the higher education been by any means the sole gainer from the work of the Museum. To advance knowledge, to gradually extend the boundaries of learning, has been one of the great tasks to which the Museum, in consonance with the spirit of the Institution, has set itself from the first. Its staff, though chiefly engaged in the duties incident to the care, classification, and labeling of collections in order that they may be accessible to the public and to students, has yet in these operations made important discoveries in every department of the Museum's activities, which have in turn been communicated to other scholars through its numerous publications. But the collections have not been held for the study of the staff nor for the scientific advancement of those belonging to the establishment. Most freely have they been put at the disposal of investigators connected with other institutions, and, in fact, without the help of many such the record of scientific progress based upon the material in the Museum would be greatly curtailed. When it is possible to so arrange, the investigator comes to Washington; otherwise such collections as he needs are sent to him, whether he resides in this country or abroad. In this manner practically every prominent specialist throughout the world interested in the subjects here well represented has had some use of the collections, and thereby the National Museum has come to be recognized as a conspicuous factor in the advancement of knowledge wherever civilization has a foothold.

SOME IMPORTANT RESULTS AND PLANS OF THE YEAR.

Following the establishment of the laboratories and the general collections in the new building interest has centered in the installation of the public exhibitions, and until this large and important task has been essentially completed work in other directions must necessarily be more or less curtailed. It is seldom, if ever, that any museum has been confronted with a similar undertaking of such magnitude and complexity, involving, as it has, the immediate occupation of so extended a floor space, provision for so many and so great a variety of cases, and the preparation, grouping and arrangement of the large number of specimens needed for a popular presentation of the natural history branches of the national collections, which are among the richest in the world. Despite, however, the many difficulties that have been encountered, the work has proceeded rapidly and satisfactorily, following a definite scheme which promises results both intelligible and attractive in character. Only a short time remains before the public will gain access to the entire series of halls, but it should be understood that some of the installations will still be mainly provisional in character, and all will continue subject to additions and improvements, which are inevitable in every museum which keeps abreast of the times.

All of the subjects that have been transferred to the new building were represented in the older exhibitions, but none of them in a manner and few to an extent that was creditable or adequate. This was owing chiefly to the restrictions as to space, which also prevented any concerted action looking to the advance preparation of specimens for the purposes in view. As a whole, therefore, the former exhibition collections furnished scarcely more than a nucleus for those demanded by the conditions imposed by the new building. Whatever they contained that was worthy of being kept on display has been utilized, the remainder being mostly returned to the reserve series but in part distributed to schools and colleges. The planning and development of the new exhibition collections, in view of these circumstances, has been mainly incidental to the occupation of the present quarters, in which alone sufficient room could be obtained for overhauling the material and for much of the ordinary work of preparation. It has been the procedure not to await the complete arrangement of any of the halls before making them accessible to the public, but to open them successively and as speedily as the conditions in each warranted. The public has, therefore, had the

opportunity of seeing much of the work in progress, and for only a very short period has any considerable part of the collections been withheld from view.

The new building was first opened to visitors on March 17, 1910, at which time only the main floor of the north wing was available. In the large central hall were assembled the paintings of the National Gallery of Art, which had been tentatively assigned this place as furnishing better lighting than could be obtained in the older buildings, while the surrounding area contained a temporary arrangement of ethnological groups and objects, which has since been improved and made practically permanent. During the following year, ending June 30, 1911, only the remaining part of the space allotted to ethnology and consisting of the northern sections of the east and west ranges on the same floor was made accessible, but last year much greater progress was shown and additional areas were opened up as follows: The second story of the north wing containing the collections of archeology other than North American; the entire east wing, which in the first story is occupied by the several divisions of paleontology, namely, vertebrate, invertebrate, and plant, and in the second story by mineralogy and applied geology; the eastern section of the east range, devoted to systematic geology; and the north hall in both stories of the west wing, the western section of the west range in the first story, and the entire west range in the second story, in which various biological subjects are installed. At the end of the year, therefore, the only exhibition space remaining closed consisted of the west wing aside from its two north halls, and the second floor of the east range, the former assigned to biology, the latter to North American archeology.

The plans for the biological exhibitions, as far as matured, relate only to zoology. The greater delays with the installations in this department as compared with the other departments have been due to several causes. A much larger proportion of the older collections was found to be undesirable, and in some branches the amount of material required to be discarded was so great that the exhibits are being built up almost wholly anew. Furthermore, practically every zoological specimen designed for exhibition must be subjected to some special form of treatment, which, especially with the higher animals, involves slow and painstaking processes, while with regard to certain groups of aquatic animals it is only recently that the methods of preparation have been perfected to a degree promising the satisfactory presentation of natural colors and effects. Utilizing the best skill obtainable, the work upon these collections has been so energetically pushed, however, that the current year should see the opening of the remaining halls with many striking and noteworthy features.

The general layout of the zoological exhibits, including those in progress, is as follows: Arranged on a faunal basis, the mammals and birds occupy the entire space on the first floor assigned to the department, the former group filling most of the west wing, and the latter beginning there and extending through the western section of the west range, while the reptiles, batrachians, fishes, and invertebrates are provided for in the north and outer halls of the second story of the wing, in which the north hall contains the extensive collection illustrating animal development and anatomy, and especially osteology. In the second story of the west range the western section is devoted to systematic zoology, and the northern section to domestic animals and the faunal collection for the District of Columbia. In this space provision is also made for several special exhibits, including albinism, melanism, and hybridism, which have already been in part prepared.

By the removal of the natural history collections to the new building a large extent of space has been secured for the reorganization and development of the department of arts and industries and for the display on a scale more commensurate with their importance of the methods and results of the applied arts and sciences. Following the erection of the older Museum building in 1881, this department became one of the most prominent in the Museum, only to have a large part of its collections relegated to storage with the increasing demands of the natural history branches. Certain of the subjects, however, have been kept alive, such as the graphic arts, ceramics, medicine, naval architecture, land transportation, electrical and other mechanical invention, measuring devices, and firearms, and in some of these the collections have been greatly enlarged and made distinctively important. Final plans for the other subjects have not yet been definitely formulated, but toward the close of last year the unpacking of the great mass of material that had been in storage was taken up and well advanced. Many of the specimens were found to be more or less damaged, but the greater part can probably be utilized and will furnish a considerable nucleus of historical interest from which the collections can be extended and completed to meet the conditions of the present time. This accomplished, it is proposed that the department shall thereafter keep in touch with the principal changes and improvements in industrial lines.

In March, 1912, the division of textiles, with a curator in charge, was reestablished, and for the present at least it will also have custody of most other vegetable and animal products. Its exhibition series, to be started without delay, will necessarily be extensive and varied, and should appeal as strongly to manufacturers and dealers as to the public. The organization of a division of mineral tech-

nology, which has long been recognized in the Museum classification, though under a different term, will be the next step in the development of the department. Dealing with the useful mineral substances, the processes of manufacture and the resultant products, this division will also cover a wide field of great industrial importance. The older collection, started as early as 1880, embraces much of interest, and during several years a considerable amount of research work was carried on in connection with it. The subject was revived and greatly stimulated by the opportunities afforded at the St. Louis exposition of 1904 for obtaining valuable material, of which 30 car loads, donated by exhibitors, were brought to Washington. Comprising a large number of models of mining plants and machinery, and a great variety of minerals and ores, as well as of finished products, this collection is sufficiently diversified to serve as the basis for a representation of the mining industries in a comprehensive and effective manner. The installation of the material now on hand as far as it is suitable for exhibition will be one of the first moves toward giving the division an established position.

The division of graphic arts, formerly located in one of the courts in the older Museum building, has been moved to the Smithsonian building where its exhibits, illustrating the printing and binding of books, as well as the various processes of engraving, will occupy the public halls on the main floor. The division of history will retain its present conspicuous position in the older Museum building, near the main entrance, to which it has gained title by reason of the popularity of its installations. Consisting mainly of memorials of prominent national characters and events, its collections have, as a whole, proved the most attractive of any to the general visitor. With respect to the other subjects to be provided for in this building, none, with possibly two or three exceptions, has yet been allotted its definite space, nor can a satisfactory subdivision be attempted until such progress has been made with the collections as will serve to indicate their respective needs. As about one-half of the area is already occupied, only as much more remains for the additions still to be made.

One of the most important events of the year, if not in the history of the Museum, was the beginning of Sunday opening to the public, whereby the privileges of the establishment were extended equally to all classes. First advocated by the Secretary of the Smithsonian Institution at least 50 years ago, the means required for the additional heating and watchmen only became available in the provisions made for maintenance since the completion of the new building. This innovation applies for the present only to the new building, with hours from 1.30 to 4.30 o'clock in the afternoon, but its exten-

sion to one or both of the other buildings is in view when their exhibition halls shall have been arranged. On the first date of opening, October 8, 1911, the attendance reached the almost unprecedented figure of 15,467. It fell to 4,570 on the second, to 3,885 on the third, and to 3,280 on the fourth Sunday, with an average for all Sundays of 1,666 visitors as against a week-day average of 693 visitors. There is no doubt, therefore, that the step has been fully justified, and it is hoped that the provision of an additional place to which people may resort on Sundays for instruction and diversion has not been without some moral influence.

OPERATIONS OF THE YEAR.

APPROPRIATIONS.

The maintenance and operations of the National Museum for the year covered by this report, namely, from July 1, 1911, to June 30, 1912, inclusive, were provided for by the following items of appropriation in the sundry civil act approved March 4, 1911:

Preservation of collections.....	\$300,000
Furniture and fixtures.....	175,000
Heating and lighting.....	50,000
Building repairs.....	15,000
Purchase of books.....	2,000
Postage.....	500
Printing and binding.....	34,000
Total.....	576,500

The appropriations made for the year ending June 30, 1913, and contained in the sundry civil act approved August 24, 1912, are as follows:

Preservation of collections.....	\$300,000
Furniture and fixtures.....	50,000
Heating and lighting.....	50,000
Building repairs.....	10,000
Purchase of books.....	2,000
Postage.....	500
Printing and binding.....	34,000
Total.....	446,500

BUILDINGS AND EQUIPMENT.

It has become necessary to report unfavorable conditions regarding certain parts of the roofing of the new building which require to be at once remedied. The copper cresting along the edges of the roofs proves not to have been sufficiently well secured in the beginning, and during a heavy windstorm several hundred feet of it were torn loose and blown completely over. The repairs, which were made with as little delay as possible, comprehended a different method of fastening, supposed to be entirely stable, and with the view of preventing further damage of this character it is proposed to extend this improvement to all parts of the cresting. The gutters also have given serious trouble, due to the extensive piercing or cracking of their

lining, causing many leaks, and experiments have been commenced looking to the replacement of the copper with tin, which experience has shown to be much better suited to this purpose. The painting of the interior plastered walls and ironwork of the new building authorized by a special appropriation approved June 25, 1910, was completed early in the year, the last important item being the finishing of the south pavilion and rotunda.

While the older Museum building is of a substantial character, and its walls and roofs, the latter having been largely replaced in recent years, are, as a whole, in good condition, the building is in need of extensive renovation after a service of over 30 years, during which it was given only a moderate amount of attention in this respect. As a preliminary step in this direction, all of its many windows were thoroughly overhauled and repaired during the year, and their exterior woodwork was repainted. The outside of the building also received many minor repairs, and near the close of the year the remodeling and refurbishing of the toilet rooms, which had reached a very unsightly and insanitary condition, were begun. Other interior work performed was mainly of the nature of repairs to floors, walls, and ceilings.

In the Smithsonian building a beginning was made toward the renovation of the windows, which are largely worn out and to a considerable extent in such a dilapidated condition as to be in danger of collapse during any heavy storm. The so-called stable building, mainly used for preparators' shops, received a new tin roof.

The mechanical plant was operated during only 10 months of the year, having been closed down in July and August to permit of the overhauling of the boilers and engines. This arrangement was found to be economical as well as advantageous, since the electric current needed for lighting and power could be purchased during that period at an exceptionally low rate and the leaves of absence due the members of the force could be mainly taken at the same time. The consumption of coal amounted to 3,175 tons for the year, and the generation of steam for heating purposes extended from October 18, 1911, to May 18, 1912. The cement floor of the large engine room which had been the source of a fine dust that settled upon the machinery and even penetrated into the bearings of the engines and pumps, and which also proved uncomfortable for the men working about the plant, was covered with linoleum.

Three wheeled Kanawha chemical fire engines were added to the fire-fighting apparatus in the new building, being located, respectively, on the ground, second, and third floors. The electric lighting system, by the introduction of appropriate fixtures, was extended to the skylighted sections of the east and west wings, the picture gal-

lery, the balcony ceilings in the south pavilion, and the outer approaches to the north entrance.

The principal expenditure under the appropriation for furniture and fixtures was for exhibition cases, of which 550 were added to the equipment. The other more important additions of furniture comprised 491 storage cases and pieces of laboratory furniture, 263 pieces of office and miscellaneous furniture, 3,205 unit specimen drawers of wood, 500 insect drawers, and 1,842 miscellaneous specimen drawers. The greater part of the furniture was obtained on contract and was constructed to meet special requirements, although a large amount of work, including much of a miscellaneous character, was done in the Museum shops. Awnings were provided for all of the windows in the ground and third stories except on the north side of the building, and experiments were continued with reference to devising a form of curtain for the windows in the exhibition stories that could be handled satisfactorily. The ground glass in these windows has been found not to afford adequate protection on bright days for the colors of specimens exposed in the exhibition cases, and the problem of introducing movable shades is rendered difficult by the large size of the windows in conjunction with the fact that each contains two ventilating openings. Less trouble has been encountered in providing cloth screens for the several skylights to subserve the same purpose.

According to the inventory of Museum property made at the close of the year there were on hand at that time 3,239 exhibition cases, 6,456 storage cases and pieces of laboratory furniture, 3,021 pieces of office and miscellaneous furniture, 36,106 unit specimen drawers of wood, 4,712 unit specimen drawers of steel, 7,339 insect drawers and 15,090 miscellaneous specimen drawers and boxes of various sizes.

COLLECTIONS.

The permanent acquisitions for the year embraced approximately 238,072 specimens, of which 5,956 were assigned to the several divisions of the department of anthropology; 168,595 were biological and 63,521 geological and paleontological; and 45 consisted of paintings, engravings, and sculpture presented to the National Gallery of Art. The loans comprised a single large collection of fossils, numbering about 75,000 specimens, besides 1,217 objects accepted for exhibition in the department of anthropology, and 56 paintings and pieces of sculpture for the National Gallery of Art. A detailed list of the accessions will be found in the latter part of this report.

DEPARTMENT OF ANTHROPOLOGY.

Ethnology.—The most important accession of the year consisted of a collection of relics of the southern Alaskan Indians assembled by ex-Gov. John Green Brady, and purchased and generously presented

to the Museum by Mrs. E. H. Harriman, of New York. It comprises some 600 objects illustrating various activities of the tribes and is, perhaps, more comprehensive than any other single collection that has been received from that region. Among the specimens are wood carvings designed for ceremonial and economic use and examples of the tools with which they were made, stone mauls, mortars, pestles, adzes, fishing and hunting implements, clubs, daggers, armor, carvings in slate, wood and horn spoons, boat models, mats, basketry, drums, costumes, and games. A collection of much interest, obtained for the Museum in Panama by Mr. H. Pittier, of the Department of Agriculture, in the course of botanical explorations, includes basketry, costumes, bows and arrows, a drum, examples of bark cloth, and a shell hammer employed for making such cloth. A noteworthy loan from Mr. Hugh Thomas Carter, of Washington, contains head-dresses, buckskin shirts, leggings, moccasins, rattles, pipes, basketry, drums, flutes, etc., of the northern Plains Indians, and the full costume of a Greenland woman.

Parts of costumes, ornaments, pipes, and other articles of the Ute Indians were received as a bequest from Miss Fannie A. Weeks, for many years a teacher in the Indian service. An Oto Indian head-dress, and a flute, dipper, hairbrush, and bald eagle wing from an Oto medicine man's outfit; a rare old Klamath Indian headdress and hair wrappings of otter skin; pipes, carved spoons, and a chipped flint knife from the Hupa Indians; and a Persian bow, a Spanish-American tapadero, and two South Sea Island war clubs, were obtained in exchange from Mr. E. W. Keyser, of Washington. Twenty-two paper squeezes of inscriptions on El Morro or "Inscription Rock," western New Mexico, being historical records of the visits of the Spanish conquerors, collected by Mr. F. W. Hodge, were transferred by the Bureau of American Ethnology. Two pieces of rare basketry, a globular open-work vessel of willow, and a flat fan-like tray closely woven, from the Shoshoni Indians of Idaho, were presented by Brig. Gen. Timothy E. Wilcox, United States Army (retired); and models representing a Porto Rican native house and numerous articles of furniture and domestic implements belonging to it were received as a gift from Mrs. John R. Garrison, of Washington.

The installation of the exhibition collections was actively carried on and provisionally completed to the extent that the furniture required had been received and the work on special preparations had been advanced. Many paintings of Indians from the Catlin collection and other sources were hung, and a large series of transparencies of Indian subjects was placed in the windows of the halls. The totem poles and other carvings and paintings of the northwest coast tribes, with the exception of the Haida house front and its associated

totem pole, were installed at the south end of the middle hall, where they make a striking display. In the arrangement of the collections from the Pueblo region it was found advisable to separate the antiquities from the ethnological material proper, with which they have heretofore been associated, and they have been transferred to the division of prehistoric archeology. The construction of lay figure groups progressed rapidly, and seven full-sized groups of this character were added to the exhibition.

The exhibits of this division are assembled primarily by geographical areas, and the peoples and their cultures, so far as represented, may thus be studied in much the same order that the peoples themselves might be visited by the traveler. Under these heads the classification is by nations or tribes, and by special exhibition units illustrating culture as follows: Tribal arts, synoptic series of artifacts, family groups, industrial groups, individual figures, pictorial exhibits, and sculptural exhibits. Of the 16 full-sized lay figure groups that have been planned the following 12 are finished and on view, namely, the Eskimo, Chilkat, Hupa, Cocopa, Zuni, Sioux, Virginia, Tehuelche, Samoan, Negrito, the arrow makers, and the snake dance.

The reserve collections received due attention, but their final systematic arrangement has been deferred until practically all of the specimens required for exhibition have been removed. The material is, however, in better condition and much more accessible than at any previous time, and less trouble is experienced from insect pests, owing undoubtedly to the fact that the metal storage cases and drawers now employed furnish no breeding places for them.

The curator of the division, Dr. Walter Hough, continued his study of the culture history of the upper Gila River and the Salt River, based on the collections of the Museum-Gates expedition of 1905 and the Museum exploration of 1903, together with all other material from the same region contained in the Museum, and expects to complete his work on this subject during the current year. Progress is also reported in his researches on fire making and illumination. The division was visited, for the purpose of securing information, by a number of ethnologists, among whom were Dr. H. J. Spinden, of the American Museum of Natural History, who studied the designs on modern Pueblo pottery, and Mr. C. M. Barbeau, of the Geological Survey of Canada, who examined the patterns on the moose hair and quill work specimens of the old Hurons and Iroquois.

Prehistoric archeology.—Especially noteworthy among the additions was a collection of stone, bone, and pottery objects from the cemetery of the ruined pueblo of Kwasteyukwa, west of Jemez Hot Springs, N. Mex., obtained during excavations by the joint expedition of the Bureau of American Ethnology and the School of American

Archaeology of the Archaeological Institute of America at Santa Fe, in the summer of 1911, and received by transfer from the former. An important loan from Mrs. Zelia Nuttall, of the City of Mexico, consisted of a large series of terra cotta spindle whorls, gathered during a nine years' residence in Mexico, chiefly from Texcoco and Cholula, the centers of the pottery industry in the Valley of Mexico, and said to be the work of women potters. The collection is unequalled in its illustration of this very artistic and interesting branch of ancient Mexican handiwork. Several Toltec clay ornaments, vessels, molds, and miniature human heads, from San Juan Teotihuacan, Mexico, were presented by Señor Don Leopoldo Batres, of the City of Mexico; and a number of projectile points and other articles made experimentally of flint and glass, together with the bone and stone tools by means of which they were fashioned, were received as a gift from Mr. Arthur W. Cline, of Philadelphia.

The work of the division was mainly in continuance of the sorting, classification, arrangement, and labeling of the collections in their new quarters, and the installation of the exhibition series, which was well advanced at the close of the year. With the progress of this work the head curator of the department of anthropology, Mr. William H. Holmes, carried forward his descriptive and illustrative work for embodiment in the handbook of archeology which has been in course of preparation for some years. The opportunity for comparison and study was exceptional and the entire body of the collections for the first time passed fully under scientific scrutiny. Researches were also carried on in the division by a number of students, among whom were Mr. H. J. Browne, of Washington, who is preparing a paper on the stone collars of Porto Rico; Prof. W. Rehlen, of Nuremberg, Germany, who is investigating the relation of American stone implements to the Paleolithic implements of Europe; and Mr. Charles C. Moore, of Lyman, England, who is making similar comparisons, with reference to the stone implements of Great Britain.

Historic archeology.—The carving of the column capitals for the portico of the new Museum building was based on a plaster copy, made from molds in the Louvre at Paris, of one of the capitals of the Temple of Jupiter Stator, presumably the same as the Temple of Castor, in the Forum at Rome, Italy, which was erected in 496 B. C. and rebuilt at the beginning of the second century of the present era. This replica of what is regarded as the most beautiful known example of a Roman Corinthian capital came into the possession of the Museum during the year as a gift from the architects of the building, Messrs. Hornblower and Marshall. To Mrs. Julian James, of Washington, the division is indebted for a number of interesting objects, generously presented, including two Græco-Italian

vases dating from the fourth or third century B. C., one a hydria embellished with an outline drawing of a temple, the other a small-ribbed amphora with traces of painting; an Egypto-Roman bronze statuette, probably representing Antinous, the page and favorite of Emperor Hadrian; a statuette of Hercules, and one apparently of an athlete with a double face; and a fine Egyptian scarab, engraved with two sphinxes couchant in reversed position. A finely written Arabic manuscript in a tasteful oriental binding, containing passages from the Koran and short prayers, was donated by Mr. James Hunt, of Washington.

The following collections were installed for exhibition as far as the limitations of space permitted, and were catalogued and labeled: A selection of Etruscan potteries, comprising the pictured and molded (Arretine) vases, the ancient terra cotta statuettes, the antiquities from the sites of ancient Troy and Armenia, the greater part of the ancient bronzes, potteries, and glazed and molded tiles from Turkestan, dating from the eleventh and twelfth centuries, and Roman terra cotta lamps and pieces of mosaic.

Physical anthropology.—Two of the most important acquisitions of the year consisted of valuable series of anatomical specimens received in exchange from Prof. David Paul von Hansemann of the Rudolf Virchow-Krankenhaus, Berlin, Germany, and from the College of Physicians and Surgeons of New York through Prof. George S. Huntington. A number of interesting crania and other bones from mounds and ancient graves in Louisiana and Arkansas were presented by Mr. Clarence B. Moore, of Philadelphia; and several Iroquois skulls, together with a lower jaw, were obtained from the Provincial Museum, Toronto, Canada, in exchange. Human anatomical specimens were contributed by Dr. D. S. Lamb of the Army Medical Museum, Dr. Thomas C. Smith and Dr. S. R. Karpeles, all of Washington.

Considerable progress was made in cleaning, repairing, cataloguing, and arranging the large skeletal collections from the Pueblo region and from Peru, and in the preparation of the scientific exhibits which, though by no means complete, have already attracted the attention of many students. The exhibition series which is gradually taking shape comprises two classes of specimens, one designed for the use of experts and provided for in the laboratory, the other of popular interest and to be installed in one of the public halls.

In addition to the proof reading of his memoir on the Egyptians and of his paper on early man in South America, the latter of which was completed during the year, the curator of the division, Dr. Aleš Hrdlička, continued his inquiries on the skull capacity of the American aborigines, and reported briefly on skeletal material

from the mounds of Arkansas, collected by Mr. Clarence B. Moore, and from the vicinity of Richmond, Va. Two important investigations were commenced, one comprehending a series of measurements and observations on white people of the third and later generations in America; the other, to be carried on in conjunction with the authorities of the Panama-California Exposition at San Diego, being a comparative study of the development of the child in different races. Prof. J. S. Foote, of Omaha, Nebr., continued his microscopical studies on the human femur, the object of which is to determine racial, age, and sex differences as displayed in the minute structure of the bone. Dr. George F. Eaton and Dr. George G. MacCurdy, of Yale University, examined the human bones from Peru in the collection of the Museum for the purpose of instituting comparisons with skeletal remains from other Peruvian sources.

Mechanical technology.—The additions to this division included many objects of value. Of great historical interest is the Wright biplane acquired by the United States Government in 1909, being the first aeroplane to be purchased and operated by any Government. It was deposited by the Department of War. Substantially like the machine built by the Wright brothers and successfully tested at Kitty Hawk, N. C., in 1903, it embodies some improvements. The two main planes measure 37 feet long by 6 feet wide, and the elevating planes 15 feet long by 2 feet wide in the middle, while the motive power is supplied by a 4-cylinder, 30-horsepower gasoline engine. The official trials were made by Mr. Orville Wright at Fort Myer, Va., in the summer of 1909, the duration test, with Lieut. Frank P. Lahm, United States Army, as a passenger, occurring on July 27, and the speed test, with Lieut. Benjamin D. Foulois, United States Army, as a passenger, on July 30. Subsequently officers of the Signal Corps of the Army were instructed in its management at College Park, Md., and the following winter it was taken to San Antonio, Tex., where it remained in almost constant use for about 12 months. It received some repairs at the factory of the Wright brothers before its transfer to the Museum.

Another noteworthy historical contribution consisted of a zenith telescope deposited by the Coast and Geodetic Survey, by which it was purchased of Troughton & Simms in London in 1847, though embodying certain modifications made in 1867. This portable instrument for determining latitudes superseded the zenith sector, introduced in England in 1735 and used up to about 1845, when the zenith telescope was devised and put into practical operation by Capt. Andrew Talcott, of the Corps of Engineers, United States Army. It has been universally employed since that time. From Mr. Claude L. Woolley, of Baltimore, Md., to whose generosity the Museum was

already indebted for eight examples of these instruments, there were received as a gift three aluminum sundials, one calculated for the latitude of Santiago, Chile, one for the Equator, and a vertical form for the latitude of Moscow, Russia; and also the model of a sundial with a signaling gun, calculated for the latitude of New Plymouth, New Zealand, the dial of which is graduated in Roman numerals and inscribed "Sol est gloria mundi." The cannon, $3\frac{1}{2}$ inches long, is fitted with an adjustable aluminum frame carrying a glass lens for focusing the sun's rays on the powder in the touchhole. Important donations, received from the makers, were a comptometer or calculating machine made by Mr. D. E. Felt in 1886 and used by Joseph S. McCoy, actuary of the United States Treasury, from 1889 to 1909, a comptograph or adding-printing machine made by Felt & Tarrant, and a modern commercial comptometer made by the Felt & Tarrant Manufacturing Co., of Chicago, Ill., in 1912.

The additions to the collection of firearms were many and valuable. The War Department deposited 45 rare military muskets, rifles, and carbines of both Government and private manufacture, among them being numerous types used by the United States Army; one Savage and two Colt automatic pistols, including the latest Colt military model, fitted with a detachable magazine and adopted for the Army on March 9, 1911; and a Krag-Jørgensen rifle, model of 1898, made at the Springfield Armory and used in the Army prior to the introduction of the improved Springfield magazine rifle. A selection of 16 guns was contributed by the Winchester Repeating Arms Co., of New Haven, Conn., as an addition to the exhibit of arms made by that company and its predecessors, which now comprises 29 examples illustrating the development of an important class of military and sporting weapons from 1854 to the present time. Capt. J. R. R. Hannay, United States Army, placed in the Museum as a loan a collection of rifles and shotguns, small cannon of Spanish make, and knives and swords, obtained by him while on duty in the Philippine Islands.

The model of a Morse telegraph instrument known as the "harp register," presented by Dr. James Johnson Clark, of Washington, represents a form made in 1846-47 by William Clark & Son, of Philadelphia, the harp design being by Mr. James D. Reid. This was the first Morse register in which the different parts of the mechanism were supported in solid side plates. Other noteworthy acquisitions were a standard Victor talking machine, model of 1911, designated as the "Victor-Victrola, Style IX," presented by the Victor Talking Machine Co., of Camden, N. J.; 8 typical watch movements of American and foreign makes, donated by Mr. W. E. Emory, of Washington; models of a Pullman palace car and of a walking-beam

steamboat engine, lent by Messrs. W. B. Moses & Sons, of Washington; and 16 pieces of apparatus devised and used by Mr. Emile Berliner, of Washington, in his early experiments with the gramophone, deposited by Mr. Berliner.

The extensive collections in this division are in excellent condition and the material generally is readily accessible. The more important accessions of the year were installed in the public halls, and some parts of the exhibition series were revised. Further changes in this direction are contemplated in connection with the rearrangement of the exhibition halls in the older building, made necessary by the removal of the natural history collections to the new building. As a result of visits by the curator of the division, Mr. George C. Maynard, to several arsenals, navy yards, armories, arms companies, and public and private collections, many additions were obtained or arranged for, and much valuable information desired for the records of the division was secured.

Ceramics.—This division received only one permanent accession, which consisted of a vase and a bowl of rare and beautiful terra cotta ware from northern Africa, the gift of Mrs. Julian James. The more noteworthy loans were two in number. The first, containing 21 pieces of porcelain and other pottery from China, Korea, and Japan, besides bronzes and brass ware from India, Tibet, China, and Japan, was from Miss Eliza R. Seidmore, of Washington, and was added to her interesting collection which has been on deposit in the Museum for some years. The other, comprising 6 examples of excellent Chinese porcelain, was received from Maj. Henry S. Greenleaf, of the Medical Corps, United States Army.

The announcement is made with much regret of the withdrawal from the Museum during the year of the large and very valuable collection of Chinese porcelains belonging to Mr. Alfred E. Hippiusley, of London, which had formed the chief feature of the ceramic exhibition since 1887. Assembled by Mr. Hippiusley during a long term of service as a commissioner of the Imperial Maritime Customs of China, it has become widely known through a descriptive catalogue by the owner, published by the Museum some years ago.

Graphic arts.—The principal additions to this division consisted of material desired for exhibition in the section of photography. Among them were one of the latest motion picture cameras deposited by Mr. C. Francis Jenkins, of Washington; several large carbon prints presented by A. W. Elson & Co., of Boston, Mass.; 31 enlarged photographs donated by the Eastman Kodak Co., of Rochester, N. Y.; and a very fine old silver print of Col. William Louis Schley, United States Army, contributed by Mr. De Lancey Gill, of Washington.

A complete revision of the collections of the division, a large part of which had been in storage, was started at the beginning of the year, but owing to the overcrowded condition of the northeast court in the older building, which had long been utilized for this subject, the work was commenced in the gallery of the south hall. Later in the year, however, the entire division, with the exception of the section of photography, was moved to the Smithsonian building, where the exhibition series are being installed in the central and two western halls on the main floor. While the final arrangement of the collections is retarded by the necessity of awaiting better case provisions, this has not prevented the admission of the public. The classification comprehends a historical and a technical series of engravings of all kinds, illustrations of bookbinding, and the history of printing. The division is in charge of Mr. Paul Brockett, assistant librarian of the Smithsonian Institution, as custodian.

The installation of the collection illustrating the history, methods, and achievements of photography in the gallery of the northwest court of the older building was continued with good progress during the year, Mr. Thomas W. Smillie, custodian of the section and photographer of the Museum, giving such time to it as could be spared from his other duties. As explained in the report of last year, the collection is of exceptional value and interest, being unequaled by any other of a similar character in public or private possession.

History.—The division of history was richly favored during last year, and it is gratifying to note that an unusually large proportion of the accessions were permanent. Standing conspicuously in the lead was the transfer to the National Museum of all the essential parts of the extensive collections composing the widely-known museum of the Post Office Department. The most important feature of this notable acquisition is the practically unrivaled series of postage stamps, stamped envelopes, and post cards, representing essentially every issue of the United States and foreign countries since the commencement of the present postal system, about the middle of the nineteenth century. Besides these are many paintings, photographs, models, etc., relating to the history of mail transportation and of the postal system in this country, and about 1,000 objects from the Dead Letter Office, illustrating the great variety of articles which, through misdirection or other cause, fail to reach their intended destination.

Of exceptional interest is a collection of memorials of Peter Gansevoort, jr., brigadier general, United States Army; of his eldest son, Herman Gansevoort, colonel, Sixty-third Regiment, New York State Militia; and of his grandson, Henry S. Gansevoort, brevet brigadier

general, United States Volunteers, donated by the granddaughter of the first named, Mrs. Abraham Lansing (née Catherine Gansevoort), of Albany, N. Y. It includes military and civil costumes, a sword and a folding camp cot, used by Gen. Gansevoort when a colonel in the Continental Army during the War of the Revolution, in which he attained distinction: a miniature painted on ivory representing him in the Continental uniform and with the badge of the Society of the Cincinnati, of which he was an original member; a Lowestoft china plate from a dinner service which he used during the period of the Revolution; a sword and scabbard with brass-mounted buckskin belt, presented to him by Daniel D. Tompkins, governor of the State of New York, and said to have belonged to the Count de Rochambeau; and one engraved portrait and three autograph signatures; two swords with scabbards, carried by Col. Herman Gansevoort, in 1817, and an autograph letter written by him; a number of uniforms and swords used by Gen. Henry S. Gansevoort during the Civil War, an autograph letter, and two engraved portraits showing him in military costume.

Six gold and 13 silver medals presented to the late Commander Matthew Fontaine Maury, United States Navy, by foreign sovereigns and governments in recognition of his eminent services to the sciences of geography and navigation constituted another notable gift. They were received from his descendants through a daughter, Mrs. Mary Maury Werth, of Richmond, Va., and are as follows, the name of each donor being also given: Gold medal of the Exposition Universelle of 1855, from Miss Nannie Belle Maury; gold medal presented by the King of the Netherlands in 1855, from Mrs. Sophia Bruce Maury; gold medal presented by the Senate of the Republic of Bremen in 1855, from Mrs. Rose Robinson Maury; gold medal presented by Napoleon III in 1859, from Mrs. Lucy Maury Van Doren; Humboldt gold medal, 1865, from Mrs. James Parmelee; the Austrian great gold medal of science, 1868, from Mr. Matthew Fontaine Maury Werth; and 13 silver medals presented by Pope Pius IX in 1860 and commemorating notable events during his pontificate, from Mr. Dabney H. Maury.

For the gift of the following memorials of the distinguished American physicist, Prof. George Frederic Barker, the Museum is indebted to Mrs. Barker: The decoration and diploma of commander of the National Order of the Legion of Honor of France, and nine other diplomas conferred by various educational institutions and scientific societies in recognition of Prof. Barker's contributions to science; two silver, six bronze and one aluminum medal presented in testimonial of his scientific achievements; two scholastic hoods, one obtained when receiving the degree of Doctor of Science from the

University of Pennsylvania in 1898, the other when receiving the degree of Doctor of Laws from McGill University in 1900; a photograph by Gutekunst, and an autograph card.

Samuel Sullivan Cox, for a long period Representative in Congress and at one time American Minister to Turkey, and Mrs. Cox are represented by three important testimonials donated in their name by Mrs. Elizabeth Hardenbergh, sister of the latter. They consist of two decorations, one of the Order of the Medjidieh, the other of the Order of the Shefakat, conferred, respectively, upon Mr. and Mrs. Cox by the Sultan of Turkey, Abdul Hamid II; and of a silver memorial vase presented to Mrs. Cox by the members of the Life Saving Service of the United States in recognition of the successful efforts of Mr. Cox in establishing and maintaining that service.

Several memorials of Commander Harry Herbert Hosley, United States Navy, received from Mrs. Hosley as a gift, are as follows: A dress sword with scabbard and belt, presented to Commander Hosley by members of the Larchmont Yacht Club on his return from towing the dry dock *Dewey* from Chesapeake Bay to the Philippine Islands, and four official cablegrams of congratulation on the successful completion of this task; a bronze service medal awarded him by the United States Government, and a gold and enameled badge of the Naval Order of the United States. The sword and cablegrams had previously been in the Museum as a loan from Mrs. Hosley.

Other noteworthy contributions of relics were the wedding dress worn by Julia Ward on the occasion of her marriage to Dr. Samuel Gridley Howe, on April 23, 1843, comprising the waist, skirt, and shawl of embroidered muslin, and a long Brussels lace veil, the gift of Mrs. Howe's daughter, Mrs. Maude Howe Elliott; the United States Army uniform coat worn by Gen. George A. Custer at the ceremony of his marriage, February 9, 1864, and a buckskin gauntlet and coat and a helmet used by him when lieutenant colonel of the Seventh Cavalry, United States Army, while campaigning against the Indians of the western plains, presented by Mrs. Elizabeth B. Custer; a crayon portrait of Rear Admiral Andrew H. Foote, United States Navy, and three oil paintings by a Chinese artist depicting the engagement between the United States ships, commanded by Admiral Foote, and the barrier forts near Canton, China, in 1856, presented by Mrs. Kate N. Foote; a necklace, two brooches, and two pairs of earrings made of hair mounted in gold, belonging to a member of the Alsop family of Connecticut during the latter part of the eighteenth century, donated by Miss Mary Alsop Cryder, of Washington; and a mahogany armchair upholstered in green silk, owned and personally used by the Marquis de Lafayette near the close of his life, the gift of the Marquise Arconati-Visconti, of Paris, France.

A British military uniform vest of crimson cloth, a silk embroidered vest and belt of the colonial period, and a brass gorget bearing the British coat of arms, worn by Adam Stephen, major general of the Continental Army, when lieutenant colonel in the British colonial forces during the French and Indian War, 1755-1763, were received by transfer from the Library of Congress; and two series of medals representing the various types of badges, ribbons, bars, and pins awarded by the United States Government for efficiency while in the service, one for the Army, the other for the Navy and Marine Corps, were deposited by the Departments of War and of the Navy, respectively.

Among the donations of paintings were several of historical interest and value. From the municipality of Saint-Dié-des-Vosges, France, were received portraits in oil of Mathias Ringmann, Martin Waldseemuller, and Vautrin Lud, that of the first named being by P. Descelles, the other two by R. Duvernoy. Their presentation, which was made to the United States Government through the American ambassador to France, Mr. Robert Bacon, was one of the events connected with a celebration at Saint-Dié on July 15 and 16, 1911, commemorative of the naming of America. These three geographers, belonging to the Gymnasium Vosagense, were editors of *La Cosmographiae Introductio*, in which publication, printed at Saint-Dié April 25, 1507, appeared the first designation of the new continent in honor of Amerigo Vespucci, the prior discovery by Columbus not having become known to these men. The name was subsequently used on the chart edited at Saint-Dié in 1508 and engraved by Waldseemuller. The celebration took place on the four hundredth anniversary of the death of Ringmann, which occurred in 1511. Accompanying the paintings were four photographs, entitled *La Fête du Baptême de l'Amérique*, *Salon du Craduel et de la Cosmographiae Introductio*, *Vue générale de Saint-Dié*, and *Le Cloître de Saint-Dié*.

To the Swedish American Republican League of Illinois the Museum is indebted for two oil paintings, one a portrait of John Ericsson, by Arvid Nyholm, the other entitled *Combat between the Monitor and the Merrimac*, by Henry Reuterdaahl, which were executed in commemoration of the memorable engagement in Hampton Roads, March 9, 1862. The presentation was made at the Smithsonian Institution on March 23, 1912, in the presence of a delegation from the league, by Mr. Henry S. Henschen, acting consul of Sweden at Chicago, who asked the acceptance of the paintings as coming from the Swedish Americans of Illinois as a tribute of respect and affection for the memory of John Ericsson. A brief address of acknowledgment and appreciation was made by the Secretary of the Institution.

From the Department of the Navy two oil portraits were obtained by transfer. One is of Commodore Oliver Hazard Perry and was painted in 1815 by John Wesley Jarvis for Mr. W. B. Morse, of New York; the other is of Commodore Thomas Macdonough and is supposed to be by the same artist.

The numismatic collection was increased by two important additions. The first consisted of 312 pieces representing the coinage of Poland from the time of Vladislas Jagiello, in 1386, to 1840, besides two medals relating to notable events in the history of Poland, and was presented by the Polish National Alliance of the United States of North America, through its board of directors and president, Mr. M. B. Steczynski, of Chicago, Ill. In accordance with the act of donation of the society, of which an illuminated copy accompanied the collection, the contribution was made "in the name of about 100,000 men and women of Polish extraction now citizens of the United States as a token of loyalty to this country and in commemoration of the friendship between the Republic of Poland and the United States in the second half of the eighteenth century as expressed in the participation of Kosciusko and Pulaski in the War of the American Revolution." The other collection, a gift from Mr. Frank N. Meyer, of the Department of Agriculture, comprised 297 antique copper coins of Asia, besides 88 coins of silver, nickel, and copper from other foreign sources.

The loans to the division were, like the gifts, both varied and noteworthy. The most prominent consisted of many memorials of the late Rear Admiral Winfield Scott Schley, United States Navy, deposited by Mrs. Schley, Capt. T. Franklin Schley, United States Army, Mrs. R. M. Stuart Wortley, and Dr. Winfield Scott Schley, and included a number of gold and jeweled medals and badges, as well as other objects, presented to Admiral Schley in recognition of achievements in the naval service from 1861 to 1901. Notable among these are the gold medal of the Humane Society of Massachusetts, and a gold watch and chain from the State of Maryland, in acknowledgment of his services as commander of the expedition which, in 1884, rescued the survivors of the Greely Arctic expedition at Cape Sabine, Grinnell Land; a gold medal given by the King of Sweden and Norway in 1890, when commanding the U. S. S. *Baltimore*, which in that year conveyed the remains of John Ericsson to Sweden; and the following testimonials for services during the Spanish-American War: A gold medal set with diamonds, from the State of Maryland; a gold medal set with diamonds and rubies, from the Junior Order of United American Mechanics of the State of Maryland; a gold-mounted and jeweled sword with dress belt, from the people of the State of Pennsylvania; a silver tea set from admirers in the State

of Maryland; silver loving cups from the citizens of Atlanta, Ga., the city of Dallas, Tex., and the Chamber of Commerce and citizens of Knoxville, Tenn.; a large silver centerpiece, consisting of a basin, vase, and candelabra, from the citizens of Memphis, Tenn.; and 7 pieces of silverware, part of a service of 69 pieces, made from coin recovered from the wreck of the Spanish cruiser *Cristobal Colon*, from various admirers. The collection also contains two jeweled and gold-mounted swords, two loving cups, and a number of gold and jeweled badges, from fraternal organizations with which Admiral Schley was affiliated; two bronze medals on ribbons, from the United States Government for services during the Civil War and the Spanish-American War; a bronze statuette, presented by the citizens of Binghamton, N. Y., on the occasion of his visit to that city in 1902; a bronze statuette from the French Society for Marine Steam Transportation, in recognition of services in saving the French steamer *Bretagne* from disaster off the coast of Brazil, while in command of the South Atlantic Squadron in 1900; a commodore's pennant flown on the U. S. S. *Brooklyn* during the battle of Santiago, July 3, 1898; and his service sword and scabbard and two uniforms.

To Mrs. John Cropper, of Washington, the Museum is under obligations for the loan of many interesting objects, including oil paintings and furniture. Among the paintings are a portrait of Brig. Gen. John Cropper, of the Virginia State Militia, who served with distinction as colonel in the Continental Army during the War of the Revolution, and one of his wife, Catherine Bayly Cropper, both executed by Charles Willson Peale in 1792; portraits of Mr. and Mrs. John Cropper, of Washington, painted by the Italian artist Michele Gordigiani in 1883; the historical picture by James Peale, entitled "Captain Allan McLane and the British Dragoons," illustrating an incident near Frankford, Pa., during the War of the Revolution, when Capt. McLane, on being attacked by three British dragoons, killed one, severely wounded another, and compelled the third to retire; and a portrait, as passed midshipman, of Allan McLane, who served in the United States Navy from 1831 to 1852, attributed to Thomas Le Clear. The principal articles of furniture are as follows: A large mahogany table used in the White House from about 1835 to 1905; a lady's French dressing table of the time of Louis XV; two armchairs of French make of about the period of the First Empire, once owned by James Monroe; a French sofa and clock of the period of the First Empire; an English mahogany four-poster bedstead of the latter half of the eighteenth century; an English sideboard, Sheraton style, and mahogany wine chest of the last quarter of the eighteenth century; a mahogany chair, formerly the property of Alexander Hamilton; two mahogany armchairs, once

belonging to the historian George Bancroft; a pair of brass-headed andirons, a brass fire fender, a pair of bronze lamps, a pair of French gilt candelabra, and six pieces of cut glass, all of the early part of the nineteenth century; and many other household articles.

Another important loan, made by the Misses Long, of Washington, consists of memorials of the Bradford family of New England, formerly owned by Alice Southworth Dearth, a descendant of Gov. William Bradford, of the Massachusetts (Plymouth) colony, and Lady Alice Southworth. It comprises, among other things, 28 pieces of silverware, 54 pieces of china, including old English, colonial, and Davenport ware, a hand-painted fan, and various articles of wearing apparel, laces, veils, and jewelry used during the colonial period; an invitation to Maj. William Bradford, of the Continental Army, to dine with Gen. Washington, written about 1779; a letter to Maj. Bradford from Col. Alexander Scammell, of the Continental Army, dated in 1779; a letter to Maj. Bradford from Golden Dearth, dated in 1807, requesting permission to pay his addresses to the former's daughter, Eliza Bloom Bradford; the commission of Golden Dearth as captain, with the rank of lieutenant colonel, in the Rhode Island Militia in 1820; and many miscellaneous articles of domestic use in the Bradford family during the eighteenth and nineteenth centuries. The collection also contains a set of antique fire irons of the early part of the eighteenth century; an oil sketch of the old Bradford house near Austerfield, England; two silver dessert spoons which belonged to Eliza Bloom Bradford; a silver sugar bowl and cream pitcher, both exquisitely chased and hand wrought, which belonged to Abby Taylor, the daughter-in-law of Golden Dearth; and 32 pieces of early American cut glass from the Isaac Chauncey Long collection.

A collection of relics of the Washington and Ball families, deposited by Pay Director R. T. M. Ball, United States Navy, in his name and that of his sisters, Miss Mary Randolph Ball, Mrs. W. F. Hill, Mrs. G. C. Lane, and Mrs. J. S. Baughman, includes a pair of epaulets worn by Washington during the French and Indian War, 1755, when colonel in the Virginia Militia and volunteer aid on the staff of Maj. Gen. Edward Braddock; a Masonic apron belonging to, and an epaulet worn in the War of the Revolution by, Col. Burges Ball of the Continental Army, cousin of Washington, and for a time volunteer aid on his staff; a fragment of a flag carried by the forces of Col. Ball in the War of the Revolution; a gold mourning brooch owned by Mary Ball, the mother of Washington; and a snuffbox of hardwood, presented by the Marquis de Lafayette to his godson, Fayette Ball, in 1824, while visiting at the Ball home in Loudoun County, Va.

In addition to the gift already referred to, Mrs. Elizabeth B. Custer, widow of Gen. George A. Custer, lent the following interesting objects, namely, the small oval-top wooden table on which Gen. Grant wrote the terms for the surrender of the Confederate States Army of northern Virginia in the McLean house, Appomattox, Va., April 9, 1865, which was presented to Mrs. Custer by Gen. Philip H. Sheridan soon after the surrender, and a letter from Gen. Sheridan to Mrs. Custer when sending her the table; a part of the white linen towel used as a flag of truce by Maj. R. M. Sims, Confederate States Army, at Appomattox on April 9, 1865; a Virginia State flag captured by Gen. Custer in 1861, and a service sword and scabbard used by him during the Civil War.

Other noteworthy loans were as follows: Three naval uniform coats, a service sword, two water-color sketches of the U. S. gunboat *Benton*, and a number of miscellaneous objects, which had belonged to Rear Admiral Andrew H. Foote, United States Navy, received from Mrs. Kate N. Foote, of Washington; a large piece of embroidery of the colonial period owned by Mrs. Edward Carrington, of Virginia, prior to the War of the Revolution, and used as a spread on the bed of the Marquis de Lafayette in Eagle Tavern, Richmond, Va., on the occasion of his visit to the United States in 1824, received from Mrs. John W. Daniel, of Washington; a gold watch and badge formerly the property of Jean M. D. Lander, wife of Brig. Gen. Frederick W. Lander, United States Volunteers, the watch having been presented to her in 1838 by citizens of New York in recognition of her extraordinary talent in acting, the badge, in 1867, by members of the Fifth Ohio Volunteer Infantry, formerly of Gen. Lander's division, in appreciation of her services while in charge of the hospital at Port Royal, S. C., and as a token of their regard for their former commander, received from Mr. Frederick C. Lander, of New York; additions to the large collection of memorials of the Bailey-Myers-Mason families, consisting of a filigree gold-and-enamel fan with enamel case, a silver match box, a watch with enamel case, an onyx brooch set with diamonds, and a miniature portrait of Mrs. Sydney Mason, received from Mrs. Julian James, of Washington; a mourning brooch set with pearls and jet, formerly belonging to Henrietta Myers, wife of Peter S. Hoes, nephew of President Martin Van Buren, received from Miss Fannie Jackson, of Yonkers, N. Y.; a marble bust of William H. Seward, Secretary of State from 1861 to 1869, executed by the Italian sculptor Giovanni Maria Benzoni from sittings given by Mr. Seward while on his trip around the world in 1870 and 1871, received from Miss Sara Carr Upton, of Washington; four scholastic hoods received by the distinguished astronomer Simon Newcomb, when awarded the degree of Doctor of Science by the University of Dublin in 1892, and the degree of

Doctor of Laws by the University of Toronto in 1894 and the universities of Princeton and Glasgow in 1896, and also the manuscript notes and mathematical calculations prepared by Prof. Newcomb in connection with one of his first publications, entitled "The Secular Variations of the Asteroids," received from Mrs. Newcomb; and an illuminated copy on parchment of the resolution of Congress approved March 4, 1911, thanking Rear Admiral Robert Edwin Peary, United States Navy (retired), for his arctic explorations and his discovery of the North Pole, received from Rear Admiral Peary.

The following objects, lent by Mrs. John Cropper, were added to the extensive loan collection of the National Society of the Colonial Dames of America, namely, a colonial sugar sifter, a coffeepot of the period of the First Empire, a sugar bowl of American manufacture of about 1830, an antique English teapot, and an antique salt cellar made in Scotland. The society made a special temporary exhibition in the Museum of 35 pieces of colonial ecclesiastical silver received as loans from the churches of Virginia and Maryland and including examples of chalices, patens, flagons, and alms plates, dating from the early part of the seventeenth century to 1825. Similar collections from churches of the eastern part of the United States were also exhibited by the society at the same time in the Metropolitan Museum of Art and the Boston Museum of Fine Arts, and the material in all of the exhibitions was made the subject of study by Mr. E. Alfred Jones, the English expert on silver plate, whose results will be published under the auspices of the society.

During the year a collection of costumes intended to illustrate the changes in style of personal attire in America from the colonial period to the present time was commenced. The material so far gathered has consisted mainly of apparel actually worn at important state and social functions, which gives it an historical interest, and the collection will also very materially supplement that of art textiles, offering useful suggestion in the field of design. The subject was taken up on the initiative of Mrs. Julian James, who is giving it her personal attention, and the contributions, ranging from single objects to complete parts of costumes, comprised both loans and gifts. The principal contributors were Miss Marian T. Coffin, of Muirkirk, Md.; Mrs. John Hay, of Washington; Col. Webb C. Hayes, of Fremont, Ohio; Mrs. R. R. Hoes and Mrs. Julian James, of Washington; Miss May S. Kennedy, of Charlestown, W. Va.; Mrs. Levi Z. Leiter, of Washington; Miss Sallie P. MacKenzie, of Baltimore, Md.; Mrs. Mary Harrison McKee and Mrs. Levi P. Morton, of New York; Mrs. John Biddle Porter, of Washington; Mrs. Theodore Roosevelt, of Oyster Bay, N. Y.; Mrs. Nellie Grant Sartoris, of New York; Mrs. William H. Taft, of Washington; and Mrs. W. P. E. Wyse, of Pikesville, Md.

While the work of the division of history is being efficiently and zealously carried on, and the valuable collections with which it is charged are strictly safeguarded, the present personnel is inadequate to develop a large part of the resources of the division, none of which is without popular interest. The more prominent objects at least are promptly catalogued, labeled, and installed, but for the early classification, registration, and arrangement of such classes of material as are represented by the large collection of postage stamps, involving an immense amount of detailed labor, the employment of additional expert services has become necessary. The public installation in the west-north range of the older Museum building, which had been allotted to the division for the extension of its exhibition series, was provisionally completed during the year. It comprises 15 cases of the Gray pattern containing the collection of Washingtoniana and many other relics, and 29 upright and slope-top cases containing historical documents and maps, the Cromwell collection of postage stamps, the series of Polish coins received during the year, besides various other objects. The walls of the room, moreover, are quite fully covered by the historical paintings belonging to the Museum, the number of which has recently been appreciably increased. The conditions in the north or main hall have been greatly improved by the relief so afforded, and, while there is still more crowding than should be allowed, the historical exhibition is to be regarded as much more satisfactorily displayed than at any time in the past. Much progress was made during the year in the work of cataloguing and labeling, and the reserve collections were rendered more accessible through the assignment of additional storage space.

The assistant curator of the division, Mr. T. T. Belote, prepared for publication a descriptive catalogue of the Washington relics in the possession of the Museum, and reported upon many objects received for identification.

Work of the preparators.—The principal work of the preparators, under the supervision of the head curator of the department, consisted in the construction, coloring, and installation of lay figure groups of Indians and the coloring of casts of antiquities for the exhibition series, in which connection the services of Mr. H. W. Hendley were chiefly utilized. A number of figures for these groups were modeled by Mr. U. S. J. Dunbar, sculptor, of Washington, and Mr. Frank Mička, also a sculptor of Washington, was engaged for a time under Dr. Hrdlička in modeling and casting busts of Indians for the Panama-California Exposition. Certain work in the line of prehistoric archeology was also performed for the same exposition by Mr. J. L. Nusbaum, of Greeley, Colo.

Exhibition collections.—The progress made in the installation of the exhibition collections, of which accounts have been given in con-

nection with the several divisions, was entirely satisfactory, and by the close of the year all of the halls in the new building devoted to ethnology and historic archeology had been opened to the public, although many details of arrangement still remained to be carried out. The work upon the collection of prehistoric archeology was well advanced and will be completed during the current year.

DEPARTMENT OF BIOLOGY.

The additions to the several divisions of this department numbered over 168,000 specimens, and included much material of exceptional value and interest. Besides the customary transfers from Government bureaus, several important explorations were represented, as detailed in a later connection. The regions in which these were principally conducted were British East Africa and Abyssinia, Kashmir and the region of the Altai Mountains in Asia, British Columbia and Alberta, New Mexico, the Panama Canal Zone, Peru, and the Bahama Islands. The collections in the custody of the department were maintained in good condition and some important research work was carried on, but most attention was given to the public installations, with which considerable progress was made.

Mammals.—The British East African expedition of Mr. Paul J. Rainey furnished the principal accession to this division, consisting of about 3,400 mammals, of which over 700 are large game. Among the smaller forms were many new to science. Dr. W. L. Abbott contributed several hundred specimens from Kashmir, and Mr. A. deC. Sowerby transmitted a small collection from China. The Smithsonian expedition which accompanied Dr. A. O. Wheeler on his topographical survey of the boundary line between British Columbia and Alberta obtained a good representation of the mammals of that region. Mr. E. deK. Leffingwell presented a fine series of skins and skulls of the mountain sheep and the skulls of three polar bears from Alaska, and Dr. Theodore Lyman, of Harvard University, donated the skin and skull of a mountain sheep from the State of Washington, representing a form now probably extinct. Acknowledgments are due to Mr. George L. Harrison, jr., of Philadelphia, for the gift to the Institution of \$500, to be expended in supplying desiderata in the mammal collection of the Museum, and during the year 81 specimens, mostly of rare species, were purchased from this fund, among them being a number of skeletons and skulls of chimpanzees and gorillas from West Africa. Mr. Harrison also presented several skulls of *Gazella dorcas*.

The work of tanning the large skins, begun some time ago, was brought up to date, with the exception of the material from the Rainey expedition, which was not received until in June. The collection of mammal skins is now for the most part in excellent con-

dition and as well arranged as the accommodations permit. A number of old skins require to be made over, however, and some work in this line was done during the year. The cleaning of skulls and skeletons was continued by the Museum force and by contract, the number of skulls so treated having exceeded 2,800. The small skulls and skeletons, stored in the attic, await appropriate cases for their final disposition. The specimens preserved in alcohol were brought over from the older building and placed in the new stacks, in which their systematic arrangement was well advanced. Much progress was made in the preparation of labels for the smaller skins, and in cataloguing and labeling the Merriam collection.

Mr. Gerrit S. Miller, jr., curator of the division, continued his studies of Old World and American mammals, describing a large number of new species, and Mr. Ned Hollister, assistant curator, reported on the mammals collected by the Smithsonian expedition to British Columbia and Alberta. The assistants of the Biological Survey of the Department of Agriculture made frequent use of the collections, and the division was visited for the examination of material by Dr. J. A. Allen, of the American Museum of Natural History; Dr. Glover M. Allen, of the Museum of Comparative Zoology; and Mr. W. H. Osgood and Mr. Charles B. Cory, of the Field Museum of Natural History, to all of whom small numbers of specimens were also lent for use in their investigations. Loans for the same purpose were likewise made to the University of North Dakota, the Museum of Vertebrate Zoology of the University of California, and the British Museum of Natural History.

Birds.—The collection of several hundred birds from the African expedition of Mr. Rainey, although not yet worked up, is known to contain two genera and several species not previously represented in the Museum. A collection of 600 Philippine birds received from the Minnesota Academy of Sciences through exchange and purchase also includes a number of species new to the Museum, such as the pheasant from Palawan (*Polyplectron napoleonis*), the Samar broadbill (*Sarcophanops samarensis*), and several sunbirds. Of two accessions of birds from China, aggregating over 260 specimens, one was obtained from Mr. Andrew Allison and Mr. L. I. Moffett by donation and purchase, the other from the Museum of Comparative Zoology in exchange. A number of birds and eggs from the Aleutian Islands, including a skin of *Calliope calliope camtschaticensis*, new to the North American fauna, were added by Mr. A. C. Bent, as a result of his Alaskan expedition under the auspices of the Institution, and the type of a new subspecies, *Lagopus rupestris sanfordi*, secured by Dr. L. C. Sanford on the same trip, was also acquired. Specimens of the crow, *Corvus kubaryi*, from Guam, pre-

sented by Dr. F. H. Mills, also represents a species new to the collection. The Biological Survey of the Department of Agriculture added to its collection, preserved in the Museum, many specimens from the Isthmus of Panama and from Porto Rico.

The rearrangement of the study series of birds, described in previous reports, was continued and completed for 27 additional cases. As this work proceeds the species represented are noted in a check list with the object of ascertaining and recording the desiderata. Of the mounted birds eliminated from the older exhibition series a large number were selected for dismounting, which necessitated their cleaning, tagging, and removal from the stands. The collection of bird skeletons previously stored in the bases of exhibition cases was removed to the laboratory, where it is being placed in unit cases in the adjoining corridor, and some progress was also made in the rearrangement of the alcoholic collection. The accessions of eggs and nests received during the year were labeled, numbered, and stored as such, the division not being provided with sufficient assistance to permit of the systematic distribution of the specimens in the reserve series. The labeling and cataloguing of specimens was extensively carried on. The search for type specimens of species in the older collections, the identity of which had been lost track of because of the inadequate system of cataloguing and labeling followed in the early days of the Museum, was continued and a number of such types were disclosed. The recent discovery of the original field registers of Mr. John Xantus has made it possible to add much needed information to the catalogue of several thousand specimens collected by him in Lower California and other parts of Mexico some 50 years ago and entered without the proper data, and also to determine the exact localities for a number of types, previously unknown.

Part V of Museum Bulletin No. 50, entitled "The Birds of North and Middle America," was issued during the year, and the author, Mr. Robert Ridgway, curator of the division, continued work on part 6, the manuscript of which was well advanced at the close of the year. Much also was done on the manuscript for succeeding volumes as materials and opportunities offered. Dr. C. W. Richmond, assistant curator, whose time was almost wholly occupied with routine work, prepared descriptions of five new species of birds from the islands of western Sumatra. Mr. J. H. Riley, aid, who accompanied the Smithsonian expedition to British Columbia and Alberta in the summer of 1911, reported on the birds collected, and a preliminary paper by him, descriptive of three new forms, was published. Dr. E. A. Mearns, United States Army (retired), associate in zoology, continued his studies of African birds until his departure for Abyssinia with Mr. Childs Frick. Mr. A. C. Bent, of Taunton, Mass., who is at work

upon the life histories of North American birds, in continuation of the researches of the late Maj. Bendire, examined the Museum collection of ptarmigans from the Aleutian Islands.

The collections of the division were often consulted by the staff of the Biological Survey, and Mr. H. C. Oberholser, outside of official hours, worked on the specimens from Malaysia contributed to the Museum by Dr. W. L. Abbott. Among visitors to the division who spent more or less time in the examination and study of specimens may be mentioned the members of the committee on nomenclature of the American Ornithologists' Union; Mr. F. M. Chapman, of the American Museum of Natural History; Mr. W. E. Clyde Todd, of the Carnegie Museum; Dr. Thomas Barbour and Mr. Outram Bangs, of the Museum of Comparative Zoology; Mr. Witmer Stone, of the Academy of Natural Sciences of Philadelphia; Mr. Anastasio Alfaro, of the Museo Nacional, and Mr. José C. Zeledon, both of San José, Costa Rica; Mr. L. M. Loomis, of the California Academy of Sciences; Mr. A. B. Howell, of Pasadena, Cal.; Mr. C. W. Beebe, of the New York Zoological Society; Mr. Charles Rogers, of New York; Mr. B. H. Swales, of Grosse Ile, Mich.; and Dr. R. W. Shufeldt, of Washington. The principal loans of specimens, to aid in investigations, were made to the American Museum of Natural History, the California Academy of Sciences, and the Carnegie Museum.

Reptiles and batrachians.—This division also derived its most important additions, amounting to over 500 specimens, from the collections of the Rainey African expedition. A number of species, including several new to science, obtained by the Yale Peruvian expedition of 1911 under Dr. Hiram Bingham, were received as a gift; and Mr. Julius Hurter, sr., of St. Louis, presented cotypes of his *Chrysemys treleasei* and a lizard from Arabia. Mr. N. R. Wood, of the Museum staff, while in Florida, collected a large series of the lizard recently described as *Neoseps reynoldsi* and mentioned in the last report; and Dr. Paul Bartsch, while on the Bahaman expedition of the steamer *Anton Dohrn*, of the Carnegie Institution, secured 85 reptiles on Andros Island. Many species new to the collection, from Cuba, South America, and Africa, were received from the Museum of Comparative Zoology through exchange.

The division remains in charge of Dr. Leonhard Stejneger, the head curator of the department of biology, and owing to his manifold duties in connection with the latter office and the serious illness for several months of the aid of the division less progress was made in the rearrangement of the reptile collections than would otherwise have been the case. The only important investigation by Dr. Stejneger was the study of the small but very interesting collection made by the Yale Peruvian expedition. Mr. D. D. Streeter, jr., of New York, a temporary collaborator in zoology, examined the Malaysian

material in the division preparatory to a trip to Borneo. Among others who made use of the collections were Dr. Thomas Barbour, of the Museum of Comparative Zoology; Dr. Alexander G. Ruthven, head curator of the Museum of the University of Michigan; Mr. Julius Hurter, sr.; and Dr. O. P. Hay, of the Carnegie Institution of Washington. The only loan of specimens was one made to Mr. C. H. Richardson, jr., of Stanford University, Cal., for comparison with collections from Utah and Idaho.

Fishes.—Transfers from the Bureau of Fisheries aggregated over 11,000 specimens of fishes, mainly collected in Japanese waters in 1906 by the steamer *Albatross*, but also including some material from the Philippine Islands, collected by Mr. R. C. McGregor, and from various localities in the United States. A number of species from the vicinity of Cape Lookout, N. C., were presented by Mr. Russell J. Coles, and a specimen of *Neophrynichthys latus* was received as a gift from Mr. S. R. Waite, of Canterbury Museum, Christchurch, New Zealand.

Good progress was made in the arrangement of material in the new storage room, and by the end of the year about one-third of the entire collection had been permanently installed, including the testing and the strengthening or renewal of the alcohol as was required. Some 25,000 specimens were labeled and catalogued, adding about 4,000 entries to the register, and many old and illegible labels were replaced. The fish skeletons were transferred from table cases in the exhibition halls to insect-proof unit cases in the laboratory, where they have been systematically arranged and provided with outside labels to facilitate reference.

Mr. Barton A. Bean, assistant curator of the division, in conjunction with Mr. Alfred C. Weed, aid, completed a report on the fishes collected in Java in 1909-10 by Mr. Owen Bryant and Mr. William Palmer, and had two other papers in course of preparation, one on interesting forms from the coast of North Carolina, the other on material from Vancouver Island. The study of the fishes obtained in British East Africa by the Smithsonian African Expedition was continued and the greater part of the species identified. The collections of the division were utilized by Dr. S. E. Meek, of the Field Museum of Natural History, and Mr. S. F. Hildebrand, of the Bureau of Fisheries, in connection with the working up of the fishes gathered by them on the biological survey of the Panama Canal Zone. Other members of the staff of the Bureau of Fisheries who consulted the collections were Dr. Hugh M. Smith, Deputy Commissioner of Fisheries, Mr. Lewis Radcliffe, and Dr. W. C. Kendall. Specimens were lent for study to Dr. C. H. Gilbert and Prof. J. O. Snyder, of Stanford University; Mr. J. T. Nichols and Mr. L. Husakof, of the American Museum of Natural History; Dr. H. F. E.

Jungersen, of the Zoological Museum, Copenhagen, Denmark; and Dr. J. Schmidt, of the Carlsberg Laboratorium, also at Copenhagen.

Insects.—The most extensive and important additions of the year were received from the Bureau of Entomology of the Department of Agriculture, and comprised over 10,000 specimens obtained during field work in connection with the biological survey of the Panama Canal Zone, besides some 2,000 specimens, including the types of several new species, from various other localities. Parasitic hymenoptera were represented in three donations. The first, from Mr. J. P. Kryger, of Gjentofte, Denmark, contained about 1,800 specimens; the second, from Mr. L. C. Coleman, of Bangalore, India, about 200 specimens from the Province of Mysore; and the third, from Mr. F. W. Urich, of Trinidad, West Indies, several hundred specimens from Mexico. In the latter two collections were a number of types of new species. Nearly 400 weevils, a part of the collection on which the *Biologia Centrali-Americana* is based, were received from Messrs. Godman and Salvin, of London, England, through Mr. G. C. Champion; and several hundred Peruvian butterflies were presented by Mr. C. H. T. Townsend, of Piura, Peru.

The reserve collections have been maintained in excellent preservation, and, notwithstanding the small number of skilled preparators employed, considerable progress was made in transferring material to the new standard cases. The most satisfactory advance in this respect has been made with the orders Hymenoptera, Coleoptera, Odonata, and Hemiptera. The adoption of a new system of installing the small forms of Hymenoptera greatly facilitates their transfer and their subsequent handling for the insertion of additional specimens. Instead of mounting directly in the drawers of standard size, the specimens are pinned in uniform small cork-lined trays which are arranged in the drawers and can be separately removed.

No extended researches were conducted by members of the staff of the division, but a number of short papers were prepared and published, as noted in the bibliography. Most of the entomologists who attended the Washington meeting in December, 1911, of the American Association for the Advancement of Science and its affiliated societies, the Association of Economic Entomologists and the Entomological Society of America, visited the division, and the collections were also consulted at various times by several specialists, including Mr. A. B. Gahan, of College Park, Md.; Mr. J. A. G. Rehn and Mr. Morgan Hebard, of Philadelphia; Mr. C. W. Johnson, of the Boston Society of Natural History; and Mr. William T. Davis and Mr. C. W. Leng, of New Brighton, N. Y. Nearly 7,000 specimens were lent to 25 specialists for study and identification, the principal sendings consisting of Homoptera supplied to Prof. C. F. Baker, of Pomona College, Claremont, Cal.; Coleoptera, to M. Ernest Olivier,

of Moulins, France, and Mr. H. C. Fall, of Pasadena, Cal.; Hemiptera, to Dr. G. v. Horváth, of the Hungarian National Museum, Budapest, Hungary, Dr. J. F. Abbott, of Washington University, St. Louis, Mo., and Mr. D. L. Crawford, of Stanford University, Cal.; Orthoptera, to Prof. L. Bruner, of Lincoln, Nebr.; Odonata, to Dr. Philip P. Calvert, of the Academy of Natural Sciences of Philadelphia; and Tipulidæ from tropical America, to Mr. Charles P. Alexander, of Cornell University.

Mollusks.—The most interesting acquisition was the collection of mollusks made by Dr. Paul Bartsch, assistant curator of the division, on the expedition of the Carnegie Institution to the Bahama Islands. Though not containing a very large number of species, it comprises many thousands of specimens, mainly of land shells, and furnishes important material for the study of variation. Another large collection from the same region, but consisting chiefly of small marine forms assembled by the late Lieut. Madison Rush, United States Navy, was presented by Mrs. John Biddle Porter, of Washington. In the collection of the Rainey expedition to British East Africa were many land and fresh-water shells, of which, it is found, none of the species duplicates any obtained by the Smithsonian African expedition, though the regions traversed were not far apart. A large number of well-preserved specimens of marine mollusks from New England and an exceptionally fine specimen of the rare *Murex bednalli* from Australia, all of which were greatly desired for the exhibition series, were donated by Mr. John B. Henderson, jr., of Washington. Mr. Arthur Haycock, of Whitby, Bailey Bay, continued to supply desiderata in the Museum collection of Bermuda shells and also presented a number of types and cotypes of new species from that locality. Of the land shells obtained by the Yale Peruvian expedition and studied and described by the curator of the division, Dr. William H. Dall, a good representation was received as a gift. The Department of Agriculture, through the Bureau of Plant Industry and the Biological Survey, transferred a number of lots of land shells from Porto Rico and Panama, which included several new forms from the latter region.

The routine work of the division was greatly advanced through the temporary assignment of additional clerical help. Over 33,000 lots of specimens were labeled, registered, and made ready for incorporation in the reserve series, and a very large quantity of small material contained in siftings, bottom samples, etc., was roughly sorted preliminary to its study and classification. The entire collection of Naiades, the largest in the world, occupying 514 half-unit trays, was cleaned, revised, and rearranged in accordance with the Synopsis of Mr. Charles T. Simpson, and the trays were so labeled as to furnish better means than heretofore for referring to the

species. The South African marine shells were segregated for relabeling, and the Philippine material was rearranged by families to facilitate its future study.

A synoptical collection illustrating the families of mollusks and consisting of attractive specimens was mounted on tablets, labeled, and added to the exhibition series. The mollusk fauna of the District of Columbia was the subject of another collection prepared for exhibition.

Studies of the Tertiary fauna of the Panama Canal Zone and of the Oligocene of central Florida occupied the greater part of the time of the curator, Dr. Dall, although he also prepared a few short papers, principal among which was a report on the land shells from the Yale Peruvian expedition. Dr. Bartsch continued work on the Pyramidellidæ of the west coast of America, completing a supplement to his published monograph and a discussion of the faunal distribution of the family. His report on the South African shells collected by Col. W. H. Turton was practically finished, but its publication is deferred awaiting the receipt of additional material which has been sent. He also made some progress in the working up of the Philippine collection. Mr. John B. Henderson, jr., made constant use of the collections of the division in connection with his studies of West Indian and Florida shells, and Miss Mary Breen, collaborator of the division, continued, as time permitted, her researches on the microscopic structure of mollusks of the District of Columbia. Miss Julia Gardner, of Johns Hopkins University, spent several weeks at the Museum conducting investigations to be incorporated in a doctoral thesis, and Hon. T. H. Aldrich, of Birmingham, Ala., Mr. Bryant Walker, of Detroit, Mich., and others consulted the collections from time to time. But few loans of specimens for study were made, and only in small lots. Among the recipients were Dr. H. A. Pilsbry, of the Academy of Natural Sciences of Philadelphia; Prof. T. D. A. Cockerell, of Boulder, Colo.; Dr. F. Blochmann, of the Zoological Institute, Tübingen, Germany; and Mr. J. Wilfrid Jackson, of the Manchester Museum, Manchester, England.

Marine invertebrates.—This division received its most extensive and valuable additions from the Bureau of Fisheries. They consisted principally of material collected by the steamer *Albatross* during cruises in the Pacific Ocean, including over 25,000 specimens of decapod crustaceans from the Philippine Islands; some 2,000 specimens of hydromedusæ, siphonophores, and ctenophores, identified by Dr. Henry B. Bigelow; a large series of starfishes from the north Pacific, described by Dr. Walter K. Fisher in Museum Bulletin No. 76; ascidians from southern California, reported upon by Dr. William E. Ritter; barnacles from the northwest Pacific, studied by Dr. H. A. Pilsbry; and hydroids from the eastern Pacific, determined by Dr.

S. F. Clarke. The Smithsonian biological survey of the Panama Canal Zone transferred several hundred specimens of aquatic invertebrates, mostly crustaceans, collected by Dr. S. E. Meek and Mr. S. F. Hildebrand, and 283 bottles of fresh-water plankton, collected by Dr. C. Dwight Marsh, of the Department of Agriculture. About 500 specimens, chiefly of crustaceans and echinoderms, dredged by him in the Straits of Florida and among the Bahama Islands in 1911 and 1912, were contributed by Mr. John B. Henderson, jr., of Washington; and over 1,000 specimens of various groups were received as the result of collecting work in Casco Bay, Me., by Miss M. J. Rathbun and Miss Violet Dandridge during August, 1911. The Indian Museum at Calcutta presented 225 specimens of crinoids representing 48 species, and the Australian Museum at Sydney 184 specimens of the same group representing 14 species. From the Royal Zoological Museum at Berlin 35 specimens, representing 20 species of crinoids, and several ascidians, including cotypes, were obtained in exchange.

The work of the year was mainly directed toward improving the condition of the extensive reserve collections and furthering their systematic arrangement in the new quarters. It included extensive cataloguing and labeling, the cleaning of glass and other receptacles, and the replenishment and strengthening of the alcohol, besides other purely manual labor. In the small, crowded storage rooms of the Smithsonian building such a general overhauling had not been possible for a long time, and a large share of the collections had, in fact, become practically inaccessible, but in the new building, with its ample accommodations, difficulties of this kind are not likely soon to occur. While much of the older material, and especially the echinoderms, remains to be catalogued, the registering of current accessions has been kept well in hand. Under a revised system of cataloguing, red cards are being used for type specimens, blue cards for those that have been figured, and buff cards for such as are placed on exhibition, while white cards are employed for all other entries. The dried specimens hastily stored in the attic the previous year were systematically arranged, and the drawers and cases labeled. The corals from the Philippine Islands, filling about 100 shipping boxes, were unpacked and transferred to unit drawers in the dust-proof storage room constructed for that class of material.

Miss Mary J. Rathbun, assistant curator of the division, reported on a small collection of crustaceans obtained in Cuba by Dr. Thomas Barbour, identified the decapod and stomatopod crustaceans obtained in the Panama Canal Zone in 1911 by Dr. Meek and Mr. Hildebrand, and made considerable progress in the study of the Ocypodidae, or fiddler-crabs, collected at the Philippine Islands by the steamer *Albatross*, in connection with which the general collection of that

family in the Museum is being worked up. Miss Rathbun also described for the Geological Survey a small collection of fossil crustaceans from the Atlantic coastal plain of the Southern States, and began the preparation of a report on the fossil decapods collected in the Panama Canal Zone and in Costa Rica by Mr. D. F. MacDonald, geologist of the Isthmian Canal Commission, and Dr. T. Wayland Vaughan, of the Geological Survey.

Mr. Austin H. Clark, also assistant curator, continued his extensive researches relative to crinoids. Studies finished during the year covered the material obtained by the Hamburg West Australian expedition of 1905, including the collection in the Western Australian Museum and Art Gallery at Perth; the collections of the Royal Zoological Museum at Berlin and the Hamburg Museum; and the arctic species belonging to the Zoological Museum in Copenhagen. Mr. Clark also brought nearly to completion the second part of his monograph on recent crinoids, comprising the anatomy other than skeletal, the development, the comparative study of the young, and allied subjects; and continued work on the crinoids collected by the Danish steamer *Ingolf* and the nonarctic crinoids in the Museum at Copenhagen. Studies were likewise begun on the crinoid collections made by the German South Polar expedition in the *Gauss*; by Prof. Franz Doflein on his East Asiatic expedition, including the Japanese material of Prof. L. Döderlein; and by Capt. Suensson in eastern Asia, belonging to the Museum in Copenhagen. Mr. Clark furthermore prepared a preliminary paper on the salinity of the surface water in the eastern part of the north Pacific Ocean with reference to its bearing on the distribution of the marine life of the region.

Dr. Harriet Richardson, collaborator, worked up for the Museum of Natural History at Paris, France, the isopods represented in the collections of several polar expeditions and those obtained during an expedition to Colombia by Dr. O. Fuhrmann and Dr. Eug. Mayor, of Neuchâtel, Switzerland. She also studied the isopods obtained in Jamaica by Dr. E. A. Andrews, Dr. C. B. Wilson and Dr. Thomas Barbour, and identified many species in the collections of the Museum, besides describing a number of new species.

Among specialists not connected with the Museum who visited the division in furtherance of their researches were Dr. Robert T. Jackson, of Cambridge, Mass., who is working on the anatomy of echinoids; Mr. A. A. Doolittle, who is studying fresh-water copepods; and Miss Julia McMillan, who is conducting investigations on protozoa.

Many well-known naturalists, as heretofore, have given their services gratuitously toward the working up of material belonging to this division, and to this generous cooperation is largely due the excellent progress which is being made in the identification

and classification of the collections. Reports were completed and submitted by Dr. W. T. Calman, of the British Museum of Natural History, on the cumacea; by Prof. E. L. Bouvier, of the Museum of Natural History, Paris, on the family Atyidæ of crustaceans; by Dr. J. H. Gerould, of Dartmouth College, on the North Atlantic Sipunculoidea; by Dr. A. S. Pearse, of the University of Wisconsin, on certain amphipods of the Gulf of Mexico; and by Dr. C. Dwight Marsh, of the Department of Agriculture, on free-swimming copepods from fresh-water plankton. Investigations were being continued, with reports in various stages of preparation, by Dr. C. B. Wilson, of the State Normal School, Westfield, Mass., on the parasitic copepods, of which several new species were described during the year; by Dr. J. A. Cushman, of the Boston Society of Natural History, on the foraminifera of the North Pacific, of which the third part, treating of the family Lagenidæ, was nearly ready; by Dr. H. A. Pilsbry, of the Academy of Natural Sciences, Philadelphia, on the sessile cirripedia; by Dr. H. J. Hansen, of the Zoological Museum, Copenhagen, Denmark, on the Euphausiacea; by Dr. Th. Mortensen, of the same museum, on certain echinoids; by Dr. N. Annandale, of the Indian Museum, Calcutta, on fresh-water sponges; by Dr. H. Coutière, of the École Supérieure de Pharmacie, Paris, on the Crangonidæ; by Dr. J. W. Spengel, of Giessen, Germany, on the Echiuroidea; by Dr. H. B. Bigelow, of the Museum of Comparative Zoology of Harvard University, on medusæ of the Pacific Ocean; by Dr. W. K. Fisher, of Stanford University, on the starfishes of the Pacific Ocean; by Prof. C. C. Nutting, of the State University of Iowa, on hydroids; and by Dr. R. C. Osburn, of Barnard College, New York, on the bryozoa of the north Atlantic Ocean. Studies were begun during the year by Dr. R. Koehler, of Lyon, France, on the ophiurans of the West Indies; by Dr. L. Döderlein, of Strassburg, Germany, on the astrophytons of the Pacific Ocean; by Dr. W. M. Tattersall, of the Manchester Museum, England, on the Mysidacea; by Mr. Joseph Pearson, of Colombo Museum, Ceylon, on the holothurians of the Indo-Pacific Ocean; and by Dr. Walter Faxon, of the Museum of Comparative Zoology of Harvard University, on crayfishes.

Plants.—The principal accessions of the year were obtained by transfer from the Bureau of Plant Industry of the Department of Agriculture, and consisted of two collections made in connection with the biological survey of the Panama Canal Zone, one comprising about 7,000 specimens gathered by Mr. H. Pittier, the other about 6,200 specimens, mostly grasses, assembled by Mr. A. S. Hitchcock. This material, coming from a region which has been but little explored, at least in recent years, is sufficiently comprehensive to furnish the basis for a fair beginning in the preparation of a flora of Panama.

Mr. Paul C. Standley, on detail from the Museum, collected some 2,800 plants, principally in New Mexico, and also presented 550 specimens from southern Missouri. About 200 specimens obtained on the expedition to the Mount Robson region of western Canada were deposited by the Smithsonian Institution. Two important collections were acquired by exchange. The first was from the New York Botanical Garden, and consisted of about 6,000 specimens from various sources, but principally from South America, the West Indies, and Panama. The other was from the Arnold Arboretum, of Harvard University, and contained about 500 specimens, chiefly from the United States. About as many Chinese plants were purchased from the same establishment, and small collections from Santo Domingo, Mexico, Bolivia, and the Philippine Islands were also purchased.

Over 27,000 plants, comprising practically all of the specimens received during the year and some remaining from the previous year, were mounted and added to the herbarium. A beginning was made toward segregating the types and cotypes, which will hereafter be arranged apart from the general collection, to permit of their receiving better attention than was possible before.

Mr. F. V. Coville, curator of the division, continued his studies on the Vacciniaceæ. Dr. J. N. Rose, associate curator, worked mainly upon the plants of Mexico and Central America, giving special attention, as heretofore, to the Cactaceæ, and jointly with Mr. Paul C. Standley, assistant curator, reported upon the collection made by the expedition of the steamer *Albatross* to Lower California in 1911. On February 1, 1912, Dr. Rose was granted a furlough to permit him, in conjunction with Dr. N. L. Britton, to undertake for the Carnegie Institution of Washington an extended investigation of the Cactaceæ, under an arrangement which will make the Museum a beneficiary in the matter of the material to be collected. Mr. W. R. Maxon, assistant curator, published several papers on tropical American ferns, and gave some time toward the completion of a manuscript for the second part of volume 16 of the "North American Flora," to include descriptions of the Pteridophyta. He also began the preparation of a fern flora of Panama, and wrote a popular article on the tree ferns of North America for the Smithsonian Annual Report for 1911. Mr. Standley, in addition to studies relative to several groups of Panama plants, had in hand the completion of a manuscript on the flora of Alaska, and, in collaboration with Prof. E. O. Wootton, finished a paper on the flora of New Mexico. Mr. E. S. Steele continued his researches on plants of the genus *Laciniaria*.

Dr. Edward L. Greene, associate in botany, had in preparation a second part of his "Botanical Landmarks." He published a number of papers on North American plants, and made many determinations

of plants for the Department of Agriculture. Capt. John Donnell Smith, also associate in botany, continued his investigations of Central American plants, and in a paper issued during the year was incorporated a synoptical treatment of the Central American genus *Hauya*, prepared by him in collaboration with Dr. Rose.

Besides employees of the Department of Agriculture, by whom the herbarium was constantly consulted, many botanists not connected with the Museum spent more or less time in the division, conducting investigations, as follows: Dr. William Trelease, on *Agave* and *Phorodendron*; Dr. N. L. Britton, director of the New York Botanical Garden, on the *Cactaceæ*; Mr. E. L. Morris, acting curator-in-chief of the Museum of the Brooklyn Institute, on the genus *Plantago*; Dr. K. M. Wiegand, associate professor of botany at Wellesley College, on the genus *Amelanchier*; Dr. J. M. Greenman, of the Field Museum of Natural History, on Mexican plants; Prof. J. H. Schaffner, of the Ohio State University, on the lower cryptogams; Prof. R. F. Griggs, of the same university, on the genus *Bihai*; Miss Alice Eastwood, of the California Academy of Sciences, on the genus *Lupinus*; and Mr. A. A. Heller, of the University of Nevada, and Mr. C. H. Boynton, of Biltmore, N. C., on several groups of phanerogams. Prof. J. J. Thornber, of the University of Arizona, was engaged during most of the year in the preparation of a flora of Arizona, based largely on the collections of the Museum.

Over 6,700 specimens of plants were lent to 29 different establishments and individuals to assist in investigations in progress. The principal sendings were as follows: Specimens of *Saxifraga*, *Canna*, and *Capnoïdes*, and of the family *Hydrophyllaceæ*, to the Royal Botanical Museum in Berlin, for use in the preparation of matter for the "Pflanzenreich"; representatives of the families *Piperaceæ*, *Meliaceæ*, and *Begoniaceæ*, from Panama, to Mr. de Candolle, of Geneva, Switzerland, whose determinations are of very material assistance to Mr. H. Pittier in his work on the flora of Panama, as are also those of specialists at the Berlin Botanical Garden, to whom much Panama material has been sent; specimens of *Agave* and *Phorodendron*, to Dr. William Trelease, for his monographic studies of these groups; lichens of the family *Graphidaceæ*, to Prof. Bruce Fink, of Miami University, Oxford, Ohio, who has an elaborate monograph of this difficult family in preparation; specimens of *Apocynum*, to Prof. Augusto Béguinot, of the Regia Università Degli Studi, Padua, Italy, for monographic purposes; specimens of *Dryopteris*, to Mr. Carl Christensen, of the Botanical Museum at Copenhagen, who, with material from practically all of the large European herbaria, is monographing the genus; specimens of various groups to the New York Botanical Garden, namely, *Vacciniaceæ*, mainly from Panama,

for the use of Mr. C. B. Robinson in the preparation of manuscript for the "North American Flora"; Vittaria, to assist Mr. R. C. Benedict, who is making an extended investigation of the ontogeny, morphology, and taxonomy of the tribe Vittarieae; Hawaiian ferns for a synoptical review of the Pteridophyta of these islands by Miss W. J. Robinson; and ferns of the genus *Lomaria* for a synoptical treatment of the North American species of the genus by Miss Jean Broadhurst. Specimens of *Viola* were also sent to Dr. Ezra Brainerd, of Middlebury, Vt., to be used in a contribution to the "North American Flora."

Explorations.—Though having only very limited means for explorations, the Museum profited greatly through a number of important natural history expeditions in which, by the generosity of friends, it was given the opportunity to participate, or to share in the returns. Such of these expeditions as were completed within the year brought valuable additions to the collections, as recorded on preceding pages, while from others satisfactory results had been announced at the time this report was written. Briefly summarized, they and the field work carried on directly by the Museum were as follows:

Having planned an extended hunting trip to east Africa, principally with the object of testing the value of American bearhounds in stalking lions, Mr. Paul J. Rainey, of New York, offered to present to the Institution and Museum such natural history specimens as were obtained, provided some one skilled in their preservation could be detailed to accompany him. Mr. Edmund Heller, who had been one of the naturalists on the Smithsonian African Expedition, was appointed to this position. The expedition sailed from New York February 18, 1911, and was absent about a year, Mr. Heller leaving Nairobi, British East Africa, homeward bound, about February 15, 1912. The route of travel was somewhat to the north and east of that taken by the Smithsonian expedition, and passed through the country lying between the northern part of British East Africa and southern Abyssinia. Arrived at Mombasa, the party proceeded toward the north, across the Gabba Plains district, along the east side of the Horerti and Koroli deserts, by the Lorain swamp, and thence along the west side of the desert to Nairobi. The coast stations of the Uganda Railroad were then visited by Mr. Heller, and afterwards various localities about Lake Victoria Nyanza. The collection received at the Museum consists of about 3,400 mammals, of which over 700 are large game, besides 371 birds and 523 reptiles and batrachians, and as the material came from regions not covered by the earlier expedition, and to some extent from remote localities never before visited by naturalists, it is of exceptional interest and contains many new forms.

The Museum also took part in another expedition to Africa, which started from London soon after the beginning of the calendar year 1912, and was expected to remain in the field until the following autumn. It was organized by Mr. Childs Frick, of New York, with the view of making as complete a collection as possible of the animals of certain parts of Abyssinia and the adjacent territory, including the northern part of British East Africa, somewhat north of the region traversed by Col. Theodore Roosevelt in 1909-10, and the expedition of Mr. Rainey. It was also intended to visit the neighborhood of Lake Rudolf and to work along the shores of the lake itself. Mr. Frick, by whom the undertaking was entirely financed, was accompanied by Dr. E. A. Mearns, United States Army (retired), associate in zoology of the National Museum, a member of the Smithsonian African Expedition, and an experienced field collector, and by Mr. Blick, and a physician. It was arranged that Dr. Mearns should give special attention to and report upon the birds obtained, and that half of the collection of this group should become the property of the National Museum.

Dr. W. L. Abbott, whose explorations in Malaysia, continuing through a number of years, were so fruitful of results for the Museum, has been recently in Kashmir, British India, from where he sent some 600 specimens of mammals during last year. Still interested, however, in extending our knowledge of the natural history of Borneo, where he has personally done much collecting, he generously placed at the disposition of the Institution a sum of money sufficient to send out and maintain a naturalist in the field for a considerable period. Mr. H. C. Raven, who was selected to make the trip, left New York about March 1, 1912. His work will be mainly along the east coast, which is less known than other parts of the island, and will have reference more especially to the vertebrate fauna.

Dr. Theodore Lyman, of Harvard University, left this country in May, 1912, on a hunting trip to the Altai Mountains, between Siberia and Mongolia, which was expected to continue until some time in September. He was accompanied by Mr. N. Hollister, assistant curator of mammals in the National Museum, whose collecting was to relate mainly to mammals and birds, under an arrangement whereby the National Museum and the Museum of Comparative Zoology will share mutually in the results. All of the expenses of the expedition are being paid by Dr. Lyman, to whose generosity the Museum is greatly indebted.

Through the courtesy of the Canadian Government and of Dr. A. O. Wheeler, president of the Alpine Club of Canada, the Smithsonian Institution was enabled, in the summer of 1911, to send a small party of naturalists to accompany Dr. Wheeler on his topo-

graphical survey of the British Columbia and Alberta boundary line and the Mount Robson region. The expedition, which consisted of four members, including Mr. N. Hollister, in charge, and Mr. J. H. Riley, aid in the division of birds, was absent from June until October, and succeeded in obtaining a fairly complete collection of the mammals and birds of this previously unworked territory, together with many insects and plants, all of which were turned over to the National Museum.

Reference was made in the last report to the biological survey of the Panama Canal Zone initiated by the Smithsonian Institution and carried on with the cooperation of several of the departments of the Government. The work was continued during the past year and resulted in important additions to the collections, especially of fishes, insects, aquatic invertebrates, and plants.

By invitation of Dr. A. G. Mayer, director of the marine biological station of the Carnegie Institution of Washington at the Dry Tortugas, Fla., Dr. Paul Bartsch, assistant curator of mollusks, was detailed to accompany an expedition to the Bahama Islands in the steamer *Anton Dohrn* for the purpose of obtaining a representative series of marine invertebrates for the exhibition collections of the Museum. With headquarters at the junction of the South Bight and Tongue of the Ocean, explorations were carried on in the neighboring region for about one month, after which a trip was made from Miami to Key West, Fla., stopping at many points on the way. The results were entirely satisfactory, color notes were made on the various marine species collected, and several thousand land shells as well as many specimens of reptiles and batrachians were also secured. Mr. John B. Henderson, jr., a regent of the Smithsonian Institution and long associated with the division of mollusks of the Museum, to which he has been a liberal contributor, made a dredging cruise with his yacht *Eolis* to the Bahama banks and the region off Miami, Fla., during the spring of 1912. The work extended to a depth of 60 fathoms, and furnished a rich collection of marine invertebrates which has been generously shared with the Museum.

Mr. P. C. Standley, assistant curator of plants, was engaged during two weeks of the summer of 1911 in botanical collecting in New Mexico, chiefly along the northern boundary of the State and in the Navajo Reservation. He preserved about 2,800 specimens, many of which represent species not previously known from New Mexico, and secured much information relating to the distribution of the species in that region.

Miss M. J. Rathbun, assistant curator of marine invertebrates, accompanied by Miss Violet Dandridge, artist, spent the month of August at the Marine Biological Station, Harpswell, Me., and the station of the Bureau of Fisheries, Woods Hole, Mass., for the purpose

of obtaining specimens of marine invertebrates for the exhibition series and of making color notes to be used in reproducing the natural colors on the prepared material. The objects of the trip were successfully accomplished, and extensive general collections were also made. To the authorities and naturalists at both of these stations acknowledgments are due for many courtesies, including the use of boats and apparatus whenever needed. Occasional collecting trips in the District of Columbia and to neighboring localities were made during the year by Mr. B. A. Bean and Mr. A. C. Weed, assistant curator and aid, respectively, of the division of fishes, Mr. Ernest B. Marshall, and other members of the Museum staff.

Three young naturalists, chiefly interested in the higher vertebrates, who offered to engage in collecting work for the Museum at their own expense, were designated as temporary collaborators, and left for the field toward the latter part of the year. They are Mr. D. D. Streeter, jr., of New York, who proceeded to British Borneo; Mr. George Mixter, of Boston, Mass., who went to the Lake Baikal region; and Mr. Copley Amory, jr., of Cambridge, Mass., who joined the Coast and Geodetic Survey party under Mr. Thomas Riggs, jr., on the Alaska-Yukon boundary.

On the Yale Peruvian expedition of 1911, under the direction of Prof. Hiram Bingham, extensive natural history collections were made by Prof. H. W. Foote, and of these the reptiles and batrachians, land shells, insects, and crustaceans were submitted to the Museum for study and report, with the understanding that in return for this assistance the Museum would receive the first set of specimens in each group. The shells and the reptiles and batrachians have already been worked up.

Preparation of specimens.—While the preparation of specimens for the reserve collections demanded the usual amount of attention, the work of the preparators related mainly to the several exhibition series. Including the material for two of the important groups from British East Africa, the buffalo and the zebra-oryx, the mounting of 12 mammals of medium to large size was completed in the Museum shops, and that of 4 others was well under way, the work being done under the direct supervision of the chief taxidermist, Mr. George B. Turner, and in accordance with his designs. The construction of two additional groups of mammals from specimens obtained by the Smithsonian African Expedition, one representing Cooke's hartebeest, the other the white rhinoceros, was arranged for by contract with Mr. J. L. Clark, of New York. The former was finished and installed, but the latter required a much longer time for its completion.

Forty-eight specimens of birds, designed partly for the general exhibition series and partly for the faunal exhibit of the District of

Columbia, were mounted by Mr. N. R. Wood, who also renovated and installed the specimens of poultry and pigeons in the collection of domestic animals. The moving and arrangement in the new building of the extensive series of skeletons was attended to by Mr. J. W. Scollick, osteologist, and during the progress of this work the collection was thoroughly overhauled and cleaned, and some of the specimens were remounted. Mr. William Palmer was engaged almost continuously in the installation of exhibits, especially of birds, reptiles, fishes, domestic animals, and the local fauna. The arrangement of the marine invertebrates, under the direction of Dr. Paul Bartsch, has made good headway, but as the exhibition has been planned on an entirely new basis which involves many details of preparation and mounting, its early completion is not to be expected. An important innovation in connection with this work is the painting of many of the specimens in imitation of their natural colors by a method which promises the preservation of these colors in alcoholic preparations. This is being skillfully done by Miss Violet Dandridge, who has given much time to the study of the coloration of these animals in nature.

For the reserve collections of mammals and birds over 3,200 specimens were treated, consisting in the preparation and poisoning of small to medium skins, the tanning of large skins, and the cleaning of skulls and skeletons. All tanning work was done by contract.

Exhibition collections.—The present plans for the exhibition collections of the department of biology relate only to zoology, a satisfactory display of plant life presenting difficulties which have not yet been worked out. The space allotted to zoology in the new building comprises all of the first and second stories in the west wing, the western section of the west range in the first story, and the entire west range in the second story. While marked progress had been made with the installations in nearly all branches, only about one-half of the area indicated had been opened to the public by the close of the year, and in this, moreover, the arrangements were still mainly provisional in character. The delays which have occurred have been due in part to the necessity of awaiting the construction of cases, but much more to the slow and painstaking processes of preparation to which a large proportion of zoological specimens must be subjected to render them presentable, and as only the highest class of workmanship has been encouraged most excellent results are being reached.

The first story is wholly devoted to the mounted skins of mammals and birds arranged faunally, the latter group occupying the range and a portion of the north hall of the wing, both of which, but no other part of this story, had been made accessible to the public.

The American mammals, consisting principally of North American representatives, have been assigned the large skylighted hall, the African mammals the outer end of the wing, and the Australian and oriental mammals the south hall, while the palearctic fauna will share the north hall with the birds. Pending their arrangement a few large mammals mounted separately on pedestals have been exhibited in the rotunda.

In the south and outer halls of the second story of the west wing, which still remain closed, the installation of the marine invertebrates, and of the reptiles and fishes, respectively, were in progress. The reptile casts brought from the older building had been placed in cases, but the addition of a number of alcoholic specimens had yet to be made. The extensive series of casts of fishes begun many years ago, which will also continue to be used, were being renovated and repainted preparatory to their installation in large wall cases in a much more effective manner than before. As the older exhibit of marine invertebrates contained little that could well be utilized, a practically new collection is being organized, and it will be presented in a manner not hitherto attempted here except experimentally. Rectangular jars with polished fronts will be employed for the alcoholic specimens, and such as require to be fastened will be attached to glass plates.

In the remaining parts of the second floor, to which the public had been given access, the disposition of the collections was about as follows: The north hall of the west wing was devoted to the subjects of anatomy and the development of the various classes of animals, illustrated by models and by the extensive series of skeletons. The western section of the west range contained the systematic series of animals, which is as yet in only a formative stage and will be added to as material can be selected or obtained and prepared. In the northern section of this range are the exhibit of domestic animals and the faunal exhibit for the District of Columbia, while in several alcoves the special subjects of albinism, melanism, and hybridism are represented.

DEPARTMENT OF GEOLOGY.

Accessions.—The total number of specimens received by the department was 138,521, distributed among the divisions and sections as follows: Systematic and applied geology, 1,927; mineralogy and petrology, 1,436; invertebrate paleontology, 134,681, including about 75,000 specimens deposited by Mr. Frank Springer; vertebrate paleontology, 299; and paleobotany, 178. The more important accessions were as follows:

The division of geology obtained from the Lowell Lumber & Asbestos Co., Lowell, Vt., as a gift, a block of serpentine, some 2 by 4

feet in size, containing a network of veins of the fibrous chrysotile or asbestos, showing to admirable advantage the mode of occurrence of this form of the commercial article. The block, which came from the company's quarries at Chrysotile, was accompanied by 8 samples of the shredded product representing the different grades. To Mr. Gardner F. Williams, of Washington, formerly manager of the De Beers Consolidated Diamond Mines of South Africa, the division was indebted for 16 perfect small diamond crystals, an interesting specimen of diamond-bearing rock, showing the imprint left from the extraction of a large, well-formed diamond crystal, several specimens of rocks and minerals, and a series of photographs, which supplement the special exhibit relating to the South African diamond mines presented by Mr. Williams some years ago.

The important collection of building and ornamental stones was increased by the acquisition of 27 examples of granite and marble in slabs, some of which measured 32 inches square and others $22\frac{1}{2}$ by $26\frac{1}{2}$ inches. They were all generously contributed by the representatives of the quarries from which they were taken, and are conspicuous features in the exhibition hall where they are displayed, some being used as panels for exhibition bases. The varieties of stone and the donors were as follows: Ascutney Mountain (Vt.) green syenite, from the Norcross Brothers Co., Worcester, Mass.; red Westerly granite, from the New England Granite Works, Westerly, R. I.; the so-called "sea-green" granite, from the Rockport Granite Co., Rockport, Mass.; white marble of Gantts Quarry, Ala., from the Alabama Marble Co.; and marble, from the Arizona Marble Co., Bowie, Ariz., and the Evans Marble Co., Knoxville, Tenn. The Geological Survey transferred 875 hand specimens of granites and 215 specimens of marbles, representing the work done and described by Mr. T. Nelson Dale on the New England granites and the commercial marbles of western Vermont, respectively.

The additions to the meteorite collection comprised an 840-gram slice of a pallasite from Ahumada, Mexico, obtained by exchange; two pieces of a meteorite which fell in Behera Province, Egypt, the gift of the Geological Survey of Egypt; a 6,538-gram mass of meteoric iron from Amalia, German Southwest Africa, presented by Mr. Clarence S. Bement, of Philadelphia, Pa.; a portion of a meteoric stone found near Cullison, Kans., contributed by the head curator; a meteoric iron found near Perryville, Mo., acquired by purchase; and a 175-gram fragment of the Scott City, Kans., meteorite, donated by Mr. John T. Freed, of Scott, Kans. The Cullison and Perryville meteorites have been made the subject of exhaustive investigation, and in that from Perryville the rarer elements of ruthenium, iridium, palladium, and platinum were discovered.

The division of mineralogy and petrology received by transfer from the Geological Survey six lots of type specimens of plumbogjarosite, ferritungstite, beaverite, hinsdalite, paigeite, and hulsite, and also two type specimens of crystallized variscite from near Lucin, Utah. A showy specimen of turquoise, unique in representing the first known occurrence of this mineral in a crystallized condition, and of special interest as furnishing the type material for a chemical and crystallographic investigation by Mr. W. T. Schaller, of the Geological Survey, was received as a gift from Mr. J. H. Watkins, of Washington. Specimens of neotantalite, tourmaline, villaumite, grandidierite, autunite, danburite, spodumene, caesium beryl, all interesting as representing minerals or localities new to the collection, were obtained from Mr. Schaller in exchange. The gem collection was enriched by four beautiful moss agates from near Glendive, Mont., the gift of Dr. L. T. Chamberlain, and by a few purchases made in Germany and England by Dr. Pogue. The latter included a carved turquoise charm, a lapis lazuli carving, a Chinese clasp set with jade and pink tourmaline, an opal carving, a Ceylon moonstone, and necklaces of rose quartz, amethyst, and opal.

Collections of petrological interest were received from the Geological Survey, as follows: Eighty-four specimens illustrating the geology and ore deposits of the Breckenridge district, Colorado, as described by Mr. F. L. Ransome in Professional Paper No. 75; 71 rock specimens illustrating the geology of the Taylorsville district, California, as described by Mr. J. S. Diller in Bulletin 353; and 70 specimens illustrating the rocks and ores of the Tonopah district, Nevada, as described by Mr. J. E. Spurr in Professional Paper No. 42.

By far the most important accession of the year, and one of the most noteworthy ever received by the department of geology, consisted of the collection of fossil echinoderms assembled by and still belonging to Mr. Frank Springer, of East Las Vegas, N. Mex., which he has deposited in the Museum and has permitted to be made available for both study and exhibition. Comprising upward of 75,000 specimens, it contains many hundreds of types and constitutes the most complete series of the fossils of this group in the world. The collection has been installed for reference and study in one of the large laboratory rooms in the new building, where Mr. Springer is continuing his investigations. Mr. Springer also presented to the Museum about 600 Middle Ordovician fossils from eastern Tennessee, including many choice specimens of sponges and graptolites.

Most notable of the collections in invertebrate paleontology deposited by the Smithsonian Institution was a series of 126 types of Cambrian fossils illustrating studies by Secretary Walcott on the Middle Cambrian faunas of British Columbia. Of less importance

only in that they include no type material were 1,020 slabs and 725 individual specimens of Middle Cambrian fossils from the Burgess shale near Field, British Columbia, collected by Secretary Walcott. A third deposit of considerable promise from the Institution, although not yet worked up, comprises about 43,000 specimens of Cambrian and Ordovician fossils from Wyoming, Colorado, New York, British Columbia, and Manitoba, collected by Mr. L. D. Burling during the summers of 1910 and 1911, under a grant from the Institution. Twenty-seven type specimens of Silurian fossils from Maine and 69 specimens of fossil crustaceans from the Tertiary of the Atlantic Coastal Plain were transferred by the Geological Survey.

An important gift from the Carnegie Institution of Washington consists of 2,275 specimens of fossils collected by Mr. Bailey Willis and Prof. Eliot Blackwelder in China during the expedition of 1903-4. The Peabody Museum of Natural History of Yale University presented, through Prof. Charles Schuchert, a valuable series of Beekmantown fossils, some 2,000 in number, from Fort Hunter, N. Y.; and as the result of field work by Dr. R. S. Bassler, curator of the division, about 2,000 specimens of Ordovician and Mississippian fossils from the Mississippi Valley were secured. Important as representing a little-known region are collections of Tertiary fossils received from the Isthmian Canal Commission and from Mr. D. F. MacDonald, of Culebra, Canal Zone. They comprise between 6,000 and 7,000 specimens, and it is believed that their study will settle some of the contested questions of Panama geology.

The section of vertebrate paleontology obtained, through exchange, a fragmentary, though fairly complete, skeleton of the small Miocene rhinoceros, *Diceratherium*, which will be mounted for exhibition. Of exceptional scientific value, as type and figured specimens described by Prof. E. D. Cope in 1869, are seven fragmental remains of fossil reptiles deposited by the North Carolina Department of Agriculture, through Mr. H. H. Brimley, curator of the State Museum. A contribution from the Smithsonian Institution, consisting of the jaws and teeth of the fossil shark *Edestus*, is of unusual interest on account of the perfect preservation of the specimen, which adds greatly to our knowledge of this somewhat problematical form. It has been described by Dr. O. P. Hay in the Proceedings of the National Museum.

The accessions in paleobotany were mainly valuable as furnishing material for exhibition. They include a collection of silicified wood from the fossil forests near Adamana, Ariz., obtained by the head curator in June, 1911; and five sections of fossil logs, fragments of fossil wood, and a large slab showing fossil plant remains, collected for the Museum by Mr. Guy L. Wait, of Lewistown, Mont.

General work on the collections.—The energies of the department were mainly directed toward furthering the installation of the exhibition series. In the division of systematic and applied geology this involved the planning of new cases and fittings and, owing to the abandonment of the geographic series, the complete overhauling of the old collections and an entirely new arrangement. Incidental to this work many duplicates were segregated and used in the preparation of 100 educational sets for distribution to schools and colleges. The material was largely of an economic nature, and included both rocks and minerals. A considerable quantity of fragmental material suitable for blowpipe and assay purposes was also put up in packages for school distribution. A final separation of the technological collections, formerly included with those of applied geology, was effected, and the specimens, together with the catalogues, were transferred to the division of mineral technology.

In the exhibition hall devoted to mineralogy, which was opened to the public on September 18, 1911, the additions consisted of eight table cases for the gem collection and seven upright cases for the special series of large and showy specimens, the systematic part of the mineral collection having been installed the previous year. The collection of rocks and rock-forming minerals was overhauled and arranged in new cases. About 2,500 exhibition labels were prepared and printed. The card catalogue of the minerals on exhibition, as also that of the type specimens of minerals in the division, were advanced nearly to completion. The study and duplicate collections were assembled temporarily in drawers in the corridor adjoining the laboratory.

Although two of the three exhibition halls assigned to the division of paleontology were accessible to the public during the greater part of the year, much additional material was introduced. Among large special exhibits of invertebrate paleontology installed were a Cambrian seabeach illustrating ripple marks and animal tracks; a Cretaceous sea bottom, including a slab of *Uintacrinus* with associated fossils, measuring $7\frac{1}{2}$ by 8 feet; examples of near-shore sedimentation, such as sandstone, shale, and limestone, with included fossils; and a large slab of Cretaceous crinoids. The stratigraphic series of invertebrate fossils exhibited in the older Museum building was replaced by a new and more effective series installed in a long slope-top case extending the entire length of the north wall in the south aisle, the older specimens being mainly transferred to the study series. The biologic collection, formerly of limited extent, was materially increased by the addition of a series of American and European ammonites, of American gastropods illustrating the evolution of the group, of pelecypods showing a few characteristic species of each formation, of corals, of insects, and of crustaceans,

occupying in the aggregate several cases, some of large size. Many fine specimens of crinoids from the collection of Mr. Frank Springer were arranged in two large upright cases, with special reference to illustrating the faunas of the lower Carboniferous rocks of the Mississippi Valley. The Harris collection was remounted and installed at the eastern end of the hall.

With respect to the reserve collections and the unworked material, it may be said that the extensive collection of Cambrian fossils obtained by Secretary Walcott in 1911 was prepared for study, and some 75 drawers of Ordovician fossils were put in final shape for reference. The Springer collection of fossil echinoderms, filling two cars, which arrived during the year, was unpacked and arranged in cases by the curator of the division, aided by several assistants. This work required about three months' time, and the collection quite fully occupies the large double laboratory which has been allotted for its storage and study. Seventy-one boxes of unclassified material were withdrawn from storage, where they had been for some time, and the specimens were prepared and placed in the study series. The large collection of early Paleozoic bryozoa from Russia and Sweden, on which Museum Bulletin No. 77 was based, was conveniently arranged. The Tertiary collections were gone over and cleaned, the drawers in the upright cases containing them were labeled, and the material made readily accessible. A large number of Tertiary fossils from the coastal plain region were also labeled.

In the section of vertebrate paleontology the work related mainly to the preparation of specimens for exhibition, which, so far as they were completed, are referred to in another connection. Mr. Gilmore, with the assistance of the preparators, spent a large part of the year in assembling and preparing the *Megalosaurus* material contained in the Marsh collection. This work can not be finished for some time, but is expected to result in two exceptionally fine mounts of this remarkable reptile. Of the unworked material in the section, filling several hundred boxes and trays, a very large number of mammalian and reptilian bones were freed from the matrix and listed and numbered.

The entire exhibit of paleobotany, the last of the paleontological series, was removed from the older to the new building early in the year, and its reinstallation in the north aisle of the east wing was proceeded with as rapidly as possible. The collection was overhauled, cleaned, and remounted, and the increased space allotted to the subject made it possible to introduce many valuable specimens which had been in storage. Among the conspicuous additions were a number of sections of silicified logs, a Devonian fossil tree, and several large and showy Carboniferous plants. The material forming the basis of Dr. Arthur Hollick's study of the Cretaceous flora of

southern New York and New England, received from the Geological Survey and containing over 200 type and figured specimens, was numbered and catalogued. The entire reserve collection of fossil plants, which fills several thousand drawers of standard size, was inspected and, in large part, rearranged in the new quarters. Considerable progress was also made in bringing the card catalogue of the section up to date and in reducing the size of specimens by cutting away as much of the matrix as possible.

Exhibition collections.—The installations in the exhibition halls of the department of geology were sufficiently advanced to permit the last of them to be opened to the public by the latter part of December, 1911, although their final arrangement had by no means been completed by that time. The work continued actively during the remainder of the year, and much still remains to be done in the preparation and adjustment of individual specimens and in labeling. The status of the exhibits is briefly as follows:

Systematic geology occupies the eastern section of the east range on the first floor, in which the collections are mainly grouped to illustrate severally the materials of the earth's crust (elements, rock-forming minerals, and rocks); rock weathering; glacial phenomena; concretions, faults, and other structural forms; calcareous and siliceous sinter; volcanoes and volcanic phenomena; cave phenomena and other illustrations of cold water depositions; deep-sea dredgings and minor geological phenomena; meteorites; problematic chalcidonic deposits; various phases of the phenomenon of the Meteor Crater in Arizona; and selected and striking forms of cave deposits. Individual exhibits comprise a siliceous geyser cone; an actual section of Marengo Cave, Ind.; a large stalactite and stalagmite in natural position; and large examples of potholes, meteorites, concretions, basaltic columns, and glaciated phases. The hall also contains 10 relief maps.

The exhibits in applied geology, which are located on the north side of the east wing on the second floor, comprise ores and non-metallic minerals of economic value, displayed in 30 cases, and the extensive collection of building stones in 18 cases, besides which there are 13 rectangular pedestals with ornamental stone panels and tops, and several all-glass cases for large ore and other economic materials. Wall surfaces have also been used for the installation of some of the large samples of stone.

The mineral exhibition, installed on the opposite side of the east wing from applied geology, consists of a systematic series in 14 cases, many large and showy minerals out of classification in 9 cases and the gem collection in 8 flat-top cases, besides a collection of elements and a large cluster of amethystine quartz in 2 small special cases.

The paleontological collections occupy the entire first floor of the east wing, of which the large central hall is assigned to vertebrates, the south aisle to invertebrates, and the north aisle to plants. In the last report some account was given of the preparations of fossil vertebrates which had then been completed or renovated, including, among others, examples of the zeuglodon (*Basilosaurus cetoides*), *Ceratosaurus nasicornis*, *Camptosaurus browni* and *nanus*, a *Claiosaurus*, *Triceratops prorsus*, *Trachodon annectens*, an oreodon (*Merycodon gracilis*), the large mastodon, and the Irish elk. The additions to the hall during last year comprised a skeleton of the short-limbed rhinoceros, *Teleoceras fossiger*; remounts from the older collection of the cave bear, the toothed diving bird, *Hesperornis regalis*, and the cast of *Pariasaurus*; 65 specimens of mammal and fish remains; a series of limb bones and skulls illustrating the evolution of the horse; a number of ceratopsian and trachydon remains; examples of the more important groups of fossil batrachians, reptiles, and birds; and 20 specimens illustrating the various stages of growth of the common fossil land tortoise, *Stylemys nebrascensis*.

The general and principal installations in invertebrate paleontology comprise a series of specimens illustrating the general conditions of sedimentation and fossilization in 1 case; a stratigraphic series of specimens occupying an adapted form of American case which extends uninterruptedly along the entire north wall of the hall and is accompanied by a continuous geological section across the North American continent on a scale of 2 miles to the inch; a biological series of fossils in 13 cases distributed through the middle and south parts of the hall; and the I. H. Harris collection of Cincinnati fossils in 2 cases. Among special features are examples of ripple marks and animal tracks from a Cambrian seabeach; a slab of *Uintacrinus* with associated fossils, another of Cretaceous crinoids, and a third illustrating near-shore sedimentation. The Springer collection of crinoids has been extensively drawn upon for the exhibits of this section.

The hall devoted to paleobotany was in a much less advanced condition than the others, but contained an extensive series of fossil plants so arranged in stratigraphic sequence as to represent the important plant-bearing horizons, besides a number of large mounted specimens on bases and wall panels. The south wall is used for enlarged drawings and specimens illustrative of special features.

Speaking of the general arrangement of the exhibition halls, the head curator explains that every effort has been made to provide an open installation, giving the impression of roominess and broad passages. In carrying out this idea, the higher cases have, wherever possible, been placed along the walls and at right angles to the chief sources of light, and the lower cases toward the center of the halls.

In many instances, moreover, sufficiently wide spaces have been left between the high cases to permit the introduction of large individual objects on special bases. By this plan the visitor is enabled to comprehend the entire layout of any hall almost at a glance, and in passing down the main aisle to see all of the material in each case, but, of course, this arrangement has not everywhere been practicable. While the space occupied by the department is considerably greater than in the older building, yet the number of specimens displayed is relatively much less, which is an advantage to the public. Another improvement affecting the appearance of the halls has been the general avoidance of the use of diaphragms in the cases, and where their introduction in the higher cases has been necessary, they have been carried only to the height of the upper shelf and have been stopped some 15 inches from the ends, thus doing away with the unsightly vertical bars and shelf ends so conspicuous under the older method and permitting the installation to be carried around the ends of the cases. By placing the general case labels inside the cases instead of in frames on the outside, a still further improvement in the effect of the installation is considered to have been made.

Researches.—Owing to the amount of routine work in connection with the overhauling and arrangement of the collections the scientific staff of the department had little opportunity for conducting original researches. The head curator, Dr. George P. Merrill, continued his investigations relative to the occurrence of the rarer elements in meteorites under a grant from the National Academy of Sciences. He published one short paper on a stony meteorite from Scott County, Kans., and made ready for printing two other papers on meteorites from Missouri and Kansas. Dr. J. E. Pogue, assistant curator of mineralogy and petrology, made a crystallographic study of quartz from Alexander County, N. C., and reports the practical completion of his treatise on turquoise, on which he has been engaged during the past two years.

Dr. Charles D. Walcott, Secretary of the Institution, completed and published studies on Middle Cambrian annelids and crustaceans, on the Cambro-Ordovician boundary in British Columbia with description of fossils, and on the Sardinian Cambrian genus *Olenopsis* in America. He also finished a monograph of the Cambrian Brachiopoda, and continued work on the Upper Cambrian (Saratogan) fauna of New York, the Cambrian fossils of China, and the trilobite genus *Dicellosephalus*.

Dr. R. S. Bassler, curator of paleontology, prepared the chapters on Ostracoda, Phyllopora, Bryozoa, and other groups for the new English edition of Zittel's Textbook of Paleontology, and completed a study of the Devonian Ostracoda and Bryozoa of Maryland. He

also entered into arrangements to describe the Ostracoda and Bryozoa for two monographs of the Geological Survey, one on the paleontology of the Atlantic coastal plain, the other on the geology and paleontology of the Panama Canal Zone. Dr. William H. Dall, associate curator, reports progress on a monograph of the fossils of the Siliceous beds of the Oligocene of Florida. Mr. L. D. Burling, assistant curator, was mainly occupied in editing and indexing Secretary Walcott's monograph on the Brachiopoda, but also continued work on a bibliography of the Cambrian and Ordovician geology and paleontology of the Cordilleran region, the Ordovician fauna of Colorado, and the Cambrian Brachiopoda represented in the Museum collections, and on a preliminary manuscript for a report on the Ordovician section near Glenogle, British Columbia.

Mr. C. W. Gilmore, assistant curator of fossil reptiles, published on the two skeletons of *Camptosaurus*, recently mounted under his direction for the Museum, and a paper descriptive of a new genus and species of Mosasaur from the Cretaceous of Alabama. He also finished a report on the fossil batrachian, reptilian, and avian remains of North Carolina, had in preparation an account of a new fossil gavial from Georgia, and made some progress with his study of the dinosaurian genera *Ceratosaurus* and *Stegosaurus*. Mr. J. W. Gidley, assistant curator of fossil mammals, brought nearly to completion three papers on mammalian material under his charge. Dr. A. C. Peale, aid in paleobotany, submitted for publication an important paper on the stratigraphic position and age of the Judith River formation, based on field work and collections made during the summer of 1911.

In response to requests from outside sources, 451 lots of geological specimens were examined and identified, and reports furnished on their character and value.

Explorations.—No field work in geology was undertaken directly by the Museum. The Middle Cambrian rocks of western Canada were again the subject of investigation by Secretary Walcott, who visited the practically unexplored Mount Robson region of Alberta and the famous fossil locality at Burgess Pass, British Columbia. Under a grant from the Smithsonian Institution, Mr. L. D. Burling continued explorations in British Columbia, Manitoba, and New York, returning with large collections of Cambrian and Ordovician fossils. A study of the Judith River formation in Montana, resulting in the collection of many Cretaceous fossils, was made by Dr. A. C. Peale at his own expense, aided by a small allowance from the Museum. While at Burlington, Iowa, in the summer of 1911, superintending the packing of the Springer collection, Dr. R. S. Bassler made several collecting trips in that vicinity.

DISTRIBUTION AND EXCHANGE OF SPECIMENS.

Of duplicate specimens labeled and systematically arranged in sets for teaching purposes two series were available during the year, one consisting of minerals and ores, the other of fossil invertebrate animals. The distribution to schools and colleges comprised 72 sets of the former and 24 sets of the latter, aggregating 7,374 specimens. In addition, some 2,132 duplicate specimens of animals, plants, rocks, minerals, and fossils were supplied in response to special requests for material for educational use or for research. The distribution of duplicates on account of exchanges amounted to 16,009 specimens, of which 114 were anthropological, 13,818 biological, and 2,077 geological. Specialists in this country and abroad received for examination and study, either on behalf of the Museum or in their own interests, 10,288 animals and plants and 1,252 geological specimens, a total of 11,540 specimens.

Among establishments in other countries with which exchange relations were had during the year were the British Museum of Natural History and the Royal Botanic Gardens at Kew, London, England; the Königl. Zoologisches Museum, Berlin, the Königl. Botanischer Garten, Dahlem, Steglitz bei Berlin, and the Zoologische Sammlung des Bayerischen Staates, Munich, Germany; the Jardin Botanique de l'État, Brussels, Belgium; the K. K. Naturhistorisches Hofmuseum, Vienna, Austria; the Universitetets Zoologiske Museum, Copenhagen, Denmark; the Naturhistoriska Riksmuseet, Stockholm, Sweden; the Indian Museum and the Royal Botanic Garden, Calcutta, India; the Department of Agriculture of the Union of South Africa, Pretoria, Transvaal; the Federated Malay States Museums, Kuala Lumpur, Federated Malay States; the Western Australian Museum and Art Gallery, Perth, Western Australia; and the Provincial Museum, Toronto, Canada.

Exchanges were also conducted with the following individuals abroad: Mr. John Watson, Cambridge, Dr. Malcolm Burr, Dover, Miss Madeline Munro, London, and Mr. Arthur Earland, Watford, England; Dr. J. H. Ashworth, Edinburgh, Scotland; Prof. David Paul von Hansemann, Berlin, Mr. J. D. Alfken, Bremen, Dr. E. Enslin, Fürth, and Dr. E. Rosenstock, Gotha, Germany; Dr. J. Perner, Prague, Bohemia; Mr. J. P. Kryger, Gjentofte, Denmark; Mr. G. Van Roon, Rotterdam, Netherlands; Prof. Luigi Buscalioni, Catania, and Mr. Alwin Berger, Ventimiglia, Italy; Prof. Sokichi Ko, Fukuoka, Japan; Mr. Frank M. Littler, Launceston, and Mr. J. E. Philp, Lindisfarne, Tasmania; Mr. A. J. Shearsby, Yass, New South Wales, Australia; and Prof. José Arechavaleta, Montevideo, Uruguay.

NATIONAL GALLERY OF ART.

A notable event in the brief history of the Gallery was the exhibition in one of the great halls of the new building during the spring of 1912 of a selection of objects from the collection of American and oriental art presented to the Nation in 1906 by Mr. Charles L. Freer, of Detroit, Mich., but which, under the conditions of the gift, is to remain in the custody of the donor during his life. Assembled, as Mr. Freer states, for the purpose of uniting "modern work with masterpieces of certain periods of high civilization harmonious in spiritual and physical suggestion, having the power to broaden esthetic culture and the grace to elevate the human mind," yet to the student of research it has a greatly added value in possessing much old and rare material, especially from China, in respect to which country at least the collection is unrivaled. The following estimate of Mr. Freer's labors and of the importance of his collection is by Dr. Berthold Laufer, the distinguished oriental scholar:

"There are at the present time two living men at least whose minds are wide-awake to the world-historical importance of oriental art in its bearing on our cultural development and in its immense fruitfulness of our own art life—Dr. Bode, who is planning to found an Asiatic museum in Berlin, and Mr. Charles L. Freer, who has made the American people heirs to the finest existing collection of Chinese art. It is a collection broad and universal in scope, but at the same time one of harmony and unity of thought, the same leading motive and personal spirit pervading the magnificent specimens of Egyptian, Mesopotamian, Persian, and far eastern pottery, ancient Egyptian colored glass, Persian and Hindu miniature paintings, and the painting, bronze, and sculpture of China and Japan. And the genius of Whistler, a reincarnation of one of the ancient masters of the East, soars above these emanations of the oriental world as the spiritual link connecting the Orient and the Occident.

"Mr. Freer occupies an exceptional place among collectors. He has never been accumulative, but rather selective in his methods; with a sincere appreciation of all manifestations of art and deliberate judgment, he has himself visited the East many times, and in full sympathy with oriental peoples, imbibed a profound understanding of their artistic sentiments and aspirations. Mr. Freer is the only great collector in our country who has sought and seized opportunities in China. He was privileged to enter the sanctum of many Chinese collectors and connoisseurs of high standing, and he was fortunate in securing masterpieces of the most indisputable artistic value. It is in the American national collection that for the first time our eyes are opened to the choicest specimens of ancient Chinese painting, and the Nation has every reason to look up with pride to this treasure

house and to feel grateful to the man who has become a national benefactor by bringing within the reach of all the message of the great teachings of eastern art. In their works of the brush the Chinese have inculcated their finest feelings, and no better means could be found for an appreciation of the true spirit of China than a study of her ancient masters. The American national collection now takes the lead in Chinese art and will form the basis for important research work to be carried on in this line. Whatever the future results of such research may be, whether the evidence in favor of the authenticity of individual pieces will be strengthened or to a certain extent modified, this will not detract from the intrinsic value of these precious documents, greater than which no other period in the history of art can boast. The grand old masters of the T'ang and Sung periods are restored to life before our eyes, and speak to us their suave language of murmuring brooks, splashing cascades, glistening lakes, and rustling firs and pines. China thus is more awake for us than ever before, and she is awakened to full life in the displays of the National Gallery. May the timely event of a temporary exhibition of selected art works from this unique collection signal 'The awakening of China' among our countrymen and give a new stimulus to our artists and art students."

The original donation comprised about 2,250 objects, but through subsequent additions, consisting of materials more recently acquired and mainly obtained in the course of Mr. Freer's later travels in the Orient, the number has been nearly doubled. Included in the gift is also a sum of money sufficient for the erection of an appropriate and durable building in which the collection will be housed by itself, and in which, besides the necessary exhibition halls and storage rooms, will be ample accommodations for the use of students. The retention of the collection at Mr. Freer's home has not prevented the examination of its treasures by those deserving of this privilege, and as many of the paintings and other objects have been shown at important exhibitions the world at large has had opportunity to learn of the variety and value of its contents.

The temporary exhibition at Washington was rendered possible through the generosity of Mr. Freer in meeting the expenses of transportation, and although not held under the most favorable conditions as to space and lighting its success was more than gratifying. The selection for the purpose, consisting of 175 objects, was made with reference to illustrating the various branches of the collection, and comprised both American and oriental paintings, and oriental pottery, bronzes, sculpture, glass, and illuminations. The installation occupied the large western hall of the new Museum building designed for displaying large mammals, which measures about 167 feet long by

50 feet wide and receives its illumination through a ceiling light some 54 feet above the floor. Frink reflectors with electric lamps were also provisionally introduced for night use. The side walls and one at the end of the room were utilized for the paintings, except the scrolls and albums, which, together with most other classes of objects, were arranged in floor cases specially planned and constructed for the purpose. The exhibition opened with a special view on the evening of April 15, at which there was a large attendance, and continued until June 16. A catalogue of the collection, containing biographical sketches of the painters represented, was issued for gratuitous distribution in the form of a Museum bulletin.

Following is a list of the objects exhibited:

AMERICAN PAINTINGS.

James McNeill Whistler. The Isles of Venice (pastel); Harmony in Brown and Gold—Old Chelsea Church; The Summer Sea; Blue and Gray—Unloading; A Note in Red; An Orange Note—Sweetshop; Low Tide; Petite Mephiste; Purple and Gold—Phryne the Superb, Builder of Temples; A Note in Blue and Opal—The Sun Cloud; Green and Gold—The Great Sea; Chelsea Shops; Little Green Cap; Wortley—Note in Green; Venus Astarte (pastel); Trafalgar Square—Chelsea; Blue and Silver—Trouville; Symphony in Gray—Early Morning, Thames; Rose and Red—The Little Pink Cap (pastel); Jeune Femme, dite l'Americaine—Arrangement in Black and White No. 1; Portrait of F. R. Leyland; Nocturne, Blue and Silver—Bognor; Nocturne, Blue and Gold—Valparaiso; Nocturne, Blue and Silver—Battersea Reach.

Thomas W. Dewing. Yellow Tulips; The Piano; A Lady Playing the Violoncello; Pastel No. 20; Pastel No. 6.

Dwight W. Tryon. Autumn Day; The Sea—Evening; Autumn—Morning; Early Night (pastel); The Sea—Moonlight (pastel).

Abbott H. Thayer. Monadnock in Winter; Diana; Capri.

Winslow Homer. Waterfall in the Adirondacks (water color).

JAPANESE PAINTINGS.

Yeitoku Kano (1543–1590). Trees in snow.

Honnami Koyetsu (1556–1637). Bamboo; Rabbits and grasses; Stork; Birds and waves; Flowers.

Tawaraya Sotatsu (flourished 1624–1643). Waves and island; Waves and islands; Poppies.

Ogata Korin (1640–1716). Garden scene.

Ogata Kenzan (1662–1743). Flowers; Pine branch in snow.

Mori Sosen (1747–1821). Peacock.

CHINESE PAINTINGS.

Liang dynasty.

Attributed to Chang Sêng-yu. Kwan-yin.

T'ang dynasty.

Pien Luan. Eagle on rock.

Yen Li-pên. Flowers; Figures, scroll painting.

Artist unknown. School of Wu Tao-tzũ. Kwan-yin.

After design by Wu Tao-tzũ. Portrait of Chao-lieh, Emperor of the Shu Han dynasty.

Ching Hao. Landscape.

Li Chao-tao. Landscape.

Li Ssũ-hsün. Landscape, scroll painting.

In style of Wang Wei. Landscape, scroll painting.

Chou Fang. Portrait of Lao-tze, in album of paintings by various artists.

Han Kan. Three leaves from an album painted by this artist.

The Five dynasties and Sung dynasty.

Hsü Hsi. Two ducks and flowers.

Sung dynasty.

Kuo Hsi. Tall cliffs and waves.

Chao Ch'ang. Goose and flowering shrub.

Ch'ên So Wung. Dragon.

Ku-su. Peonies and bird, tapestry.

Liang K'ai. Four figures.

Ma Yüan. Landscape, scroll painting.

Attributed to Ma Yüan. Landscape.

Yen Wên-kuei. Landscape, scroll painting.

Fan K'uan. Landscape, scroll painting.

I Yüan-chi. Landscape, scroll painting.

Liang Ch'ieh. Landscape, scroll painting.

Chao Ch'ien-li. Landscape, scroll painting.

Ch'ien Shun-chü. Painting in album of paintings by various artists; painting from an album.

Li Lung-mien. Kwan-yin; Buddhistic, scroll painting.

Artist unknown. Seal and signature of Hsüan-ho, Emperor, A. D. 1119-1125. Monkey on rock, and water plants.

Artist unknown. Lady near pine tree.

Artist unknown. Landscape with tiger.

Artist unknown. Landscape with figure.

Artist unknown. Monkey and trainer.

Late Sung and early Yüan dynasties.

Ch'ien Hsüan. Landscape, scroll painting; Buddhistic, scroll painting.

Yüan dynasty.

Wang Yüan. Flowers, scroll painting.

Wang Mêng. Landscape, scroll painting.

M'ing dynasty.

Lin Liang. Ho-o birds.

Dynasty not recorded.

Lêng Chên-jen. Landscape, scroll painting.

BRONZES.

Seventeen pieces, all Chinese, as follows: A jar of the Shang dynasty (1766-1122 B. C.); an arrow-vase for the game of pitchpot, Han dynasty (255 B. C. to 221 A. D.); and 9 statuettes and 6 mirrors of the T'ang and earlier dynasties.

SCULPTURE.

Kwan-yin and one attendant, and relief tablet, of the Northern Wei dynasty; relief tablet of the Wei or T'ang dynasty; and Kwan-yin, of the T'ang dynasty.

POTTERY.

Fourteen specimens of Chinese pottery, 8 of Korean, 7 of Japanese, 13 of Persian, and 10 of Mesopotamian.

ILLUMINATIONS.

Four Persian and Indo-Persian illuminations by various artists.

ANCIENT GLASS.

Seven specimens of ancient Egyptian glass.

Mr. William T. Evans, of New York, whose interest in the Gallery has been so strikingly manifested from the time of his initial contribution in 1907, made 10 important additions to his collection of the works of contemporary American painters, which, at the end of the year, numbered 137 pieces by 98 artists. One of the older paintings was also replaced by a later and better example of the work of the

same artist. Now occupying the greater part of the space allotted to the Gallery in the new building, this collection forms a most notable gift to the Nation and places the public under a debt of lasting gratitude to this generous and patriotic benefactor. The canvases received from Mr. Evans during the year were as follows:

Nymph and Water Babies at Play, by William Baxter Palmer Closson.

Ariadne, by Wyatt Eaton.

Laguna—New Mexico, by Albert Lorey Groll.

After a Storm, Amagansett, by Arthur Turnbull Hill.

The Spouting Whale, by William Morris Hunt.

Monhegan Headlands, by William S. Robinson.

Dublin Pond, New Hampshire, by Abbott Handerson Thayer.

The Cup of Death, by Elihu Vedder.

The Blockmaker, by Edgar Melville Ward.

The Knight of the Holy Grail, by Frederick J. Waugh.

Russian Tea, by Irving Ramsay Wiles.

Mr. Evans also added 34 examples to the valuable series of proofs of American wood engravings mentioned in the report of last year. They are by Timothy Cole, William Baxter Palmer Closson, Fred Yuengling, and Victor Bernstrom. This collection, now containing 115 proofs and representing 16 engravers, is exhibited on several screens placed in the pavilion at the north end of the middle hall opposite the entrance to the gallery of paintings.

The following paintings from the Evans collection were exhibited elsewhere during the year: *May Flowers*, by Mrs. Louise Cox, at the Twenty-fourth Annual Exhibition of American Oil Paintings and Sculpture, held at the Art Institute of Chicago from November 14 to December 27, 1911; and *The Visit of Nicodemus to Christ*, by John La Farge, *The Spouting Whale*, by William Morris Hunt, and *High Cliff, Coast of Maine*, by Winslow Homer, at a Comparative Exhibition of Paintings of the Romantic Movement by artists of the French, Dutch, English, and American Schools, held at the Lotos Club, New York, during a part of January and February, 1912.

Three other contributions of valuable paintings which are of special historical interest are described in connection with the division of history. They comprise portraits of the early geographers, Mathias Ringmann, Martin Waldseemuller, and Vautrin Lud, who originated the name America; a portrait of John Ericsson, by Arvid Nyholm, and a painting of the *Combat between the Monitor and Merrimac*, by Henry Reuterdaahl; and portraits of Commodores Oliver Hazard Perry and Thomas Macdonough. A plaster cast of the head of David by Michelangelo was presented to the Gallery by Mr. L. Amateis, of Washington.

The Gallery has been put under further obligations to Mr. W. A. Slater for the addition of 10 fine canvases to his original loan of 15 paintings recorded in the report for last year. They are *A Gray Day*, by Corot; *Island of the Cupids*, and *Group of Dogs*, by Diaz; *The Landing*, and *Three Oaks*, by Dupré; *Winter Landscape*, by Raffaëlli; *Female Figure*, by Monticelli; *The Quartet*, by Gauguin; *At the Barracks*, Constantinople, by A. Pasini; and *Madonna and Child*, attributed to the Sienna School. The collection of Mr. Slater fills one of the two small rooms adjoining the north entrance to the Gallery, while the other continues to be occupied by the loan from Mr. Ralph Cross Johnson, made in 1910 and 1911, and comprising 11 paintings, also by distinguished European masters. Another important loan, received from Mr. H. C. Perkins, consists of the following 10 works by British and Dutch artists, namely, *Portrait of the Countess of Clermont*, by Sir Joshua Reynolds; *Portrait of the Earl of Mulgrave*, by Sir Thomas Lawrence; *Portrait of a Boy*, by John Hoppner; *Portrait*, by Sir William Beechey; *Girl*, by John Opie; *A Cottage Scene*, by Ladbroke; *Landscape*, by Meindert Hobbema; *Portrait of a Dutch Lady*, by Michael Jansz Mierevelt; *Portrait of a Dutch Lady*, by Jan Victoors; and *Madonna and Child*, attributed to Van Dyck.

An interesting series of paintings deposited by Mrs. James Lowndes comprises: *Portrait of Mr. James Lowndes*, by George B. Butler; *Portrait of Mr. Charles Lowndes*; *Portrait of Mrs. Charles Lowndes*; *Child*, by Copley; *Portrait of Mrs. Oliver Wolcott*, wife of the Secretary of the Treasury under Washington; *Portrait of Mrs. George Gibbs*, by Lazarus; *Portrait of Mrs. Gracie*; *Portrait of Cardinal Ventivoglio*, attributed to Van Dyck; *Portrait of a Young Abbot*, said to be by Mignard; *Portrait of N. Menager*, Minister to the Congress of Utrecht, by Sir Godfrey Kneller, 1714; *Portrait of a Youth in Costume*, attributed to Gainsborough; *Portrait of George Washington*, copy by Jane Stuart of the original in the Athenæum, Boston, painted by her father, Gilbert Stuart; *The Good Sister*, by Hugues Merle; *Battle Scene*, by Eugène Fromentin; *Landscape*, by W. T. Richards; *Girl Tying up a Vine*, by J. L. Hamon; and two paintings on glass by Anna Barbara al Esch, 1731.

Other loans of paintings were as follows: From Mrs. W. Murray Crane: *Portrait of Philip IV of Spain*, School of Velasquez; *Venice*, by Canaletto; *Canal Scene*, by Guardi; and two landscapes by Richard Wilson. From Miss Silvie de Grasse Fowler: *Portrait of François Paul de Grasse de Rouville*, Admiral Comte de Grasse, by Largillière; *Portrait of Theodosius O. Fowler*, by G. P. A. Healy; and *Portrait of St. Bernard Dog*, Hero, by Benjamin West. From Mrs. Steven B. Ayres: One water color, by Addison T. Millar, entitled *Autumn on Long Island*, and three oil paintings, by George Traver,

entitled *Autumn, Landscape, and Litchfield Elms*. From the Misses Olivia and Ida Walter, a painting by Costantino Brunidi, entitled *The Five Senses*. From the trustees of the estate of E. E. Howell, an oil painting by Thomas Moran, entitled *From Hiawatha*.

Of sculptural works four pieces were received by the Gallery on deposit. Two are reproductions from the famous heroic statue of Abraham Lincoln by Augustus Saint-Gaudens, which stands in Lincoln Park, Chicago, and were graciously tendered by Mrs. Saint-Gaudens. One is a reduced copy of the entire statue, the other a copy of the bust, actual size, and both are in bronze. The other pieces are a life-size bronze statue of Napoleon by Launt Thompson, lent by Mrs. James W. Pinchot; and a plaster bust of Vittorio Emanuele III, King of Italy, by Henry Hudson Kitson, lent by the artist.

The general arrangement of the paintings in the Gallery remained the same as described in the last report. An important improvement in the equipment consisted in the introduction of Frink reflectors, with electric lamps, throughout all of the rooms and corridors, so as to permit of night opening, advantage of which was first taken at the function given by the American Institute of Architects on the evening of December 13, 1911. The reflectors aggregate in total length about 750 feet, and the lamps are spaced about 1 foot apart. The latter are of 25-watt tungsten, with the exception of about 100 lamps of 40 and 60 watt, required in some connections. The best illuminating effects were found to be secured by placing the lamps approximately 5 feet from the screens and 12 feet 6 inches above the floor, but in the narrow corridors it was necessary to reduce the distance from the screens to 3 feet 8 inches.

ART TEXTILES.

Interest in the collection of art textiles, under the patronage and direction of Mrs. James W. Pinchot, continued unabated, and many additions were received. The laces have now become sufficiently well represented to permit the arrangement of a synoptical series, in which all of the varieties are shown, and a special exhibit constituting a résumé of the history of lace making was also installed, the latter consisting solely of specimens belonging to the Museum. In this work Mrs. Pinchot had the active assistance of Miss Frances Morris, of the Metropolitan Museum of Art, New York, and of Mrs. S. F. Emmons and other ladies of Washington.

The acquisitions during the year numbered 68 examples of different kinds of handiwork, comprised in 22 accessions, of which 16 were loans and 6 were gifts. The collection in its entirety was thereby increased to over 1,050 specimens. The gifts included two pieces of

lace formerly belonging to Mrs. Richard Rush, wife of one of the first regents of the Smithsonian Institution, received from Mrs. John Biddle Porter; six pieces of lace from Mrs. Julian James; an excellent example of Danish needlework from Miss Carrie Harrison; and four samplers and beaded bags from the Misses Henry.

The more important loans of laces comprised examples of point d'Alençon, Valenciennes, Binche, Dutch Pottenkant, point de Niede, Duchesse, old point de France, and other varieties, from Miss Emily Tuckerman; examples of Chantilly, Honiton, and Flemish laces, from Mrs. John Biddle Porter; a remarkable cape of Italian lace, originally worn by a Roman cardinal and forming part of the costume of Charlotte Cushman in her impersonation of Cardinal Wolsey, from Mrs. Allerton S. Cushman; a cap of Devonshire sprigged lace, from Miss Julia H. Chadwick; a piece of Spanish blonde lace, from Mrs. Archibald Hopkins; and five examples of early embroidery, filet and point lace, from Mrs. Pinchot.

Of fabrics worked by the loom and needle, Mrs. Julian James deposited several examples, including Spanish, Italian, French, Rhodian, and Bulgarian brocades; Mrs. Wolcott Tuckerman, a number of embroideries and brocades; Miss Sydney Price, a Swedish sampler dated 1657 and brought at an early period to Wilmington, Del.; Mrs. Thomas F. Richardson, a piece of Italian embroidery; and Mr. George Oakley Totten, jr., a Geordez rug.

For exhibition in the hall with the textiles two elaborately carved ivories, one a large oval dish overlaid and set with medallions of classical subjects, the other a great crosier, were lent by Mr. and Mrs. Christian D. Hemmick; a Chinese filigree fan and a French fan in peau-de-cygne were deposited by Mrs. Clarence R. Edwards; and a Chinese carved ivory cardcase was lent by Miss Helen Munroe.

On the afternoon of March 25, 1912, a private view of the collection, with the object of promoting its interests, was given in the name of Mrs. Pinchot and was largely attended.

MISCELLANEOUS.

VISITORS.

The total number of visitors admitted to the new Museum building during the year was 281,887, a daily average of 800; to the older Museum building, 172,182, a daily average of 550; and to the Smithsonian building, 143,134, a daily average of 457. On October 8, 1911, the opening of the Museum to the public on Sundays was inaugurated as a fixed custom, admission for the present being limited to the new building and to the hours from 1.30 to 4.30 o'clock in the afternoon. The attendance on the first day reached

the exceptional figure of 15,467, and, while subsequently it was never nearly so large, the daily average for the 39 Sundays until the close of the year amounted to 1,666 as against a week-day average for the new building of 693, showing that the innovation was fully justified.

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

Number of visitors during the year ending June 30, 1912.

Year and month.	Older Museum Building.	New Museum Building.	Smithsonian Building.	Year and month.	Older Museum Building.	New Museum Building.	Smithsonian Building.
1911.				1912.			
July.....	17,159	12,531	13,316	January.....	7,210	16,372	5,761
August.....	24,025	18,825	20,008	February.....	9,290	19,844	7,688
September.....	21,448	18,263	17,398	March.....	9,964	23,274	8,333
October.....	14,788	46,228	11,855	April.....	20,011	33,136	17,606
November.....	8,463	24,211	7,076	May.....	13,733	22,138	11,425
December.....	10,238	24,749	8,867	June.....	15,853	22,316	13,801
				Total.....	172,182	281,887	143,134

Number of visitors to the Museum and Smithsonian Buildings since 1881.

Year.	Older Museum Building.	New Museum Building.	Smithsonian Building.	Year.	Older Museum Building.	New Museum Building.	Smithsonian Building.		
1881.....	150,000	.....	100,000	1897-98.....	177,254	.....	99,273
1882.....	167,455	.....	152,744	1898-99.....	192,471	.....	116,912
1883.....	202,188	.....	104,823	1899-1900.....	225,440	.....	133,147
1884 (half year).....	97,661	.....	45,565	1900-1.....	216,556	.....	151,563
1884-85 (fiscal year).....	205,026	.....	105,993	1901-2.....	173,888	.....	144,107
1885-86.....	174,225	.....	88,960	1902-3.....	315,307	.....	181,174
1886-87.....	216,562	.....	98,552	1903-4.....	220,778	.....	143,988
1887-88.....	249,665	.....	102,863	1904-5.....	235,921	.....	149,380
1888-89.....	374,843	.....	149,618	1905-6.....	210,886	.....	149,661
1889-90.....	274,324	.....	120,894	1906-7.....	210,107	.....	153,591
1890-91.....	286,426	.....	111,669	1907-8.....	299,659	.....	237,182
1891-92.....	269,825	.....	114,817	1908-9.....	245,187	.....	198,054
1892-93.....	319,930	.....	174,188	1909-10.....	228,804	50,403	179,163	
1893-94.....	195,748	.....	103,910	1910-11.....	207,010	151,112	167,985	
1894-95.....	201,744	.....	105,658	1911-12.....	172,182	281,887	143,134	
1895-96.....	180,505	103,650	Total.....			7,127,183	483,402	4,247,027
1896-97.....	229,606	115,709						

PUBLICATIONS.

The publications of the year consisted of 7 completed volumes and 59 papers printed separately, all of which related to the collections and activities of the Museum. The volumes comprised the Annual

Report for 1911, volumes 39, 40, and 41 of the Proceedings, partly printed the previous year, and 3 Bulletins, as follows: No. 50, Part V, "The Birds of North and Middle America," by Robert Ridgway, containing 859 pages of text and 33 plates, and descriptive of the tapaculos, antbirds, ovenbirds, woodhewers, humming birds, swifts, and trogons; No. 77, "The Early Paleozoic Bryozoa of the Baltic Provinces," by Ray S. Bassler; and No. 78, "Catalogue of a Selection of Art Objects from the Freer Collection exhibited in the new building of the National Museum April 15 to June 15, 1912." Of the papers issued in separate form in a small edition for special and early distribution, the titles of which will be found in the list of publications at the end of this report, 26 belonged to volume 41 and 27 to volume 42 of the Proceedings, and 5 to volumes 13, 14, and 16 of the Contributions from the United States National Herbarium, while 1 was a revision of Part N of Bulletin No. 39, entitled "Directions for Preparing Specimens of Mammals," by Gerrit S. Miller, jr. The total number of copies of Museum publications sent out during the year was about 67,000.

In addition to the above, 31 papers bearing upon the collections of the Museum were published in the Miscellaneous Collections of the Smithsonian Institution, volumes 56, 57, and 59. Four by Dr. Charles D. Walcott, Secretary of the Institution, on Cambrian geology and paleontology, were entitled, "Middle Cambrian Annelids," "Middle Cambrian Branchiopoda, Malacostraca, Trilobita, and Merostomata," "Cambro-Ordovician boundary in British Columbia, with description of fossils," and "The Sardinian Cambrian genus *Olenopsis* in America." The others were as follows: "A new subspecies of ptarmigan from the Aleutian Islands" and "Notes on birds observed during a brief visit to the Aleutian Islands and Bering Sea in 1911," by A. C. Bent; "Descriptions of new genera and species of Microlepidoptera from Panama," by August Busck; "On *Psomiocarpa*, a neglected genus of ferns," by Dr. H. Christ; "New species of fossil shells from Panama and Costa Rica collected by D. F. MacDonald," and "Report on landshells collected in Peru in 1911 by the Yale Expedition under Professor Hiram Bingham, with descriptions of a new subgenus, a new species, and new varieties," by William Healey Dall; "A new kingfisher from Panama" and "Descriptions of twelve new species and subspecies of mammals from Panama," by E. A. Goldman; "Four new mammals from the Canadian Rockies," "New mammals from Canada, Alaska, and Kamchatka," and "Description of a new subspecies of monkey from British East Africa," by N. Hollister; "The natives of Kharga Oasis, Egypt," by Aleš Hrdlička; "A remarkable new fern from Panama" and "Three new club-mosses from Panama," by William R. Maxon; "Descriptions of seven new African grass-warblers of the genus *Cis-*

ticola" and "Description of a new species of sunbird, *Helionympha raineyi*, from British East Africa," by Edgar A. Mearns; "The names of the large wolves of northern and western North America," by Gerrit S. Miller, jr.; "Description of a new genus and species of hummingbird from Panama," "Two new subspecies of birds from Panama," and "Descriptions of two new species of nun birds from Panama," by E. W. Nelson; "New decapod crustaceans from Panama," by Mary J. Rathbun; "Sawflies from Panama, with descriptions of new genera and species," by S. A. Rohwer; "Three new plants from Alberta" and "A new leather flower from Illinois," by Paul C. Standley; "The genera of fossil whalebone whales allied to *Balenoptera*," by Frederick W. True; "New genus and species of Hymenoptera of the family Braconidæ from Panama," by H. L. Viereck; "Observations on the habits of the crustacean *Emerita analoga*," by Frank Walter Weymouth and Charles Howard Richardson, jr.

The editorial office has charge of the printing of all miscellaneous matters as well as of publications, and among these at present labels form an especially prominent item, owing to the exceptional demand on account of the installation of the exhibition collections in the new building.

LIBRARY.

The arrangements which are in progress in the new building for that part of the Museum library relating to anthropology, biology, and geology will, it is expected, be completed in time to permit of its transfer early in the autumn of 1912. The rooms assigned to this purpose are located in the ground story of the east range and furnish an aggregate of nearly 4,000 square feet of floor space. The fittings will be mainly of steel, and the facilities will accord with those expected of the modern library. Besides the bookstacks separate rooms will be provided for reading and reference, and for cataloguing and other routine business. The quarters in the older building heretofore occupied by the library will continue to be used for the publications bearing upon the arts and industries, the subjects to which that building is now assigned.

The library contains 42,002 volumes and 69,670 unbound papers, of which 1,791 volumes, 3,608 pamphlets, and 276 parts of volumes were added during the year. The number of titles assigned to the sectional libraries during the year was 4,560.

CONGRESSES AND MEETINGS.

The new building was used during the year for a number of meetings and other functions held under the auspices of the Smithsonian Institution or of organizations having kindred objects. Besides the

auditorium in this building, which has a seating capacity for 565 persons, two adjacent rooms have been fitted up for small gatherings and committee purposes, and on a few occasions several additional rooms have been made temporarily available to meet special demands. For receptions the foyer on the ground floor and the exhibition floors, to the extent desirable, have been utilized. The principal functions were as follows:

On the evening of December 13, 1911, the American Institute of Architects, by invitation of the Regents and Secretary of the Institution, held a reception and meeting, the ethnological exhibition halls, the National Gallery of Art, and the foyer being used for the former and the auditorium for the latter purpose. The occasion for the meeting was the presentation of the gold medal of the Institute to Mr. George B. Post, of New York. Addresses were made by the President of the United States, Ambassador Jusserand, Secretary Walcott, the president of the Institute, and Mr. Post.

From December 27 to 30, 1911, the accommodations required by the American Association for the Advancement of Science and affiliated societies, then meeting in Washington, were partly furnished in the new building, including the use of the auditorium and of five other rooms. The organizations and sections which held sessions in this building were the Geological Society and the Paleontological Society of America, the section of Zoology of the Association, the Entomological Society of America and the American Association of Economic Entomologists, the anthropological branch of Section H of the Association, the American Anthropological Association and the American Folk-Lore Society. The opening and general meeting of the Association took place in the auditorium on the evening of December 27, the President of the United States being present and making an address. In the same connection a number of the exhibition halls were opened for the inspection of those in attendance.

A well-attended *conversazione* with an exhibition and demonstration of the use of new and interesting apparatus from the United States Government and other scientific laboratories in Washington was held on the evening of March 28, 1912, under the auspices of the Washington Academy of Sciences. The foyer and several communicating rooms were occupied, and the exhibition was continued during the next day. Nineteen Government bureaus and other establishments were represented.

A special view of a selection of objects from the Freer Collection of American and Oriental Art was given on the evening of April 15, 1912, as described in connection with the National Gallery of Art.

The auditorium and adjoining committee rooms were used for the Third Annual Convention of the American Federation of Arts,

which held morning and afternoon sessions on May 9 and 10 and a morning session on May 11, 1912. On the evening of May 10 a memorial meeting was held in commemoration of the life and work of Francis Davis Millet, late secretary of the federation, and chairman of the Smithsonian advisory committee on the National Gallery of Art. Mr. Cass Gilbert, vice president of the federation, presided, and eloquent and feeling tributes were paid by Senator Elihu Root, Senator Henry Cabot Lodge, Hon. Charles Francis Adams, and Dr. Charles D. Walcott. Many messages and testimonials from friends and art associations were also read.

On the evening of May 9, 1912, a reception was given, by invitation of the Regents and Secretary of the Institution, to meet the foreign delegates to the Ninth International Red Cross Conference, then in session in Washington, the main exhibition story of the building being used. Also, by invitation of the Regents and Secretary, a reception for the visitors in Washington attending the unveiling ceremonies of the Columbus Memorial on the plaza in front of Union Station was tendered, on the evening of June 7, 1912, by the citizens' joint committee on the Columbus statue unveiling, members of which composed the receiving party. Most of the exhibition halls in the first and second stories were opened for the occasion.

Accommodations were furnished the Anthropological Society of Washington for its regular meetings, which were mostly held in the afternoon, from October until April. The annual meeting of the National Academy of Sciences continued during the three days from April 16 to 18, inclusive, the committee rooms being used for the business sessions and the auditorium for the public sessions. A meeting of the Women's Research Club, of Rockville, Md., was held on February 12, 1912, and a large room was provided for hearings by the Board of Food and Drug Inspection of the United States Department of Agriculture from July 31 to August 2, 1911.

The auditorium was used for two lectures. The first, on the subject of heterozygosis in pure lines of beans and barley, was delivered on the evening of November 14, 1911, by Prof. W. Johannsen, of the University of Copenhagen, Denmark, under the auspices of the Washington Academy of Sciences and the Botanical Society of Washington. The other, being the third lecture under the Hamilton Fund of the Smithsonian Institution, was given on the evening of February 8, 1912, by Dr. Simon Flexner, of the Rockefeller Institute for Medical Research, who spoke upon infection and recovery from infection. On the afternoon of February 9, Mrs. M. R. Campbell lectured before the members of the Eistophus Science Club, of Washington, in one of the committee rooms, her subject being the Glacier National Park.

The Museum was represented at the Fifteenth International Congress of Orientalists, held in Athens from April 7 to 14, by Dr. Paul Haupt, associate in historic archeology, and at the Eighteenth International Congress of Americanists, which met in London from May 27 to June 1, by Dr. Aleš Hrdlička, curator of physical anthropology.

EXHIBITION OF DESIGNS FOR THE LINCOLN AND PERRY MEMORIALS.

Two special exhibitions of exceptional interest resulted from the use of accommodations in the new building for the examination of the competitive designs submitted for these two important memorials by the respective commissions designated to pass upon them. The former of these projects was authorized by an act of Congress approved February 9, 1911, providing for a commission to procure and determine upon a location, plan, and design for a monument or memorial in the city of Washington to the memory of Abraham Lincoln. The competitors were Mr. Henry Bacon and Mr. John Russell Pope, of New York, whose elaborate models and drawings were installed in two of the large rooms opening into the foyer in the ground story during November and December, 1911. Following their inspection by the Commission of Fine Arts and the Lincoln Memorial Commission, the rooms were opened to the public from December 26 until the close of the fiscal year.

The second exhibition, in which 54 competitors were represented, was the outcome of an act of Congress approved March 3, 1911, to promote the erection of a memorial in conjunction with a Perry's victory centennial celebration on Put-in-Bay Island during the year 1913 in commemoration of the one hundredth anniversary of the Battle of Lake Erie and the northwestern campaign of Gen. William Henry Harrison in the War of 1812. The designs were all in the form of drawings, which were hung on the walls and on screens in one of the long rooms of the east range in the lower story. The installation was made on January 20, 1912, and after inspection by the Commission of Fine Arts and the Interstate Board of Commissioners it was opened to the public for 10 days, beginning January 31.

ORGANIZATION AND STAFF.

Dr. James M. Flint, medical director, United States Navy (retired), under whose supervision the division of medicine was organized in 1881, and who had served as its honorary curator during 25 of the 32 years of its existence, tendered his resignation during the year. The collection, mainly assembled through the energy and intelligent direction of Dr. Flint, has attained great importance, and it is deeply regretted that the severance of this connection will de-

prive the Museum of his active participation in the further development of the division.

The title of the division of technology was, on March 1, 1912, changed to mechanical technology, and Mr. George C. Maynard, who for nine years has been the assistant curator in charge, was advanced to curator. On the same date Mr. Frederick L. Lewton was appointed curator of textiles, but with duties extending to other industrial subjects, and under his direction certain of the extensive collections which have been in storage for many years are being opened up and reinstalled. Mr. Talbot F. Lane, aid in the division of physical anthropology, resigned on October 12, 1911, and was succeeded, on March 2, 1912, by Mr. Riley D. Moore. Mr. Earle W. Huckel was appointed aid in the division of graphic arts on January 2, 1912.

Dr. J. N. Rose, associate curator of the division of plants, was furloughed for one year beginning January 31, 1912, to enable him to give his entire time to the study of Mexican plants as a Carnegie Institution research student, and was designated an honorary associate in botany. His duties in the division have been assumed by Mr. William R. Maxon, assistant curator. The designation of Mr. J. C. Crawford, of the division of insects, was changed from assistant curator to associate curator on December 1, 1911. Dr. D. W. Coquillett, custodian of the diptera, died on July 8, 1911, and on September 1, 1911, this position was filled by the appointment of Mr. Frederick Knab, previously custodian of the Culicidæ. Mr. Clarence R. Shoemaker was made probational aid in the division of marine invertebrates on July 1, 1911. The following were designated as temporary collaborators in zoology, namely, Mr. D. D. Streeter, for two years, from April 1, 1912, and Mr. Copley Amory, jr., and Mr. George Mixter, for one year each, from May 1, 1912.

The title of the division of mineralogy was changed to mineralogy and petrology on July 1, 1911: Mr. James W. Gidley and Mr. Charles W. Gilmore, custodians in the section of vertebrate paleontology, were on July 20, 1911, promoted to the positions of assistant curator of fossil mammals and assistant curator of fossil reptiles, respectively.

Mr. Frank Springer, of East Las Vegas, N. Mex., to whom the Museum is heavily indebted for extensive gifts and loans of fossils as well as for many other courtesies, and who is proposing to carry on his scientific investigations hereafter at the National Museum, was designated honorary associate in paleontology on December 15, 1911.

THE MUSEUM STAFF.

[June 30, 1912.]

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

RICHARD RATHBUN, Assistant Secretary, in charge of the United States National Museum.

W. DE C. RAVENEL, Administrative Assistant.

SCIENTIFIC STAFF.

DEPARTMENT OF ANTHROPOLOGY:

William H. Holmes, Head Curator.

Division of Ethnology: Walter Hough, Curator; Neil M. Judd, Aid; J. W. Fewkes, Collaborator; Arthur P. Rice, Collaborator.

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

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

Division of Physical Anthropology: Aleš Hrdlička, Curator; R. D. Moore, Aid.

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

Division of Graphic Arts: Paul Brockett, Custodian; Earle W. Huckel, Aid.
Section of Photography: T. W. Smillie, Custodian.

Division of History: A. Howard Clark, Curator; T. T. Belote, Assistant Curator.

Associates in Historic Archeology: Paul Haupt, Cyrus Adler.

DEPARTMENT OF BIOLOGY:

Leonhard Stejneger, Head Curator; James E. Benedict, Chief of Exhibits.

Division of Mammals: Gerrit S. Miller, jr., Curator; Ned Hollister, Assistant Curator.

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

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

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

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

Division of Insects: L. O. Howard, Curator; J. C. Crawford, Associate Curator; Paul R. Myers, Aid.

Section of Hymenoptera: J. C. Crawford, in charge.

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

Section of Diptera: Frederick Knab, Custodian.

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

Section of Lepidoptera: Harrison G. Dyar, Custodian.

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

Section of Arachnida: Nathan Banks, Custodian.

Section of Hemiptera: Otto Heidemann, Custodian.

Section of Forest Tree Beetles: A. D. Hopkins, Custodian.

Division of Marine Invertebrates: Richard Rathbun, Curator; Mary J. Rathbun, Assistant Curator; Austin H. Clark, Assistant Curator; C. R. Shoemaker, Aid; Harriet Richardson, Collaborator.

DEPARTMENT OF BIOLOGY—Continued.

Division of Marine Invertebrates—Continued.

Section of Helminthological Collections: C. W. Stiles, Custodian; B. H. Ransom, Assistant Custodian; P. E. Garrison, United States Navy, Assistant Custodian.

Division of Plants (National Herbarium): Frederick V. Coville, Curator; W. R. Maxon, Assistant Curator; P. C. Standley, Assistant Curator. Cactaceæ, Crassulaceæ, and Miscellaneous Mexican Collections: J. N. Rose, Custodian.

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

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

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

Associates in Zoology: Theodore N. Gill, C. Hart Merriam, W. L. Abbott, Edgar A. Mearns, United States Army (retired).

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

Collaborators in Zoology: D. D. Streeter, Copley Amory, jr., George Mixer.

DEPARTMENT OF GEOLOGY:

George P. Merrill, Head Curator.

Division of Physical and Chemical Geology (Systematic and Applied): George P. Merrill, Curator; Chester G. Gilbert, Assistant Curator.

Division of Mineralogy and Petrology: F. W. Clarke, Curator; J. E. Pogue, Assistant Curator.

Division of Paleontology: R. S. Bassler, Curator.

Section of Invertebrate Paleontology: Lancaster D. Burling, Assistant Curator; T. W. Stanton, Custodian of Mesozoic Collection; William H. Dall, Associate Curator of Cenozoic Collection; T. Wayland Vaughan, Custodian of Madreporarian Corals.

Section of Vertebrate Paleontology: James W. Gidley, Assistant Curator of Fossil Mammals; Charles W. Gilmore, Assistant Curator of Fossil Reptiles.

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

Associate in Mineralogy: L. T. Chamberlain.

Associate in Paleontology: Frank Springer.

Associate in Paleobotany: Lester F. Ward.

DEPARTMENT OF MINERAL TECHNOLOGY:

Charles D. Walcott, Curator.

DIVISION OF TEXTILES:

Frederick L. Lewton, Curator.

NATIONAL GALLERY OF ART:

William H. Holmes, Curator.

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LIST OF ACCESSIONS TO THE COLLECTIONS DURING THE FISCAL YEAR 1911-1912.

[Except when otherwise indicated, the specimens were presented, or were transferred by
bureaus of the Government in accordance with law.]

ABBOT, C. G., Smithsonian Institution: 25 plants and some shells collected in Algeria (53912).

ABBOTT, DR. WILLIAM L.: About 769 mammals, 17 bird skins, and a few reptiles, from Kashmir (53042; 53203); skin and skull of a hedgehog from Guernsey, Channel Islands, and skin and skull of a mole from Aachen, Germany (53492).

ADAMS, MRS. HARRIET CHALMERS, Washington, D. C.: A hat worn by Quichua women; a cap and 3 mittens obtained from the Indians of the Andean highlands (53189).

ADERS, DR. W. M. (See under Mr. Alexander W. Weddell.)

AGRICULTURE, DEPARTMENT OF:

Bureau of Animal Industry: Living specimen of *Nolina*, collected in New Mexico by Marion Imes (53327); skin of *Equus grevyi* (ass-hybrid) from the experiment farm at Bethesda, Md. (53812).

Bureau of Biological Survey: 2 skulls of birds from California (52978); land shells and plants collected in Panama by E. A. Goldman (53040; 53932; 54134); 4 plants, including a living specimen of *Opuntia*, collected in Montana by C. Birdseye (53057; 53146); 2 skulls of owls from New Mexico (53069); skull of an owl from Alaska (53078); 125 plants, chiefly from Alabama, collected by A. H. Howell (53103);

AGRICULTURE, DEPARTMENT OF—Contd. 53716; 53772; 53789; 54057); 4 living specimens of *Opuntia*, collected in Idaho by Vernon Bailey, and a specimen of *Garrya* from California received through him (53179; 53526); 11 bird eggs, including 3 eggs of least tern, *Sterna antillarum*, from Alabama (53228; 53250); 16 bird eggs and 2 nests from the Aleutian Islands, received through A. C. Bent (53254); 112 plants, including 4 living specimens of Cactaceæ, collected in Wyoming by Merritt Cary (53333; 53434); 26 plants collected in Alabama by J. S. Gutsell (53372); 142 plants from Alaska, 13 living specimens of Cactaceæ and some land shells from Porto Rico, collected by Alex. Wetmore (53486; 53969; 54057; 54115); land shells from Trujillo Alto and Fajardo, P. R. (53580); specimen of *Pseudomorpha behrensii*, collected by F. E. L. Beal at Walnut Creek, Cal. (53809); 19 land shells from El Yunque, P. R. (53856); 17 specimens of land shells, representing 4 species, from Vieques Island, P. R. (53924); a living specimen of cactus, *Opuntia*, collected in Florida by T. S. Palmer (53932); 2 eggs of *Catharista urubu* from Alabama and an egg of *Columba squamosa* from Porto Rico (53967); 2 living specimens of *Opuntia*, collected in Alabama by E. G. Holt (53969); specimens of *Pleurodonta* and *Planorbis* from Porto Rico, col-

AGRICULTURE, DEPARTMENT OF—Contd.

lected by W. W. Worthington (54085); 7 bird eggs and a nest from Porto Rico (54120); 5 bird eggs from Porto Rico and 1 from Wisconsin (54216); 8 bird eggs from Alabama (54227); about 100 specimens of crayfish from Muldon, Miss. (54238). (See under Mr. N. A. Comeau.)

Bureau of Entomology: 412 specimens of Coleoptera and Hemiptera, determined by A. L. Montandon (52983; 53143; 53299; 53428; 53866; 54018; 54081; 54176); 7 parasitic Hymenoptera, collected by George Compere (53036); 14 bird skins, 2 nests, 4 bird eggs, 37 bats, 1 fish, 7 crustaceans, 15 packages of insects, and 4 living plants, collected in Panama by August Busck (53063; 53355; 53813; 53954; 53962; 54177; 54249); insects collected by Mr. Busck at Paraiso, Canal Zone (53858); 3 shrimps and a worm from Paraiso, Canal Zone, and 2 isopods from Panama, collected by E. A. Schwarz (53219; 53702); 6 isopods, *Armadillidium vulgare* (53274); 28 specimens of biting flies from Zanzibar, determined by E. E. Austen (53315); 2 specimens of sowbugs, *Porcellio scaber* var. *marginata*, collected by Mrs. Daniel Lord, Sosiégo, Lawrence, N. Y. (53334); 17 parasitic Hymenoptera from Isle Réunion, Indian Ocean (53345); 5 parasitic Hymenoptera (53421); about 100 specimens of Hemiptera collected by J. A. Hyslop (53462); about 100 specimens of Hymenoptera, mostly from Kansas, Utah, and California (53541); earthworms, *Pheretima californica*, from Costa Rica (53704); about 70 parasitic Hymenoptera (type material of 3 new species) from the Forest Insect Investigations (53709); 25 bred parasitic Hymenoptera, *Chalcidoidea* (53737); 3 beetles from Sacaton, Ariz., representing 1 species, and 12 from China, representing 6 species (53796); 23 beetles from Arlington,

AGRICULTURE, DEPARTMENT OF—Contd.

Cal., and about 50 from Argentina collected by A. H. Rosenfeld (53963); 2 specimens of *Philoterme pennsylvanicus* and 2 specimens of *Atinus monilicornis*, collected by S. E. Crumb, Clarksville, Tenn. (53998); 1,551 insects (54080); 15 specimens of a hymenopteron parasitic on fishes in France (54123). (See under Mr. V. A. E. Daecke and Mrs. A. P. Taylor.)

Office of Experiment Stations: 120 spiders, 7 centipedes, 4 millipedes and 10 scorpions, a snake, *Typhlops braminus*, and 3 mollusks, *Veronicea*, from Guam (53857).

Forest Service: 3 packages of plants from the western part of the United States, collected by W. W. Eggleston (53003).

Bureau of Plant Industry: 4 plants collected in the Dismal Swamp, Va., by Frederick V. Coville (52973); plants, bats, reptiles, fishes, insects, crustaceans, and ethnological objects collected in Panama by H. Pittier (52974; 53004; 53032; 53055; 53059; 53123; 53220; 53422; 53478; 53599; 53632; 53646; 54145); living specimen of *Senecioereus spinulosus* from Mexico (53178); specimen of *Tillandsia recurvata* from Texas (53247); 6 packages of plants, a jar of plants in alcohol and some land shells (53308); specimen and photograph of *Yucca baccata* from Colorado (53316); living specimen of *Opuntia* collected in Colorado by H. L. Shantz (53330); 2 living specimens of *Acanthocereus* collected in Panama by A. S. Hitchcock; 55 plants collected by him in Alaska and 47 in Central America (53330; 54116; 53823); 6,214 plants, mainly grasses, collected in Panama by Mr. Hitchcock (53860); fern collected in Arizona by T. H. Kearney; also 11 plants collected by him in Arizona and California (53359; 53823); 9 plants collected in Colorado by G. P. Rixford (53403); 5 plants received from V. G. Plymire, Taichow, China

- AGRICULTURE, DEPARTMENT OF—Contd. (53487); 4 living specimens of *Opuntia* collected in California by O. F. Cook (53553); 164 plants, including specimens of cacti and ferns, collected in California, Arizona, and Texas by E. O. Wooton (53586; 53718; 53735; 53788; 53931; 54027); 1,827 plants collected in the western part of the United States by W. W. Eggleston (53586; 53770; 54155); 41 plants collected in Washington State by J. B. Flett (53913); 65 plants collected in the western part of the United States by Ivar Tidestrom (54027); 32 specimens of *Juncus* from New York (54083); 2 plants and 5 photographs of *Razoumofskya* and *Vaccinium* (54086); 32 specimens of *Juncus* from New York (54195).
- AGRICULTURE, DEPARTMENT OF, UNION OF SOUTH AFRICA. (See under Pretoria, Transvaal.)
- AGRICULTURE AND TECHNICAL INSTRUCTION, DEPARTMENT OF (FISHERIES BRANCH). (See under Dublin, Ireland.)
- ALABAMA, GEOLOGICAL SURVEY OF, University, Ala.: 14 plants collected in Alabama by R. M. Harper (53326: exchange).
- ALABAMA MARBLE Co., Gantts Quarry, Ala.: 15 slabs of marble (53477).
- ALDRICH, C. F., MARBLE & GRANITE Co., Colorado Springs, Colo.: A 5-inch cube of Salida, Colo., granite (53875).
- ALFARO, ANASTASIO, Museo Nacional, San José, Costa Rica: 3 crustaceans from Glen Echo, Md. (53016); insects and other invertebrates (53038); about 50 specimens of isopods, *Metoponorthus pruinosis* (53232); batrachians, mollusks and insects from Costa Rica (53778).
- ALFKBN, J. D., Bremen, Germany: 580 specimens of parasitic Hymenoptera (53722: exchange).
- ALLISON, ANDREW, Southern Presbyterian Mission, Kiangyin, China: 60 birds from China (53306: purchase).
- ALLISON, ANDREW, and L. I. MOFFETT, Southern Presbyterian Mission, Kiangyin, China: 136 birds and a mammal skin from China (53307).
- AMATEIS, L., Washington, D. C.: A plaster cast of the head of David, by Michelangelo (53836).
- AMERICAN COLORTYPE Co., New York City: A pamphlet containing color-type reproductions (54262).
- AMERICAN MUSEUM OF NATURAL HISTORY, New York City: 18 specimens of Orthoptera and Hymenoptera from Lower California (53361); specimen of fossil turtle, *Stylemys nebrascensis* (53626: exchange).
- AMERICAN MUSEUM OF NATURAL HISTORY, and MUSEUM OF THE BROOKLYN INSTITUTE OF ARTS AND SCIENCES, Brooklyn, N. Y.: Cast of the Gangetic dolphin, *Platanista* (53763).
- AMERICAN TELEPHONE & TELEGRAPH Co. (through the Chesapeake & Potomac Telephone Co., Washington, D. C.): Specimens of the telephone cable and conduit used in the construction of the underground line between Washington and New York, 1912 (54046).
- ANDERSON, J. A., Lambertville, N. J.: Daguerreotype of a little boy (53073).
- ANDERSON, DR. LUIS, San José, Costa Rica (through Dr. J. Walter Fewkes): Tripod earthenware vase decorated in black and red designs, with parrot head in relief (54009).
- ANDREWS, A. LE ROY, Ithaca, N. Y.: 3 specimens of *Sphagnum* from New Jersey (53688: exchange).
- ANONYMOUS SOURCE: Shrew, *Cryptotis parva*, from South Carolina (52947).

- APPEL, W. D., Anacostia, D. C.: Salamander, *Hemidactylus scutatus*, from Mount Vernon, Va. (53751). (See under Mr. Clarence R. Shoemaker.)
- ARCONATI-VISCONTI, Marquise, Paris, France: An armchair which formerly belonged to Marquis de Lafayette, and in which he is said to have sat on the day of his death (53773).
- ARECHAVELETA, Prof. JOSÉ, Director, Museo Nacional, Montevideo, Uruguay: 45 ferns from Uruguay (54074: exchange).
- ARIZONA MARBLE CO., Bowie, Ariz.: 4 slabs of marble (53115).
- ARMISTEAD, GEORGE, Baltimore, Md.: A framed photograph of a painting of Lieut. Col. George Armistead, U. S. Army, commandant, Fort McHenry, War of 1812 (53447: loan).
- ARNOLD ARBORETUM, HARVARD UNIVERSITY, Jamaica Plain, Mass.: 508 plants chiefly from the United States (53658: exchange); 490 plants collected in China by E. H. Wilson (54221: purchase).
- ARRAS, L. P., St. Louis, Mo.: Moths representing the species *Philtræa elegantaria*, *Pyrausta oxydalis*, and *Hesperia tessellata* (53848).
- ASHWORTH, Dr. J. H., University of Edinburgh, Edinburgh, Scotland: 4 specimens of *Arenicola* representing 3 species (54190: exchange).
- AUSTRALIAN MUSEUM. (See under Sydney, New South Wales.)
- AYRES, Mrs. STEVEN B., Washington, D. C.: Water color painting entitled "Autumn on Long Island," by Addison T. Millar; and 3 paintings in oil, "Landscape," "Litchfield Elms," and "Autumn," by George Traver (52976: loan).
- BAER, JOHN L., Delta, Pa.: Quartz blade from a cache of about 150 specimens plowed up in the valley near Pen Mar (53509).
- BAILEY, H. B., Newport News, Va.: Small mammals from Hog Island, Va. (53500); 8 specimens of *Peromyscus leucopus* and a skull of *Sciuropterus* (53922).
- BAILEY, H. H., Newport News, Va.: Small mammals, insects, and a snake, from Warwick County, Va. (53517).
- BAKER, Prof. C. F., Pomona College, Claremont, Cal.: Marine shells from Laguna Beach, Cal., collected by Mabel Guernsey (53284); 100 moths (53523: exchange).
- BAKER, CHARLES H., Zellwood, Fla.: Sponge from Umbrella Key, and an arrowhead from Orange County, Fla. (53495).
- BAKER, Dr. FRED. (See under Stanford Expedition.)
- BAKER, HENRY D., American consul, Hobart, Tasmania: Skeleton of a Tasmanian devil, *Sarcophilus satanus*, collected by Mrs. Mary G. Roberts (53261); (through Rev. D. C. Bates): 8 bird skins and a lizard, *Tuatara*, from New Zealand (53676); skin of emperor penguin, *Aptenodytes forsteri*, from Knox Land, Antarctica (54212).
- BALDUS, J. T., Brookland, D. C.: 4 bird nests and 3 eggs from the District of Columbia (54215).
- BALL, C. R., Department of Agriculture, Washington, D. C.: 93 plants chiefly from Texas (53280).
- BALL, Capt. R. T. M., pay director, U. S. Navy, Baltimore, Md.: A collection of Washington and Ball relics (53986: loan).
- BARBER, H. S. (See under Mr. P. R. Myers.)
- BARBOUR, Dr. THOMAS, Museum of Comparative Zoology, Cambridge, Mass.: 28 specimens, representing 4 species, of crustaceans from Cuba (54201).

- BARKER, Mrs. GEORGE F., Moylan, Pa.:** Framed photograph of Prof. George Frederic Barker, by Gutekunst (53008); 9 medals presented to Prof. Barker in recognition of his scientific attainments (53243); 10 diplomas and 1 decoration conferred upon Prof. Barker (53712); 2 scholastic hoods conferred upon Prof. Barker by the University of Pennsylvania, Philadelphia, and McGill University, Montreal, Canada, respectively; also a cabinet photograph and an autograph card of Prof. Barker (53873).
- BARR, Rev. DAVID, Washington, D. C.:** A blue print of the city of Manila and vicinity, made in 1910 (53458).
- BARRINGER, D. M., Philadelphia, Pa.:** 17 specimens of meteoric irons and 14 specimens of shale balls and shale, from Meteor Crater, Ariz. (formerly on deposit as accessions 46958 and 47103) (53588).
- BARTLETT, H. H., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.:** 201 plants, including 113 specimens of *Quercus*, from the eastern part of the United States (53610; 53633). Exchange.
- BARTSCH, Prof. PAUL, U. S. National Museum:** 2 mammal skins and skulls, *Sciurus carolinensis*, collected at Paris, Va. (53507).
- BASTIN, Dr. E. S. (See under Mr. Pearl I. Smith.)**
- BATES, Rev. D. C. (See under Mr. Henry D. Baker.)**
- BATRES, Señor Don LEOPOLDO, Conservator of Mexican Antiquities, City of Mexico, Mexico:** Skull of a Mexican Indian (tribe unknown) with recently engraved designs imitating ancient work, and a collection of Toltec clay ornaments, vessels, and heads from San Juan Teotihuacan, Mexico; also 8 skulls of Mexican aborigines from various prehistoric ruins (53094).
- BEAN, BARTON A., U. S. National Museum:** 5 specimens of young drumfish, *Pogonias chromis* (53320).
- BEAN, BARTON A., and ERNEST B. MARSHALL:** Fishes from a small stream at Laurel, Md. (54022).
- BEAN, Dr. T. H., Albany, N. Y.:** Type specimens of new species of fishes from Bermuda (54254). (See under State of New York Conservation Commission.)
- BEARSS, J. T., Kearney Park, Cal.:** 12 specimens of cacti and cactus seeds from Chile (52970).
- BEDARD, A. N. (through William Harrison Bradley, American consul general, Montreal, Canada):** Copy of a newspaper "The Stars and Stripes," published at Bloomfield, Mo., November 9, 1861, by members of the Union regiment after they had gained possession of the town (53513).
- BELL, C. J. (See under Mr. Frederick C. Lander.)**
- BELL-SCOTT Co., Seattle, Wash.:** A 5½-inch cube of stone from the Northern Pacific Railroad Co.'s quarry at Wilkeson, Wash. (53656).
- BEMENT, CLARENCE S., Philadelphia, Pa.:** Piece of meteoric iron weighing 6,538 grams, from German Southwest Africa (53961).
- BENEDICT, Dr. J. E., U. S. National Museum:** Mole, *Scalopus aquaticus* (53974).
- BENT, A. C., Taunton, Mass.:** 25 bird skins from Alaska (53185); bird skin, *Calliope calliope camtschatkensis*, from Alaska, 23 bird eggs and 4 nests from the Aleutian Islands (53186; 53234: collected for the Museum); 13 specimens of Lepidoptera and 2 specimens of Diptera, collected at Unalaska by Lieut. Herbert N. Perham, U. S. R. C. *Tahoma* (53720). (See under U. S. Department of Agriculture, Bureau of Biological Survey, and Dr. L. C. Sanford.)

- BENT, Miss KATIE R. (See under Miss Fannie A. Weeks.)
- BENTLEY, WILLIAM, Boston, Mass.: 6 small mammal skins and 2 skulls (53396).
- BERGER, ALVIN, La Mortola, Ventimiglia, Italy: Living specimen of *Cereus setaceus* (53547: exchange).
- BERLIN (DAHLEM BEI STEGLITZ), GERMANY, KÖNIGL. BOTANISCHER GARTEN: Fern from Mexico (53309: exchange).
- BERLIN, GERMANY, KÖNIGL. ZOOLOGISCHES MUSEUM: 35 duplicate specimens of crinoids representing 20 species (53387); 11 specimens representing 9 species of ascidians (53446). Exchange.
- BERLINER, EMILE, Washington, D. C.: A collection of original gramophone apparatus (53352: loan).
- BINGHAM, Dr. H. (See under Yale Peruvian Expedition.)
- BLUMER, J. C., Luverne, Iowa: 24 plants from Arizona (53673; 53804).
- BOCKMANN AND SHEPARD, New York City: 2 small blocks of marble from Bowie, Ariz. (53806).
- BOLTON, Mrs. H. CARRINGTON, Washington, D. C.: Bottle of musical sand, 2 radium negatives, and 5 prints (53977).
- BOLTON, MEADE, Porto Velho de San Antonio, Rio, Madeira, Brazil: 277 insects, 2 reptiles and 2 batrachians from South America (54005).
- BOON, OLIVER, Farrall, Wyo.: Salamander, *Ambystoma tigrinum*, from Wyoming (54208).
- BOUY DE, THEODOOR, Bloomfield, N. J.: 5 pottery fragments from the Caicos or southern Bahama Islands (53081).
- BOSSERT, MICHAEL, Iloilo, P. I.: 43 specimens of marine shells from the Philippine Islands (53622).
- BOULDER COUNTY METAL MINING ASSOCIATION, Boulder, Colo. (through Mr. Frank L. Hess): Sample of ferberite from Rogers Tract, Boulder County, Colo. (53592).
- BOUTWELL, MILNE & VARNUM Co., Barre, Vt.: A 5-inch cube of granite (53851).
- BOYNTON, Miss ALICE M., Nassau, Bahama Islands: Porcupine fish, *Diodon hystrix*, 6 specimens of corals, and a sponge (53936).
- BRADLEY, Dr. J. CHESTER, Cornell University, Ithaca, N. Y.: 2 paratypes of *Eresia texana seminole*; 3 paratypes of *Dolichotrypes hopkinsi*, and 2 specimens of *Henicoccephalus culicinus* (53514); paratype of *Ornepetes silvicola* (53540).
- BRADLEY, WILLIAM HARRISON. (See under Mr. A. N. Bedard.)
- BRAINERD, EZRA, Middlebury, Vt.: 4 specimens of *Solidago bicolor* from Vermont (53288).
- BRANDEGEE, T. S., University of California, Berkeley, Cal.: 498 plants, including 58 specimens of mosses, collected by C. A. Purpus in Mexico (53006; 53831: purchase); 18 plants, including 15 ferns, from Mexico (53200; 53433; 53690; 54222).
- BRANSON, Miss ANNE J., U. S. National Museum: 8 glowworms (larvæ of *Photuris pennsylvanica*, *Photinus pyralis*, and *Pyrractomena* sp.), from Chevy Chase, Md. (53296).
- BRETT, Lieut. Col. L. M., U. S. Army. (See under Interior, Department of.)
- BRISCOE, H. K. (See under Eastern Bengal and Assam, the Government of.)
- BRISTOW, JOSEPH Q., Washington, D. C.: A Russian Berdan breech-loading rifle (53637: loan).
- BRITISH MUSEUM (NATURAL HISTORY). (See under London, England.)

- BROAD RIVER GRANITE CORPORATION, Ogleby, Ga.: 2 5-inch cubes of granite (54226).
- BROCKETT, PAUL, Smithsonian Institution: Fragment of zoötrope picture, and a photograph of Brig. Gen. "Stonewall" Jackson (52990; 53611).
- BROCKWAY, WILLIAM, Contreras, D. F., Mexico: 2 living specimens of *Mammillaria* from Mexico (53344); 10 living specimens of Cactaceæ from Mexico (53544; 53925).
- BROOKLYN INSTITUTE OF ARTS AND SCIENCES, MUSEUM OF. (See under American Museum of Natural History, New York City.)
- BROOKS, J. G., U. S. National Museum: Piece of Swiss peasant lace, modern, after the antique French pattern (53097).
- BROWN, ARTHUR, Waldelock, Va.: Specimen of rutile (53774).
- BROWN, E. M., Rock City Falls, N. Y.: Specimens of *Voluta junonia*, *Pecten nodosus*, and *Murex marcoënsis* from Florida (53972).
- BROWN, HERBERT, Tucson, Ariz.: Reptiles and batrachians from Arizona (53215).
- BROWN, J. C., Chambersburg, Pa.: Moth, *Anisota rubicunda* (53034).
- BRUSSELS, BELGIUM, JARDIN BOTANIQUE DE L'ÉTAT: 17 ferns, chiefly from Java (53672: exchange).
- BULEN, G. E., Hertfordshire County Museum, St. Albans, England: 199 species of polyzoans, zoöphytes and crustaceans (53013: purchase).
- BURDETTE, S. O., U. S. National Museum: 9 small mammals from Long Corner, Md. (53527: collected for the Museum). (See under Mr. H. E. Rieseberg.)
- BURDINE, W. T., Washington, D. C.: Sora, *Porzana carolina*, from the Potomac River (54014).
- BUREAU OF GEOLOGY AND MINES, Rolla, Mo.: 2 specimens of pyrite and 1 of marcasite (53272).
- BUREAU OF HEALTH FOR THE PHILIPPINE ISLANDS. (See under Manila, P. I.)
- BUREAU OF SCIENCE. (See under Manila, P. I.)
- BURLING, L. D., Smithsonian Institution: Specimen of *Sciuropterus*, 3 specimens of *Mustela* and a porcupine skin, from British Columbia (53096; 53160).
- BURR, Dr. MALCOLM, Dover, England: 40 specimens of Forficulidæ (53490: exchange).
- BURRITT, HORACE R., General Land Office, Washington, D. C.: Ice worms, *Mesenchytræus solifugus*, from Slope Glacier, Bering River Coal Field, Alaska (53852).
- BUSCALIONI, Prof. LUIGI, Catania, Italy: 38 living specimens of cultivated Cactaceæ from Italy (53181: exchange).
- BUSCK, AUGUST. (See under Smithsonian Institution, Smithsonian Biological Survey of the Panama Canal Zone.)
- BUSH, B. F., Courtney, Mo.: 300 plants from Missouri (53733: purchase). (See under Rev. John Davis.)
- CALCUTTA, INDIA, INDIAN MUSEUM: 225 specimens representing 48 species of recent erinoids (53506); 2 specimens of *Gelasimus splendidus* and 1 specimen of *G. marionis* (54031: exchange).
- CALCUTTA, INDIA, ROYAL BOTANIC GARDEN: 31 plants from Asia (53128: exchange).
- CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Cal.: Frog from Korea (54107).
- CALVERT, P. P., University of Pennsylvania, Philadelphia, Pa.: About 30 insects (53194).

- CAMBRIDGE, MASS., MUSEUM OF COMPARATIVE ZOOLOGY: 5 specimens of *Echinoncus cyclostomus* from Port Antonio, Jamaica (53130); 66 bird skins from China (53305; 53555; 54118: exchange); 5 cotypes of *Cubaris jamaicensis* (53390); 23 specimens of Orthoptera (53461: exchange); reptiles and batrachians from Cuba and a reptile from Madagascar (53905: exchange); batrachians (53978: exchange).
- CARNEGIE INSTITUTION OF WASHINGTON: Specimen of *Tumamoca macdougali* from Arizona, through Dr. D. T. MacDougal, director of the Desert Laboratory, Tucson, Ariz. (53177); 153 specimens of rocks and 2,275 specimens of fossils collected by Dr. Bailey Willis and Prof. Eliot Blackwelder in connection with the Carnegie Institution Expedition to China in 1903-4 (53310); 17 specimens of ophiurans and sea-urechins from Florida Keys, collected by Dr. T. Wayland Vaughan (53569).
- CARNEGIE MUSEUM, Pittsburgh, Pa.: A complete skeleton of *Diceratherium cooki* and a cast of the hind leg of *Diplodocus* (53385: exchange).
- CARPENTER, W. D., Sayre, Pa.: 2 skins of screech owl, *Otus asio*, from Maryland (53206); 2 shrews, *Sorex fumeus*, and a turtle, *Chelopus insculptus*, from Pennsylvania (54119).
- CARTER, HUGH THOMAS, Washington, D. C.: Ethnological specimens from the northern Plains Indians and from Greenland (52986: loan).
- CARTER, RAY A., Los Angeles, Cal.: A crab, *Pachygrapsus crassipes*, and 2 earthworms, *Helodrilus caliginosus* (52997).
- CHADWICK, Miss JULIA H., Washington, D. C.: Cap of Devonshire sprigged lace (53828: loan).
- CHAFFEY, E., Lerdo, Durango, Mexico: 13 living specimens of Cactaceae from Mexico (53017; 53339; 53546; 53786).
- CHAGNON, W., St. Johns, Quebec: 8 specimens of Lepidoptera (53909).
- CHAMBERLAIN, Dr. L. T., New York City: 4 specimens of moss agate (53864).
- CHAMPION, G. C. (See under Godman & Salvin.)
- CHANDONNET, Rev. Z. L., Perham, Minn.: 19 plants, including 15 specimens of *Laciniaria* and *Solidago*, from Minnesota (53271; 53324; 53687).
- CHANTLAND, WILLIAM T., Department of Justice, Washington, D. C.: Specimen of black-crowned night heron, *Nycticorax nycticorax navius*, from Virginia (53648).
- CHESAPEAKE & POTOMAC TELEPHONE Co. (See under American Telephone & Telegraph Co.)
- CHICAGO, ILL., FIELD MUSEUM OF NATURAL HISTORY. (See under Smithsonian Institution, Smithsonian Biological Survey of the Panama Canal Zone.)
- CHITÉ, SALVATORE and DOMENICO, Washington, D. C.: 5 samples of volcanic materials from Italy (53619).
- CHRISMORE, GEORGE E., Cumberland, Md.: Wooden mortar and pestle ("hominy mortar") made in Winchester, Va., about 100 years ago (53121).
- CINCINNATI MUSEUM ASSOCIATION, Cincinnati, Ohio: Cast of a prehistoric ceremonial pipe found in a mound near Pittsburg Landing, Tenn. (53277: exchange); plaster cast of a prehistoric stone pipe, frog-shaped (53430).
- CLARK & McCORMACK, St. Paul, Minn.: A cube of granite from Rockville, Minn. (53711).
- CLARK, AUSTIN H., U. S. National Museum: An alcoholic specimen of bat, *Eptesicus* (53092).

- CLARK, HERBERT E., Jaffa Gate, Jerusalem, Palestine: An Abyssinian parchment picture book of saints (52953).
- CLARK, DR. JAMES JOHNSON, Washington, D. C.: Model of a Morse telegraph register, known as the "harp register" (53901).
- CLEMENTS, E. F., U. S. National Museum: Specimen of yellow-billed cuckoo, *Coccyzus americanus* (53313).
- CLINE, ARTHUR W., Philadelphia, Pa.: Flint and glass implements, mainly arrowheads, made by the donor, together with the tools used in making them (53242).
- CLOSSON, WILLIAM BAXTER PALMER, Magnolia, Mass.: An oil painting by Mr. Closson, entitled "Nymph and Water Babies at Play" (53208: loan).
- CLOVER, CLARENCE B., Noblesville, Ind.: Specimen of *Tamias striatus* (53742).
- COCKERELL, Prof. T. D. A., University of Colorado, Boulder, Colo.: 18 specimens of the melanistic form of *Drosophila ampelophila* (52968); microscopic slides containing radulas of mollusks, and a lot of mollusks, including the type of *Orcohelix confuens* (53009); 38 insects, chiefly named bees, also 20 plants from New Mexico (53641); 22 plants from Guatemala collected by Mrs. Cockerell (53808); 18 insects (53837); 12 fossil ostracoda from Florissant, Colo. (53881); 71 specimens of Hymenoptera, including one type, 21 Orthoptera, 8 Lepidoptera, 3 Hemiptera, and 2 ticks, from Guatemala, collected by Mrs. Cockerell; also 2 Hymenoptera from Colorado (53914; 54000); bat, *Natalus*, and 3 specimens of *Pseudoxiphophorus bimaculatus* from Guatemala (54030; 54136); 46 insects, including types and cotypes of 7 species (54084).
- COFFIN, Miss MARIAN T., Muirkirk, Md. (through Mrs. Julian James): Dress worn by Miss Helen Hovey, of Boston, Mass., when she danced with the Prince of Wales upon the occasion of his visit to America (53951: loan).
- COLEMAN, L. C., Bangalore, Mysore, India: About 200 parasitic Hymenoptera from India (53363).
- COLES, RUSSELL J., Danville, Va.: Fishes, a leech, and a mollusk from the coast of North Carolina (53060; 53539).
- COLLEGE OF PHARMACY OF THE CITY OF NEW YORK. (See under New York City.)
- COLLEGE OF PHYSICIANS AND SURGEONS, COLUMBIA UNIVERSITY. (See under New York City.)
- COLLETT, Prof. ROBERT, Zoological Museum, Christiania, Norway: 2 skins with skulls and 6 skulls of the genus *Evtomys* from Norway (53071).
- COLLINS, F. S., Malden, Mass.: 50 specimens of North American algae, comprising fascicle 36 of the Phycotheca Boreali-Americana (53717); 50 lichens from North America, Phycotheca Boreali-Americana, fascicle 37 (53933). Purchase.
- COMEAU, N. A., Godbout, Quebec, Canada: A sculpin, a small flounder, a crab, 3 annelids, and 2 starfishes, received through the Biological Survey, U. S. Department of Agriculture (54011).
- COMMERCE AND LABOR, DEPARTMENT OF: *Bureau of Fisheries*: The first series of Hydromedusae, Ctenophores, and Siphonophores, from the Philippine expedition of the steamer *Albatross*, 1907-1910 (52960); specimen of Ross's gull, *Rhodostethia rosea*, and one of the arctic tern, *Sterna paradisæa*, from the Pribilof Islands (53029); 4 plants from Kentucky, collected by H. Walton Clark

COMMERCE AND LABOR, DEPARTMENT
OF—Continued.

(53087); invertebrates, including mollusks, and fishes from Woods Hole, Mass., and vicinity (53132); 12 specimens of echinoids (53133); 24 lots of ascidians collected by the steamer *Albatross* off southern California in 1904 (53134); 39 plants collected in Alaska by Walter L. Hahn (53221); the *Albatross* Philippine collection of decapod crustaceans, consisting of about 5,500 jars, bottles, and vials (53256); 2 barrels and 3 boxes of shore fishes and a small collection of fishing tackle, with notes on its use, collected by the *Albatross* in Japan in 1906 (53267); 23 specimens of cumacea, *Oxyurostylis smithi* (53285); 95 sheets of plants, 23 fossils, 8 sea urchin tests, 14 mollusks, 3 rocks bearing bryozoa obtained from the vicinity of Chignik Lagoon, Alaska, by Waldo L. Schmitt (53371); fishes from Tennessee (53397); 189 lots of starfishes (489 specimens) and 29 lots of crinoids (about 150 specimens), collected by the steamer *Albatross* in the North Pacific Ocean from 1902 to 1906 (53399); 3 jars of fresh-water mollusks collected by Lewis Radcliffe in the District of Columbia (53483); invertebrates, chiefly sponges and hydroids, including identified specimens of hydroids from the *Albatross* eastern Pacific expedition of 1904–1905, and reptiles and batrachians collected by B. W. Evermann at Waterville, N. H., and Milford, Pa., in 1906 and 1905, respectively (53528); marine invertebrates from the *Albatross* tropical Pacific expedition of 1899–1900 and the Hawaiian expedition of 1902, and a miscellaneous collection of fishes (53574); 3 specimens of *Ascidia elementea* from off the coast of southern California (53628); 2 lots of spruce cones, black and white, collected by Lee R. Dice, deputy warden Alaska Fisheries Service, near Tanana, Alaska (53714); first series

COMMERCE AND LABOR, DEPARTMENT
OF—Continued.

of Medusæ collected by the *Albatross* in the northwest Pacific in 1906 (53758); fur seal born on St. Paul Island, Bering Sea (53762); fishes obtained by the steamer *Fish Hawk* on the coast of Florida in 1901, 1902, and 1903, comprising 463 specimens (53826); 4 fresh specimens of sand-crab (53827); 90 specimens, representing 6 species, of parasitic copepods (53960); 39 packages of barnacles collected by the steamer *Albatross* in the northwestern part of the Pacific Ocean in 1906 (54003); fresh-water shells from Sunapee Lake, N. H., collected by W. C. Kendall (54070); 2 boxes of Medusæ, Siphonophores, and Ctenophores from the northwest Pacific expedition of the steamer *Albatross* in 1906 (54071); type specimen of *Alonopsis aurcolus*, from a golden trout caught in Sunapee Lake, N. H. (54250). (See under Smithsonian Institution, Smithsonian Biological Survey of the Panama Canal Zone.)

Coast and Geodetic Survey: Zenith telescope No. 1, complete (53077).

CONDIT, Rev. JAMES H., Fairbanks, Alaska: Nest and egg of "camp robber," or Alaskan jay, *Perisoreus canadensis fumifrons* (53231).

CONGRESS, LIBRARY OF, Washington, D. C.: A British military uniform vest of crimson cloth, a silk embroidered vest and belt of the colonial period, and a brass gorget bearing the British coat of arms, worn by Maj. Gen. Adam Stephen, of the Continental Army, when lieutenant colonel in the British colonial forces during the French and Indian War, 1755–1763 (52984).

CONZATTI, Dr. C., Oaxaca, Mexico: 15 living specimens of Cactaceæ and Crassulaceæ from the State of Oaxaca (53332: exchange); 9 living specimens of Cactaceæ from Mexico (53542; 53650; 53930).

- COOK, Mrs. H. C., Washington, D. C.: Parrot, *Amazona aestiva* (53193).
- COOLEY, Prof. R. A., Montana Agricultural College, Bozeman, Mont.: 2 cotypes (=paratypes) of *Pontania bozemani* (53797).
- COPENHAGEN, DENMARK, UNIVERSITETS BOTANISKE MUSEUM: 50 plants from Greenland (53886).
- COPENHAGEN, DENMARK, UNIVERSITETS ZOOLOGISKE MUSEUM: 6 specimens of a recent crinoid, *Heliometra glacialis* (53698); 4 species of hydroids (53798: exchange); 18 mammals (53825).
- CORNER, FRANK, The Manor House, Poplar, London, England: Cast of cranium (with part of the lower jaw), known as "The Galley Hill skull" (53126).
- COURT, EDWARD J., Washington, D. C.: Specimen of black-crowned night heron, *Nycticorax nycticorax naevius*, from Utah (52979).
- COWLES, HENRY T., Arecibo, P. R.: 133 plants, including specimens of cacti and ferns, from Porto Rico (53552; 53598; 53639; 53760).
- CRAFT, Dr. C. C., Swansea, S. C.: 10 insects and 4 snakes from Argentina and a starfish from Orkney Islands (53362; 54088).
- CRANE, Mrs. W. MURRAY, Washington, D. C.: 5 oil paintings (54160: loan).
- CRANSTON, C. K. (See under Fish and Game Commission, State of Oregon.)
- CROCKER, HENRY A. D., East Falls Church, Va.: Box terrapin from Fairfax County, Va. (53129).
- CROMWELL, DAVID W., Piermont, N. Y.: 30 uncanceled U. S. postage stamps (53805: loan).
- CROPPER, Mrs. JOHN, Washington, D. C.: Historical objects, consisting of paintings, engravings, furniture, glassware, etc. (54020; 54163: loan); 30 specimens of minerals
- CROPPER, Mrs. JOHN—Continued. (54198); 3 small boxes of sea shells, and a hinged wooden screen the panels of which were made from a beam taken from a house on the island of Porto Santo, Madeira, in which Christopher Columbus is said to have lived (54021).
- CROUSE, F. C., Shanghai, China: 4 beetles from China, representing the species *Xylotrupes dichotomus* (53021).
- CRYDER, Miss MARY ALSOP, Washington, D. C.: Necklace, 2 brooches and 2 pairs of earrings made of individual strands of hair twisted into hollow globes and mounted in gold, which were owned during the latter part of the 18th century by a member of the Alsop family of Connecticut (54042).
- CUBA COPPER Co., Santiago, Cuba: 7 specimens of ore from El Cobre Mines, Santiago (54139).
- CUNDALL, F., Kingston, Jamaica: 15 wasps from Jamaica (54248).
- CUSHMAN, Mrs. ALLERTON S., Washington, D. C. (through Mrs. James W. Pinchot): Cape of Flemish lace, originally worn by a Roman cardinal, and later by Charlotte Cushman in the rôle of Cardinal Wolsey (54166: loan).
- CUSTER, Mrs. ELIZABETH B., Bronxville, N. Y.: Memorials of Gen. George A. Custer, U. S. Army, and relics of the Civil War (54044: loan); memorials of Gen. Custer (54045).
- CUSTER, NEVIN, Monroe, Mich. (through Mrs. Elizabeth B. Custer): An embroidered muslin cap, worn by Gen. George A. Custer, U. S. Army, when an infant (54113: loan).
- DAECKE, V. A. E., Harrisburg, Pa. (through Bureau of Entomology, U. S. Department of Agriculture): 46 saw flies and 2 Diptera, types of *Eurosta elsa* (53426).

- DAHLEM BEI STEGLITZ, KÖNIGL. BOTANISCHER GARTEN. (See under Berlin, Germany.)
- DAKAN, ALBERT, Longmont, Colo. (through U. S. Geological Survey): Specimens of *Oreohelix strigosa* var. from 10 miles northwest of Longmont on the north bank of Little Thompson Creek (53229).
- DANDRIDGE, MISS VIOLET. (See under Miss M. J. Rathbun.)
- DANIEL, MRS. JOHN W., Washington, D. C.: A piece of embroidery which was owned by Mrs. Edward Carrington before the Revolutionary War, and was used as a spread on the bed of the Marquis de Lafayette in Eagle Tavern, Richmond, Va., upon the occasion of his visit to the United States in 1824 (54132: loan).
- DAVIDSON, DR. A., Los Angeles, Cal.: 2 specimens of living cacti, *Opuntia*; 5 specimens of *Castilleja*, and a specimen of *Frasera* representing a new species, from California (53065; 53325; 53719).
- DAVIS, FRED. P., U. S. National Museum: Specimen, in alcohol, of the common red bat, *Nycteris borealis*, from Washington, D. C. (52946).
- DAVIS, REV. JOHN, Hannibal, Mo.: 278 plants from Missouri, received through Mr. B. F. Bush (53734).
- DAY, ARTHUR. (See under Harehope Mining & Quarrying Co. (Ltd).)
- DECKERT, RICHARD, Jacksonville, Fla.: Batrachians from Florida (53764).
- DERJUGIN, Prof. K. M., Murmansche Biologische Station, Alexandrovsk, Archangelsk Gouv., Russia: 4 specimens of recent crinoids representing the species *Heliometra glacialis* and *H. quadrata* (53154).
- DEVEREUX, A., Decatur, Tex.: 3 specimens of fossil coniferous wood (53746).
- DEXTER, HENRY M., Washington, D. C.: 4 cocoons, a skein of silk spun from cocoons by Prof. Jos. Neumann, with his self-made loom, and an invitation card of Prof. Neumann to his exhibit of California silk culture (53835).
- DILLARD, DR. RICHARD, Edenton, N. C.: Larva of a rhinoceros beetle (53686).
- DILLE, F. M., Valentine, Nebr.: Fresh-water shells from Nelson County, N. Dak. (54028).
- DISBROW, DR. WILLIAM S., Newark, N. J.: 3 specimens of minerals (53124: exchange).
- DISTRICT OF COLUMBIA, BOARD OF COMMISSIONERS (through Mr. Cuno H. Rudolph, president): Gold medal issued by the municipal government of Buenos Aires, Argentine Republic, in commemoration of the 400th anniversary of the discovery of America by Columbus (53943: loan).
- DODD, WEST, Des Moines, Iowa: Small sapphires (53993).
- DODGE, C. K., Port Huron, Mich.: 4 specimens of *Laciniaria* from Michigan (53769).
- DODGE, CLARENCE, U. S. National Museum: Zoötrope, or "Whirligig of Life" (52993).
- DONALDSON, W., Little Rock, Ark.: 3 specimens of fresh-water sponges (53157).
- DORSEY, HARRY W., Smithsonian Institution: Specimen of Cooper's hawk, *Accipiter cooperi*, from Hyattsville, Md. (53051).
- DORSEY, DR. Z. A., Troy, Miss.: Portion of jaws and teeth of *Mosasaur* (53084).
- DOUGLASS, WILLIAM BOONE, General Land Office, Washington, D. C.: Skull of a mountain ram, *Ovis*, found at Frijoles Canyon, near Santa Fe, N. Mex. (53356).
- DOWELL, DR. PHILIP, Port Richmond, N. Y.: 50 ferns from New York (54077: purchase).

- DOWLING, Mrs. HARRIET L., El Paso, Tex.: Earthenware idol from near Guatemalan border, stone idol excavated at Tepoxtlán, Mexico, and a Mexican raincoat (54258).
- DRINKARD, Mrs. L. R., Washington, D. C.: Ivy leaf (in frame) from a funeral wreath of President James A. Garfield, and a silk badge used at his funeral (53270).
- DROWNE, Dr. FREDERICK P., Warren, R. I.: Arrowheads and a grooved ax from near Chilesburg, Va., also natural history specimens from the same locality, Massachusetts, and Rhode Island (53979).
- DUBLIN, IRELAND, DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION FOR IRELAND (FISHERIES BRANCH): 2 specimens of *Zoroaster fulgens* from the west coast of Ireland (54004); 11 specimens of recent crinoids (54230).
- DUCKET, A. B., Bladensburg, Md.: 4 beetles, *Disonycha collata* (54146).
- DUDLEY, J. H., Leland, Wash.: Pupa of the long-horned beetle, *Ergates spiculatus* (53474).
- DUNLAP, PORTER, Dover, Tenn.: Skull and portion of skeleton of *Marmota monax*, with abnormal front teeth, found in Stewart County, Tenn. (53480).
- DURY, CHARLES, Cincinnati, Ohio: 2 specimens of *Sphaeroderus schaumii*, 4 of *Cis cornutus*, 2 of *Thrimolus minutus*, and 1 of *Platynus* sp. (53244: exchange); 2 specimens of *Symbiotes waltoni* and 2 of *Proctacanthus duryi* (53662).
- EARLAND, ARTHUR, Watford, England: Dredgings made by the fishery cruiser *Goldsecker* in connection with the International North Sea Commission (Scotland) (52977: exchange).
- EASTERN BENGAL AND ASSAM, THE GOVERNMENT OF (through Mr. H. K. Briscoe, I. C. S., Under Secretary to Government in the Revenue and General Department): A square silver coin (1729 A. D.) of Siva Simha with Pramatheswari, Ahom king of Assam (53678).
- EASTMAN KODAK Co., Rochester, N. Y.: 31 kodak enlargements (54048).
- EASTWOOD, Miss ALICE, California Academy of Sciences, San Francisco, Cal.: Specimen from the type collection of *Lupinus macrostachyus* (53991).
- EDMONDSON, Dr. C. H., Washburn College, Topeka, Kans.: About 150 insects collected in Tahiti (53475).
- EDWARDS, Mrs. CLARENCE R., Washington, D. C.: 2 carved cinnabar lacquer Chinese boxes, Chinese filigree fan, and a French (?) fan with pearl sticks (54213: loan).
- EGGLESTON, W. W., U. S. Department of Agriculture, Washington, D. C.: 3 specimens of *Cratægus* from South Dakota, 77 from Indiana, and 12 from Ohio (53342; 53423; 53530); 46 plants from the eastern part of the United States (53724); 6 specimens of *Cratægus* from the United States (54125).
- EGYPT, GEOLOGICAL SURVEY OF, Cairo, Egypt: 2 pieces of a meteorite (53114).
- ELLINGER, JOHN A., Washington, D. C.: 8 ambrotypes and 2 daguerreotypes (52987).
- ELLIOTT, Mrs. MAUDE HOWE, Newport, R. I.: Dress and mantle of embroidered muslin and veil of Brussels lace, worn by the donor's mother, Mrs. Julia Ward Howe, at her wedding, April 23, 1843 (52958).
- ELLIS, MAX M., University of Colorado, Boulder, Colo.: Type slide of Discodrilid, *Cambarincola macrodonta* (53794).

- ELSON, A. W., & Co., Boston, Mass.: 5 carbon prints (54082).
- EMORY, W. E., Washington, D. C.: 8 watch movements (53268).
- ENSLIN, DR. E., Fürth i. B., Germany: 57 sawflies representing 28 species (53664: exchange).
- ENTOMOLOGICAL RESEARCH COMMITTEE (TROPICAL AFRICA). (See under London, England.)
- ESCHERICH, DR. K., Forst Akademy, Tharandt, Saxony, Germany: An example of the fungus raised by *Termes bellicosus*, collected by the donor in Abyssinia (53171).
- EVANS MARBLE Co., Knoxville, Tenn.: 5 slabs of marble (53068).
- EVANS QUARRIES Co., Hot Springs, S. Dak.: A 5-inch cube of sandstone (53679).
- EVANS, WILLIAM T., New York City: 13 paintings in oil, "Depths of the Woods," by Lillian Matilde Genth (53018); "Ariadne," by Wyatt Eaton, "The Spouting Whale," by William Morris Hunt, and "Dublin Pond, New Hampshire," by Abbott Handerson Thayer (53207); "Russian Tea," by Irving Ramsay Wiles (53266); "Plymouth Hills," by John W. Beatty (53524); "The Blockmaker," by Edgar Melville Ward (53643); "Laguna—New Mexico," by Albert Lorey Groll (53748); "Monhegan Headlands," by William S. Robinson (53775); "The Cup of Death," by Elihu Vedder (53869); "The Knight of the Holy Grail," by Frederick J. Waugh (54047); "Nymph and Water Babies at Play," by William Baxter Palmer Closson (54122); "After a Storm, Amagansett," by Arthur Turnbull Hill (54165); 34 framed proofs of American wood engravings (53098; 53420).
- EVERETT, L. N., Wyandotte, Mich.: 2 snakes from Colchester, Ontario (53168).
- FAISON, Hon. J. M., Faison, N. C.: Specimen of barn owl, *Aluco pratincola* (53348).
- FALL, H. C., Riverside, Cal.: Cotype of *Pleocoma australis* (53172).
- FAUNTLEROY, Miss JULIET, Lynch Station, Va.: 4 ferns from Virginia (53279).
- FAUVER, W. F., Gold Roads, Ariz.: Specimen of praying mantis, *Stagmomantis* (53119).
- FAWCETT, GEORGE L., Gainesville, Fla.: Specimen of fungus, *Egerita webberi*, from Largo, Fla. (53089).
- FEDERATED MALAY STATES MUSEUMS. (See under Kuala Lumpur.)
- FELIPPONE, DR. FLORENTINO, Montevideo, Uruguay: Marine invertebrates, mollusks, insects and reptiles (53538).
- FELT, D. E., Chicago, Ill.: An 8-column comptometer made by the donor in 1886 and used for many years by Joseph S. McCoy, Actuary of the U. S. Treasury (54244).
- FELT & TARRANT MANUFACTURING Co., Chicago, Ill.: 2 calculating machines—a comptograph and a modern commercial comptometer (54245).
- FELTUS, K. B., Leland, Miss.: Specimen of dragonfly, *Macromis taniolata* (53027).
- FERRY, C. W., Elsberry, Mo.: A large specimen of the fossil *Receptaculites oweni* (53680).
- FESTA, E., Museo Zoologico, Turin, Italy: Specimen of *Dyromys nitidula intermedia*, from Padola, Cadore, Italy (53587).
- FEWKES, DR. J. WALTER. (See under Dr. Luis Anderson.)
- FIELD, GEO. H., San Diego, Cal.: 32 moths (53883).

- FIELD MUSEUM OF NATURAL HISTORY, Chicago, Ill.: 8 ferns collected by Dr. C. F. Millspaugh (54025: exchange). (See under Smithsonian Institution, Smithsonian Biological Survey of the Panama Canal Zone.)
- FISH AND GAME COMMISSION, STATE OF OREGON, Portland, Oreg. (through Mr. C. K. Cranston): Small specimen of red fish or blue-back salmon. *Oncorhynchus kennerlyi*, from Wal-lowa Lake, Oreg. (53321).
- FISHER, A. K., U. S. Department of Agriculture, Washington, D. C.: Specimen of "mad tom," *Schilbcodes insignis*, from the Potomac River at Plummers Island (53139); specimen of *Lepomis cyanellus* and a head of *Micropterus salmoides* (53816).
- FISHER, GEO. L., Nara Visa, N. Mex.: 172 plants from New Mexico and Texas (53159; 53246; 53376; 53814; 54067).
- FISHER, ROBERT J., Washington, D. C.: 4 eggs of the African gray parrot, *Psittacus erythacus* (53251).
- FLANAGAN, JOHN, New York City: 3 photographic prints of 15 medals and medallions designed by the donor (53701).
- FLETT, W. G., Gwendolen, Oreg. (through Mr. John P. Hartman, Seattle, Wash.): A mountain-sheep horn intended for the handle of a big ladle, found in one of the cabins of the Klikitat Indians, Washington (53276).
- FOOTE, MRS. KATE N., Washington, D. C.: 3 oil paintings by a Chinese artist, and a crayon portrait of Rear Admiral Andrew H. Foote, U. S. Navy (53047); objects of historical interest which belonged to Rear Admiral Foote and to his son, Augustus R. S. Foote (53049; 53122: loan).
- FOOTE MINERAL Co., Philadelphia, Pa.: 840 grams of a meteoric pallasite from Ahumada, Mexico (54095); 102 grams of meteoric stone (McKinney) (54224). Exchange.
- FOREST, JOHN, Washington, D. C.: Col-lection of termites (53001).
- FORSMAN, ALFRED. (See under Mr. V. C. Ward.)
- FOSTER, FRANK E., Fort Yukon, Alaska (through Mr. A. G. Maddren): 2 fossil plants from Alaska (53631).
- FOWLER, MISS SILVIE DE GRASSE, Wash-ington, D. C.: Portraits of François Paul de Grasse de Rouville, Admiral Comte de Grasse, by Largillière; Theodosius O. Fowler, by Healy; and Hero, a St. Bernard dog, by Benjamin West (54061: loan).
- FOX, DR. CARROLL, Bureau of Health, Manila, P. I.: 2 specimens of *Pachy-ura* and 1 of *Epimys rattus* from the Philippine Islands (53095). (See under Manila, P. I., Bureau of Health.)
- FOX, PROF. HENRY, Ursinus College, Collegetown, Pa.: 21 specimens of Orthoptera, including paratypes of the new species *Xiphidium nigro-pleuroides* and *X. spartinae* (53810).
- FRANZEN, J. W., Minneapolis, Minn.: 5 moths (53037).
- FREED, JOHN T., Scott, Kans.: Frag-ment of Scott City meteorite weigh-ing 175 grams (53802).
- FRICTSHE, OSKAR, Taucha b. Leipzig, Germany: Skin and skull of *Des-mana moschata* and skin and skull of *Ellobius talpinus* (53150: pur-chase); skin and skull of Pyrenean chamois, *Rupicapra pyrenaica* (53337: purchase); skeleton of *Castor fiber* from the Elbe River, near Wittenberge, Prignitz, Germany (53990: purchased from the Harri-son Fund).
- FUHRMANN, DR. OTTO, Université de Neuchâtel, Neuchâtel, Switzerland: 25 specimens, representing 6 species, of isopods (53233).
- GALE, HOYT S. (See under Mr. Tom Gillan.)

- GARRETT, J. J., Truman, Ark.: Moth, known as the hickory horned devil, *Citheronia regalis* (53106).
- GARRISON, Mrs. JOHN R., Washington, D. C.: Model of a Porto Rican native house and 18 models of household utensils, furniture, etc., used by the natives; model of a native stove (53560).
- GEER, Mrs. A. C., Washington, D. C.: 20 mounted birds from tropical America (54037).
- GEROULD, Dr. JOHN H., Dartmouth College, Hanover, N. H.: Specimen of young ground dove, *Chamepelia passerina terrestris*, from Florida (54126).
- GIBSON, W. T., Phoenix, Ariz.: Specimen of asbestos (chrysotile) (54218).
- GILL, DE LANCEY, Bureau of American Ethnology: Photograph of Col. William Louis Schley, U. S. Army, taken in 1862 (52996); a deformed claw of a blue crab, *Callinectes sapidus* (53314).
- GILL, G. W., Washington, D. C.: 2 bird skins from Rehoboth Beach, Del. (53471).
- GILL, Dr. THEODORE N., Smithsonian Institution: 100 casts of Foraminifera, made under the direction of d'Orbigny (53136); photograph of Thomas Barbour (53754).
- GILLAN, TOM, Richfield, Utah (through Mr. Hoyt S. Gale, U. S. Geological Survey): 3 specimens of alunite from Marysvale, Utah (54038).
- GIVEN, Dr. FRANK I., Hillsboro, N. Mex.: Specimen of *Tonicella lineata*, found on the mesa south of Hillsboro (53395).
- GODING, Dr. FREDERIC W., American consul, Montevideo, Uruguay (through Department of State): Nest and 2 eggs of a hummingbird, from Uruguay (53521).
- GODLOVE, JAMES R., Wardensville, W. Va.: Skull of a woodchuck, *Marmota monax*, with abnormal front tooth, collected near North Mountain, Hardy County, W. Va. (53481).
- GODMAN & SALVIN, London, England (through Mr. G. C. Champion): 378 weevils of the family Otiorhynchidae, from the collection of the Biologia Centrali-Americana (53451).
- GOERLITZ, GEBRÜDER, Idar, Germany: A specimen of moonstone, a variety of feldspar showing a bluish opalescence, from Ceylon (53899: purchase).
- GOETHALS, Col. GEO. W., U. S. Army. (See under Isthmian Canal Commission and Mr. D. F. MacDonald.)
- GOOD, ORRIN S., Spokane, Wash.: 4 samples of Nez Percé Indian bread, made by a squaw near Cul de Sac, Idaho (53561).
- GRAENICHER, Dr. S., Public Museum, Milwaukee, Wis.: 11 bees, including 7 paratypes of 6 species (54137: exchange).
- GRAVES, B. H., Laramie, Wyo.: Specimen of *Pecten exasperatus* from Beaufort, N. C. (53085).
- GREEN, E. E., Royal Botanic Gardens, Peradeniya, Ceylon: 22 specimens of sawflies (53665).
- GREEN, H. A., Tryon, N. C.: 7 shells, mostly from Florida (53384).
- GREENE, Miss ANNA R., Colebrook, Conn.: Moth, *Amphion nesusus* (54206).
- GREENE, F. C., Geological Survey of Missouri, Rolla, Mo.: A carboniferous log from Missouri (53700).
- GREENLEAF, Maj. HENRY S., Medical Corps, U. S. Army, Madison Barracks, N. Y.: 6 pieces of Chinese porcelain (53568: loan).
- GRIGGS, Prof. R. F., Ohio State University, Columbus, Ohio: Specimen of a new species of *Bihai* from Jamaica (53832).

- GRIMES, WARREN, U. S. National Museum: Specimen of Brown thrasher, *Toxostoma rufum* (53245).
- GRIPP, C. W., San Diego, Cal.: Type specimen of *Eupleura grippi*, from off the entrance to San Diego harbor (53393); 15 specimens of marine shells, from 15 to 20 fathoms, off San Diego harbor mouth, outside the kelp beds (53493).
- GROUT, DR. A. J., New Dorp, N. Y.: 25 specimens of North American mosses, *Musci pluricarpi* (53031: purchase).
- GUTSELL, JAMES S., Ithaca, N. Y.: Specimens of herring from Cayuga Lake, N. Y., collected by the donor and R. S. Gutsell (53854).
- HABERER, DR. J. V., Utica, N. Y.: 261 plants from New York (54059).
- HALIFAX, NOVA SCOTIA, PROVINCIAL MUSEUM: Chain of *Salpa cordiformis* (53799).
- HALL, FRANK H., Silver Spring, Md.: A pendant charm, or fetish, of soapstone, from an Indian shell mound at Sausalito, Cal. (54017).
- HALL, MRS. NEWT HAMILL, Washington, D. C.: A bird-shaped root of the tea shrub, a religious object, from China (54124).
- HANKINS, DR. J. L., Century, W. Va.: Beetle, *Dynastes tityus* (53105).
- HANNAY, Capt. J. R. R., U. S. Army, Washington, D. C.: A collection of weapons, including rifles, shotguns, small cannon of Spanish make, daggers, knives, swords, etc., collected in the Philippine Islands by Capt. Hannay (52962: loan).
- HANNIBAL, HAROLD, Seattle, Wash.: 3 specimens representing 2 species of *Lyonsia*, from California and Washington (53566).
- HANSEMANN, Prof. DAVID PAUL von, Berlin, Germany: 27 anatomical specimens (53082; 53939) Exchange.
- HAPEMAN, DR. H., Minden, Nebr.: 9 plants from Hawaii and Mexico (53956).
- HARDENBERGH, MRS. ELIZABETH, Washington, D. C.: Decorations of the Order of the Medjidieh conferred on Hon. Samuel S. Cox, and of the Order of the Shefakat conferred on Mrs. Samuel S. Cox by the Sultan of Turkey, Abdul Hamid II, presented in the name and memory of Mr. and Mrs. Cox; also a silver memorial vase presented to Mrs. Cox by the members of the Life-Saving Service of the United States in recognition of the successful efforts of Mr. Cox in establishing and maintaining that service, presented in the name of Mrs. Cox (53695).
- HAREHOPE MINING & QUARRYING CO., Ltd., Frosterley, Weardale, Durham, England (through Mr. Arthur Day, representative): The Frosterley marble exhibit at the St. Louis Exposition, in 1904 (53367).
- HARPER, ALBERT, Washington, D. C.: A printed copy of an alleged letter of Christ (53144).
- HARRIMAN, MRS. E. H., New York City: Ethnological material from Alaska, collected by ex-Gov. John Green Brady (54171).
- HARRINGTON, J. P., School of American Archaeology, Santa Fe, N. Mex.: 7 specimens of *Pogonomyrma californicus* (53602).
- HARRIS, DR. J. V., Key West, Fla.: Specimen of *Philibretella clausa* from Florida (53056).
- HARRISON, MISS CARRIE, Washington, D. C.: A doll dressed in a period costume of 1862 (53241); a piece of antique Hedebo needlework, from Copenhagen, Denmark (53941).
- HARRISON, G. E., Hibbing, Minn.: Upper jaw tooth of a bison (53044).

- HARRISON, GEORGE L., jr., Philadelphia, Pa.: 8 skulls of *Gazella dorcas* (53048); also, from a fund of \$500 presented by Mr. Harrison to the Smithsonian Institution, to be used for the purchase of mammals for the National Museum, the following specimens were obtained: 5 tree-shrews from Sumatra (53292); 43 skins and 55 skulls of mammals from Ontario (53294); a specimen of *Rupicapra pyrenaica*, collected near the Spanish border of the Pyrenees (53467); a specimen of *Ovis musimon* from Corsica (53616); 12 Irish hares (53935); a skeleton of a beaver from Germany (53990); a specimen of *Rupicapra* from Italy (54065); 5 specimens of Caucasian ibex, *Capra cylindricornis* (54087).
- HART, W. C., Manitou, Colo.: 2 specimens of malachite after azurite, from Nevada (53888).
- HARTMAN, MISS ELIZABETH. (See under Miss Fannie A. Weeks.)
- HARTMAN, JOHN P. (See under Mr. W. G. Flett.)
- HARVARD UNIVERSITY, UNIVERSITY MUSEUM, Cambridge, Mass.: Polished slab of pegmatite from Quincy, Mass. (53759: exchange).
- HASSE, DR. H. E., Sawtelle, Cal.: 2 specimens of cactus, *Opuntia*, from California (52971).
- HAY, MRS. JOHN, Washington, D. C. (through Mrs. Julian James): Dress and veil worn by Mrs. Hay at the Court of St. James; cloak worn by Mr. Hay at the Court of Spain while secretary of legation at Madrid (53730); cut-glass inkstand with the inscription "This inkstand was used by Abraham Lincoln during his Presidency. John Hay." on the silver top; chair used at the Cabinet meetings at the White House from the time of President Grant until 1902; round mahogany table of Sheraton design; fan of black gauze embroidered in spangles and gold thread (54183). Loan.
- HAYCOCK, ARTHUR, Whitby, Bailey Bay, Bermudas: Land and marine shells, some of which are new to the Museum collections, from the Bermudas (53273; 53278; 53485; 53855).
- HAYES, COL. W. C., Fremont, Ohio (through Mrs. Julian James): Red velvet dress worn by Mrs. Rutherford B. Hayes during Mr. Hayes' administration as President (54264: loan).
- HEATH, DR. HAROLD, Stanford University, Cal.: Isopod, *Pseudione giardi*, parasitic in a lithodid crab (53297).
- HEFLEBOWER, GEORGE W., Washington, D. C.: Reptiles, batrachians, crustaceans, insects, and a bat from Orkney Springs, Va. (53050).
- HEFLIN, HOB. J. THOMAS, Lafayette, Ala.: An oyster growing on a bottle (53497).
- HELLER, A. A., University of Nevada, Reno, Nev.: 8 plants from Nevada (53807).
- HEMMICK, MRS. CHRISTIAN D., Washington, D. C.: Ivory dish, ivory crosier, suit of armor on dummy, Indian bow, and camel's saddle (54259: loan).
- HENDERSON, JOHN B., jr., Washington, D. C.: Invertebrates, fishes, and a devilfish, dredged in the Straits of Florida (52961); 877 specimens of mollusks, representing 76 species (53379); 17 samples of ocean deposits from the eastern coast of North America (53445); a fine specimen of *Murex bednalli* from Port Darwin, Australia (53884); 102 specimens of marine invertebrates, dredged off Florida and the Bahamas, and fishes from the same region (54199).
- HENRY, THE MISSES, Washington, D. C.: Sampler inscribed "Alexander," and sampler book made by the grandmother of the donors, two beaded bags of the early 19th century, and a piece of a dress which belonged to the Empress Josephine (53842).

- HERRE, Prof. A. W. C. T., Okland, Cal.: 77 lichens from the western part of the United States (53862; 53926).
- HESS, FRANK L., U. S. Geological Survey, Washington, D. C.: 5 specimens of tin ores, including one from Alaska (53953; 54053). (See under Boulder County Metal Mining Association.)
- HEWETT, D. F., U. S. Geological Survey, Washington, D. C.: 12 specimens of vanadium minerals from Peru, 1 specimen of native tellurium from Gunnison County, Colo., and 5 specimens of analcite from East Absaroka Mountains, Wyo. (53460; 53618).
- HILDEBRAND, S. F. (See under Smithsonian Institution, Smithsonian Biological Survey of the Panama Canal Zone.)
- HILL, R. T., Washington, D. C.: 2 figurines, taken from a grave in Guanajuato, Mexico, more than two hundred years old (53949).
- HINDS, HENRY, Washington, D. C.: Specimen of sphalerite in cannel coal (53473).
- HIORAM, Brother, San Juan, P. R.: 157 living and dried plants from Porto Rico (53088; 53378; 53653; 54040).
- HITCHCOCK, A. S., U. S. Department of Agriculture, Washington, D. C.: 23 specimens of Cyperaceae, collected in Maryland (53861).
- HITCHENS, Capt. Geo. D., Townsend, Va.: Specimen of dovekie, *Alc alle*, a razor-billed auk, *Alca torda*, and 19 sand crabs, *Ocyropode albicans*, from Smith Island, Va. (53559; 53882; 54189).
- HOES, Mrs. R. R., Washington, D. C. (through Mrs. Julian James): Umbrella given to President Monroe by the city of Boston during the reception of Gen. Lafayette in 1824; duplicate of the umbrella given to Lafayette (53675); dress worn by
- HOES, Mrs. R. R.—Continued.
Mrs. Winfield Scott, representing Pochontas at a fancy dress ball in Paris, 1830; vest, coat, and trousers worn by James Monroe, special envoy at the Court of Napoleon I; and 2 vests which belonged to Capt. John Hazard, 1777 (53790). Loan. (See under Mrs. W. P. E. Wyse.)
- HOFFMEIER BROTHERS, Lancaster, Pa.: Specimens of immature Psocidæ, possibly the young of *Pterodela pedicularia* (53183).
- HOLLOWAY, JAMES M., Washington, D. C.: Shell, or solid shot, found in May, 1912, by the donor on the Bull Run battle field (54170).
- HOLM, Dr. THEODOR, Brookland, D. C.: A jar of seedlings of *Datura* (53301).
- HOLMES, Prof. J. A., Bureau of Mines, Washington, D. C. (through Mr. David White): Specimen of anthracite coal with unusual fracture surface (53916).
- HOLMES, Prof. WILLIAM H., U. S. National Museum: Collection of stone implements, mostly projectile points, from the Rappahannock River, Richmond County, Va. (53151).
- HOLT, Mrs. A. G., St. Paul, Minn.: Mounted specimen of goshawk, *Astur atricapillus*, from Virginia (53196).
- HOLZINGER, J. M., Winona, Minn.: 300 plants from New Mexico (53260: purchase).
- HOMAN, F. W., Colorado Springs, Colo.: 9 living specimens of *Echinocereus* from Colorado (53968).
- HOPE GARDENS, DEPARTMENT OF AGRICULTURE. (See under Kingston, Jamaica.)
- HOPKINS, Mrs. ARCHIBALD, Washington, D. C.: Piece of Spanish blonde lace (54060: loan).
- HORNBLOWER & MARSHALL, Washington, D. C.: Cast of a Corinthian capital of the Temple of Jupiter Stator in Rome. The cast was taken from

- HORNBLOWER & MARSHALL—Continued. the molds in the Louvre, and was used by the architects Messrs. Hornblower & Marshall as the model for the capitals of the portico of the new building of the National Museum in Washington (53894).
- HOSLEY, Mrs. GENEVIEVE PAUL, Washington, D. C.: A sword and belt presented to Commander Harry Herbert Hosley, U. S. Navy, by the Larchmont Yacht Club, New York, on his return from towing the dry dock *Dewey* to the Philippines; four official cablegrams; also two medals which belonged to Commander Hosley, one of the Naval Order of the United States (badge), and the other of the U. S. Naval Campaign, West Indies, 1898, U. S. S. *San Francisco* (53694).
- HOUGH, ROSE, Mt. Rainier, Md.: Specimen of crayfish (53850).
- HOUSE, H. D., Canton, N. C.: 271 plants from North Carolina (52975); 200 plants from Oregon (53192).
- HOWELL, E. E., Estate of (through the trustees, Dr. F. A. Lucas, Mr. Ralph W. Howell, and Mr. E. P. Schwartz): An oil painting by Thomas Moran entitled "From Hiawatha" (53373: loan).
- HUCKEL, EARLE WENTWORTH, U. S. National Museum: Collection of half tones, offset prints, and phototypes (53948).
- HUCKEL, Rev. OLIVER, Baltimore, Md.: A periphanoscop (54098: loan).
- HUME, Mrs. W. S., Eastport, Me.: Old New England cornucopia form made of tin (53438).
- HUMPHREY, MARSHALL E., South St. Paul, Minn.: Parasitic copepods from heads of brook trout (52942).
- HUNGERFORD, T. H., Washington, D. C.: 43 skins and 55 skulls of mammals from Ontario, Canada (53294: purchased from the Harrison fund); 8 bird skins from Ontario (53323).
- HUNT, JAMES, Washington, D. C.: An Arabic manuscript of Mohammedan devotions, in book form (53317).
- HUNTINGTON, Prof. GEORGE S. (See under New York City, College of Physicians and Surgeons, Columbia University.)
- HURTER, JULIUS, sr., St. Louis, Mo.: 4 reptiles and a fish (54252).
- HUSSEY, Miss MARY E. (See under Miss Fannie A. Weeks.)
- HYBENNET, HERBERT, Worcester, Mass.: 47 Persian postage stamps, 18 Persian coins in a small purse of Persian textile, 38 photographs of Persian life and customs, a Persian pipe bowl, brass inlaid with turquois and garnets, and a Persian show bill (53942).
- HYSLOP, J. A., Hagerstown, Md.: 6 specimens of *Cyamus scammoni*, from a California gray whale captured at Ocosta, Wash. (53630); 4 amphipods from Coulee Lake, Govan, Wash. (53739); about 15 Coleoptera from Washington and Oregon (54241).
- INDIAN MUSEUM. (See under Calcutta, India.)
- INGELS, A. T., Baltimore, Md.: A piece of knit lace (53431).
- INGERSOLL, Mrs. EMMA, Olney, Ill.: Mollusks, representing 3 species, from California, collected by the late Walter C. Goforth (53482).
- INTERIOR, DEPARTMENT OF: Skins, skulls, and skeletons of 3 American bison, received through Lieut. Col. L. M. Brett, U. S. Army, acting superintendent of the Yellowstone National Park, Yellowstone Park, Wyo. (53470).
General Land Office: 2 copies of the bronze medal struck to commemorate the centennial of the organization of the General Land Office, 1812-1912 (54049).

INTERIOR, DEPARTMENT OF—Continued.

U. S. Geological Survey: 23 fossil plants of the genus *Gigantopteris*, from the Wichita formation in Texas (53011); 9 specimens of minerals, mostly type material (53061); 2 specimens of variscite, 1 of wurtzite crystals and 1 of jarosite, from Utah (53116); 16 boxes of granites from the New England States, described by T. Nelson Dale (53259); recent corals collected in Panama by T. Wayland Vaughan (53496); a small lot (about 18 specimens) of vertebrate fossils collected by Dean E. Winchester, in Perkins County, S. Dak. (53498); a series of rock specimens and ores collected in investigating the ore deposits of the northern part of Yuma County, Ariz., and described in Bulletin 451 of the survey (53537); 3 specimens of Cretaceous vertebrates, obtained by Eugene Stebinger, near the Canadian line, Montana (53591); about 60 specimens of vertebrate fossils from the White River group and the Lance formation, Harding County, S. Dak., obtained by E. M. Parks (53593); 84 specimens illustrating the geology and ore deposits of the Breckenridge district, Colo., described in Professional Paper 75; also 135 additional specimens from the same district (53654); 9 specimens of vertebrate fossils, collected by C. J. Hares in the Lance formation and associated beds of Billings County, N. Dak. (53677); a fossil creodont bone, collected by G. B. Richardson in the Colorado Springs quadrangle, Colo. (53710); 20 specimens of Cretaceous and Tertiary fossil vertebrates obtained by D. F. Hewett in the Wiley and Meeteetse quadrangles, Bighorn Basin, Wyo. (53723); 2 specimens of Vermont marble (53731); 69 specimens of fossil crustaceans from the Tertiary of Virginia, North Carolina, and South Carolina, obtained with the cooperation of the State geological surveys of Virginia and North Caro-

INTERIOR, DEPARTMENT OF—Continued.

lina (53752); 110 lots of Florida phosphates, collected by George H. Eldridge, 1891-1897 (53867); a series of representative specimens of Florida phosphates (53868); 4 small lots of fossil reptiles, collected in the Fort Berthold Indian Reservation, N. Dak., by Frank A. Herald (53889); 27 type specimens of Silurian fossils (53895); 71 rock specimens from the Taylorsville region, Cal., used in illustrating Bulletin 353 of the survey (54006); 70 specimens of rocks and ores of the Tonopah district, Nev., illustrating Professional Paper 42, and a suite of 34 miscellaneous specimens from various localities (54196); 215 specimens of marbles from Vermont, collected by T. Nelson Dale (54231); specimen of natural potassium nitrate, from Washoe County, Nev. (54234). (See under Mr. Albert Dakan.)

ISTHMIAN CANAL COMMISSION: Corals, sponges, and mollusks from the vicinity of Gatun, Canal Zone (53459); through Col. Geo. W. Goethals, U. S. Army, a box of Tertiary fossils illustrating section A, Gatun cut, collected by D. F. MacDonald; 19 boxes containing 60 lots of Tertiary fossils from the Canal Zone, collected by Dr. T. Wayland Vaughan and Mr. MacDonald; 18 boxes of Tertiary fossils from various localities in the Canal Zone, collected by Mr. MacDonald (53595; 53596; 53597: collected for the Museum).

JACK, JOHN R., Fort Myers, Fla.: 4 eggs of a gopher snake, from Florida (53026).

JACKSON, Miss FANNIE, Yonkers, N. Y. (through Mrs. Julian James): A breastpin of jet, gold, and pearls, which belonged to Henrietta Myers, wife of Peter S. Hoes, a nephew of President Martin Van Buren (53950); pair of earrings and brooch, of topaz and pearls, which belonged to Charlotte Bailey, wife of Maj. Myers (54179). Loan.

- JACKSON, Dr. F. W., Jefferson, Me.: About 300 bird eggs, mostly from Maine (53904).
- JACKSON, H. H. T., Biological Survey, U. S. Department of Agriculture, Washington, D. C.: Specimen of brook lamprey, from a small stream east of Riverdale, Md. (54012).
- JAMES, Mrs. JULIAN, Washington, D. C.: An Italian lamp (lucerna), and an Etruscan vase (53350); 5 objects relating to the Bailey-Myers-Mason families (53351: loan); a piece of Alençon lace, Louis XV, Travail à l'aiguille, and one of Brussels point de Gaze appliqué, Louis XVI, a collar and sleeves of point de Gaze, and a filet handkerchief (53829); panel of Spanish brocade, galon edge, 19th century, and a panel of French brocade, striped, galon fringe, 19th century (53845: loan); framed photographs of Charles Frederic Worth, the celebrated dressmaker of Paris (1825-1895), and of Auguste Petit, hairdresser to the Empress Eugenie, and an album of American "period" costumes (53984); a lady's riding hat worn by Mrs. James in 1871, a plush bonnet worn by Mrs. James in 1886, and a sunbonnet and cap worn by Mrs. Myers in 1899 (53987: loan); 4 chalice covers of old Spanish, old Italian, Rhodian, and Bulgarian embroideries; 2 large brocade scarfs of the periods of Louis XV and XVI, used at baptisms; and a table cover of Genoa velvet (53988: loan); basketry, birch-bark work, and other ethnological objects from various parts of the world (54110); terracotta vase and bowl, antique vase, 2 Egyptian and 2 Roman statuettes, Egyptian scarab, fragment of Egyptian plaque (Faience), 4 Italian bambinos, tiny Italian bambino in an egg-shaped case, wooden mosaic oblong box marked "Sorrento," a piece of flexible sandstone from the southern part of the United States
- JAMES, Mrs. JULIAN—Continued. (54186); desk of Porto Rico mahogany, 2 lamps from the home of the father of Sidney Mason, at Gloucester, Mass., silver inkwell given to Sidney Mason by his wife's father, Señor Don José Dorado of old Spain, and a chair, copied from Washington's chair, which Theodorus Bailey Myers gave to his father-in-law, Sidney Mason, and which had been used by Washington when at the old state house at Annapolis (54204: loan); brooch of onyx with monogram "C. G. M." in diamonds, and a photograph in the back, which belonged to Mrs. Sidney Mason, née Catherine Gartz Robb, of New York (54228: loan); portfolio of photographs of Hungarian national costumes (54260); dress of green grenadine worn in 1820 by Marequita Benito Dorado, who married Sidney Mason; dress of gray sprigged silk worn by Mrs. Theodorus Bailey Myers at a dinner given to Mr. and Mrs. Myers at the old Van Ness house on May 9, 1847; dress worn by Mrs. Theodorus Bailey Myers at a dinner given at the White House in 1885 by President Chester A. Arthur; dress worn by Mrs. Julian James at the British Embassy ball on May 25, 1893, in honor of Queen Victoria's birthday (54261: loan). (See under Miss Marian T. Coffin; Mrs. John Hay; Col. W. C. Hayes; Mrs. R. R. Hoes; Miss Fannie Jackson; Miss May S. Kennedy; Mrs. L. Z. Leiter; Miss MacKenzie; Mrs. Levi P. Morton; Miss Sydney Price; Mrs. Theodore Roosevelt; Mrs. Nellie Grant Sartoris; Mrs. William H. Taft; and Mrs. Lucy Page Whitehead.)
- JARDIN BOTANIQUE DE L'ÉTAT. (See under Brussels, Belgium.)
- JEANÇON, J. A., Colorado Springs, Colo.: Fragment of basketry-marked pottery (with cast showing the weave), and a small bone implement, from New Mexico (53404).

- JENKINS, C. FRANCIS, Washington, D. C.: Moving-picture camera with 24 revolving lenses (52963: loan); a vest-button camera (53945).
- JESSUP, J. M., Smithsonian Institution: Small collection of mosquitoes and about 200 beetles from the Porcupine River region, Alaska (52944); insects, including beetles and mosquitoes, from near New Rampart House, Yukon Territory (53010; 53211); fresh-water shells from Link River, Oreg., and from a lake in the northeastern part of Alaska (53283); 3 skulls and 1 skin of mammals from northern Alaska (53289); 2 very young grayling, *Thymallus*, and 2 cottids, *Cottus*, collected in the South Fork of Old Crow River, Alaska (53583).
- JOHANNSEN, Prof. O. A., University of Maine, Orono, Me.: About 26 specimens of Diptera, the types of 11 new species (54152).
- JOHNSON, Mrs. G. O., Margie, Minn.: Star-nosed mole, *Condylura cristata* (53973).
- JONES, FRANK MORTON, Wilmington, Del.: About 150 specimens of Hymenoptera from the Bermuda Islands (53859).
- JONES, M. E., Oroville, Wash.: Living specimen of cactus, *Opuntia*, from Washington (52948).
- JORDAN, Dr. DAVID STARR, Leland Stanford Junior University, Stanford University, Cal.: Type specimen of *Chromis verater* (54173).
- JUDD & DETWEILER, Washington, D. C.: 6 half-tone portraits of geologists (53938).
- KAISER, VALENTINE, Laurel, Md.: Skin and skull of a fox squirrel, *Sciurus*, from near Priest Bridge, Patuxent River, Md. (53201).
- KANE, CHARLES, Washington, D. C.: A Springfield military gun of 1853 (53269: loan).
- KANSAS, UNIVERSITY OF, Lawrence, Kans.: 2 specimens of *Petrolisthes cinctipes* from Puget Sound (53499); 14 specimens of Cirripedia, *Chelonobia* and *Octolasmis* (53571); 63 specimens of Echinoderms, principally from Puget Sound (53671).
- KARPELES, Dr. S. R., Washington, D. C.: An anatomical specimen (54223).
- KEEN, Rev. Canon J. H., Metlakatla, British Columbia: 2 young specimens of *Synaptomys*, in alcohol (53265).
- KELLOGG Co., THE ANDREW H., New York City: 3 half-tone rubber offset prints "Kelloggraphy," an example of five-color print rubber offset work, and one of three-color print rubber offset work (52988).
- KENNAN, GEORGE, Baddeck, Nova Scotia: Pitcher and cup found by the donor after the disaster at St. Pierre, Martinique, in May, 1902 (54050).
- KENNEDY, Miss MAY S., Charlestown, W. Va. (through Mrs. Julian James): Dress, shoes, and lace handkerchief worn by Miss Harriet Lane at her marriage to Mr. Henry Elliot Johnston (54256: loan).
- KENT, JOHN H., Philadelphia, Pa.: A tinted ambrotype of two children (52995); 5 ambrotypes and a daguerreotype (53074); an ambrotype of a baby, taken in 1856 or 1857 (53698).
- KETTERLINUS LITHOGRAPHIC MANUFACTURING Co., Philadelphia, Pa.: 4 specimens of four-color work and 3 prints, made by the rubber offset halftone process (52989).
- KEW, LONDON, ENGLAND, ROYAL BOTANIC GARDENS: A portion of the type of *Polypodium sericocolanatum* from Ecuador (53100: exchange).
- KEYSER, E. W., Washington, D. C.: 2 pipes, 2 carved spoons and a chipped flint knife, collected by Dr. Robert

KEYSER, E. W.—Continued.

Reyburn from the Hupa Indians (53075); an old Klamath otter-skin headdress and 2 otter-skin hair wrappings (53649); flute, hair-brush, wooden spoon, and a ball-eagle wing from the outfit of an Oto Indian Medicine Man (53818); Oto headdress, Spanish-American tapadero, 2 South Sea Island clubs, and a Persian bow (54128). Exchange.

KILGORE, B. W., Raleigh, N. C.: A block of biotite granite, from near Raleigh (53614).

KINDLE, E. M., U. S. Geological Survey, Washington, D. C.: Eskimo bones from graves on the Kanauguk River, near York, Alaska (53381).

KING, ALFRED, Arlington, N. J.: 15 clay concretions (52959).

KINGSTON, JAMAICA, DEPARTMENT OF AGRICULTURE, HOPE GARDENS: Fern from Jamaica (53531: exchange).

KINGWOOD QUARRIES Co., Kingwood, W. Va.: Cube of sandstone from the Kingwood quarries (53840).

KIRK, Mrs. C. A., Washington, D. C.: About 200 specimens, representing 26 species, of land and fresh-water mollusks from the United States (53771).

KIRK, H. B., Harrisburg, Pa.: 28 specimens of Hymenoptera (53668).

KITSON, HENRY H., New York City: Plaster bust of the King of Italy, Vittorio Emanuele III, by Henry H. Kitson (54168: loan).

KNY-SCHIEERER Co., New York City: 2 skeletons with skulls and 13 separate skulls of the chimpanzee; also 1 skeleton with skull, 1 skeleton without skull, and 10 separate skulls of the gorilla (53608: purchase).

Ko, Prof. SOKICHI, Fukuoka University, Fukuoka, Japan: 15 specimens of minerals (54002: exchange).

KÖNIGL. BOTANISCHER GARTEN. (See under Berlin, Dahlem bei Steglitz.)

K. K. NATURHISTORISCHES HOFMUSEUM. (See under Vienna, Austria.)

KÖNIGL. ZOOLOGISCHES MUSEUM. (See under Berlin, Germany.)

KRYGER, J. P., Gjentofte, Denmark: About 1,800 specimens of reared parasitic Hymenoptera (53782: gift and exchange).

KUALA LUMPUR, FEDERATED MALAY STATES, FEDERATED MALAY STATES MUSEUMS: 5 skins, with skulls, of squirrels, *Ratufa* and *Sciurus* (53153: exchange).

KUCHING, SARAWAK, BORNEO, SARAWAK MUSEUM: 49 specimens of insects representing 11 species of Cicadidæ from Borneo (53300).

KUESTER, ARTHUR, Stapleton, N. Y.: 131 living plants, mainly Cactaceæ and Crassulaceæ, from various localities (53557; 53929).

KUNZÉ, Dr. R. E., Phoenix, Ariz.: 2 living specimens of Cactaceæ, *Mamillaria nickellii*, originally from Mexico (53005); 5 plants, mainly Cactaceæ, from Arizona (53117; 53180).

LABAW, J. P., Hopewell, N. J.: Specimen of brochantite, variety waringtonite, on smithsonite (53865).

LACKEY, GEO. R., Sioux Falls, S. Dak.: Specimen of western hognose snake, *Hcterodon nasicus*, from South Dakota (53817).

LA FLESCHE, FRANCIS, Bureau of American Ethnology: Sacred pack or bundle of the Omaha Indians (54008: purchase); a wa-xo-be, or sacred pack, of the Osage Indians (54109).

LAMB, Dr. D. S., Army Medical Museum, Washington, D. C.: 2 anatomical specimens (53107; 53878).

LANCASTER, SAMUEL J., U. S. National Museum: Squid from the stomach of a fish (53581).

- LANDER, FREDERICK C., New York City (through Mr. C. J. Bell, Washington, D. C., coexecutor of the estate of Jean M. D. Lander): Gold watch and Grand Army pin which belonged to the late Jean M. D. Lander (53624: loan).
- LANE, Dr. M. M., Naylor, Mo.: Male pupa of the American Hercules beetle, *Dynastes tityus* (53156).
- LANSING, Mrs. ABRAHAM, Albany, N.Y.: Memorials of Peter Gansevoort, jr. (1749-1812), Colonel, Continental Army, Brigadier General, U. S. Army; of his eldest son, Herman Gansevoort (1779-1862), Colonel, Sixty-third Regiment, New York State Militia; and of his grandson, Henry S. Gansevoort (1835-1871), Brevet Brigadier General, U. S. Volunteers. The collection includes military and civil costumes, swords, a folding camp cot, a Chinese Lowestoft plate, an ivory miniature, engravings, and autograph letters (53757).
- LARAMIE, WYO., UNIVERSITY OF WYOMING: Fragment of the type of *Asplenium andrewsii* (53360: exchange).
- LATCHFORD, Hon. Justice F. R., Toronto, Canada: Fresh-water shells from various localities in Ontario (54140).
- LATTIN, C. IRVING, Yonkers, N. Y.: Specimen of black tourmaline in granite (53239).
- LEE, JOSEPH, Pensacola, Fla.: Specimen of deep-water gurnard, *Peristedion gracile*, from Cape St. Blas (53217); crustaceans representing the species *Cronius ruber*, *Scyllarus americanus*, and *Odontodactylus havanensis* (54093).
- LEFFINGWELL, E. DE K., Herschel Island, Canada: 21 skulls and 20 skins of mountain sheep, *Ovis*, and 3 skulls of bears, *Thalartes* (53749).
- LEHIGH UNIVERSITY, South Bethlehem, Pa.: 4 specimens of minerals (53917: exchange).
- LEITER, Mrs. L. Z., Washington, D. C. (through Mrs. Julian James): Reproduction of a costume of the Empress Josephine, which was worn by Mrs. Leiter at the Durbar costume ball given by the Viceroy and Lady Curzon at the Government House, Calcutta, India, January 26, 1903 (54097: loan).
- LELAND STANFORD JUNIOR UNIVERSITY, Stanford University, Cal.: Type specimen of *Triglops ommatistius* (54197: exchange). (See under Stanford Expedition.)
- LERMOND, N. W., Thomaston, Me.: Specimen of *Chrysodomus mandarinus* from Wanganui, New Zealand (53394).
- LEWIS, Lieut. GEORGE C., U. S. Army, Austin, Tex.: 350 specimens of Cretaceous fossils from Texas; also 12 stone implements (54091).
- LEWIS, W. P., Phillipsburg, N. J.: 3 stone implements from New Jersey and Pennsylvania, and a flaking tool used by the donor in making arrow points (53039).
- LEWTON, F. L., U. S. Department of Agriculture, Washington, D. C.: 112 plants from Texas (53002).
- LIBERTY & Co., LTD., London, England: A carved turquoise charm, a lapis lazuli charm, and a Chinese clasp set with jade and pink tourmaline (53699: purchase).
- LINCOLN, LEO B., Chicago, Ill.: Foot bone of an extinct species of elk (54092).
- LITTLER, FRANK M., Launceston, Tasmania: 189 specimens of Coleoptera (53793: exchange).
- LIZZIE CLAY & PULP Co., Phillipsburg, N. J.: Rough block of serpentine (54111).

- LODING, H. P., Mobile, Ala.: 17 beetles, representing 5 recently described species (53165).
- LOGAN, OSBORNE, Lagrange, Tex.: 2 fragments of meteoric iron (53890).
- LONDON, ENGLAND, BRITISH MUSEUM (NATURAL HISTORY): 50 specimens of Ordovician bryozoans from Sweden (53410; exchange).
- LONDON, ENGLAND, ENTOMOLOGICAL RESEARCH COMMITTEE (TROPICAL AFRICA): 12 African parasitic Hymenoptera, paratypes of 2 new species (53721).
- LONG, The Misses, Washington, D. C.: Memorials of the Bradford family of New England, consisting of silverware, glassware, china, and other miscellaneous objects, formerly owned by Alice Southworth Dearth, lineal descendant of Gov. William Bradford and Lady Alice Southworth (53365; 53415; 53456; 53563; 53940). Loan.
- LOS ANGELES, CAL., UNIVERSITY OF SOUTHERN CALIFORNIA: 9 lots of annelids and actinians (52965).
- LOUBAT, DUC DE, Paris, France (through Department of State): 2 copies each of 2 bronze medals, which the donor had struck in commemoration of his election as Foreign Associate to the Institute of France, Academy of Inscriptions and Belles Lettres (53000).
- LOWE, HERBERT N., Long Beach, Cal.: 18 specimens, representing 3 species, of land shells from Cedros and San Geronimo Islands, off the coast of Lower California (54187); 3 specimens of *Grapsus grapsus* from Cedros Island (54036).
- LOWELL LUMBER & ASBESTOS Co., Lowell, Vt.: A block of serpentine with veins of asbestos, and samples of shredded asbestos (53454).
- LOWNDES, Mrs. JAMES, Washington, D. C.: 18 paintings (54161; loan).
- LUCKETT, WILLIAM, Deanwood Heights, D. C.: Larva of hickory-horned devil, *Citheronia regalis* (53104).
- LUDLOW, Dr. CLARA SOUTHMAYD, Washington, D. C.: 25 plants, chiefly from New York (53548); a hand-woven bedspread, 18th century; embroidered collar and undersleeves; piece of Honiton lace; and a sewing "trick," being additions to "The Sutphen-Schenck-Hunt Memorial Collection" (53657); 12 mosquitoes from the Philippine Islands (53880).
- LUEDERS, HARRY, Washington, D. C.: Moth, *Samia cecropia* (54239).
- LUMHOLTZ, CARL, New York City: Living specimen of *Mamillaria senilis*, from Mexico (53175); insects from Arizona, Sonora, and Chihuahua (53554).
- LYMAN, Dr. THEODORE, Harvard University, Cambridge, Mass.: Skin and skull of a mountain sheep, from Washington State (53955).
- LYNAM, Rev. Jos. P., S. J., Punta Gorda, British Honduras: Specimen of Alcyonarian coral (53670); 13 shells and 2 specimens of calcareous deposits, from British Honduras (54069).
- MCATEE, W. L., U. S. Department of Agriculture, Washington, D. C.: 180 specimens of Diptera from Washington and vicinity (53453). (See under Mr. A. C. Weed.)
- MCCOY, Dr. G. W., U. S. Public Health and Marine-Hospital Service, San Francisco, Cal.: Type specimen of *Ctenophthalmus heisceri* (52981).
- MCDERMOTT, F. ALEX., University of Pittsburgh, Pittsburgh, Pa.: A reared specimen of *Lucidota atra* with larval and pupal skins, from Niagara Falls (54191).
- MACDONALD, D. F., Culebra, Canal Zone (through Col. Geo. W. Goethals, U. S. Army): 2 boxes of Tertiary fossils from the vicinity of Port Limon, Costa Rica (53603). (See under Isthmian Canal Commission.)

- MACDOUGAL, Dr. D. T. (See under Carnegie Institution of Washington.)
- MC ELHOSE, HENRY, Iliou, N. Y.: 12 specimens of Lepidoptera (53364).
- MCGEHEE, E. A., Fort Worth, Tex.: 8 specimens of Cretaceous invertebrates from near Fort Worth (54251).
- MCGILVRAY STONE Co., Sites, Cal.: A cube of sandstone (53661).
- MCGUIRE, J. D., Bureau of American Ethnology: A celt made from a *Tridacna* shell, obtained about 22 years ago by Capt. (later Rear Admiral) H. C. Taylor, in the Caroline Islands, while in command of the U. S. S. *Alliance* (53565).
- MACKAY, Commander GEORGE, Civil Engineer, U. S. Navy (retired), Washington, D. C.: 144 specimens of shark teeth from the Coosaw River, S. C.; 1 complete specimen and 3 fragments of mastodon teeth; 3 teeth of 2 distinct species of horses, and fragments of sirenian and cetacean ribs and vertebrae (53976).
- McKEE, Mrs. MARY HARRISON, New York City (through Mrs. Julian James): An evening dress worn by Mrs. Benjamin Harrison during her husband's term as President of the United States (53981: loan).
- MACKENSEN, BERNARD, San Antonio, Tex.: 4 types and several photographs of *Opuntia* (53302); 5 living specimens of *Echinococcus* from Texas (53970).
- MACKENZIE, Miss SALLIE P., Baltimore, Md. (through Mrs. Julian James): A dress and cap worn by Martha Washington (54265: loan).
- McLACHLAN, R. W., Montreal, Canada: Canadian cent, issue of 1911 (53007).
- McMAHON, Dr. CHARLES G., Copperhill, Tenn.: Beetle, *Monohammus titillator* (53046).
- MADDREN, A. G., U. S. Geological Survey, Washington, D. C.: Fern from Canada (53600). (See under Mr. Frank E. Foster.)
- MANILA, P. I., BUREAU OF HEALTH FOR THE PHILIPPINE ISLANDS (through Dr. Carroll Fox): 2 specimens of rats, *Epimys querceti* (53920); a small collection of insects from Manila (53667; 54029).
- MANILA, P. I., BUREAU OF SCIENCE: 96 specimens of Philippine plants (53101: exchange); 2 etched pebbles of obsidian resembling moldavites (53238); 5 specimens of *Cactaceae*, including 2 specimens of *Cereus leptodotus*, from the Philippines (53331; 53375: exchange).
- MANN, Dr. ALBERT, U. S. Department of Agriculture, Washington, D. C.: About 300 slides of diatoms, from the collections of the *Albatross* in 1888-1904 (53715).
- MANN, Judge GEORGE E., Galveston, Tex.: Specimen of coral from Galveston Harbor (53303).
- MARINE BIOLOGICAL LABORATORY, Woods Hole, Mass.: 58 specimens of invertebrates (54143: purchase).
- MARLOFF, FRED, Oak Station, Pa.: 18 specimens of Lepidoptera (53756).
- MARSH, Dr. C. DWIGHT. (See under Smithsonian Institution, Smithsonian Biological Survey of the Panama Canal Zone.)
- MARSHALL, ERNEST B., Laurel, Md.: Alcoholic specimen of *Zapus hudsonius*, a weasel, 3 specimens of hooded merganser, *Lophodytes cucullatus*, and a leech from Laurel (53072; 53713; 53833; 53921); 2 specimens of pied-billed grebe, *Podilymbus podiceps*, a great-crested flycatcher, *Myiarchus crinitus*, and a bobolink, *Dolychonix oryzivorus*, from Maryland (53291; 53412; 54064); 3 skins and skulls of *Sciurus*, collected near Bladensburg, Md. (53416); skull of a deer, *Odo-*

- MARSHALL, ERNEST B.—Continued.
coileus, from Halifax County, N. C. (53469); specimen of red-bellied woodpecker, *Centurus carolinus* (53612); skull of a raccoon, *Procyon*, from near Bowie, Md. (53627); skull of an opossum, from Beltsville, Md. (53728); a weasel skull, *Putorius vison*, and an opossum skull, *Didelphis virginiana* (53765); sparrow hawk, *Falco sparverius* (53846); fishes from Crow Branch, Laurel (53915). (See under Mr. Barton A. Bean and Mr. Henry R. Marshall.)
- MARSHALL, ERNEST B., and R. BRUCE OVERINGTON, Laurel, Md.: Fishes from Crow Branch, Laurel (53142).
- MARSHALL, GEORGE, U. S. National Museum: Specimen of American sole, collected at Fairy Landing, Va. (54106).
- MARSHALL, HENRY R., Halifax, N. C.: Coot, *Fulica americana*, killdeer, *Oxyechus vociferus*, and pied-billed grebe, *Podilymbus podiceps*, from Maryland (54013); 6 specimens of ruby-throated hummingbird, *Archilochus colubris*, from North Carolina (54209).
- MARSHALL, HENRY R. and ERNEST B.: 2 frogs and a snake from Laurel, Md. (53214).
- MARSHALL, DR. WILLIAM S., University of Wisconsin, Madison, Wis.: 21 sawflies (53999).
- MARTIN, Prof. H. T., University of Kansas, Lawrence, Kans.: 18 specimens of fossil wood and a fossil seed (53488).
- MARYLAND AGRICULTURAL COLLEGE, College Park, Md.: 18 specimens of parasitic Hymenoptera, types of 3 species (53463).
- MAURY, Commander MATTHEW FONTAINE, U. S. Navy, Descendants of (through Mrs. Mary Maury Werth, Richmond, Va.): 6 gold and 13 silver medals conferred upon the late MAURY, Commander MATTHEW FONTAINE—Continued.
 Matthew Fontaine Maury by foreign governments in recognition of his services to science and navigation (54255).
- MAXON, S. A., Oneida, N. Y.: Specimen of *Gentiana* from Maryland (53386).
- MAXON, WILLIAM R., U. S. National Museum: 65 ferns from North America (54149).
- MAYNARD, GEORGE C., U. S. National Museum: A melanotype (52991).
- MAZÛCK, W. G., Charleston, S. C.: 6 specimens of *Ancylus peninsulae* from Goose Creek, S. C. (53414); specimen of *Vitrea rhoadsi* from Berkeley, S. C., and 9 specimens of *Lymnca humilis* from Charleston (53484).
- MEADOW MARBLE Co., Meadow, Tenn.: Cube of "Meadow Pink" and "Meadow Gray" marble (53660).
- MEARNS, Lieut. Col., E. A., U. S. Army (retired), U. S. National Museum: 2 skins of nuthatch, *Sitta*, from South Carolina (53169). (See under Mr. Arthur T. Wayne.)
- MEARNS, LOUIS DI Z., Washington, D. C.: A bird skin, an egg, and the skull of a mammal, from Argentina (53388).
- MEEK, Dr. S. E. (See under Smithsonian Institution, Smithsonian Biological Survey of the Panama Canal Zone.)
- MERRIAM, Dr. C. HART. (See under Mr. G. Frederick Norton.)
- MERRILL, Dr. GEORGE P., U. S. National Museum: 8 stereoscopic views (52992); fragment and cast of a meteoric stone from Cullison, Kans. (53897).
- MERRILL, LEMUEL, Boston, Mass.: 2 oleostatic lamps and a lamp mechanism (53380).
- MEYER, AUGUST, Richmond, Va.: Specimens of rutile (53959).

- MEYER, FRANK N., U. S. Department of Agriculture, Washington, D. C.: A geological specimen collected near Muchi, Chinese Turkestan, and some recent shells from Tekes Valley, Thian Shan, Chinese Turkestan (52957); pieces of small copper implements and of antique pottery collected by Mr. Ed. Ryssel, of Piatigorsk, Caucasus, from a prehistoric grave near Terek, and secured by the donor while traveling in the Caucasus (53120); 97 copper coins from old Fortress Termesh, Buchara, near the Afghanistan frontier; 200 copper coins from an old water-canal opposite Termesh; and 20 small pebbles picked up in the desert near Khotan, Chinese Turkestan (54052); 36 insects (54144); collection of foreign coins consisting of 29 pieces of silver, 57 of copper, and 2 of nickel (54164).
- MIEL, Mrs. ELIZABETH, Alameda, Cal.: Glass beads and other objects found in an Indian mound in Eldorado County, Cal., by Ernest Miel (53286).
- MIERSCHKE, WILHELM, Berlin, Germany: Cast of *Homo Aurignacensis* Hauseri (54182: purchase).
- MILLER, Dr. NEWTON, Clark College, Worcester, Mass.: Fishes and reptiles from Guatemala; also 5 specimens of *Catostomus commersonii*, from Coes Pond, Worcester (54192).
- MILLS, Lieut. FREDERICK H., Medical Reserve Corps, U. S. Army, Manila, P. I.: Skin of black bird, *Aplonis kittlitzi*, and 3 skins of crow, *Corvus kubaryi*, from Guam (53965; 54089).
- MILLWARD, WILLIAM. (See under Nanking, University of.)
- MINNESOTA ACADEMY OF SCIENCES, Minneapolis, Minn.: 611 bird skins from the Philippine Islands (53408; 53707: exchange); 6 bird skins from the Philippine Islands (53800: purchase).
- MIRGUET, CHARLES E., U. S. National Museum: Skull of a diamond-back rattlesnake from Florida, and skeleton of a woodchuck, *Marmota monax*, from Jericho, N. Y. (53729); skull of a rattlesnake (53907).
- MISSISQUOI MARBLE Co. (Ltd.), Montreal, Canada: A 5-inch cube of marble (53934).
- MISSISSIPPI AGRICULTURAL AND MECHANICAL COLLEGE, Agricultural College, Miss.: Fishes, crayfishes, and mussels from Mississippi (53815).
- MISSOURI BOTANICAL GARDEN, St. Louis, Mo.: 6 living specimens of Crassulaceae from Mexico (53064: exchange); fragment of a fern from Martinique (53358: exchange).
- MITCHELL, Hon. J. D., Victoria, Tex.: Albino specimen of a snake, *Haldea striatula*, from Victoria; 2 toads, *Bufo woodhousci* and *B. compactilis*, 2 acorns, and 2 living specimens of *Opuntia*, from Texas (53025; 53252; 53529; 53927).
- MOFFETT, L. I. (See under Mr. Andrew Allison.)
- MONAGHAN, JOHN, Perryville, Mo.: Specimen of meteoric iron, from near Perryville (53651: purchase).
- MOODIE, Dr. ROY L., University of Kansas, Lawrence, Kans.: 2 shrimps, *Upogebia pugettensis*, and a small bivalve (53253).
- MOORE, CLARENCE B., Philadelphia, Pa.: Human skulls and bones from along the Red River, Louisiana and Arkansas (53952); 5 skulls from ancient graves in Louisiana and Arkansas (54108).
- MOORE, R. B., U. S. Department of Agriculture, Washington, D. C.: Sample of thorianite, from Ceylon (53811).
- MORGAN, Mrs. FRANC J., Kenedy, Tex.: Natural casts of 5 marine fossil shells from the Glen Rose formation of the Lower Cretaceous age, from Guadalupe River, Tex. (53745).

- MORRIS, E. L., Museum of the Brooklyn Institute, Brooklyn, N. Y.: 326 plants from the eastern and north-eastern part of the United States (53343; 53505). Exchange.
- MORTON, MRS. LEVI P., New York City (through Mrs. Julian James): Dresses worn by Mrs. Morton at the Centennial Ball, New York, April 29, 1889, and at the Inaugural Ball of President Harrison, March 4, 1889 (54266: loan).
- MOSES, W. B., & SONS, Washington, D. C.: Model of a walking-beam engine and of a Pullman car representing the type in use about 1876 (53947: loan).
- MOWBRAY, L. L., Director, Boston Aquarium, Boston, Mass.: Type specimens of *Emblemaria markii* (54253).
- MUNICH, GERMANY, ZOOLOGISCHE SAMMLUNG DES BAYERISCHEN STAATES: Specimen of holothurian, *Cucumaria japonica* (53125: exchange).
- MUNRO, MISS MADELINE, London, England: 4 specimens of a fossil bryozoan, *Leptophragma* (54072: exchange).
- MUNROE, MISS HELEN, Smithsonian Institution: A Chinese card-case, of carved ivory (53820: loan).
- MURRAY, M. F., Ephraim, Utah: Specimen of alunite (53312).
- MUSEO NACIONAL. (See under San José, Costa Rica.)
- MUSEUM OF COMPARATIVE ZOOLOGY. (See under Cambridge, Mass.)
- MUSEUM D'HISTOIRE NATURELLE. (See under Paris, France.)
- MYERS, P. R., and A. C. WEED, U. S. National Museum, and H. S. BARBER, U. S. Department of Agriculture, Washington, D. C.: Fishes collected at Plummers Island, Md. (52999).
- NANKING, UNIVERSITY OF, Nanking, China (through Mr. William Millward): Fern from China (53190).
- NATIONAL ACADEMY OF SCIENCES, Washington, D. C.: Replica of medal commemorating the 200th anniversary of the founding of Yale University, 1901; medal of the Institut de France commemorating the first session, in Paris, 1907, of the International Association of Academies; medal commemorating the 50th anniversary of the founding of the University of Wisconsin; medal commemorating the 50th anniversary of the founding of the Academy of Science of St. Louis (54229: loan).
- NATIONAL SOCIETY OF THE COLONIAL DAMES OF AMERICA, Washington, D. C.: Collection of colonial ecclesiastical silver (53226); 5 pieces of silverware, lent to the Society by Mrs. John Cropper (54203). Loan.
- NATURHISTORISKA RIKSMUSEUM. (See under Stockholm, Sweden.)
- NAVY DEPARTMENT: Oil portrait of Commodore Oliver H. Perry by J. W. Jarvis, and of Commodore Thomas Macdonough, supposedly by the same artist (53455); 68 relics recovered from the wreck of the U. S. S. *Maine* (54033); a series of medals and badges issued by the Department for various services (54131).
- NEAL, E. S., President, Vanadium Queen Mining Co., Hillsboro, N. Mex.: Specimen of vanadinite and 8 crystals of endlichite (53162).
- NEWCOMB, MRS. SIMON, Washington, D. C.: Scholastic hoods conferred upon Prof. Simon Newcomb by the University of Dublin, 1892 (Sc. D.); University of Toronto, 1894 (LL. D.); University of Princeton, 1896 (LL. D.); and University of Glasgow, 1896 (LL. D.) (53290); manuscripts, with mathematical calculations, prepared by Prof. Newcomb in connection with one of his first published papers on astronomy (53322). Loan.

- NEW ENGLAND GRANITE WORKS, West-
terly, R. I.: A slab of "Red West-
terly" granite (53570).
- NEW MEXICO AGRICULTURAL COLLEGE,
Agricultural College, N. Mex.: 200
specimens of fungi from New Mex-
ico (53173: exchange).
- NEWTON, CHARLES H., Washington,
D. C.: An incandescent lamp (54236:
loan).
- NEW WESTERLEY GRANITE CO., Milford,
N. H.: Cube of granite (53896).
- NEW YORK BOTANICAL GARDEN, Bronx
Park, New York City: 700 plants
from the island of Montserrat, Brit-
ish West Indies (53054); 15 plants,
including 12 ferns, from Cuba
(53127; 53264); specimen of *Hy-
locereus costaricensis*, from Costa
Rica (53311); 590 plants, including
2 living specimens of *Hylocereus*,
from Panama, and a fern from Bol-
ivia (53328; 53645); 22 plants, in-
cluding specimens of Cactaceæ and
Crassulaceæ, from various localities
(53435; 53550; 53785); 1,494 plants
from Cuba and Jamaica (53479); 10
ferns from tropical America (53578);
2,200 plants of the Otto Kuntze Her-
barium, from various localities
(53652); 265 plants collected in
Utah by P. A. Rydberg and A. O.
Garrett (54026). Exchange.
- NEW YORK CITY, AMERICAN MUSEUM
OF NATURAL HISTORY: 18 specimens
of Orthoptera and Hymenoptera
from Lower California (53361);
specimen of fossil turtle, *Stylemys
nebrascensis* (53626: exchange).
- NEW YORK CITY, COLLEGE OF PHAR-
MACY OF THE CITY OF NEW YORK:
Fern from Mexico, received through
Dr. H. H. Rusby (53923: exchange).
- NEW YORK CITY, COLLEGE OF PHY-
SICIANS AND SURGEONS, COLUMBIA
UNIVERSITY (through Prof. George
S. Huntington): 35 anatomical
specimens (53419: exchange).
- NEW YORK STATE MUSEUM, Albany,
N. Y.: Copepods from Lake Dela-
ware, N. Y. (54015).
- NIEUWLAND, Dr. J. A., University of
Notre Dame, Notre Dame, Ind.: 50
ferns from British India (53504);
3 living specimens of *Opuntia humi-
fusa* from Indiana (53549).
- NORCROSS BROS. CO., Worcester, Mass.:
A slab of Green Ascutney Mountain
(Vt.) syenite (53585).
- NORTH CAROLINA DEPARTMENT OF
AGRICULTURE, Raleigh, N. C.: 7 type
specimens of fossil reptiles (53043:
deposit).
- NORTH CAROLINA GEOLOGICAL AND ECO-
NOMIC SURVEY, Raleigh, N. C.: 904
specimens of rocks and ores from the
Gold Hill mining district, Rowan
County, and 130 specimens from the
Cid mining district, Davidson
County (type material) (53028: de-
posit).
- NORTON, G. FREDERICK, New York
City (through Dr. C. Hart Mer-
riam): A waterproof coat, kamlika,
from Yakutat Bay, Alaska (53819).
- NUMISMATIC AND ANTIQUARIAN SOCIETY
OF PHILADELPHIA, Philadelphia, Pa.:
A bronze copy of the Brinton Medal,
issued by the society (53512).
- NUTTALL, Mrs. ZELIA, City of Mexico,
Mexico: 391 Mexican spindle whorls
(52951: loan).
- O'BERN, JOSHUA H., Kittanning, Pa.:
4 species of Unionidæ, from Penn-
sylvania (53045).
- OKLAHOMA ROSE GRANITE COMPANY,
Granite, Okla.: Five-inch cube of
granite (54240).
- OLIVE, E. W., Brookings, S. Dak.: 3
specimens of *Cirsium arvense* from
South Dakota (53263).
- ORCUTT, C. R., San Diego, Cal.: 171
specimens of ferns from Mexico
(52972: exchange); 400 plants from
Mexico (53199: purchase); 9 living
specimens of Cactaceæ and Crassu-
laceæ from Mexico and California
(53341).

- OVERINGTON, R. BRUCE. (See under Mr. Ernest B. Marshall.)
- PAACK, Dr. FR., Cassel, Germany: Specimen of metallic iron out of balsalt (53440: purchase).
- PALMER, GROVER H., Rosslyn, Va.: Specimen of long-eared owl, *Asio wilsonianus*, from Rosslyn (53590).
- PALMER, JOSEPH, U. S. National Museum: Specimen of green heron, *Butorides virescens*, from Arlington, Va. (54214).
- PALMER, WILLIAM, U. S. National Museum: Nest and 5 eggs of an oven bird, *Seiurus aurocapillus*, from Maryland (54225).
- PANAMA CANAL ZONE, BIOLOGICAL SURVEY OF:
The material collected through the cooperation of the Smithsonian Institution, the Department of Agriculture, the Bureau of Fisheries, and the Field Museum of Natural History is accessioned and referred to in detail under the following headings:
Agriculture, Department of, Bureau of Biological Survey (53040; 53932; 54134).
Agriculture, Department of, Bureau of Entomology (53063; 53219; 53355; 53702; 53813; 53858; 53954; 53962; 54177; 54249).
Agriculture, Department of, Bureau of Plant Industry (52974; 53004; 53032; 53055; 53059; 53123; 53220; 53330; 53422; 53478; 53599; 53632; 53646; 53860; 54145).
Smithsonian Institution, Biological Survey of the Panama Canal Zone (53090; 53741; 53919).
- PARIS, FRANCE, MUSÉUM D'HISTOIRE NATURELLE: Specimen of isopod, cotype of *Mummopsurus arcticus* (53830).
- PARISH, S. B., San Bernardino, Cal.: Specimen of *Cheilanthes parishii*, from California (53525).
- PARKER, Dr. A. C., Altmar, N. Y.: Beetle, *Desmocerus palliatus* (53023).
- PARKER, JAMES H., El Paso, Tex.: 3 specimens of flake graphite (53795).
- PATIENCE, ALEXANDER, Glasgow, Scotland: Specimens of young or minute mollusks, representing 115 species, and 12 vials of Foraminifera, Ostracoda, and worm tubes, from the Firth of Clyde, Scotland (53708); 7 specimens of *Gonodactylus demani* (53908).
- PAYN, ELIAS J., Olympia, Wash.: A specimen of *Prinnoa*, also a cross-section of stalk of an Alcyonarian from Alaska, taken at a depth of 150 fathoms (53572).
- PEABODY MUSEUM OF NATURAL HISTORY, YALE UNIVERSITY, New Haven, Conn.: About 2,000 specimens of Beekmantown fossils from Fort Hunter, N. Y. (53636).
- PEALE, Dr. A. C., U. S. National Museum: A Navaho blanket of old bayetta weaving, collected by Dr. Peale at Piños Altos, N. Mex., in 1872 (53439: purchase).
- PEARSE, Dr. A. S., University of the Philippines, Manila, P. I.: 7 specimens, representing 4 species, of crabs from the Philippine Islands (53145).
- PEARY, Rear Admiral ROBERT EDWIN, U. S. Navy (retired), Washington, D. C.: An illuminated copy on parchment of the resolution of Congress thanking Admiral Peary for his arctic explorations and discovery of the North Pole, and bearing the signatures of William H. Taft and James S. Sherman (53682: loan).
- PEIRCE, L., New York City: Slab of sandstone from the Kingwood quarries, Kingwood, W. Va. (53841).
- PENNSYLVANIA MARBLE & GRANITE CO., West Grove, Pa.: 3 cubes of marble, white, blue clouded, and gray (53706).
- PEPPER, C. W., Providence, R. I.: Land shells, representing 5 species, from Mastic Point, Andros Islands, Bahamas (53110).

- PÉREZ, F. FERRARI, Tacubaya, D. F., Mexico: 4 specimens (skins and skulls) of *Lepus diazi*, collected on the side of volcano Ixtaccihuatl (53258).
- PERHAM, Lieut. HERBERT N. (See under Mr. A. C. Bent.)
- PERKINS, H. C., Washington, D. C.: 10 oil paintings (54162: loan).
- PERNER, DR. J., Museum des Königreichs Böhmen, Prague, Bohemia: 24 specimens of minerals (53109: exchange).
- PERTH, WESTERN AUSTRALIA, WESTERN AUSTRALIAN MUSEUM AND ART GALLERY: Specimen of a recent crinoid, *Ptilometra mülleri* (53465: exchange).
- PERU, MINISTERIO DE FOMENTO DEL, Piura (through Mr. C. H. T. Townsend): 120 specimens of muscoid flies, including the type material of 72 species, from South America (53838).
- PETIT, MAURICE, St. Thomas, Danish West Indies: Shells from St. Thomas (53620).
- PETRY, WILLIAM, Los Angeles, Cal.: Specimen of turquoise in matrix (52955); 4 specimens of polished turquoise (52956: purchase).
- PEYTON, J. B., U. S. National Museum: Specimen of horned grebe, *Colymbus auritus*, from Four Mile Run, Va. (53417); black duck, *Anas tristis*, and a mallard, *Anas platyrhynchos*, from Nanjemoy, Md. (53834); a pair of red-head ducks, *Mareca americana* (53847); pintail duck, *Dafila acuta*, from the Virginia side of the Potomac River (53863); 2 specimens of Wilson's snipe, *Gallinago delicata* (53997).
- PFIZENMAYER, E. W., Tiflis, Russia: 3 skins with skulls, 1 scalp with skull, and 1 skull of Caucasian wild goat, *Capra cylindricornis* (54087: purchased from the Harrison fund).
- PHILLIPS, DONALD, Heatherwood, Alberta, Canada: 8 skulls of *Martes* and 9 of *Mustela*, from the head of Smoky River, Alberta (53750).
- PHILP, J. E., Lindisfarne, Tasmania: Skull of a spotted cat, *Dasyurus maculatus*, and of a gray opossum, *Trichosurus fuliginosus*, with skeleton of the latter (53293); skeletons of a male and female wallaby, skeleton of a common bush rat, and skull of a kangaroo, from northeastern Tasmania (53681: exchange).
- PICTON ISLAND RED GRANITE CO., New York City: 2 cubes of Picton Island granite (54135).
- PILSBRY, DR. H. A., Academy of Natural Sciences, Philadelphia, Pa.: 4 cotypes of *Sagda monteogönsis* from Montego Bay, Jamaica (53335); topotypes of 2 species of *Urocoptis*, from Cuba (54066).
- PINCHOT, MRS. JAMES W., Washington, D. C.: 5 examples of early embroidery, fillet and needle-point (53669); bronze statue of Napoleon, by Launt Thompson (54150). Loan. (See under Mrs. Allerton S. Cushman.)
- PIPER, C. V., U. S. Department of Agriculture, Washington, D. C.: Specimen of *Drosera* from Ceylon (53659); 11 specimens of shells from Lamao, P. I. (53753); 2 specimens of Characeae from California (53971); 118 plants from Washington and Oregon (54068). (See under Mr. E. B. Webster.)
- PITTIER, Prof. H., U. S. Department of Agriculture, Washington, D. C.: 4 plants collected in Salvador by Carlos Renson (53887).
- POGUE, DR. JOSEPH E., U. S. National Museum: 6 negatives of views of Rainbow Natural Bridge, southern Utah, taken by the donor (54207).
- POLISH NATIONAL ALLIANCE OF THE UNITED STATES OF NORTH AMERICA, Chicago, Ill. (through its board of directors): A collection of moneys consisting of 312 pieces, coined by

- POLISH NATIONAL ALLIANCE OF THE UNITED STATES OF NORTH AMERICA—Continued.
the Kingdom of Poland during the period of its independence; 2 Polish medals; and an illuminated document presenting the specimens and entitled "Act of Donation," the same being decorated with the seal of the Polish National Alliance (53227).
- POLLOCK, MRS. RACHEL E., Washington, D. C.: Specimen of Canada warbler, *Wilsonia canadensis* (54096).
- POND, DR. ELEANOR J., Washington, D. C.: A box of dried plants, mainly from Colorado and Texas (53099); specimen of a fossil crab, *Graptocarcinus texanus* (53534).
- POPENOE, E. A., Topeka, Kans.: 7 specimens of amphipods, including the species *Eucrangonyx mucronatus*, *E. gracilis*, and *Hyalella knickerbockeri* (53298; 53703; 53727; 53870); about 75 specimens of amphipods and isopods (54174).
- PORTER, MRS. JOHN BIDDLE (Mrs. Elizabeth Rush Porter), Washington, D. C.: 2 flounces of Mechlin lace (1 of them 150 years old), which belonged to Mrs. Benjamin Rush and were left to Mrs. Richard Rush, wife of one of the first regents of the Smithsonian Institution (53779); cape of white Chantilly lace, cape and collar of Honiton lace and berth of Flemish lace (53780: loan); 8 framed engravings from Froissart's Chronicles, and 4 volumes of "The Scottish Minstrel," Edinburgh (53982: loan); a blue satin court dress and a jacket, worn by Mrs. Richard Rush in 1817; a baby's dress worn by one of the children of Hon. Richard Rush in 1820; 2 copies of the "National Intelligencer," Washington, D. C., 1820; shells collected in the Bahamas in 1839 by Lieut. Madison Rush, U. S. Navy (53983); black mantilla worn
- PORTER, MRS. JOHN BIDDLE—Contd.
in 1840 by a member of the Rush family; baby's dress worn in 1809 by one of the children of Richard Rush; dress worn in 1817 by Mrs. Richard Rush (54062: loan); 3 old framed engravings of the Duke of Wellington, Lord Castlereagh, and the Right Hon. George Canning, M. P. (54063: loan).
- POST OFFICE DEPARTMENT: Collection consisting principally of postage stamps, stamped envelopes, and postal cards, of the United States and foreign countries, and a number of articles connected with the history of the postal system of the United States, some of which were formerly exhibited in the museum of the Post Office Department (52985).
- POTTER, FREDERIC A., Director of the Aquarium, Honolulu, Hawaii: Type specimen of *Holacanthus potteri* (54172).
- POWELL, EARL B., Fort Russell, Wyo.: 14 living specimens of *Echinocactus simpsoni*, from Wyoming (53520).
- PRETORIA, TRANSVAAL, DEPARTMENT OF AGRICULTURE, UNION OF SOUTH AFRICA: 380 plants from various localities (54156: exchange).
- PRETZ, HAROLD W., Allentown, Pa.: 32 specimens of *Botrychium*, from Pennsylvania (53744).
- PRICE, MISS SYDNEY, Baltimore, Md. (through Mrs. Julian James): A sampler, dated 1657, which was brought from Sweden to this country by Rev. Petrus Trönberg, rector of Holy Trinity (Old Swede's) Church, Wilmington, Del. (54075: loan).
- PRIMOS MINING & MILLING COMPANY, Boulder, Colo.: 5 specimens of tungsten ore (ferberite) (53910).
- PROVINCIAL MUSEUM. (See under Halifax, Nova Scotia.)

- PROVINCIAL MUSEUM. (See under Toronto, Canada.)
- PURPUS, DR. C. A., Zacuápam, Veracruz, Mexico: Living specimens of *Beaucarnea*, Cactaceae and Crassulaceae, from Mexico (53052; 53174; 53340; 53545; 53644; 53787).
- QUEBEC, CANADA, DEPARTMENT OF LANDS AND FORESTS: 5 specimens of trout, *Salvelinus nitidus*, from the Laurentides National Park (53030; 53577).
- QUEHL, L., Halle (Saale), Germany: 3 living specimens of *Mamillaria* (53329: exchange).
- RAINEY, PAUL J., New York City: About 300 large and 400 small mammal skins, with skulls, 6 tortoises, 41 reptiles, and 76 birds, collected in British East Africa by Mr. Edmund Heller (53137); a large and valuable collection of natural history material from British East Africa, embracing about 6,000 specimens of mammals, birds, fishes, reptiles, insects, crabs, mollusks, and human skulls (54267).
- RAMSDEN, CHARLES T., Guantánamo, Cuba: 24 bird skins, including *Rallus elegans*, from Cuba (53605; 54200); 2 fresh-water shells, *Pachycheilus violaceus*, from Cuba (53607).
- RATHBUN, MRS. C. S., Redondo Beach, Cal.: 23 specimens representing 3 species of limpets, from wharf piling at Redondo Beach (53558).
- RATHBUN, MISS MARY J., U. S. National Museum: 28 specimens of crabs and shrimps, from the Philippine Islands (53197).
- RATHBUN, MISS MARY J., and Miss VIOLET DANDRIDGE, U. S. National Museum: Over 1,000 specimens of invertebrates, including mollusks and insects, and fishes, from South Harpswell, Me., and vicinity (53131).
- RAVENEL, S. F., Green Pond, S. C.: Skull of *Urocyon cinereoargenteus* from Combachee River, near Green Pond (53743).
- REILLY, Lieut. FRANCIS ST. CLAIR, Medical Reserve Corps, U. S. Army, Schurz, Nev.: A scorpion from Schurz (53738).
- REISLER, JESSE, Union Bridge, Md., and BARTON A. BEAN: Fishes and crayfishes, collected in Maryland (53141; 53304).
- REYNOLDS, A. G., Fruitland Park, Fla.: Lizard, *Necoseps reynoldsi* (purchase); lizard, *Tantilla coronata* (gift); both from Florida (53589).
- REYNOLDS, BRONTE A., U. S. Department of Agriculture, Washington, D. C.: 32 specimens of plants, collected in and near Jerusalem by the late Chevalier Elmer R. Reynolds (53066).
- RICE, ARTHUR P., Yucatan, Mexico: Maya blanket; pair of Yucatan woman's ball slippers; 23 postal cards, consisting of views of ancient ruins and modern buildings in Yucatan; plan of the modernized city of Merida; and a miniature reproduction in pottery of the Calendar Stone (53502).
- RICHARDS, Lieut. Commander T. W., surgeon, U. S. Navy, Washington, D. C.: 3 bird skins from the Philippine Islands and Australia (53413).
- RICHARDSON, MRS. THOMAS F., Washington, D. C.: A piece of Italian embroidery of the 16th or 17th century, 7 feet long by 5 feet wide (53824: loan).
- RICHARDSON, WILLIAM D., Richmond, Va.: 37 beetles, including the species *Scaphisoma punctulatum* and *Platynus placidus* (53663; 53964).
- RIESEBERG, H. E., and S. O. BURDETTE, U. S. National Museum: Skins and skulls of 3 specimens of *Peromyscus*, collected near Chain Bridge, D. C. (53518).

- RILEY, J. H., U. S. National Museum: Skin and skull of *Sciurus carolinensis*, from Falls Church, Va. (53776); 2 bird skins and 4 bird eggs, from Virginia (54175).
- RINGWOOD, JOHN, Ashland, Wis. (through Hon. Isaac Stephenson, U. S. Senator): An ax head embedded in a piece of wood (53629).
- ROBERTS, BARTON, U. S. National Museum: 2 alcoholic specimens of *Eptesicus fuscus* (53070).
- ROBERTS, Mrs. MARY G., Hobart, Tasmania: Skeleton of a wallaby (53295).
- ROBERTSON, Mrs. A. I., Washington, D. C.: Rubbings of the following subjects at Sulgrave, near London, England: Inscription on a brass tablet over the tomb of Laurence Washington and his wife; the effigy of Laurence Washington and the Washington coat of arms, over the tomb of Laurence Washington; the Washington coat of arms carved over the doorway of the Washington manor house (53683).
- ROBINSON, T. R., Terra Ceia, Fla.: Specimen of *Cyperus pumilus*, from Florida (53519).
- ROCK, J. F., Division of Forestry, Honolulu, Hawaii: Part of type material of *Cyperus bryanii*, from Laysan Island (54076).
- ROCKPORT GRANITE Co., Rockport, Mass.: Slab of "sea green" granite (53113).
- ROGERS, ALBERT, Washington, D. C.: Skin of pin-tail duck, *Dafila acuta*, from Virginia (53091).
- ROHWER, S. A., U. S. Department of Agriculture, Washington, D. C.: About 800 specimens, representing nearly 500 species and 121 types or paratypes of Vespoidea; also types of 3 parasitic Hymenoptera (52943).
- ROLLE, HERMANN, Berlin, Germany: About 300 specimens of shells, mostly land shells, from Tonkin, Africa, Formosa, Peru, and Guatemala (54167; purchase).
- ROOSEVELT, KERMIT, Oyster Bay, N. Y.: 2 skins, with skulls and leg bones, and a skull of Mexican mountain sheep, *Ovis* (53148); skins and skulls of 9 large mammals from New Brunswick (53262).
- ROOSEVELT, Mrs. THEODORE, Oyster Bay, N. Y. (through Mrs. Julian James): Pair of blue-and-gold brocade slippers worn by Mrs. Roosevelt at the Inaugural Ball, March 4, 1905 (53674; loan).
- ROOT, Hon. ELIHU, U. S. Senator: 150 conch shells, 8 sponges, skin of a porcupine fish, *Diodon hystrix*, and a fetish, from Haiti, West Indies (53803).
- ROSENDAHL, Prof. C. O., University of Minnesota, Minneapolis, Minn.: 230 plants from Vancouver Island, British Columbia (52969; purchase).
- ROSENQUEST, A. J., jr., Weeks, La.: Specimen of walking stick, *Diapheromera*, probably *femorata* (53108).
- ROSENSTOCK, Dr. E., Gotha, Germany: 4 ferns from Brazil (53118; exchange).
- ROUNDY, P. V., U. S. Geological Survey, Washington, D. C.: 200 specimens, representing 40 species, of land and fresh-water shells from Ohio, Tennessee, Alabama, and Georgia (53501).
- ROUSSELET, CHARLES F., London, England: 48 slides of Rotifera (5th and 6th installments) (53281; 53975; purchase).
- ROYAL BOTANIC GARDEN. (See under Calcutta, India.)
- ROYAL BOTANIC GARDENS. (See under Kew, England.)
- RUDOLPH, CUNO H. (See under District of Columbia, Board of Commissioners.)
- RUNNALLS, H. B., Puyaliup, Wash.: A shrimp, *Pandalus platyceros*, from Hoods Canal, Wash. (52998).

- RUSBY, DR. H. H., New York City: 227 plants collected in Bolivia by Buchtien (53556; 53871: purchase). (See under New York City., College of Pharmacy of the City of New York.)
- RUSSELL, COL. A. H., U. S. Army (retired), Plymouth, Mass.: Roumanian Mannlicher rifle; Lee rifle, fitted with Russell's swinging magazine; and a Lee speed rifle (54210: loan).
- RUSSELL, B. R., San Saba, Tex.: Specimens of stalagmitic calcite and 4 specimens of marble (53442).
- RUTHERFORD, W. G., Christchurch, New Zealand: Samples of native sulphur and 13 specimens of chalcedony and agate, from New Zealand (53621).
- RUTHVEN, DR. A. G., University of Michigan, Ann Arbor, Mich.: 3 specimens of *Ceuthophilus mridionalis* (53879).
- SAFFORD, W. E., U. S. Department of Agriculture, Washington, D. C.: 62 plants from Guam (54194).
- SAINT-DIÉ-DES-VOSGES, FRANCE, MUNICIPALITY OF (through Department of State): 3 portraits in oil of Martin Waldseemuller, Mathias Ringmann, and Vautrin Lud, editors of "La Cosmographie Introductio," in which publication, printed in Saint-Dié, April 25, 1507, the name America (in honor of Americ Vespucci) first appeared to designate the new continent. The name America subsequently appeared on the chart edited in Saint-Dié in 1508 and engraved by Waldseemuller. Presented to the U. S. Government upon the occasion of a celebration commemorative of the naming of America, in Saint-Dié, France, July 15 and 16, 1911. Also 4 framed photographs (53946).
- SAINT-GAUDENS, MRS. AUGUSTUS, Windsor, Vt.: A reproduction in bronze (reduced size) of Saint-Gaudens' statue of Abraham Lincoln (53448); bronze bust (heroic size) of Lincoln, by Saint-Gaudens (53567). Loan.
- SANDERSON, WILLIAM K., Portland, Me.: 3 specimens of graphite (53202).
- SANFORD, DR. L. C., New Haven, Conn.: Type of new subspecies of ptarmigan, *Lagopus*, from Tanaga Island, Alaska (53184); (through Mr. A. C. Bent) nest and 4 eggs of the cackling goose, *Branta canadensis minima*, from the Aleutian Islands (53255). Collected for the Museum.
- SAN JOSÉ, COSTA RICA, MUSEO NACIONAL: Invertebrate fossils (Tertiary), rocks, specimens of clay, and of amber containing insects, about 30 specimens in all, from various localities in Costa Rica (53366); 7 living specimens of Cactaceæ from Costa Rica (53543).
- SARAWAK MUSEUM. (See under Kuching, Sarawak, Borneo.)
- SARTORIS, MRS. NELLIE GRANT, New York City (through Mrs. Julian James): A lace cape which belonged to Mrs. Ulysses S. Grant and was worn by her at the White House (53844: loan).
- SCHAEFFER, CHARLES, Cabin John, Md.: Skin and skull of a jumping mouse, *Zapus hudsonius* (52964).
- SCHAEFFER, CHARLES, Museum, Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.: 6 specimens of Orthoptera (53187: exchange).
- SCHALLER, W. T., U. S. Geological Survey, Washington, D. C.: 10 specimens of minerals (53389: exchange). (See under Mr. J. H. Watkins.)
- SCHAUS, WILLIAM, London, England: About 186 specimens of insects (53216).
- SCHLEY, MRS. WINFIELD SCOTT, Capt. T. FRANKLIN SCHLEY, U. S. Army, Mrs. R. M. STUART WORTLEY and Dr. WINFIELD SCOTT SCHLEY: Memorials of the late Rear Admiral Winfield Scott Schley, U. S. Navy (53287: loan).

- SCHLÜTER, WILHELM, Halle a Saale, Germany: Skin and skull of *Ovis musimon*, from Corsica (53616); skin and skull of *Rupicapra*, from Italy (54065). Purchased from the Harrison fund.
- SCHMID, EDWARD S., Washington, D. C.: Snake, *Diadophis punctatus*, from the District of Columbia (53224); skin and skull of white Eskimo pup (53491; exchange); 2 albino grass paroquets, *Melopsittacus undulatus* (53516; 53522); canary, *Serinus canarius* (53761); 2 eggs of African gray parrot, *Psittacus erithacus* (53768); 2 ferrets, *Putorius* (54024); 5 eggs of an *Anotis* (54099); specimen of zebra finch, *Taniopygia castanotis* (native of Australia), and a young great horned owl, *Bubo virginianus*, from Maryland (54127).
- SCHNEIDER, GUSTAV, Basel, Switzerland: 5 tree shrews from Sumatra (53292; purchased from the Harrison fund).
- SCHNEIDER, HERMANN, Idar, Germany: 3 necklaces (rose quartz, amethyst, and opal) and a synthetic ruby (53892; purchase).
- SCHNURMAN, J., Roanoke, Va.: 3 specimens of *Evania urbana* (53111).
- SCHUCHERT, Prof. CHARLES, Peabody Museum of Natural History, Yale University, New Haven, Conn.: 2 sets of paleogeographic maps of North America (53058).
- SCHUMANN, LEON W., Rochester, N. Y.: Specimen of magnetite sand (53158).
- SCHWARZ, E. A., U. S. Department of Agriculture, Washington, D. C.: Specimen of *Erechites* from Florida (53872; collected for the Museum).
- SCIDMORE, Miss ELIZA R., Washington, D. C.: 21 pieces of pottery and porcelain, from China, Japan, and Korea (54051); 26 specimens of bronzes and brass ware, from India, Tibet, China, and Japan (54217). Loan.
- SCOTT, WILLIAM, Toronto, Canada: 2 specimens of *Linaria vulgaris*, from Ontario (53449).
- SEABRA, A. F. DE, Museu Nacional, Lisbon, Portugal: 2 specimens of shrews, *Crociodura*, from Portugal (54055).
- SHEARER, Mrs. M. Y., Salinas, Cal.: 20 specimens of plants, algæ, from the Pacific coast (53147).
- SHEARSBY, A. J., Yass, New South Wales, Australia: 106 specimens of Silurian and Devonian fossils from New South Wales (52950; exchange).
- SHEPHERD Co., THEODOSIA B., Ventura, Cal.: 8 living specimens of Cactaceæ and Crassulaceæ (53338).
- SHERFF, EARL E., Evanston, Ill.: 60 plants from Illinois (53405).
- SHERRIN, T. V., Hampton, England: Skins and skulls of 12 Irish hares (53935; purchased from the Harrison fund).
- SHOEMAKER, CLARENCE R., U. S. National Museum: Crustaceans and Medusæ from Chesapeake Beach, Md. (52945).
- SHOEMAKER, CLARENCE R., and W. D. APPEL, Anacostia, D. C.: Invertebrates, including mollusks, and fishes from Island Creek, Talbot County, Md. (53135); 10 specimens of crustaceans from a pond near Difficult Run, Va. (53464).
- SHOEMAKER, D. N., Takoma Park, D. C.: Specimen of lignite from Takoma (54101).
- SHREVE, N. GILMAN, Sterling, Va.: Specimen of red-tailed hawk, *Buteo borealis*, in immature plumage (53012).
- SIJUSTER, WILLIAM M., Washington, D. C.: 12 ceremonial spears, insignia of Chinese Yamun (52949; loan).
- SIMPSON, Dr. T. J., Clarksburg, Mo.: Skull of mink, *Mustela (Lutrocola) vison*, from Missouri (53191).

- SISTER M. CATHARINE, St. Joseph's College, St. Augustine, Fla. (through Dr. L. W. Stephenson, U. S. Geological Survey): 2 upper molars of an extinct species of tapir (54184).
- SLATER, W. A., Washington, D. C.: 13 paintings in oil, "The Rabbi," by Rembrandt; "The Dunes near Haarlem," by Ruysdael; "A Gray Day," by Corot; "Island of the Cupids" and "Group of Dogs," by Diaz; "The Landing" and "Three Oaks," by Dupr ; "Winter Landscape," by Raffaelli; "Female Figure," by Monticelli; "The Quartet," by Gauguin; "At the Barracks, Constantinople," by A. Pasini; "Madonna and Child," Sienna School; "Portrait of John F. Slater," by Herkomer (54158: loan).
- SMITH, DR. EUGENE A., University, Ala.: Specimen of turquoise and associated graphitic schist, from near Erin, Clay County, Ala. (53213).
- SMITH, HERBERT H., University, Ala.: 2 specimens of *Trichomanes* from Alabama (53275); 280 plants from Colombia (53377: purchase).
- SMITH, DR. HUGH M., Bureau of Fisheries, Washington, D. C.: 4 fossil oysters from Bryans Point, Md. (53494).
- SMITH, MILLARD H., Candler, N. C.: Arrow-points and spearheads from North Carolina (54130).
- SMITH, PEARL I., Crystal Graphite Co., Dillon, Mont. (through Dr. E. S. Bastin, U. S. Geological Survey): Specimen of graphite (53726).
- SMITH, R. J., Milpitas, Cal.: Bug of the genus *Rasahus* (54032).
- SMITH, DR. THOMAS C., Washington, D. C.: Anatomical specimen (53240).
- SMITHSONIAN INSTITUTION:
- Plant from Guatemala, presented by Capt. John Donnell Smith, Baltimore, Md. (53086); copy of a medal struck on the occasion of the inauguration of the new building occupied by the Central Offices and the Faculty of Law and Social Sciences of the University of Montevideo, Uruguay (53155); skin and skull of a mountain goat, collected in British Columbia by Sidney Walcott (53318); 14 specimens of Upper Paleozoic fossils, from the Lewis and Clark National Forest, Mont., collected by Dr. Charles D. Walcott (53369); specimen consisting of the jaws and teeth of the fossil shark *Edcetus* (53409); an engraving of "Carolus Linn us in his Lapland Dress," presented by Capt. John Donnell Smith (53476); 4 plants, presented by Capt. John Donnell Smith (53638); 126 type specimens of Cambrian fossils (53918); a series of 50 photographs by Lieut. George M. Wheeler, Corps of Engineers, U. S. Army, in charge of the geographical explorations and surveys west of the 100th meridian, 1871-1874 (53944); 1,020 slabs and 725 individual specimens of Middle Cambrian fossils from the Burgess shale, near Field, British Columbia, collected by Dr. Charles D. Walcott (54103); 176 casts of type and figured specimens of Cambrian fossils from India, China, Sweden, and New York (54104); about 28,000 specimens of Cambrian and Ordovician fossils from Wyoming and Colorado, collected by L. D. Burling in 1910; about 15,000 specimens of Cambrian and Ordovician fossils from British Columbia, Manitoba, and New York, collected by him in 1911 (54105); 11 Central American plants, received from Capt. John Donnell Smith (54148).
- Smithsonian Biological Survey of the Panama Canal Zone*: 29 specimens of bats from Panama, collected by August Busck, of the U. S. Department of Agriculture (53090); 684 specimens, representing 79 species, of invertebrates from Panama, collected by Dr. S. E. Meek, of the Field Museum of Natural History, and Mr. S. F. Hildebrand, of the

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Bureau of Fisheries (53741); 283 bottles of plankton from the fresh waters of Panama, collected by Dr. C. Dwight Marsh, of the U. S. Department of Agriculture (53919).

Smithsonian Expedition to the Canadian Rockies, 1911: Mammals, birds, reptiles, fishes, shells, insects, crustaceans, a worm, and plants (53391).

Bureau of American Ethnology: 2 earthenware pipes from the Catawba Indians of South Carolina, presented to the bureau by Halcott Poag, Rock Hill, S. C. (53076); spearhead, javelin, and arrowhead made in 1911 at Brandon, England, by one of the flint-knappers and presented to the bureau by Rev. Robert C. Nightingale, Swaffham, England (53210); 22 paper squeezes of inscriptions on El Morro, or "Inscription Rock," in the western part of New Mexico (53249); daguerreotype of Keokuk, leader of the Sauk Indians (53368); collection of human skeletons and objects of stone, bone, and pottery, etc., from the cemetery of the ruined pueblo of Kwasteyukwa, west of Jemez Hot Springs, N. Mex., excavated by the joint expedition of the Bureau of American Ethnology and the School of American Archaeology of the Archaeological Institute of America during the summer of 1911 (53406); a piece of snakeroot, decked with down, used by the Chipewya Indians of Minnesota in their medicine practices, collected by Miss Frances Densmore (53575); ethnological objects collected by James Mooney on East Cherokee Reservation, Swain County, N. C. (54237); pair of ball sticks, ball, breechelout and belt, and a tiger tail, collected by John R. Swanton from the Creek Indians, in Coweta, Okla. (54257).

National Museum, collected by members of the staff: Bartsch, Paul: Skull of a porpoise from Santa Maria Bay, Lower California (53573); frog from Florida (53980); natural his-

SMITHSONIAN INSTITUTION—Contd.

tory material from the Bahama Islands, including marine invertebrates with color notes from that locality and Florida Keys (54232). Bassler, R. S.: About 2,000 specimens of Ordovician and Mississippian fossils from the Mississippi Valley (53079). Bean, Barton A.: Fishes collected at Piney Point, Md. (53138). Bean, Barton A., and Herbert K. Bean: A crayfish from the Susquehanna River, and fishes from the Susquehanna River and Conoy Creek, Pa. (53140). Bean, Barton A., and Jesse Reisler: Fishes and crayfishes collected in Little Pipe Creek and Sams Creek, Md. (53141); about 25 specimens of crayfishes from western Maryland (53304). Bean, Barton A.: 426 fishes, representing 28 species, a fresh-water sponge, mollusks, and insects, from the Potomac River and its tributaries, collected by A. C. Weed, J. B. Peyton, Ernest Marshall, and B. A. Bean (54235). Davis, F. P., and H. E. Rieseberg: Skins and skulls of four small mammals from near Chain Bridge, D. C. (53382). Marshall, Ernest B.: 2 tadpoles and a frog from Laurel, Md. (53957; 53994). Marshall, Ernest B., and Barton A. Bean: Batrachians from Maryland (54034). Merrill, George P.: 8 boxes of silicified wood and 7 Indian hammers of silicified wood, from the fossil forests near Adamana, Ariz. (52966). Paine, R. G.: Batrachians from North Carolina (53024). Palmer, William: Frog, *Acris gryllus*, from Virginia (54056). Palmer, William, and Alfred C. Weed: Fishes, insects, crustaceans, bird eggs and nest, also fossils, collected in Maryland (54151). Peale, A. C.: 250 specimens of Cretaceous invertebrates from Montana (54090). Shoemaker, Clarence R.: Invertebrates from Maryland and Virginia (53992; 54023; 54073; 54100). Standley, Paul C.: 2,800 plants collected chiefly in New Mexico (53164).

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Stejneger, Leonhard: Salamander from Brookland, D. C. (54247). Washington, Charles S.: Turtle from Montgomery County, Md. (53225). Weed, A. C.: Natural history specimens from Sodus Bay, N. Y., and vicinity (53195); catfish, *Ictalurus punctatus*, and a photograph thereof (53218). Wood, Nelson R.: Reptiles, batrachians, mollusks, crustaceans, and an insect, from Auburn-dale, Fla. (53740; 53885); lizards from Florida (53822); 10 pocket gophers, *Geomys*, 3 wood mice, *Peromyscus*, and 2 lizards, *Neoseps* (53937).

National Museum, made in the Anthropological Laboratory: Cast of a soapstone tobacco pipe (53402); plaster busts of 3 North American Indians (53407); casts of 5 stone implements (53623); cast of small stone tobacco pipe with sculptured frog (53634); model of the Confederate ram *Merrimac* (53985); 2 plaster busts, namely, of John Grass (Teton Sioux) and of Charley Wagh-rigi (Waxrighi) (Osage) (54112).

National Zoological Park: Blue jay, *Cyanocitta cristata* (53035); warlike crested eagle, *Spizaetus bellicosus*; Massena quail, *Cyrtonyx massena*; Burmeister's cariana, *Chunga burmeisteri*; and a scaled or blue quail, *Callipepla squamata* (53080); Chapman's curassow, *Crax chapmani*; and 2 specimens of scaled or blue quail, *Callipepla squamata* (53392); brown bear, *Ursus arctos*; Barbary sheep, *Ammotragus lervia*; springbuck, *Antidorcas euchores*; chamois, *Rupicapra rupicapra*; zebra ass (hybrid) *Equus grevyi-asinus*; viscachia, *Viscaccia viscacia*; hairy armadillo, *Dasypus villosus*; bactrian camel, *Camelus bactrianus*; hog deer, *Cervus porcinus*; water-buck, *Kobus ellipsiprymnus*; macaque, *Pithecus fascicularis*; coypu, *Myocastor coypus*; reindeer, *Rangifer tarandus*; fallow deer, *Dama dama*; gray wolf, *Canis occidentalis*;

SMITHSONIAN INSTITUTION—Contd.

swamp deer, *Cervus duvaucelli*; lion, *Felis leo*; harbor seal, *Phoca vitulina*; northern fur seal, *Callorhinus ursinus* (53411); Daubenton's curassow, *Crax daubentoni*; sultana, *Porphyrio* sp.; black cock, *Lyrurus tetrix*; weka rail, *Ocydromus australis*; turtle dove, *Turtur* sp.; parakeet, *Psephotus* sp.; Amazon parrot, *Amazona* sp. (53436); green jay, *Xanthoura luxuosa* (53437); ring-tailed lemur, *Lemur catta*; 2 specimens of Capuchin monkey, *Cebus hypoleucus*; pig-tailed monkey, *Pithecius nemestrinus*; white-throated capuchin, *Cebus hypoleucus*; brush-tailed rock kangaroo, *Petrogale penicillata* (53444); hairy armadillo, *Dasypus villosus*; yak, *Pephus grunniens*; black buck, *Antelope cervicapra*; wolverine, *Gulo gulo*; American elk, *Cervus canadensis* (53468); magpie, *Pica pica hudsonia*; 2 specimens of white pelican, *Pelecanus erythrorhynchus*; whistling swan, *Olor columbianus*; wood duck, *Aix sponsa*; yellow hammer, *Emberiza citrinella*; Java sparrow, *Munia oryzivora*; wood duck, *Aix sponsa* (53606); silver pheasant, *Gennaus nyctemerus*; paradise whydah, *Steganura paradisica*; mandarin duck, *Aix galericulata*; coot, *Fulica americana* (53613); red deer, *Cervus elaphus*; black-footed ferret, *Mustela nigripes*; monkey, *Ateles*; puma, *Felis concolor*; coypu, *Myocastor coypus*; swift fox, *Vulpes velox*; armadillo, *Dasypus villosus*; elephant seal, *Macrorhinus angustirostris*; 2 fur seals, *Callorhinus ursinus*; marmoset, *Hapale jacchus*; coyote, *Canis frustror*; centetes, *Centetes ecaudatus*; monkey, *Macacus speciosus*; yak, *Pephus grunniens*; 2 specimens of prong-horn antelope, *Antilocapra americana* (53617; 53640); skull of an axis deer, *Cervus axis* (53766); elephant seal, *Macrorhinus angustirostris*; centetes, *Centetes ecaudatus*; gray fox, *Urocyon cinereo-argenteus*; 3 speci-

SMITHSONIAN INSTITUTION—Contd.

- mens of mink, *Putorius vison* (53906); Barbary sheep, or aoudad, *Ovis tragelaphus*; Alaska peninsula brown bear, *Ursus gyas* (?); chamois, *Rupicapra rupicapra*; kit fox, *Vulpes macrotis*; prong-horn antelope, *Antilocapra americana*; hog deer, *Cervus porcinus* (54019); western porcupine, *Ercthizon epixanthus* (54039); rose-colored pelican, *Pelecanus roseus* (54121); Lesson's euphonia, *Euphonia affinis*; Magellan horned owl, *Bubo virginianus magellanicus*; Australian black duck, *Anas superciliosa*; redhead duck, *Marila americana*; Madagascar weaver, *Foudia madagascariensis*; 2 specimens of crimson-eared waxbill, *Estrilda phanicotis*; 2 specimens of Gambel's quail, *Lophortyx gambeli*; bob-white, *Colinus virginianus*; trumpeter swan, *Olor buccinator*; tovi parrakeet, *Brotogeris jugularis*; Pennant's parrakeet, *Platyercus elegans*; 3 specimens of chachalaca, *Oryzopsis vetaula*; crested screamer, *Chauna cristata*; magpie, *Pica pica hudsonia*; whistling swan, *Olor columbianus*; pintail duck, *Dafila acuta*; mourning dove, *Zenaidura macroura carolinensis*; red-tailed hawk, *Buteo borealis*; sparrow hawk, *Falco sparverius*; mandarin duck, *Dendronessa galericulata*; pileated vulture, *Neophron pileatus*; blood-breasted pigeon, *Phlogothanas luzonica*; white stork, *Ciconia ciconia* (54133); fallow deer; *Dama dama*; springbuck, *Antidorcas euchores*; Woodhouse's coyote, *Canis frustror* (54180); 6 eggs of emu, *Dromiccius* sp. (54220).
- SOELNER, G. W. H., Washington, D. C.: 368 specimens of land and fresh-water shells, representing 55 species, from the District of Columbia and vicinity (53237).
- SOMMERKAMP, F. G. (See under Mr. C. H. T. Townsend.)
- SOUTHERN CALIFORNIA, UNIVERSITY OF, Los Angeles, Cal.: 9 lots of annelids and actinians (52965).
- SOUTHWEST TURQUOISE COMPANY, Los Angeles, Cal.: 9 polished specimens and cut stones (52980: purchase).
- SOWERBY, ARTHUR DE C., Tai-yuan-fu, Shan-si, China: 18 mammals and 11 birds, principally from China (54211: collected for the Museum).
- SOWERBY and FULTON, River Side, Kew, England: Specimen of *Ataxus umbilicaris*, from Bolivia (53996).
- SPAULDING, TOM, Eureka, Utah: About 100 specimens of Lepidoptera (53427).
- SPRINGER, FRANK, East Las Vegas, N. Mex.: The Frank Springer collection of fossil echinoderms, consisting of about 75,000 specimens (53839: deposit); about 600 specimens of Middle Ordovician fossils from the eastern part of Tennessee (54094).
- STANDLEY, Miss NELLIE, Tulia, Tex.: 10 living cacti, from Texas (53019; 53053; 53182).
- STANDLEY, PAUL C., U. S. National Museum: 550 plants collected in Greene County, Mo. (53163); 21 plants collected in Maryland (53204).
- STANFORD EXPEDITION, LELAND STANFORD, JR., UNIVERSITY, Stanford University, Cal. (through Dr. Fred. Baker, San Diego, Cal.): Crustaceans from Brazil, collected in 1911 (53346).
- STATE DEPARTMENT. (See under Dr. Frederic W. Goding; M. le Duc de Loubat; Saint-Dié-des-Vosges, France, Municipality of.)
- STATE OF NEW YORK CONSERVATION COMMISSION, Albany, N. Y. (through Dr. T. H. Bean): 2 specimens of whitefish, *Argyrosomus tullibee*, from Oneida Lake, at Constantia, N. Y. (54153).
- STEARNS, ELMER, El Paso, Tex.: 317 plants, mostly from Texas and Mexico (53198; 53236; 53353; 53536; 53551; 54147); packet of seeds of *Jatropha macrorhiza* and a specimen of *Selaginella* from Mexico (54058).

- STEELE, E. S., U. S. National Museum: 658 plants from Maryland and Virginia (53354).
- STEFFEN, VERNON, Dike, Iowa: Skin of head of a pocket gopher from Iowa (54016).
- STEPHENSON, HOB. ISAAC, U. S. Senator. (See under John Ringwood.)
- STEPHENSON, DR. L. W. (See under Sister M. Catharine.)
- STERNBERG, CHARLES H., Lawrence, Kans.: Fossil turtle, *Testudo latincuneus* (53535: purchase).
- STERRETT, D. B., U. S. Geological Survey, Washington, D. C.: Specimen of californite, from Indian Creek, Siskiyou County, Cal. (53015).
- STEWART, JOHN W., Doña Ana, N. Mex.: Specimen of tumblebug, *Phænus carnifex* (53222).
- STOCKHOLM, SWEDEN, NATURHISTORISKA RIKSMUSEUM: 155 plants, chiefly ferns (53609: exchange); specimens of *Acmca patina* and *A. pelta*, from Bering Island, Bering Sea (Vega Expedition collection) (53642).
- STOUT, MISS VINNIE R., Claremont, Cal.: Amphipod, *Crangonyx alabamensis* (cotype) (53398).
- STOW, S., Fitzhugh, Alberta, Canada: Lake trout, *Cristivomer namaycush*, Rocky Mountain whitefish, *Coregonus williamsonii*, and cut-throat or Rocky Mountain trout, *Salmo clarkii* (53033).
- SUTER, JESSE L., Washington, D. C.: Carbonized postage stamps from the ruins of the Bangor (Me.) post office, which was destroyed by fire in 1911 (53457).
- SUTHER, H. L., Barium Springs, N. C.: 8 specimens of corundum (53533); an egg-shaped hematite and 7 flint arrow-points, found near Barium Springs (53562).
- SWALES, B. H., Grosse Ile, Mich.: 34 bird skins (53400: exchange).
- SWEDISH AMERICAN REPUBLICAN LEAGUE OF ILLINOIS, Chicago, Ill.: 2 oil paintings commemorating the 50th anniversary of the battle between the *Monitor* and the *Merri-mac*, namely, a portrait of John Ericsson, by Arvid Nyholm, 1912, and a painting, "The Combat between the *Monitor* and the *Merri-mac*," by Henry Reuterdaahl, 1912 (53989).
- SYDNEY, NEW SOUTH WALES, AUSTRALIAN MUSEUM: 184 specimens of recent crinoids (53166); about 44 specimens, representing 9 species of crustaceans (53900).
- TAFT, MRS. WILLIAM H., The White House (through Mrs. Julian James): Gown worn by Mrs. Taft at the Inaugural Ball of President Taft, March 4, 1909 (53791: loan).
- TALBOTT, HENRY, Interstate Commerce Commission, Washington, D. C.: About 25 insects from Lake Timagami, Canada (53188).
- TAUBENHAUS, JACOB J., Agricultural Experiment Station, Newark, Del.: Specimen of *Glomerella rufomaculans* (53691).
- TAYLOR, MRS. A. P., Thomasville, Ga. (through Bureau of Entomology, Washington, D. C.): 44 insects (54079).
- TAYLOR, CHAS. B., Gap, Pa.: 2 skins of Jamaica parrot, *Conurus nanus* (53511).
- TAYS, E. A. H., San Blas, Sinaloa, Mexico: Seeds of *Cryptostegia* and a specimen of *Agriabampoa*, from Mexico (53928; 54154).
- TERRY, H. L., Washington, D. C.: Abnormal egg of a domestic fowl (54169).
- THOMAS, OLDFIELD, British Museum (Natural History), London, England: Mouse, *Alticola* (53594).
- THOMPSON, MISS AMY GREER, Washington, D. C.: A cap and pair of shoes, worn by the late Gilbert Thompson when a member of the Engineer

- THOMPSON, Miss AMY GREER—Contd.
Corps during the Civil War; also a pocketbook carried by him during the same period (53564).
- THORNE, A. B., U. S. National Museum: Double egg of a domestic fowl (53067).
- THRUSTON, R. C. BALLARD, Louisville, Ky.: 2 photographs of the interior of a log cabin, and one photograph of "whipsawing" (52994).
- THUROW, F. W., Harvester, Tex.: 13 plants from Texas (53503).
- TIDESTROM, IVAR, U. S. Department of Agriculture, Washington, D. C.: 100 plants from Maryland and Virginia (53102).
- TOMPKINS, J. H., Roanoke, Va.: Specimen of *Lucanus elaphus* (52967).
- TORONTO, CANADA, PROVINCIAL MUSEUM: 6 Iroquois-Huron crania and an extra lower jaw (54035: exchange).
- TORRE BUENO, J. R. DE LA, White Plains, N. Y.: 3 specimens of Hemiptera (53020).
- TORRENCE, J. S., San Francisco, Cal.: Band-tailed pigeon, *Columba fasciata*, from California (53696).
- TOTTEN, GEORGE OAKLEY, jr., Washington, D. C.: Antique Geordez rug, 7 feet by 4 feet (53705: loan).
- TOWNSEND, C. H. T., Piura, Peru: 2 snakes from Piura (53223); several hundred butterflies from Peru, collected by the donor assisted by Mr. F. G. Sommerkamp (53576); a small collection of mollusks, crustaceans, batrachians, and worms, from Rio Charape, Province Jaen, Peru (54233). (See under Peru, Ministerio de Fomento del, Piura.)
- TRACY, Prof. S. M., Biloxi, Miss.: Living specimens of *Opuntia pollardi*, from Mississippi (53784).
- TREASURY DEPARTMENT: U. S. Public Health and Marine-Hospital Service, San Francisco, Cal.: 6 house rats
- TREASURY DEPARTMENT—Continued.
from Fresno, Cal., representing an albinistic variation (perhaps artificially bred) of the species *Epimys norvegicus* (= *Mus decumanus*) (53584).
- TRISTÁN, Dr. J. F., San José, Costa Rica: About 50 specimens of isopods, collected by Mr. C. Picado (53432).
- TRUE, Dr. F. W., Smithsonian Institution: Alcoholic specimen of *Sorex*, from Haven, Me. (53170).
- TUCKERMAN, Miss EMILY, Washington, D. C.: 13 specimens of laces, including point d'Alençon, Valenciennes, Binche, Dutch Pottenkant, point de Niede, and Duchesse (53349); collar of point d'Alençon, 2 cuffs of old point de France, piece of peasant lace, Argentina, South America, 2 cuffs and a flounce of Sicilian lace (53429). Loan.
- TUCKERMAN, Mrs. WOLCOTT, Washington, D. C.: Square of point d'Hongroise; brocaded church piece, 19th century, Spanish; shaped panel with galloon edge and fringe; square of point d'Hongroise, 19th century, Italian; brocaded panel, 18th century, Spanish (54043: loan).
- TÜRCKHEIM, Baron H. von, Karlsruhe, Baden, Germany: 400 plants, collected in Santo Domingo by Father Fuertes (53450: purchase).
- TURRILL, CHARLES B., San Francisco, Cal.: A human skull, from the edge of a mound in Sausalito, Cal. (53374).
- TYLER, JOHN G., Fresno, Cal.: 4 bird skins from California (53510; 53783).
- UNITED STATES COLLEGE OF VETERINARY SURGEONS, Washington, D. C.: Skull of dapple gray percheron gelding (54078); skull of a bay mare (54117).
- UNIVERSITETETS BOTANISKE MUSEUM. (See under Copenhagen, Denmark.)
- UNIVERSITETETS ZOOLOGISKE MUSEUM. (See under Copenhagen, Denmark.)

- UNIVERSITY OF SOUTHERN CALIFORNIA.
(See under Los Angeles, Cal.)
- UNIVERSITY OF WYOMING. (See under Laramie, Wyo.)
- UNKNOWN: 9 implements of stone and 1 of bone, from an Indian grave in Russell County, Va. (53282).
- UPTON, Miss SARA CARR, Washington, D. C.: Marble bust of William H. Seward, Secretary of State, by Ben-zoni, Rome, Italy, 1871 (53248: loan.)
- URBAN, Dr. I., Dahlem bei Steglitz (Berlin), Germany: 190 plants, collected in Santo Domingo by Baron H. von Türckheim (53532: purchase).
- URICH, F. W., Trinidad, West Indies: About 545 specimens of insects from Mexico (53424; 53489).
- VAN DUZEE, M. C., Buffalo, N. Y.: 12 sawflies (53849); 8 Diptera from New York (54054).
- VANEY, C. (See under Prof. Max Weber.)
- VAN ROON, G., Rotterdam, Netherlands: 188 beetles (53014; 53347: exchange).
- VASEY, Miss FLORA N., U. S. National Museum: 2 living specimens of *Opuntia* and *Yucca*, from Kansas (53176).
- VAUGHAN, Dr. T. WAYLAND, U. S. Geological Survey, Washington, D. C.: Marine shells from Taboga Island, Panama Bay (53582).
- VENICE MARINE BIOLOGICAL STATION, Venice, Cal.: 2 crabs, *Blepharipoda occidentalis* and *Emerita analoga* (53319); gorgonian, *Muricea purpurea* (53601).
- VERCO, Dr. J. C., Adelaide, South Australia: 19 specimens, representing 9 species, of mollusks and brachiopods, mostly cotypes of new species by Verco and Blochmann (52954).
- VICTOR TALKING-MACHINE Co., Camden, N. J.: Talking-machine, Victrola, Style IX (53083).
- VIENNA, AUSTRIA, K. K. NATURHISTORISCHES HOFMUSEUM: 100 specimens of plants, comprising Century 19 of "Kryptogamae Exsiccatae" (53689: exchange).
- WAECH, Rev. C. A., Spring, Tex.: Larva of *Hypoderma*, the bot-fly of the ox (53466).
- WAIT, GUY L., Lewistown, Mont.: Dermal plate of a dinosaur (53161); 5 fossil tree stumps, a section of stump, fragments of fossil wood and a slab of fossil plants (53401: collected for the Museum).
- WAITE, S. R., Canterbury Museum, Christchurch, New Zealand: Specimen of *Necophrynichthys latus* (53684).
- WALCOTT, Dr. CHARLES D., Secretary, Smithsonian Institution: Specimen of sodalite from Ice River, British Columbia (53995). (See under Smithsonian Institution.)
- WALKER, BRYANT, Detroit, Mich.: Co-type of *Arkansia wheeleri* (53370).
- WALKER, JOHN T., Washington, D. C.: Pierced shell gorget from Tick Island, Fla.; pottery disk from Ropes Island, Fla.; and a fragmentary human jaw from near Deleon Springs, Fla. (53692).
- WALLIS, WILLIAM W., U. S. National Museum: Catfish from the Potomac River, at Little Falls (53022); living crayfish from near the District line (53902).
- WALTER, The Misses OLIVIA and IDA, Washington, D. C.: An oil painting entitled "The Five Senses," by Brumidi (54041: loan).
- WALTON, W. R., U. S. Department of Agriculture, Washington, D. C.: 4 specimens, representing 2 species, of Diptera new to the collection (53452).
- WAR DEPARTMENT:
Office of Chief of Ordnance: A Krag-Jørgensen (U. S. magazine) rifle, caliber .30, model of 1898

WAR DEPARTMENT—Continued.

- (53843: deposit); a Colt military automatic pistol and a Savage military automatic pistol, each of .45 caliber (53893: deposit); a Colt automatic pistol, caliber .45, adopted March 9, 1911, for use in the U. S. Army (54114: deposit); 45 military rifles, muskets, and carbines, from the Rock Island Arsenal (54205).
- Office of Chief Signal Officer:* The Wright aeroplane purchased by the War Department in 1909 and used by the United States Army in 1909-10, being the first aeroplane put in practical service by any government (53205).
- Office of Quartermaster General:* A set of campaign medals, bars, and ribbons, representing those issued by the War Department (53876).
- WARD, ROWLAND, LTD., London, England: Skin and skull of *Rupicapra pyrenaica*, collected near the Spanish border of the Pyrenees (53467: purchased from the Harrison Fund).
- WARD, V. C. (through Mr. Alfred Forsman, Green River, Utah): 2 specimens of uranium-vanadium ore, from the San Rafael Reef, Emery County, Utah (53441).
- WARNER, S. P., American consul, Bahia, Brazil: Butterflies and moths from Bahia (53666); a coot, *Fulica americana*, and a merganser, *Mergus americanus* (53767).
- WASHINGTON, CHARLES S., U. S. National Museum: Terrapin from Berwyn, Md. (53093); a tapeworm (53357).
- WATKINS, J. H., Washington, D. C. (through Mr. W. T. Schaller): Type specimen of turquois (53062).
- WATSON, JOHN, Cambridge, England: 20 specimens of building stones from Palestine (53443: exchange).
- WAYNE, ARTHUR T., Mount Pleasant, S. C.: Egg of oyster-catcher, *Hematopus palliatus*, from South Carolina, received through Dr. E. A. Mearns (52952); 14 bird skins from South Carolina (53418; 54178: exchange).
- WEBB, Capt. JOHN S., Disputanta, Va.: Skin and skull of a ferret, *Mustela*, from Prince George County, Va. (53257).
- WEBER, C. M., Bureau of Science, Manila, P. I.: 295 plants from the Philippine Islands (54129: purchase).
- WEBER, Prof. MAX, Eerbeek, Holland (through Mons. C. Vaney, University of Lyon, Lyon, France): 3 boxes of East Indian crinoids (52982: loan).
- WEBSTER, E. B., Port Angeles, Wash. (through Mr. C. V. Piper): 60 plants from Washington (53725; 54001).
- WEDDELL, ALEXANDER W., American consul, Zanzibar, Zanzibar: 10 bats from Zanzibar Island, secured through the courtesy of Dr. W. M. Aders. of the Zanzibar Government (53515: collected for the Museum).
- WEED, A. C., U. S. National Museum: About 25 lampyrid larvæ, a few dipterous larvæ, and a specimen of *Gordius* (53167). (See under Mr. P. R. Myers.)
- WEED, A. C., and W. L. MCATEE: Fishes from C. & O. Canal and Rock Run at Seven Locks, Md., and 2 crayfishes from Rock Run (53801; 53853); 4 crayfishes and a leech from Rock Run; and fishes from Rock Run and Turkey Run, Va. (53903); fishes from various localities about Washington, and an Amphipod from Riverdale, Md. (54010).
- WEEKS, Miss FANNIE A. (through her executrices, Miss Katie R. Bent, Miss Elizabeth Hartman, and Miss Mary E. Hussey, Washington, D. C.): Collection of 45 Indian relics (53792: bequest).
- WEISS, MAXIMILIAN, El Dorado Canyon, Nev.: Specimen of "civet-cat," *Bassariscus* sp. (53697).
- WERTH, Mrs. MARY MAUBY. (See under Commander Matthew Fontaine Maury, Descendants of.)

- WEST TOWNSEND GRANITE SYNDICATE, West Townsend, Mass.: Six-inch cube of granite (54185).
- WESTERN AUSTRALIAN MUSEUM AND ART GALLERY. (See under Perth, Western Australia.)
- WHITE, DAVID. (See under Prof. J. A. Holmes and Mr. Morris Williams.)
- WHITE, JOHN JAY, Washington, D. C.: 5 small antelopes from British East Africa (54242).
- WHITE, MISS MABEL LOUISE, Washington, D. C.: Portrait in oil of Arnold William Copenhagen, of Boston, by J. Harvey Young (53747: loan).
- WHITEHEAD, MRS. LUCY PAGE, Washington, D. C. (through Mrs. Julian James): Fan presented by Napoleon III, Emperor of France, to Mrs. Matilda Willing (Miss Carter, of Virginia) (53781: loan).
- WHITING, DR. H. C., Mount Pleasant, Iowa: A robber's lantern, secured in a mountain village in Pak Chyuu County, S. E. Whang Hai Province, Korea (54188: exchange).
- WHITLOCK, J. H., Ephraim, Utah: Specimen of mineral tar (53152).
- WILCOX, CARLTON, Washington, D. C.: Nest of Baltimore oriole, *Icterus galbula*, from New York (53336).
- WILCOX, MISS F. E., Washington, D. C.: 2 flint implements, a piece of fungus used by the Alaskans to make green paint, and some shells (53230); 3 Yuma Indian dolls (54193).
- WILCOX, BRIG. GEN. T. E., U. S. Army (retired), Washington, D. C.: An obsidian pebble with moldavite-like markings, from southern Oregon (53383); Tukuarika (sheep-eaters) Indian basket and basketry bread tray (54202); 3 metal casts of a French medal (54246).
- WILD, FRIEDRICH AUGUST, Idar, Germany: Carved lizard of opal on limonite base (53891: purchase).
- WILLIAMS, COL. C. A., U. S. Army (retired), Washington, D. C.: Nest of one of the "social" wasps, *Icaria cayananensis* (53041).
- WILLIAMS, GARDNER F., Washington, D. C.: Rocks and minerals from the South African diamond mines, and a specimen of fossil wood carrying chloride of silver from Utah (53898); sample of alluvial gold from Transvaal, South Africa (53958); skins and skulls of 2 springbucks, *Antedorcas euchore*, from Kimberley, South Africa (54102).
- WILLIAMS, MRS. J. Y., Braddock Heights, Va.: 20 isopods parasitic on a skate, from Atlantic City, N. J. (53472).
- WILLIAMS, MORRIS, Philadelphia, Pa. (through Mr. David White): Fossil plant, *Sigillaria* sp. (53235).
- WILLIAMS, R. S., New York Botanical Garden, New York City: 320 ferns from Bolivia (53736: purchase).
- WILLIAMSON, E. B., Bluffton, Ind.: 52 specimens of North American dragonflies, representing 21 species (53425).
- WILMER, LIEUT. COL. L. WORTHINGTON, Lothian House, Ryde, England: 35 fossils from the Oxford clay (53112); 75 fossils from the Upper Jurassic rocks of England (53212); recent shells from various localities, chiefly the Isle of Wight, England (53579); Cretaceous fossils and other miscellaneous material, consisting of about 125 specimens, from Sandown, Isle of Wight; also a recent bryozoan from Ryde (53604).
- WILSON, DR. CHARLES B., State Normal School, Westfield, Mass.: 21 specimens, representing 2 species, of parasitic copepods (53966).
- WILTSHIRE, FRANK, Kentville, Nova Scotia: Butter fish, *Poronotus triacanthus*, and cunner or chogset, *Tautogolabrus adspersus*, from Halls Harbor, Nova Scotia (53149); specimen of scup, *Stenotomus chrysops*, from Halls Harbor (53685).

- WINCHESTER REPEATING ARMS COMPANY, New Haven, Conn.: 16 guns, including rifles, muskets, shotguns, a breech-loading cannon, etc. (54243).
- WING, WILLIAM ARTHUR, New Bedford, Mass.: Photograph of a marriage certificate of the Society of Friends, Dartmouth, Mass., issued to John Russell and Rebecca Ricketson in 1704 (54157).
- WINKLER, CHARLES, Washington, D. C.: Old percussion cap-lock gun found at the Galapagos Islands in 1909 (53625).
- WINNSBORO GRANITE CORPORATION, Rion, S. C.: A 5-inch cube of granite (53732).
- WISE, MISS HELEN D., Washington, D. C.: Skin of Florida gallinule, *Gallinula galeata*, from Washington (53647).
- WOOLDRIDGE, EDGAR, Lakeport, Cal.: 50 arrow-points and 3 scrapers, from Lake County, Cal.; also 2 photographs of primitive houses of Pomo Indians (53755).
- WOOLLEY, CLAUDE L., Baltimore, Md.: 2 sundials, one calculated for the latitude of Santiago, Chile, and one for the Equator (53635); a sundial, calculated for the latitude of Moscow, Russia (53777); model of a sundial calculated for the latitude of New Plymouth, New Zealand, with a time-signaling cannon (54007).
- WOOTON, Prof. E. O., Agricultural College, N. Mex.: Types of 28 new species of New Mexican plants (53655).
- WORTLEY, Mrs. R. M. STUART. (See under Mrs. Winfield Scott Schley.)
- WREN, CHRISTOPHER, Plymouth, Pa.: A flaked scraper or chisel of slate from Beach Haven, Pa., and a polished tube of gray clay stone from a grave in Northumberland County, Pa. (53508).
- WRIGHT, W. S., San Diego, Cal.: 26 specimens of Lepidoptera (53911).
- WYNN, HARRY, U. S. National Museum: Specimen of chimney swift, *Chaturapclagica* (54141).
- WYOMING, UNIVERSITY OF, Laramie, Wyo.: Fragment of the type of *Asplenium andrewsii* (53360: exchange).
- WYSE, Mrs. W. P. E., Pikesville, Md. (through Mrs. R. R. Hoes): Dress worn by Dolly Madison at the White House (54181: loan).
- YALE PERUVIAN EXPEDITION (through Dr. H. Bingham, New Haven, Conn.): Land shells, insects, worms, an amphipod, reptiles, and batrachians from eastern Peru (53874).
- YALE UNIVERSITY MUSEUM, New Haven, Conn.: 4 specimens of *Tylos latreilli* (54138).
- YAMAKOSHI, R., Tokyo, Japan: 8 bird skins from the Bonin Islands (54142: purchase).
- YELLOW HAWK, WILLIAM, Rosebud Agency, S. Dak.: Head ornament of a Teton-Sioux Indian (53209: purchase).
- YELLOWSTONE NATIONAL PARK, Yellowstone Park, Wyo. (See under Interior, Department of.)
- YOUNG, A. L., U. S. National Museum: Shrew, *Blarina brevicauda*, from Alexandria County, Va. (53821); 2 living crayfishes from near Long Bridge, Va. (53877).
- ZEESSE-WILKINSON Co., New York City: Collection of half tones showing process of engraving (54263).
- ZELLER, CONRAD, Washington, D. C.: 2 specimens of European starling, *Sturnus vulgaris*, and a specimen of the rusty blackbird, *Euphagus carolinus*, from the District of Columbia (53615).
- ZOOLOGISCHE SAMMLUNG DES BAYERISCHEN STAATES. (See under Munich, Germany.)

LIST OF PUBLICATIONS OF THE U. S. NATIONAL MUSEUM ISSUED DURING THE FISCAL YEAR 1911-1912, AND OF PAPERS PUBLISHED ELSEWHERE WHICH RELATE TO THE COLLECTIONS.

PUBLICATIONS OF THE MUSEUM.

ANNUAL REPORT.

Smithsonian Institution | United States National Museum | — | Report on the progress and condition of the U. S. National Museum for the year | ending June 30, 1911 | (Seal) | Washington | Government Printing Office | 1912
Svo., pp. 1-147.

PROCEEDINGS.

Smithsonian Institution | United States National Museum | — | Proceedings | of the | United States National Museum | — | Volume 39 | — | (Seal) | Washington | Government Printing Office | 1911
Svo., pp. i-xviii, 1-678, pls. 1-71, 189 figs.

(Seal) | Washington | Government Printing Office | 1911

Svo., pp. i-xi, 1-670, pls. 1-70, 40 figs.

Smithsonian Institution | United States National Museum | — | Proceedings | of the | United States National Museum | — | Volume 41 | — | (Seal) | Washington | Government Printing Office | 1912

Svo., pp. i-xlv, 1-719, pls. 1-61, 207 figs.

Smithsonian Institution | United States National Museum | — | Proceedings | of the | United States National Museum | — | Volume 40 | — |

BULLETINS.

Smithsonian Institution | United States National Museum | — | Directions for preparing specimens of mammals | By | Gerrit S. Miller, jr., | Curator, Division of Mammals | — | Part N of Bulletin of the United States National Museum, No. 39 | Third edition, revised | (Seal) | Washington | Government Printing Office | 1912

Svo., pp. 1-23, figs. 1-6.

Robert Ridgway, | Curator, Division of Birds. | — | Part V. | — | (Seal) | Washington : | Government Printing Office. | 1911.

Svo., pp. 1-xxiii, 1-859, pls. 1-33.

Smithsonian Institution. | United States National Museum. | — | Bulletin | of the | United States National Museum. | No. 50. | — | The Birds | of | North and Middle America. | By |

Smithsonian Institution | United States National Museum | Bulletin 77 | — | The early Paleozoic Bryozoa of | the Baltic Provinces | By | Ray S. Bassler | Curator of Paleontology, U. S. National Museum | (Seal) | Washington | Government Printing Office | 1911

Svo., pp. i-xxi, 1-382, pls. 1-13, figs. 1-226.

Smithsonian Institution | United States
National Museum | Bulletin 78 | — |
The National Gallery of Art | Cata-
logue of | a selection of art objects |
from the Freer Collection | exhibited

in the new building | of the National
Museum | April 15 to June 15, 1912 |
(Seal) | Washington | Government
Printing Office | 1912

Svo., pp. 1-39.

PAPERS PUBLISHED IN SEPARATE FORM.

FROM VOLUME 41 OF THE PROCEEDINGS.

- No. 1848. Descriptions of recently discovered Cladocera from New England. By Alfred A. Doolittle. pp. 161-170, pls. 13-19.
- No. 1853. Notes on some fishes of the genus *Amia*, family of Cheilodipteridae, with descriptions of four new species from the Philippine Islands. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 12.] By Lewis Radcliffe. pp. 245-261, pls. 20-25, figs. 1-3.
- No. 1856. Description of a new amphibæoid lizard from Peru. By Leonhard Stejneger. pp. 283, 284.
- No. 1857. Descriptions of three new batrachians from Costa Rica and Panama. By Leonhard Stejneger. pp. 285-288.
- No. 1858. The west American mollusks of the genus *Nodulus*. By Paul Bartsch. pp. 289-291, figs. 1-4.
- No. 1859. Descriptions of one new genus and three new species of ichneumon flies. By H. L. Viereck. pp. 293-295.
- No. 1860. A new fossil alligator from the Hell Creek beds of Montana. By Charles W. Gilmore. pp. 297-302, pls. 26, 27.
- No. 1861. New marine mollusks from Bermuda. By Paul Bartsch. pp. 303-306, pl. 28.
- No. 1862. A revision of the fossil ferns from the Potomac group which have been referred to the genera *Cladophlebis* and *Thyrsopteris*. By Edward W. Berry. pp. 307-332.
- No. 1863. The recent and fossil mollusks of the genus *Alvania* from the west coast of America. By Paul Bartsch. pp. 333-362, pls. 29-32.
- No. 1864. Two new species of parasitic nematodes. By Brayton Howard Ransom. pp. 363-369, figs. 1-6.
- No. 1865. The American species of *Sphyradium* with an inquiry as to their generic relationships. By G. Dallas Hanna. pp. 371-376, figs. 1-4.
- No. 1866. New sawflies in the collections of the United States National Museum. By S. A. Rohwer. pp. 377-411, figs. 1-14.
- No. 1867. Crystallized variscite from Utah. By Waldemar T. Schaller. pp. 413-430, pl. 33, figs. 1, 2.
- No. 1868. Descriptions of fifteen new fishes of the family Cheilodipteridae, from the Philippine Islands and contiguous waters. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 13.] By Lewis Radcliffe. pp. 431-446, pls. 34-38.

- No. 1869. Descriptions of new species of wasps in the collections of the United States National Museum. By S. A. Rohwer. pp. 447-478, figs. 1-24.
- No. 1870. A new mosasauroid reptile from the Cretaceous of Alabama. By Charles W. Gilmore. pp. 479-484, pls. 39, 40, figs. 1-3.
- No. 1871. The west American mollusks of the genus *Cingula*. By Paul Bartsch. pp. 485-488, pl. 41.
- No. 1872. Description of a new notidanoid shark from the Philippine Islands representing a new family. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 14.] By Hugh M. Smith. pp. 489-491, pl. 42, 1 fig.
- No. 1873. The characters of the fossil plant *Gigantopteris* Schenk and its occurrence in North America. By David White. pp. 493-516, pls. 43-49.
- No. 1874. Description of a new salamander from Iowa. By Alexander G. Ruthven. pp. 517-519.
- No. 1875. A review of the Sparidae and related families of perch-like fishes found in the waters of Japan. By David Starr Jordan and William Francis Thompson. pp. 521-601, figs. 1-15.
- No. 1876. The crustacea of the order Cumacea in the collection of the United States National Museum. By William T. Calman. pp. 603-676, figs. 1-112.
- No. 1877. The squaloid sharks of the Philippine Archipelago, with descriptions of new genera and species. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 15.] By Hugh M. Smith. pp. 677-685, pls. 50-64, figs. 1-4.
- No. 1878. The mounted skeletons of *Camptosaurus* in the United States National Museum. By Charles W. Gilmore. pp. 687-696, pls. 55-61, figs. 1-4.
- No. 1879. Preservation of osseous and horny tissues. By F. L. J. Boettcher. pp. 697-705.

FROM VOLUME 42 OF THE PROCEEDINGS.

- No. 1880. Descriptions of new Hymenoptera, No. 4. By J. C. Crawford. pp. 1-10, figs. 1, 2.
- No. 1881. A revision of the forms of the edible-nest swiftlet, *Collocalia fuciphaga* (Thunberg). By Harry C. Oberholser. pp. 11-20.
- No. 1882. A small collection of bats from Panama. By Gerrit S. Miller, jr. pp. 21-26.
- No. 1883. Description of a new species of isopod of the genus *Cleantis* from Japan. By Harriet Richardson, pp. 27-29, 1 fig.
- No. 1884. On an important specimen of *Edestus*; with description of a new species, *Edestus mirus*. By Oliver Perry Hay. pp. 31-38, pls. 1, 2.
- No. 1885. Descriptions of new species and genera of Lepidoptera, chiefly from Mexico. By Harrison G. Dyar. pp. 39-106.

- No. 1886. Description of a new species of the isopod genus *Cassidinidea* from Mexico. By Harriet Richardson. pp. 107, 108, figs. 1-3.
- No. 1887. Censers and incense of Mexico and Central America. By Walter Hough. pp. 109-137, pls. 3-14, figs. 1-12.
- No. 1888. Descriptions of five new genera and twenty-six new species of ichneumonflies. By H. L. Viereck. pp. 139-153.
- No. 1889. Systematic notes and descriptions of some weevils of economic or biological importance. By W. Dwight Pierce. pp. 155-170.
- No. 1890. Variation in the skull and horns of the *Isabella* gazelle. By Gerrit S. Miller, jr. pp. 171, 172, pl. 15.
- No. 1891. Description of a new isopod crustacean belonging to the genus *Livoneca* from the Atlantic coast of Panama. By Harriet Richardson. pp. 173, 174, 1 fig.
- No. 1892. A new nematode, *Ostertagia bullosa*, parasitic in the alimentary tract of sheep. By Brayton Howard Ransom and Maurice C. Hall. pp. 175-179, figs. 1-4.
- No. 1893. Instructions for collecting and fixing rotifers in bulk. By P. de Beauchamp. pp. 181-185.
- No. 1894. Marine and terrestrial isopods from Jamaica. By Harriet Richardson. pp. 187-194, figs. 1-3.
- No. 1895. *Naumachoerinus*, a new genus belonging to the crinoid family *Phrynocrinidae*. By Austin Hobart Clark. pp. 195-197.
- No. 1896. New pediculate fishes from the Philippine Islands and contiguous waters. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 16.] By Lewis Radcliffe. pp. 199-214, pls. 16-27, figs. 1-3.
- No. 1897. Names applied to bees of the genus *Osmia*, found in North America. By T. D. A. Cockerell. pp. 215-225.
- No. 1898. New arenaceous foraminifera from the Philippine Islands and contiguous waters. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 17.] By Joseph A. Cushman. pp. 227-230, pl. 28.
- No. 1899. The chimeroid fishes of the Philippine Islands, with description of a new species. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 18.] By Hugh M. Smith. pp. 231, 232, pl. 29.
- No. 1900. Descriptions of new species of parasitic copepods in the collections of the United States National Museum. By Charles Branch Wilson. pp. 233-243, pls. 30-34.
- No. 1901. Notes on fresh-water copepoda in the United States National Museum. By C. Dwight Marsh. pp. 245-255, figs. 1-14.
- No. 1902. Descriptions of certain species of wasps of the family *Sphecidae*. By Henry T. Fernald. pp. 257-259.
- No. 1903. Additions to the west American pyramidellid mollusk fauna, with descriptions of new species. By Paul Bartsch. pp. 261-289, pls. 35-38.

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| No. 1904. Diagnoses of new barnacles from the Philippine Archipelago and China Sea. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910. No. 19.] By Henry A. Pilsbry. pp. 291-294. | No. 1905. A second meteoric find from Scott County, Kansas. By George P. Merrill. pp. 295, 296, pl. 39.
No. 1906. A zoogeographic study based on the pyramidellid mollusks of the west coast of America. By Paul Bartsch. pp. 297-349, pl. 40. |
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FROM VOLUME 13 OF CONTRIBUTIONS FROM THE NATIONAL HERBARIUM.

Part 11. The Alliaceae of Mexico and Central America. By Paul C. Standley. pp. i-ix, 377-430, pls. 74-77.

Part 12. New or noteworthy plants from Colombia and Central America—3. By Henry Pittier. pp. i-viii, 431-466, pls. 78-96, figs. 57-91.

FROM VOLUME 14 OF CONTRIBUTIONS FROM THE NATIONAL HERBARIUM.

Part 3. The grama grasses: *Bouteloua* and related genera. By David Griffiths. pp. i-xi, 343-428, pls. 67-83, figs. 19-63.

FROM VOLUME 16 OF CONTRIBUTIONS FROM THE NATIONAL HERBARIUM.

Part 1. Miscellaneous papers: The relationship of *Asplenium andrewsii*. By William R. Maxon. pp. 1-3, pls. 1, 2. Report on a collection of plants from the Pinacate region of Sonora. By J. N. Rose and Paul C. Standley. pp. 5-20, pls. 3-16, fig. 1. *Tumamoca*, a new genus of Cucurbitaceae. By J. N. Rose. p. 21, pl. 17. New or interesting mosses from Panama. By R. S. Williams. pp. 23, 24.

Part 2. Studies of tropical American ferns—No. 3. By William R. Maxon. pp. i-viii, 25-62, pls. 18-34.

CLASSIFIED LIST OF PAPERS BASED WHOLLY OR IN PART ON THE NATIONAL COLLECTIONS.¹

MUSEUM ADMINISTRATION.

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| RATHBUN, RICHARD. Smithsonian Institution United States National Museum — Report on the progress and con- dition of the U. S. National Museum for the year | ending June 30, 1911 (Seal) Washington Government Printing Office 1912
Svo., pp. 1-147. |
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FINE ARTS.

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| Smithsonian Institution United States National Museum Bulletin 78 — The National Gallery of Art Catalogue of a selection of art objects from the Freer Collection exhibited in the new building | of the National Museum April 15 to June 15, 1912 (Seal) Washington Government Printing Office 1912
Svo., pp. 1-39. |
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¹ In a few instances papers which were published prior to this fiscal year are included, having been inadvertently omitted from previous reports.

ETHNOLOGY, ARCHEOLOGY, PHYSICAL ANTHROPOLOGY.

BARTSCH, PAUL. (See under J. Walter Fewkes.)

BROWNE, HERBERT JANVRIN. The stone collars and three-pointed stones of the West Indies.

Amer. Anthropologist (n. s.), 13, No. 3. July-Sept., 1911, pp. 489-493, pl. 29, figs. 58, 59.

In this paper the theory is advanced that these objects were ceremonial in nature and related to important ceremonies connected with child-birth, and the evidence tending to establish this view is presented in some detail.

CLARK, AUSTIN HOBART. (See under J. Walter Fewkes.)

DALL, WILLIAM H. Ka hana kapa: The making of bark cloth in Hawaii. By W. T. Brigham.

Science (n. s.), 34, No. 883, Dec. 1, 1911, p. 768.

Review of monograph by Dr. Brigham.

——— (See also under J. Walter Fewkes.)

FEWKES, J. WALTER, and others. The problems of the unity or plurality and the probable place of origin of the American aborigines. [Discussion at a joint session of the American Anthropological Association and Section H of the American Association for the Advancement of Science held at the U. S. National Museum, Washington, December 27, 1911.]

Amer. Anthropologist (n. s.), 14, No. 1, Jan.-Mar., 1912, pp. 1-59.

The subjects bearing on the problem presented by members of the staff of the Smithsonian Institution were as follows:

Introductory remarks, by J. Walter Fewkes. pp. 1-4.

Historical notes, and the bearing of physical anthropology on the problems under consideration, by Aleš Hrdlička. pp. 5-12.

FEWKES, J. WALTER—Continued.

On the geological aspects of the possible human immigration between Asia and America, by William H. Dall. pp. 12-18.

Paleontological evidence bearing on the problem of the origin of the American aborigines, by James W. Gidley. pp. 18-23.

The distribution of animals and its bearing on the peopling of America, by Austin Hobart Clark. pp. 23-30.

Bearing of archeological evidence on the place of origin and on the question of the unity or plurality of the American race, by William H. Holmes. pp. 30-36.

Some ethnological aspects of the problem, by Walter Hough. pp. 39-43.

The bearing of ocean currents on the problem, by Paul Bartsch. pp. 49, 50.

GIDLEY, JAMES W. (See under J. Walter Fewkes.)

HOLMES, WILLIAM H. (See under J. Walter Fewkes.)

HOUGH, WALTER. Censers and incense of Mexico and Central America.

Proc. U. S. Nat. Mus., 42, No. 1887, Apr. 17, 1912, pp. 109-137, pls. 3-14, figs. 1-12.

The paper is a study of ancient and modern censers and presents a classification of these interesting objects into communal censers, which are stationary, and special censers, which are classed as portable, gesture, and swinging censers. It also discusses the use of incense in worship, the origin of incense materials, and the customs connected with the use of incense.

——— (See also under J. Walter Fewkes.)

HRDLIČKA, ALEŠ. Human dentition and teeth from the evolutionary and racial standpoint.

The Dominion Dental Journal, 23, No. 9, Sept. 15, 1911, pp. 403-422.

An address delivered on June 1, 1911, before the Ontario Dental Association. It shows

HRDLIČKA, ALEŠ—Continued.

the importance of the changes in human teeth in the process of evolution of man; in addition, it deals with the racial differences in dentition and in the teeth, with the anomalies that are observed in the teeth of primitive peoples, particularly the American Indian, and touches upon dental pathology.

——— The natives of Kharga Oasis, Egypt.

Smithsonian Misc. Colls., 59, No. 1, 1912, pp. 1-118, pls. 1-38, figs. 1-12.

This memoir deals with the vital statistics and the physiological and physical characteristics of the highly interesting native people of the eastern portion of the Great Oasis, Egypt. It is shown that this popula-

HRDLIČKA, ALEŠ—Continued.

tion, so far as not affected by negro admixture, while it has suffered certain local modifications principally due to habitual malnutrition, resembles closely the more pure-blooded Egyptians of the Nile Valley. These people, like the valley Egyptians, are a composite of closely related northeastern African and southwestern Asiatic or "hamitic" and "semitic," ethnic elements, and are to be classed with these as part of the southern extension of the Mediterranean subdivision of the white stem of people. A bibliography and detailed measurements are appended. The plates show men of different ages, from the barely adult to advanced senility.

——— (See also under J. Walter Fewkes.)

MAMMALS.

ALLEN, GLOVER M. Mammals of the West Indies.

Bull. Mus. Comp. Zool., 54, No. 6, July, 1911, pp. 175-263.

Specimens from the U. S. National Museum were used in the preparation of this paper.

ANDERSEN, KNUD. Notes on twenty-three specimens of *Pteropus hypomelanus lepidus*.

Journ. Fed. Malay States Museums, 4, Nov., 1911, pp. 212-218.

Several of the specimens mentioned belong to the U. S. National Museum.

——— Catalogue of the Chiroptera in the collection of the British Museum.

Second edition, 1, *Megachiroptera*, Mar. 23, 1912, pp. 1-ci, 1-854, figs. 1-79.

The author examined specimens of all the Megachiroptera in the U. S. National Museum, except those represented by a single type specimen. The specimens seen by him are all mentioned by number in footnotes.

BAILEY, VERNON. A new subspecies of mountain sheep from western Texas and southeastern New Mexico.

Proc. Biol. Soc. Washington, 25, June 29, 1912, pp. 109, 110.

Describes *Ovis canadensis texianus*.

BOETTCHER, F. L. J. Preservation of osseous and horny tissues.

Proc. U. S. Nat. Mus., 41, No. 1879, Jan. 22, 1912, pp. 697-705.

CARY, MERRITT. A biological survey of Colorado.

North Amer. Fauna, No. 33, Aug. 17, 1911, pp. 1-256, pls. 1-12, figs. 1-39.

All the Colorado material in the Biological Survey and U. S. National Museum were examined.

GOLDMAN, EDWARD A. Revision of the spiny pocket mice (genera *Heteromys* and *Liomys*).

North Amer. Fauna, No. 34, Sept. 7, 1911, pp. 1-70, pls. 1-3, figs. 1-6.

GOLDMAN, EDWARD A.—Continued.

Based mainly on Biological Survey material, but all specimens of the group in the National Museum collection were examined.

— Three new mammals from Central and South America.

Proc. Biol. Soc. Washington, 24, Nov. 28, 1911, pp. 237-240.

The followingspecies are new : *Marmosa ruatanica*, *Marmosa scledoni*, and *Proechimys steerei*.

— A new weasel from Costa Rica.

Proc. Biol. Soc. Washington, 25, Jan. 23, 1912, pp. 9, 10.

Describes *Mustela costaricensis*.

— Descriptions of twelve new species and subspecies of mammals from Panama.

Smithsonian Misc. Colls., 56, No. 36, Feb. 19, 1912, pp. 1-11.

New species and subspecies : *Marmosa isthmica*, *Metachirus nudicaudatus dentaneus*, *Sciurus variegatoides helveolus*, *Microsciurus alfari venustus*, *Oryzomys idoneus*, *O. frontalis*, *O. bombycinus*, *O. gatucensis*, *Zygodontomys cherriei ventriosus*, *Heteromys panamensis*, *H. zonalis*, *Hoplomys goethalsi*.

— The generic names *Cercomys* and *Proechimys*.

Proc. Biol. Soc. Washington, 25, May 4, 1912, p. 94.

Discusses the status of these names.

GRINNELL, J., and H. S. SWARTH. *Myotis orinomus* Elliot, a bat new to California.

Univ. Cal. Pub. Zool., 10, No. 4, Apr. 13, 1912, pp. 137-142, figs. 1, 2.

HOLLISTER, N. The nomenclature of the cheetahs.

Proc. Biol. Soc. Washington, 24, Oct. 31, 1911, pp. 225, 226.

Discusses the nomenclature of *Acinonyx jubatus* and *A. venaticus*.

HOLLISTER, N. Four new mammals from the Canadian Rockies.

Smithsonian Misc. Colls., 56, No. 26, Dec. 5, 1911, pp. 1-4.

Describes *Eutamias ludibundus*, *Callospermophilus lateralis tescorum*, *Myotis altifrons*, and *M. pernox*.

— Description of a new water mungoose from East Africa.

Proc. Biol. Soc. Washington, 25, Jan. 23, 1912, pp. 1, 2.

Describes *Mungos paludinosus rubescens* from East Africa.

— A list of the mammals of the Philippine Islands, exclusive of the cetacea.

Philippine Journ. Sci., 7, Sec. D, No. 1, Feb., 1912, pp. 1-64.

A complete list of the mammals of the Philippine Islands.

— New mammals from Canada, Alaska, and Kamchatka.

Smithsonian Misc. Colls., 56, No. 35, Feb. 7, 1912, pp. 1-8, pls. 1-3.

New species : *Marmota sibilata*, *Rangifer fortidens*, *R. excelsifrons*, *R. phylarchus*. Name revived : *R. caribou sylvestris* (Richardson).

— Description of a new subspecies of monkey from British East Africa.

Smithsonian Misc. Colls., 59, No. 3, Mar. 2, 1912, pp. 1, 2.

Describes *Lasiohyga pygerythra callida*.

— Two new American pikas.

Proc. Biol. Soc. Washington, 25, Apr. 13, 1912, pp. 57, 58.

Describes *Ochotona levis* and *O. uinta*.

— The Trinidad opossum on Martinique.

Proc. Biol. Soc. Washington, 25, May 4, 1912, p. 93.

Mentions 3 specimens from Martinique.

- HOLLISTER, N. The mona monkey on the island of St. Kitts.
Proc. Biol. Soc. Washington, 25, May 4, 1912, p. 93.
 Showing that the mona monkey is found on the island of St. Kitts.
- The earliest name for the Cape ratel.
Proc. Biol. Soc. Washington, 25, May 4, 1912, p. 96.
 Discusses the proper name for the Cape ratel, *Mellivora capensis*.
- MILLER, GERRIT S., jr. Note on the Mexican bats of the genus *Dasypterus*.
Proc. Biol. Soc. Washington, 24, Oct. 31, 1911, pp. 227, 228.
- The volcano rabbit of Mount Iztaccihuatl.
Proc. Biol. Soc. Washington, 24, Oct. 31, 1911, pp. 228, 229.
 Discusses the identity of *Romerolagus diazi*.
- Three new shrews of the genus *Cryptotis*.
Proc. Biol. Soc. Washington, 24, Oct. 31, 1911, pp. 221-224.
 Describes *Cryptotis gracilis*, *C. frontalis*, and *C. pergracillis macer*.
- A new roe deer from China.
Proc. Biol. Soc. Washington, 24, Nov. 28, 1911, pp. 231, 232.
 Describes *Capreolus melanotis*.
- Two new shrews from Kashmir.
Proc. Biol. Soc. Washington, 24, Nov. 28, 1911, pp. 241, 242.
 Describes *Crocidura pullata* and *Sorex planiceps*.
- A new jumping-mouse from New Mexico.
Proc. Biol. Soc. Washington, 24, Dec. 23, 1911, pp. 253, 254.
 Describes *Zapus luteus*.
- MILLER, GERRIT S., jr. Directions for preparing specimens of mammals.
Bull. U. S. Nat. Mus., 39, pt. N., 3d ed. rev., Feb. 9, 1912, pp. 1-23, figs. 1-6.
- A small collection of bats from Panama.
Proc. U. S. Nat. Mus., 42, No. 1882, Mar. 6, 1912, pp. 21-26.
 Eleven species of bats obtained by August Busck. The following are new: *Lonchophylla robusta*, *Vampyressa minuta*, *Chiroderma isthmicum*.
- Two new murine rodents from Turkestan.
Proc. Biol. Soc. Washington, 25, Apr. 13, 1912, pp. 59, 60.
 Describes *Alticola phasma* and *Apodemus microtis*.
- Variation in the skull and horns of the Isabella gazelle.
Proc. U. S. Nat. Mus., 42, No. 1890, Apr. 13, 1912, pp. 171, 172, pl. 15.
 Discusses the variation in the skull and horns of the Isabella gazelle.
- The names of two North American wolves.
Proc. Biol. Soc. Washington, 25, May 4, 1912, p. 95.
Canis lycaon Schreber, for the wolf of eastern Canada, and *C. floridanus*, new name for the Florida wolf.
- The names of the large wolves of northern and western North America.
Smithsonian Misc. Colls., 59, No. 15, June 8, 1912, pp. 1-5.
 Discusses the correct names of the large wolves of northern and western North America, and applies the new name *Canis tundrae* to the tundra wolf.
- The cranial and dental characters of *Chilophylla*.
Proc. Biol. Soc. Washington, 25, June 29, 1912, p. 117.

MILLER, GERRIT S., jr.—Continued.

Discusses the previously unknown skull and teeth of *Chitophylla* from the Federated Malay States.

NELSON, E. W. Two genera of bats new to Middle America.

Proc. Biol. Soc. Washington, 25, May 4, 1912, p. 93.

Records *Divius minor* (Osgood) and *Macrophyllum macrophyllum* (Wied) from Panama.

— A new subspecies of pronghorn antelope from Lower California.

Proc. Biol. Soc. Washington, 25, June 29, 1912, pp. 107, 108.

Describes *Antilocapra americana peninsularis*.

— A correction of two recent names for mammals.

Proc. Biol. Soc. Washington, 25, June 29, 1912, p. 116.

NELSON, E. W.—Continued.

Substitutes the name *Perognathus penicillatus seri* for *Perognathus penicillatus goldmani* Townsend, and *P. spinatus occultus* for *P. s. nelsoni* Townsend.

SWARTH, H. S. (See under J. Grinnell.)

TAYLOR, WALTER P. The beaver of west central California.

Univ. Cal. Pub. Zool., 10, No. 7, May 21, 1912, pp. 167–169.

Material from the U. S. National Museum was used in preparing this paper.

TRUE, FREDERICK W. The genera of fossil whalebone whales allied to Balænoptera.

Smithsonian Misc. Colls., 59, No. 6, Apr. 3, 1912, pp. 1–8.

BIRDS.

BENT, A. C. A new subspecies of ptarmigan from the Aleutian Islands.

Smithsonian Misc. Colls., 56, No. 30, Jan. 6, 1912, pp. 1, 2.

Lagopus rupestris sanfordi is described as a new subspecies from Tanaga Island.

— Notes on birds observed during a brief visit to the Aleutian Islands and Bering Sea in 1911.

Smithsonian Misc. Colls., 56, No. 32, Feb. 12, 1912, pp. 1–29.

Notes on habits, distribution, etc., of about 70 species and subspecies collected or observed in the Aleutian Islands and in Bering Sea. *Hypocentor rustica* and *Calliope calliope* are new to the North American fauna, and *Nettion crecca* is found to be the resident teal of the Aleutians.

CHAPMAN, FRANK M. Handbook of Birds of Eastern North America with introductory chapters on the study of birds in nature | By | Frank M. Chapman | [3 lines titles] | with full-page plates in colors and black and white | by Louis Agassiz Fuertes | and text-cuts by Tappan Adney

CHAPMAN, FRANK M.—Continued.

and Ernest Thompson Seton | revised edition | New York and London | D. Appleton and Company | 1912

12mo., pp. 1–xxix, 1–530, pls. 1–24, figs. 1–136, 1 map, 1 color chart.

A condensed account of the birds of Eastern North America, including brief descriptions, dates of nesting, times of occurrence of migratory species at several points, and occasional extended biographies. An abridged bibliography, grouped by geographical areas down to States, completes the work.

GOLDMAN, E. A. A new kingfisher from Panama.

Smithsonian Misc. Colls., 56, No. 27, Dec. 1, 1911, pp. 1, 2.

Ceryle americana isthmica is described as new.

HOWELL, ARTHUR H. Birds of Arkansas.

U. S. Dept. Agric., Biol. Surv., Bull. 38, Oct. 12, 1911, pp. 1–100, pls. 1–7, figs. 1–4.

HOWELL, ARTHUR H.—Continued.

Records are given of the comparative abundance and period of occurrence of the 255 species and subspecies known to inhabit the State, with notes on several species of probable occurrence there. A map (plate 1) showing the life zones of Arkansas accompanies the paper.

MCGREGOR, RICHARD C. Record of a *Puffinus* new to Philippine waters and description of a new species of Micranous.

Philippine Journ. Sci.,
6, No. 4, sec. D,
Aug., 1911, pp. 183,
184.

Puffinus chlororhynchus is recorded from off the coast of Luzon, and *Micranous worcesteri* is described as new.

MEARNS, EDGAR A. Note on two unrecognized forms of North American birds.

Auk, 28, No. 4, Oct.,
1911, pp. 489, 490.

The continental form of white-winged dove is separated from that of the West Indies as *Melopelia asiatica trudeaui* (Audubon), and the pale western subspecies of mourning dove is recognized as *Zenaidura macroura marginella* (Woodhouse).

Description of a new subspecies of the painted bunting from the interior of Texas.

Proc. Biol. Soc. Wash-
ington, 24, Oct. 31,
1911, pp. 217, 218.

Passerina ciris pallidior is described as new.

On the correct name for the red-winged blackbird of the northeastern United States.

Proc. Biol. Soc. Wash-
ington, 24, Oct. 31,
1911, pp. 226, 227.

Agelaius phoeniceus phoeniceus replaces *A. p. floridanus*, and the form of the northeastern States is recognized as *A. p. predatorius* (Wilson).

MEARNS, EDGAR A. Descriptions of seven new African grass-warblers of the genus *Cisticola*.

Smithsonian Misc.
Colls., 56, No. 25,
Nov. 23, 1911, pp.
1-6.

Cisticola prinioides kilimensis, *C. subruficapilla aequatorialis*, *C. s. borea*, *C. alleni*, *C. strangei kapitensis*, *C. difficilis*, and *C. hypozantha reichenowi* are described as new.

Description of a new species of sunbird, *Helionympha raineyi*, from British East Africa.

Smithsonian Misc.
Colls., 56, No. 28,
Nov. 28, 1911, p. 1.

The species here described is based on material collected in the Sotik district, by the Rainey African expedition.

NELSON, E. W. Description of a new genus and species of hummingbird from Panama.

Smithsonian Misc.
Colls., 56, No. 21,
July 8, 1911, pp. 1,
2.

Goldmania violiceps is described as a new genus and species of Trochilidae.

Two new subspecies of birds from Panama.

Smithsonian Misc.
Colls., 56, No. 22,
Sept. 7, 1911, p. 1.

Myiomanes momotula obscurus and *Pachysylvia ochraceiceps brevipennis* are described as new.

Descriptions of two new species of nun birds from Panama.

Smithsonian Misc.
Colls., 56, No. 37,
Feb. 16, 1912, pp.
1, 2.

Monasa fidelis and *M. similis* are diagnosed as new species.

OBERHOLSER, HARRY C. Description of a new *Melospiza* from California.

Proc. Biol. Soc. Wash-
ington, 24, Dec. 23,
1911, pp. 251, 252.

Melospiza melodia fsherella is a new form of song sparrow.

OBERHOLSER, HARRY C. A revision of the forms of the edible-nest swiftlet, *Collocalia fuciphaga* (Thunberg).

Proc. U. S. Nat. Mus.,
42, No. 1881, Mar.
6, 1912, pp. 11-20.

In the present review ten forms of *Collocalia fuciphaga* are recognized, of which the following are described as new: *C. f. amchana*, *C. f. aerophila*, *C. f. mearnsi*, and *C. f. tachyptera*.

— The status of *Butorides brunescens* (Lembeye).

Proc. Biol. Soc. Washington, 25, Apr. 13,
1912, pp. 53-56.

Butorides brunescens is recognized as a distinct species, and not as a phase of plumage of *B. virescens*. A description and full synonymy are added.

RICHMOND, CHARLES W. Descriptions of five new birds from the west coast of Sumatra.

Proc. Biol. Soc. Washington, 25, June 15,
1912, pp. 103-106.

Muscadivores consobrina babiensis, *Thriponax javensis büttikoferi*, *Dicaeum sumatranum batuense*, *Alcedo meninting proxima*, and *Copsychus saularis pagiensis* are described as new subspecies from islands off the west coast of Sumatra.

RIDGWAY, ROBERT. 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 V. Family Pterotochidæ—The Tapaculos. Family Formicariidæ—The Antbirds. Family Furnariidæ—The Ovenbirds. Family Dendrocolaptidæ—The Woodhewers. Family Trochilidæ—The Humming Birds. Family Micropodidæ—The Swifts. Family Trogonidæ—The Trogons.

RIDGWAY, ROBERT—Continued.

— Washington: Government Printing Office. 1911.

Bull. U. S. Nat. Mus.,
50, pt. v, Nov. 29,
1911, pp. 1-xxlii,
1-859, pls. 1-33.

This volume includes the remainder of the Mesomyodian Passeres, and part of the Coraciiformes, numbering in all 7 families, 121 genera, and 359 species and subspecies. *Chrysotrogon* (type, *Trogon caligatus* Gould), and *Mearnsia* (type, *Chetura picina* Tweeddale) are new genera, and the following subspecies are diagnosed as new: *Campylorhamphus trochilrostris major*, *Popclairia conversii salvini*, and *Chrysotrogon ramonianus goddidi*.

— Descriptions of some new species and subspecies of birds from tropical America.

Proc. Biol. Soc. Washington, 25, May 4,
1912, pp. 87-92.

The following species and subspecies are briefly diagnosed as new: *Capito aurantiiventris*, *C. auratus bolivianus*, *Aulacorhynchus prasinus virescens*, *Pteroglossus torquatus erythrozonus*, *Monasa rikeri*, *M. sclateri*, *Momotus lessonii exiguus*, *Electron carinatus viridis*, *Eumomota superciliiaris bipartitus*, *Antrostomus nelsoni*, *Nyctidromus albicollis nelsoni*, *N. a. sumichrasti*, *Nyctibius griseus costaricensis*, *N. g. panamensis*, and *N. maculosus*.

— Diagnoses of some new genera of American birds.

Proc. Biol. Soc. Washington, 25, May 4,
1912, pp. 97-102.

Ecchaunornis (type, *Bucco radiatus* Sclater), *Systellura* (type, *Stenopsis ruficervix* Sclater), *Antiurus* (type, *Stenopsis maculicaudus* Lawrence), *Setopagis* (type, *Caprimulgus parvulus* Gould), *Nyctipolus* (type, *Caprimulgus nigrescens* Cabanis), *Ptilonycteris* (type, *Caprimulgus ocellatus* Tschudi), *Micrococcyx* (type, *Coccyzus pumilus* Strickland), *Djopsitaca* (type, *Psittacus nobilis* Linnaeus), *Orthopsittaca* (type, *Psittacus manilatus* Boddaert),

RIDGWAY, ROBERT—Continued.

Thectocercus (type, *Psittacus acuticaudatus* Vieillot), *Psittopsiagon* (type, *Trichoglossus aurifrons* Wagler), *Grammopsittaca* (type, *Psittacula lineola* Cassin), *Nannopsittaca* (type, *Brologerys panychlorus* Salvin and Godman), and *Hapalopsittaca* (type, *Psittacus amazoninus* Des Murs) are diagnosed as new genera.

RILEY, J. H. Descriptions of three new birds from Canada.

Proc. Biol. Soc. Washington, 24, Nov. 28, 1911, pp. 233-236.

Lagopus lagopus ungavus, *Melospiza melodia inexpectata*, and *Passerella iliaca altivagans* are described as new.

SHUFELDT, R. W. American ducks and how to distinguish them.

Outer's Book, 23, 1912; No. 3, Mar., pt. 1, pp. 231-234, figs. 1-3; No. 4, Apr., pt. 2, pp. 367-370, figs. 4-6; No. 5, May, pt. 3, pp. 479-483, figs. 7-10; No. 6, June, pt. 4, pp. 581-586, figs. 11-15.

SWARTH, HARRY S. Report on a collection of birds and mammals from Vancouver Island.

Univ. Cal. Pub. Zool., 10, No. 1, Feb. 13, 1912, pp. 1-124, pls. 1-4.

The report on birds (pp. 13-84) includes observations on habits and distribution and critical notes on 111 species met with during the expedition

SWARTH, HARRY S.—Continued.

to the southern portion of Vancouver Island in the spring and summer of 1910.

TODD, W. E. CLYDE. Descriptions of seventeen new neotropical birds.

Annals Carnegie Mus., 8, No. 2, May 20, 1912, pp. 198-214.

Arremonops tocuyensis, *Sporophila haplochroma*, *Saltator ornocensis rufescens*, *Tangara guttata eusticta*, *T. g. trinitatis*, *Schistochlamys atra aterrima*, *Compsothlypis pitiayumi elegans*, *Pheugopedius macrurus annectens*, *Troglodytes solitarius*, *Craspedoprion intermedius*, *Myiobius modestus*, *Myiochanes ardosiacus polioptilus*, *Myiodynastes chrysocephalus cinerascens*, *Machetornis rixosa flavigularis*, *Euchloris aureipectus festiva*, *Piaya rutila panamensis*, and *Penelope colombiana* are described as new, and critical notes are added on allied species.

TODD, W. E. CLYDE, and W. W. WORTHINGTON. A contribution to the ornithology of the Bahama Islands.

Annals Carnegie Mus., 7, Nos. 3-4, Oct., 1911, pp. 388-464, pl. 84.

This paper is based primarily upon collections made in 1908-1909, by Mr. Worthington, but Bahaman material in other museums has been freely consulted by Mr. Todd in the preparation of the important critical notes which extend over pages 407-442.

WORTHINGTON, W. W. (See under W. E. Clyde Todd.)

REPTILES AND BATRACHIANS.

HARTMAN, FRANK A. Description of a little-known rattlesnake, *Crotalus willardi*, from Arizona.

Proc. U. S. Nat. Mus., 39, No. 1800, Feb. 15, 1911, pp. 569, 570, figs. 1-4.

A comparatively rare species described a few years ago by Dr. S. E. Meek, from a single specimen collected at Tombstone, Ariz. Described in detail by F. A. Hartman from a

HARTMAN, FRANK A.—Continued.

second specimen collected in the region of the Santa Rita Mountain, Ariz., in 1907.

RUTHVEN, ALEXANDER G. Description of a new salamander from Iowa.

Proc. U. S. Nat. Mus., 41, No. 1874, Jan. 22, 1912, pp. 517-519.

Ambystoma stejnegeri described as a new species.

STEJNEGER, LEONHARD. Description of a new amphispænid lizard from Peru.

Proc. U. S. Nat. Mus.,
41, No. 1856, July
15, 1911, pp. 283,
284.

Amphisbæna townsendi described as a new species.

STEJNEGER, LEONHARD. Descriptions of three new batrachians from Costa Rica and Panama.

Proc. U. S. Nat. Mus.,
41, No. 1857, Aug.
14, 1911, pp. 285-
288.

Spelerpes picadoi and *Gastrotheca coronata*, from Costa Rica, and *Hyla ceratophrys*, from Panama, described as new species.

FISHES.

BURKE, CHARLES VICTOR. (See under Charles Henry Gilbert.)

GILBERT, CHARLES HENRY, and CHARLES VICTOR BURKE. Fishes from Bering Sea and Kamchatka.

Bull. Bur. Fisheries,
30, No. 754, May 6,
1912, pp. 31-96, figs.
1-37.

This paper records a very interesting collection of fishes made by the U. S. Fisheries steamer "Albatross" in Bering Sea and along a portion of the coast of Kamchatka in 1906. Forty-three species are described as new, 8 of which represent new genera.

JORDAN, DAVID STARR, and WILLIAM FRANCIS THOMPSON. A review of the Sparidæ and related families of perch-like fishes found in the waters of Japan.

Proc. U. S. Nat. Mus.,
41, No. 1875, Jan.
22, 1912, pp. 521-
601, figs. 1-15.

This paper is based on material collected in Japan in 1900 by Profs. Jordan and Snyder and is a review of species belonging to the families Kuhlidiæ, Priacanthidæ, Theraponidæ, Banjosidæ, Hæmulidæ, Sparidæ, Kyphosidæ, and Erythrichthyidæ.

KENDALL, WM. C., and LEWIS RADCLIFFE. Reports on the scientific results of the expedition to the eastern tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross," from October, 1904, to March, 1905, Lieut. Commander L. M. Garrett,

KENDALL, WM. C., and LEWIS RADCLIFFE—Continued.

U. S. Navy, commanding. XXV. The shore fishes.

Memoirs Mus. Comp. Zool., 35, No. 3,
Apr., 1912, pp. 77-
171, pls. 1-8.

This paper is based on collections made by the steamer "Albatross" on an exploration extending along the shores of Mexico, Panama Bay, Galapagos Islands, and the shores of Easter Island, Manga Reva, and from dredge hauls taken along the coast from southern California to Peru and in the open seas en route to the above mentioned island groups. Representatives of 55 families, 227 species, are listed, the following being here described as new forms: *Raja aguja*, *Kuhlia nutabunda*, *Girella nebulosa*, *Eques juscovittatus*, *Gillettus rubellulus* and *Enneapterygius corallicola*.

RADCLIFFE, LEWIS. Notes on some fishes of the genus *Amia*, family of Cheilodipteridæ, with descriptions of four new species from the Philippine Islands. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 12.]

Proc. U. S. Nat. Mus.,
41, No. 1853, July
15, 1911, pp. 245-
261, pls. 20-25, figs.
1-3.

This paper is a revision of the small group of striped forms comprised in the genus *Amia* (family Cheilodipteridæ), *Amia compressa*, *A. angustata*, *A. robusta*, and *A. versicolor* are described as new, and extended

RADCLIFFE, LEWIS—Continued.

notes and descriptions are given of several other forms.

— Descriptions of fifteen new fishes of the family Cheilodipteridæ, from the Philippine Islands and contiguous waters. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No 13.]

Proc. U. S. Nat. Mus.,
41, No. 1868, Jan.
31, 1912, pp. 431-
446, pls. 34-38.

The following fishes are described by Smith and Radcliffe as new species: *Amia diencæa*, *A. parvula*, *A. hyalina*, *A. diversa*, *A. nigrocincta*, *A. unnotata*, *A. striata*, *A. albomarginata*, *A. atrogaster*, *Amioides* new subgenus, *A. (Amioides) grossidens*, *Neamia octospina*, *Cheilodipterus nigrotentaculatus*, *C. zonatus*, *Syngnops serratospinosa*, and *Hymnodus megalops*.

— New pediculate fishes from the Philippine Islands and contiguous waters. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 16.]

Proc. U. S. Nat. Mus.,
42, No. 1896, Apr.
30, 1912, pp. 199-
214, pls. 16-27, figs.
1-3.

Contains descriptions of a new genus and 16 new species of pediculate fishes collected by the "Albatross" during her Philippine cruise of 1907-1910. *Dermatias* Smith and Radcliffe, new genus, and the following new species are described and figured: *Sladenia remiger*, *Lophiodes olivaceus*, *L. infra-brunneus*, *Antennarius rosaceus*, *A. altipinnis*, *A. subteres*, *Dermatis platynogaster*, *Malthopsis ocellata*, *Halicometus reticulatus*, *Halicometus vermicularis*, *Dibranchius stellifer*, *D. simulus*, *Calophrys mollis*, *C. arca*, *C. brevipes*, and *C. oblonga*.

— (See also under Wm. C. Kendall.)

SMITH, HUGH M. Description of a new notidanoid shark from the Philippine Islands representing a

SMITH, HUGH M.—Continued.

new family. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 14.]

Proc. U. S. Nat. Mus.,
41, No. 1872, Feb.
8, 1912, pp. 489-
491, pl. 42, 1 fig.

Description of a remarkable deep-water form from the Mindanao Sea, consisting of the type of a new family, Pentanchidæ. *Pentanchus* Smith and Radcliffe, new genus. Genotype, *P. profundicolus*.

— The squaloid sharks of the Philippine Archipelago, with descriptions of new genera and species. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 15.]

Proc. U. S. Nat. Mus.,
41, No. 1877, Feb.
8, 1912, pp. 677-
685, pls. 50-54, figs.
1-4.

In this paper *Nasissqualus* and *Squaliolus* are described as new genera. *Squalus philippinus*, *Etmopterus brachyurus*, *Nasissqualus profundorum*, and *Squaliolus laticaudus* are described as new species.

— The chimeroid fishes of the Philippine Islands, with description of a new species. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 18.]

Proc. U. S. Nat. Mus.,
42, No. 1899, Apr.
13, 1912, pp. 231,
232, pl. 29.

According to the writer, this paper is the first record of chimeroid fishes from the Philippine Islands. Of *Chimæra phantasma* Jordan and Snyder, 5 specimens are listed and *C. deani* Smith and Radcliffe is described as a new species. An egg capsule of a *Rhinopchimæra* is recorded from the Gulf of Boni, Celebes.

THOMPSON, WILLIAM FRANCIS. (See under David Starr Jordan.)

MOLLUSKS.

BAKER, FRANK COLLINS. The Lymnæidæ of North and Middle America, recent and fossil.

Chicago Acad. Sci., Sp. Pub. No. 3, Feb. 15, 1911, pp. i-xvi, 1-539, pls. 1-58, figs. 1-51.

This is a monographic study of the North American Lymnæidæ, embracing a series of chapters covering the following topics: General morphology of the Lymnæas; ecology of the Lymnæas; distribution in space; distribution in time; historical sketch of previous monographs; a new classification of the Lymnæas; nomenclature; instructions for collecting and preparing Lymnæas; systematic discussion of species.

One species, *Galba ncopulustris*, and 4 subspecies, *Pleurolimnæa tenuicosta whiteavesi*, *G. bulimoides cassi*, *G. palustris alpenensis*, and *G. catascopium adamsi*, are described as new.

BALCH, FRANCIS N. On a new Labradorean species of Onchidiopsis, a genus of mollusks new to eastern North America, with remarks on its relationships.

Proc. U. S. Nat. Mus., 38, No. 1761, Oct. 6, 1910, pp. 469-484, pls. 21, 22.

In this paper *Onchidiopsis corys* is described as new. This record also lists for the first time a representative of this genus for the east coast of America.

BARTSCH, PAUL. Die Diesjährige Expedition des Vereinigten Staaten Fischerei Dampfers "Albatross" nach dem Golf von Californien.

The Technologist, 16, No. 6, June, 1911, pp. 106, 107.

An abstract of a lecture on the above topic.

——— Abstract of papers on mollusks published by Dr. Wm. H. Dall and Paul Bartsch.

Journ. Washington Acad. Sci., 1, No. 3, Aug. 19, 1911, pp. 95, 96.

BARTSCH, PAUL. The west American mollusks of the genus *Nodulus*.

Proc. U. S. Nat. Mus., 41, No. 1858, Aug. 22, 1911, pp. 289-291, figs. 1-4.

A monograph of the west American members of the group in which *N. kelseyi* and *kysken-sis* are described as new.

——— Abstract of papers on mollusks by Paul Bartsch.

Journ. Washington Acad. Sci., 1, No. 4, Sept. 19, 1911, pp. 135, 136.

——— Abstract of papers on mollusks by Paul Bartsch.

Journ. Washington Acad. Sci., 1, No. 5, Oct. 4, 1911, p. 163.

——— New marine mollusks from Bermuda.

Proc. U. S. Nat. Mus., 41, No. 1861, Oct. 12, 1911, pp. 303-306, pl. 28.

In this paper the following species are described as new: *Cerithiopsis hero*, *cynthia*, and *iontha*; also *Triphoris bermudensis*.

——— Die Meeresströmungen und ihr Einfluss auf die Verbreitung der Marinen Lebenswelt.

The Technologist, 16, No. 11, Nov., 1911, pp. 165, 166.

An abstract of a lecture upon the above topic.

——— The recent and fossil mollusks of the genus *Alvania* from the west coast of America.

Proc. U. S. Nat. Mus., 41, No. 1863, Nov. 15, 1911, pp. 333-362, pls. 29-32.

A monograph of the west American members of this genus, the following species being described as new: *A. trachisma*, *californica*, *pedroana*, *montercyensis*, *profundicola*, *hoodensis*, *galapagensis*, *nemo*, *rosana*, *fossilis*, *illuliukensis*, *cosmia*, *halia*, *ima*, *lura*, *clarionensis*, *almo*, and *oldroydæ*.

BARTSCH, PAUL. The west American mollusks of the genus *Cingula*.

Proc. U. S. Nat. Mus.,
41, No. 1871, Feb. 8,
1912, pp. 485-488,
pl. 41.

A monograph of the west American members of this genus, in which the following species are described as new: *C. alaskana*, *katherinæ*, and *montereyensis*.

— Additions to the west American pyramidellid mollusk fauna, with descriptions of new species.

Proc. U. S. Nat. Mus.,
42, No. 1903, May
17, 1912, pp. 261-
289, pls. 35-38.

This paper brings our knowledge of this fauna up to date, giving all the additions made since the publication of Bull. 68, U. S. National Museum (A monograph of west American pyramidellid mollusks, Dec. 13, 1909), and correcting all errors which have been discovered in that work. The following species are described and figured as new: *Turbonilla clarinda*, *dinora*, *encella*, *dracona*, *bakeri*, *cookeana*, *gloriosa*, *grippi*, *callimene*, and *scammonensis*; *Odosotomia excelsa*, *heterocincta*, *dicella*, *thalia*, *gloriosa*, *excisa*, *thea*, *calliope*, *calcearella*, *callimene*, *baldrigea*, *skidegatensis*, *palmeri*, *cassandra*, *helena*, *subglobosa*, *grippiana*, *eldorana*, *babylonia*, and *kclseyi*.

— A zoogeographic study based on the pyramidellid mollusks of the west coast of America.

Proc. U. S. Nat. Mus.,
42, No. 1906, June
15, 1912, pp. 297-
349, pl. 40.

This paper deals with the geographic distribution of this group on the west coast of America and points out the close relationship which exists between the ocean currents and the faunal area. The following divisions are recognized: Arctic Province with the Arctic s. s. and Aleutic faunal areas or subdivisions. North Temperate embracing the Oregonian and Californic faunal areas.

BARTSCH, PAUL—Continued.

Tropic, embracing the Mazatlanic, Panamic, and Galapaganic faunal areas. South Temperate and Antarctic, including the Magellanic and Antarctic.

BERRY, S. STILLMAN. Preliminary notices of some new Pacific cephalopods.

Proc. U. S. Nat. Mus.,
40, No. 1838, May
31, 1911, pp. 589-
592.

A preliminary report on the cephalopod mollusks of the west coast of America, in which *Cirroteuthis macrope*, *Eledonella heathi*, *Polypus californicus*, *P. leioderma*, *Rossia pacifica*, *Loligo opalescens*, and *Galiteuthis phyllura* are described as new.

DALL, WILLIAM HEALEY. A new *Leptothyra* from California.

Nautilus, 25, No. 3,
July, 1911, pp. 25,
26.

Describes *Leptothyra grippi* as new, from San Diego, California. The type is in the U. S. National Museum.

— Resultats du voyage du S. Y. Belgica en 1897, 1898, 1899, sous le commandement de A. de Gerlache de Gomery.

Science (n. s.), 34, No.
866, Aug. 4, 1911,
pp. 156, 157.

Review of publications on the oceanography and natural history of the voyage of the "Belgica" in Antarctic seas.

— A monograph of the Naiades of Pennsylvania. By A. E. Ortmann.

Science (n. s.), 34, No.
868, Aug. 18, 1911,
pp. 214, 215.

Review of Doctor Ortmann's memoir.

— Prof. Josiah Keep.

Science (n. s.), 34,
No. 873, Sept. 22,
1911, p. 371.

Biographical notice of a correspondent of and contributor to the U. S. National Museum.

DALL, WILLIAM HEALEY. Prof. Josiah Keep.

Nautilus, 25, No. 6, Oct., 1911, pp. 61, 62.

— The nomenclature of the Veneridæ.

Proc. Malacol. Soc. London, 9, pt. 6, Sept., 1911, pp. 349-351.

Reply to criticisms on the nomenclature of the group adopted in the Proceedings of the U. S. National Museum, No. 1312.

— [On the jaw of *Sphyradium*.]

Proc. U. S. Nat. Mus., 41, Oct. 14, 1911, p. 372, footnote.

Confirming the observations of Dr. V. Sterki on the character of the jaw, from observations made in the National Museum. (Printed as a footnote to a paper by G. Dallas Hanna on "The American species of *Sphyradium* with an inquiry as to their generic relationships.")

— Mollusca, shells and shellfish.

Boy Scouts of America. Official Handbook, 1911, pp. 83-86.

Notes on mollusca and where they may be found, to encourage the study of these animals by the boys.

— A new genus of bivalves from Bermuda.

Nautilus, 25, No. 8, Dec., 1911, pp. 85, 86.

The new genus *Argyrodonax*, and species *A. haycocki* are described from specimens sent to the U. S. National Museum by Mr. Haycock. The genus is founded on a small bivalve shell believed to belong to the family Mesodesmatidæ.

— A new brachiopod from Bermuda.

Nautilus, 25, No. 8, Dec., 1911, pp. 86, 87.

Argyrotheca bermudana is described as new. The types are in the U. S. National Museum.

DALL, WILLIAM HEALEY. A new California Eupleura.

Nautilus, 25, No. 8, Dec., 1911, p. 87.

Eupleura grippi is described as new, from the type presented to the U. S. National Museum by Mr. C. W. Gripp.

— The British nudibranchiate mollusca. By Alder and Hancock; supplement by Sir Charles Eliot.

Science (n. s.), 34, No. 885, Dec. 15, 1911, p. 849.

Review of Sir Charles Eliot's memoir.

— New Californian mollusca.

Nautilus, 25, No. 11, Mar., 1912, pp. 127-129.

Aesopus goforthi, from Monterey; the new genus *Grippina*, with the new species *G. californica*, and *Rochefortia grippi*, the latter two from San Diego, are described as new. The types are in the U. S. National Museum.

— Note on the genus *Panope*, Ménard.

Proc. Malacol. Soc. London, 10, pt. 1, Mar., 1912, pp. 34, 35.

Discussion of the nomenclature of the genus showing that the original form of the name which must be adopted is *Panope* and not *Panopca*, as generally written.

— New species of fossil shells from Panama and Costa Rica collected by D. F. MacDonald.

Smithsonian Misc. Colls., 59, No. 2, Mar. 2, 1912, pp. 1-10.

The following species are described as new from the Pleistocene deposits of the Canal Zone, Panama: *Yoldia perprotracta*, *Arca* (*Scapharca*) *limonica*, *Pitaria subarcata*, *Corbula macdonaldi*, *Sphenia wallacci*, *Haminea canalisi*, *Marinula colonia*, *Olivella myrmecoön*, *Cerithium* (*Potamides*?) *miliun*, *Bittium panamense*, *Ticinostoma* (*Pseudorotella*) *goethalsi*, and *Cadulus vaughani*. From the Pliocene of Toro Point, *Epitonium* (*Sthenorhytis*) *toroense*, and a possible variety *insign*. From

DALL, WILLIAM HEALEY—Continued.

the tertiary of Costa Rica, *Marginella macdonaldi*, *Voluta alfaroi*, *Turbo pittieri*, *Arca* (*Noëtia*) *macdonaldi*, *A.* (*Scapharca*) *pittieri* and *Pecten* (*Lyropecten*) *pittieri*. The types are in the U. S. National Museum.

— Report on land shells collected in Peru in 1911 by the Yale expedition under Prof. Hiram Bingham, with descriptions of a new subgenus, a new species, and new varieties.

Smithsonian Misc. Colls., 59, No. 14, June 8, 1912, pp. 1-12, figs. 1, 2.

The new subgenus of *Bulimulus*, *Phenacotaxus*, is described with *Ataxus umbilicatellus* Pilsbry as type, and the new sectional name *Ataxellus* is proposed for the species *Bulimulus spiculatus* Morelet, variety *pectinatus* Dall. The name *Bulimulus tyleri* is proposed for *B. simplex* Hupé, 1857, not of Jonas, 1842. *Happia footei* is

DALL, WILLIAM HEALEY—Continued.

described as new. The following new varieties are discriminated: *Drymaeus pacilus* (Orb.) var. *percandidus* and var. *santanensis*, and 10 color mutations of the same species; *Drymaeus beyerleanus* (Hupé) var. *mitchelli*, and *Phenacotaxus spiculatus* (Morelet) var. *pectinatus*. All these are from Urubamba Valley, Peru, mostly collected by Prof. H. W. Foote, and the types are in the U. S. National Museum.

HANNA, G. DALLAS. The American species of *Sphyradium* with an inquiry as to their generic relations.

Proc. U. S. Nat. Mus., 41, No. 1865, Oct. 14, 1911, pp. 371-376, figs. 1-4.

The specimens upon which this paper was based were donated to the National Museum by the author. *Sphyradium hasta* from Phillips Co., Kansas, is described as new, and data given on the anatomy of other species.

INSECTS.

BUSCK, AUGUST. A new Microlepidopteron of the genus *Epicallima* Dyar from Pennsylvania.

Proc. Ent. Soc. Washington, 14, No. 1, Mar. 13, 1912, p. 44.

— On the rearing of a *Dermatobia hominis* Linnæus.

Proc. Ent. Soc. Washington, 14, No. 1, Mar. 13, 1912, pp. 9-11.

This paper records observations on a reared specimen in the U. S. National Museum.

— Microlepidoptera from Laguna Beach, southern California.

First Ann. Rep. Laguna Marine Lab., 1912, pp. 167-169.

In this paper 3 new species are described.

— Descriptions of new genera and species of Microlepidoptera from Panama.

Smithsonian Misc. Colls., 59, No. 4, Mar. 9, 1912, pp. 1-10, 1 pl.

BUSCK, AUGUST—Continued.

In this paper 5 new genera and 8 new species are described from the material of the Smithsonian Panama exploration. The types are in the U. S. National Museum.

— A new Microlepidoptera of the genus *Epicallima* Dyar from Pennsylvania.

Ent. News, 23, No. 4, Apr., 1912, p. 170.

— New Microlepidoptera from Mexico.

Proc. Ent. Soc. Washington, 14, No. 2, Apr.-June, 1912, pp. 83-87.

This paper describes 1 new genus and 6 new species.

CAUPELL, A. N. A new proscopioid grasshopper from Peru.

Psyche, 19, No. 1, Feb., 1912, pp. 12, 13.

In this paper 1 new species is described.

COCKERELL, T. D. A. Names applied to bees of the genus *Osmia*, found in North America.

COCKERELL, T. D. A.—Continued.

Proc. U. S. Nat. Mus.,
42, No. 1897, Apr.
13, 1912, pp. 215-
225.

This paper contains notes on U. S. National Museum material with a list of the types and of the species of the genus in the Museum collection.

CRAWFORD, J. C. Two new Hymenoptera.

*Proc. Ent. Soc. Wash-
ington*, 13, No. 4,
Dec 29, 1911, pp.
233, 234, figs. 2, 3.

This paper describes 1 new genus and 2 new species, the types of which are in the U. S. National Museum.

— Descriptions of new Hymenoptera, No. 4.

Proc. U. S. Nat. Mus.,
42, No. 1880, Mar.
6, 1912, pp. 1-10,
figs. 1, 2.

In this paper 12 new species, the types of which are in the U. S. National Museum, are described.

DYAR, HARRISON G. Descriptions of the larvæ of some Mexican Lepidoptera.

*Proc. Ent. Soc. Wash-
ington*, 13, No. 4,
Dec. 29, 1911, pp.
227-232.

In this paper the larvæ of a number of species are described from specimens in the U. S. National Museum.

— Descriptions of new species and genera of Lepidoptera, chiefly from Mexico.

Proc. U. S. Nat. Mus.,
42, No. 1885, Mar.
6, 1912, pp. 39-106.

From U. S. National Museum material this paper describes 11 new genera, 189 new species, 3 new subspecies, and 2 new dimorphic forms.

— Descriptions of the larvæ of some Lepidoptera from Mexico.

*Proc. Ent. Soc. Wash-
ington*, 14, No. 1,
Mar. 13, 1912, pp.
54-58.

In this paper the larvæ of a number of species are described from specimens in the U. S. National Museum.

DYAR, HARRISON G. Some Lepidoptera from Mexico.

*Pomona College Journ.
Ent.*, 4, No. 2, May,
1912, pp. 746-748.

In this paper 4 new species, the types of which are in the U. S. National Museum, are described.

— Note on *Deva ornata* Ottolengui.

*Proc. Ent. Soc. Wash-
ington*, 14, No. 2,
June 19, 1912, p. 61.

Note on the type specimen.

— Note on a *Stericta* from tropical America.

*Proc. Ent. Soc. Wash-
ington*, 14, No. 2,
June 19, 1912, p. 66.

From material in the U. S. National Museum a redescription of this species is made.

— A note on *Coloradia*.

*Proc. Ent. Soc. Wash-
ington*, 14, No. 2,
June 19, 1912, p.
105.

In this paper 1 new species is described.

— Three species of Noctuidæ new to our lists.

*Proc. Ent. Soc. Wash-
ington*, 14, No. 2,
June 19, 1912, p.
105.

— Lepidoptera collected at Laguna Beach, California.

*First Ann. Rep. La-
guna Marine Lab.*,
1912, pp. 163-166.

Three new species, the types of which are in the U. S. National Museum, are described in this paper.

FERNALD, HENRY T. Descriptions of certain species of wasps of the family Sphecidæ.

Proc. U. S. Nat. Mus.,
42, No. 1902, Apr.
25, 1912, pp. 257-
259.

This paper contains notes on various specimens in the U. S. National Museum collection.

FISKE, W. F. (See under L. O. Howard.)

GIRAULT, A. A. Notes on the Hymenoptera Chalcidoidea, with descriptions of several new genera and species.

Journ. N. Y. Ent. Soc.,
19, No. 3, Sept.,
1911, pp. 175-189.

In this paper, which is based only partly on U. S. National Museum material, there are described 2 new genera and 2 new species, the types of which are in the U. S. National Museum.

— Descriptions of North American Mymaridæ, with synonymic and other notes on described genera and species.

Trans. Amer. Ent. Soc.,
37, No. 3, Oct. 18,
1911, pp. 253-324.

This paper is based only partly on U. S. National Museum material and types. Copies or paratypes of 17 species and 1 variety are in the U. S. National Museum.

— Synonymic and descriptive notes on the Hymenoptera Chalcidoidea with descriptions of several new genera and species.

Arch. Naturg., 77th
year, 1, 2nd suppl.,
1911, pp. 119-140.

This paper is based only partly on U. S. National Museum material but the types of 4 new genera and 5 new species are in the U. S. National Museum.

HEIDEMANN, O. Some remarks on the eggs of North American species of Hemiptera-Heteroptera.

*Proc. Ent. Soc. Wash-
ington*, 13, No. 3,
Sept. 30, 1911, pp.
128-140, pls. 9-12,
figs. 1-3.

In this paper are figured eggs of various species from specimens in the U. S. National Museum.

— A new species of North American Tingitidæ.

*Proc. Ent. Soc. Wash-
ington*, 13, No. 3,
Sept. 30, 1911, pp.
180, 181, fig. 4.

HOOD, J. DOUGLAS. New genera and species of North American Thysanoptera from the south and west.

*Proc. Biol. Soc. Wash-
ington*, 25, Apr. 13,
1912, pp. 61-76, pl.
4, figs. 1-6.

This paper is based on material in the private collection of the author, who has given to the U. S. National Museum paratypes of 2 of the new species on which new genera are based.

HOWARD, L. O., and W. F. FISKE. The importation into the United States of the parasites of the gipsy moth and the brown-tail moth: A report of progress, with some consideration of previous and concurrent efforts of this kind.

*U. S. Dept. Agric., Bur.
Ent.*, Bull. 91, July
29, 1911, pp. 1-312,
pls. 1-28, figs. 1-74.

In this bulletin references are made to many parasites, specimens of which have been deposited in the U. S. National Museum.

KNAB, FREDERICK. New Species of Anisopidæ (Rhyphidæ) from tropical America.

*Proc. Ent. Soc. Wash-
ington*, 14, No. 2,
June 19, 1912, pp.
108-110, pl. 3.

This paper contains notes on various specimens in the U. S. National Museum collections.

— Blood-sucking and supposedly blood-sucking Leptidæ.

*Proc. Biol. Soc. Wash-
ington*, 25, June 29,
1912, pp. 111-114.

In this paper 2 new species from the U. S. National Museum collection are described.

MILLER, HARRY McCLURE. (See under Charles Wardell Stiles.)

PIERCE, W. DWIGHT. Systematic notes and descriptions of some weevils of economic or biological importance.

Proc. U. S. Nat. Mus.,
42, No. 1889, Mar.
19, 1912, pp. 155-
170.

In this paper 2 new genera, 3 new subgenera, and 9 new

PIERCE, W. DWIGHT—Continued.

species are described from material in the U. S. National Museum.

ROHWER, S. A. Some new hymenopterous insects from the Philippine Islands.

Proc. U. S. Nat. Mus.,
37, No. 1722, Aug.
4, 1910, pp. 657-660.

This paper contains descriptions of 1 new genus and 5 new species, with notes on some previously described species.

— New sawflies in the collections of the United States National Museum.

Proc. U. S. Nat. Mus.,
41, No. 1866, Oct.
14, 1911, pp. 377-
411, figs. 1-14.

This paper describes 4 new genera, 3 new subgenera, 46 new species, 4 new subspecies, and 5 new varieties.

— A classification of the suborder Chalcidostogastra of the Hymenoptera.

Proc. Ent. Soc. Wash-
ington, 13, No. 4,
Dec. 29, 1911, pp.
215-226.

This classification was based mainly on the studies of the group made by the author from the U. S. National Museum collections.

— Descriptions of new species of wasps in the collections of the United States National Museum.

Proc. U. S. Nat. Mus.,
41, No. 1869, Jan.
22, 1912, pp. 447-
478, figs. 1-24.

This paper describes 3 new genera, 36 new species, 6 new subspecies, and 1 new variety.

— A new sawfly from Brazil.

Psyche, 19, No. 2, Apr.,
1912, pp. 62, 63.

This paper describes 1 new genus and 1 new species.

— Sawflies from Panama, with descriptions of new genera and species.

Smithsonian Misc.
Colls., 59, No. 12,
May 18, 1912, pp.
1-6.

ROHWER, S. A.—Continued.

This paper describes 2 new genera and 6 new species from the material from the Smithsonian Panama Exploration.

STILES, CHARLES WARDELL, and HARRY McCLURE MILLER. The ability of fly larvae to crawl through sand.

Pub. Health Rep., U. S.
P. H. and M. H. S.,
26, No. 34, Aug. 25,
1911, p. 1277.

STRICKLAND, E. H. The Pezomachini of North America.

Annals Ent. Soc.
Amer., 5, No. 2,
June, 1912, pp. 113-
140, figs. 1-5.

The types of 14 of the species described in this paper are in the U. S. National Museum.

VIERECK, H. L. The root borer and its parasite. [In article by H. W. Davey.]

Journ. Agric. Victoria,
9, pt. 7, July, 1911,
pp. 454, 455.

In this paper, which was written by Mr. H. W. Davey, Mr. Viereck described 1 new species, the type of which is in the U. S. National Museum.

— Descriptions of one new genus and three new species of ichneumonflies.

Proc. U. S. Nat. Mus.,
41, No. 1859, Aug.
28, 1911, pp. 293-
295.

— New genus and species of Hymenoptera of the family Braconidae from Panama.

Smithsonian Misc.
Colls., 59, No. 5,
Mar. 9, 1912, pp.
1, 2.

This paper describes 1 new genus and 1 new species from material from the Smithsonian Panama exploration.

— Descriptions of five new genera and twenty-six new species of ichneumonflies.

Proc. U. S. Nat. Mus.,
42, No. 1888, Mar.
19, 1912, pp. 139-
153.

CRUSTACEANS.

CAELMAN, WILLIAM T. The crustacea of the order Cumacea in the collection of the United States National Museum.

Proc. U. S. Nat. Mus.,
41, No. 1876, Apr.
6, 1912, pp. 603-676,
figs. 1-112.

In the material examined 49 species are recognized including 17 new to science, while a new genus, *Oxyurostylis*, is established. The descriptions of species are prefaced by remarks on geographical distribution and classification.

DOOLITTLE, ALFRED A. Descriptions of recently discovered Cladocera from New England.

Proc. U. S. Nat. Mus.,
41, No. 1848, July
15, 1911, pp. 161-
170, pls. 13-19.

Based on material obtained while exploring New England lakes for the U. S. Bureau of Fisheries.

The paper gives detailed descriptions of 2 species and a genus which had previously been described as new in the Proceedings of the Biological Society of Washington, Vol. 22.

MARSH, C. DWIGHT. Notes on freshwater copepoda in the United States National Museum.

Proc. U. S. Nat. Mus.,
42, No. 1901, Apr.
25, 1912, pp. 245-
255, figs. 1-14.

Most of the material examined was collected by members of the U. S. Fish Commission. The following States are represented: Massachusetts, New York, Florida, Mississippi, Louisiana, Texas, Michigan, Idaho, Washington, Oregon, and California. A list is given of the copepods found in each locality with notes on 4 species and a detailed description with figures of *Cyclops strenuus*, not before found in America.

PILSBRY, HENRY A. Diagnoses of new barnacles from the Philippine Archipelago and China Sea. [Scientific results of the Philippine cruise

PILSBRY, HENRY A.—Continued.
of the Fisheries steamer "Albatross,"
1907-1910.—No. 19.]

Proc. U. S. Nat. Mus.,
42, No. 1904, May 29,
1912, pp. 291-294.

Describes 9 new species belonging to the genera *Alepas*, *Smilium*, *Verruca*, *Pachylasma*, and *Acasta*.

RATHBUN, MARY J. The Percy Sladen Trust Expedition to the Indian Ocean in 1905. Under the leadership of Mr. J. Stanley Gardiner. Vol. III. No. XI. *Matine Brachyura*.

Trans. Linn. Soc. London, 2nd ser., Zoology, 14, pt. 2, July, 1911, pp. 191-261, pls. 15-20, figs. 1, 2.

Two hundred and forty-five species and subspecies are enumerated: 3 genera, 33 species and 3 subspecies are described as new. The occurrence is noted at the Seychelles or Chagos of 4 species previously known only from the Red Sea or Persian Gulf. The genus *Callinectes* is recorded for the first time in the Indian Ocean.

—New decapod crustaceans from Panama.

Smithsonian Misc. Colls., 59, No. 13, May 20, 1912, pp. 1-3.

Describes *Macrobrachium acanthurus panamense*, *Pseudathelphusa masimbari* and *Lepidodius taboganus* all belonging to the collection made in 1911 by Dr. S. E. Meek and Mr. S. F. Hildebrand under the auspices of the Smithsonian Biological Survey of the Panama Canal Zone.

RICHARDSON, CHARLES HOWARD, jr. (See under Frank Walter Weymouth.)

RICHARDSON, HARRIET. Isopodes du Sandwich du Sud.

Anal. Mus. Nac. d'Hist. Nat., Buenos Aires, 14, ser. 3a, Aug. 25, 1911, pp. 395-401, figs. 1, 2.

RICHARDSON, HARRIET—Continued.

Five species are recorded, of which 2 belonging to the genus *Serolis*, *S. polaris* and *S. laevis*, are described as new.

— Les crustacés Isopodes du Travailleur et du Talisman; formes nouvelles.

Bull. Mus. d'Hist. Nat., Paris, 1911, No. 7, pp. 1-17.

Fifteen new species and 3 new genera, *Pseudanthura*, *Urias*, and *Dactylostylis*, are described. Cotypes when present were given to the U. S. National Museum.

— Description of a new species of isopod of the genus *Cleantis* from Japan.

Proc. U. S. Nat. Mus., 42, No. 1883, Mar. 6, 1912, pp. 27-29, fig. 1.

The species described, *Cleantis japonica*, is part of the collection received from the Imperial University of Tokyo through Dr. Edward S. Morse.

— Description of a new species of the isopod genus *Cassidinidea* from Mexico.

Proc. U. S. Nat. Mus., 42, No. 1886, Mar. 6, 1912, pp. 107, 108, figs. 1-3.

The new species, *Cassidinidea tuberculata*, was found in salt-water oysters at Maron Lagoon, Madre, Mexico, by Dr. Edward Palmer.

— Description of a new isopod crustacean belonging to the genus *Livoneca* from the Atlantic coast of Panama.

Proc. U. S. Nat. Mus., 42, No. 1891, Mar. 19, 1912, pp. 173, 174, fig. 1.

The species described, *Livoneca longistylis*, forms part of the collection obtained by Dr. S. E. Meek and Mr. S. F. Hildebrand, in connection with the Smithsonian Biological Survey of the Panama Canal Zone in 1911.

RICHARDSON, HARRIET. *Munnopsurus arcticus* (n. g.; n. sp.) Description d'un nouveau genre d'isopode appartenant à la famille des Munnopsidae, de la Nouvelle Zemble.

Bull. de l'Institut Océanographique, No. 227, Mar. 30, 1912, pp. 1-7, figs. 1-13.

Based on specimens in the Museum of Natural History, Paris, obtained at Nova Zembla by M. Ivanoff. One of the cotypes is in the U. S. National Museum.

— Marine and terrestrial isopods from Jamaica.

Proc. U. S. Nat. Mus., 42, No. 1894, Apr. 5, 1912, pp. 187-194, figs. 1-3.

The marine isopods were obtained by Drs. C. B. Wilson and E. A. Andrews in Montego Bay and vicinity. They include a new species of *Exospharoma*. The terrestrial isopods were collected at Mandeville by Dr. Thomas Barbour and include a new species of *Cubaris*.

— Terrestrial isopods of Colombia. [In "Voyage d'Exploration Scientifique en Colombie," by Dr. O. Fuhrmann and Dr. Eug. Mayor.]

Mémoires Soc. neu-châteloise, Sci. nat., 5, 1912, pp. 29-32.

Eight species are enumerated; one of them, *Spharonicus frontalis*, is described as new.

WEYMOUTH, FRANK WALTER, and CHARLES HOWARD RICHARDSON, JR. Observations on the habits of the crustacean *Emerita analoga*.

Smithsonian Misc. Colls., 59, No. 7, May 10, 1912, pp. 1-13, pl. 1, fig. 1.

Records certain phases in the life history of *Emerita* based on observations made at Pacific Grove, California. They relate particularly to burrowing, feeding, and respiration.

WILSON, CHARLES BRANCH. Descriptions of new species of parasitic copepods in the collections of the United States National Museum.

Proc. U. S. Nat. Mus.,
42, No. 1900, Apr.
30, 1912, pp. 233-
243, pls. 30-34.

Two of the species are founded on type specimens in

WILSON, CHARLES BRANCH—Contd.

the American Museum of Natural History, cotypes having been given to the U. S. National Museum. One new species and 2 old ones are part of the Javan collection of Dr. Owen Bryant and Mr. William Palmer. The occurrence of *Achtheinus dentatus* on the coast of California is recorded.

WORMS.

BEAUCHAMP, P. DE. Instructions for collecting and fixing rotifers in bulk.

Proc. U. S. Nat. Mus.,
42, No. 1893, Mar.
19, 1912, pp. 181-
185.

Translated and adapted by Mr. H. K. Harring from an article in the "Archives de Zoologie Experimentale et Generale," ser. 4, vol. 4, 1906.

The hope is expressed that material preserved in accordance with the instructions be sent to the U. S. National Museum.

HALL, MAURICE C. Our present knowledge of the distribution and importance of some parasitic diseases of sheep and cattle in the United States.

U. S. Dept. Agric., 27th Ann. Rep. Bur. Animal Industry, 1910 (1912), pp. 419-463, pls. 35, 36, figs. 45-62.

——— The parasite fauna of Colorado.

Colorado College Pub., gen. ser. 59, 60, sci. ser. 12, No. 10, Jan.-Mar., 1912, pp. 329-384, 1 map.

——— (See also under Brayton Howard Ransom.)

MILLER, HARRY MCCLURE. (See under Charles Wardell Stiles.)

MOORE, J. PERCY. The polychæteous annelids dredged by the U. S. S. "Albatross" off the coast of southern California in 1904: III. Euphrosynidæ to Goniadidæ.

MOORE, J. PERCY—Continued.

Proc. Acad. Nat. Sci. Phila., 63, Apr., 1911, pp. 234-318, pls. 15-21.

This paper is a continuation of two published in 1909 and 1910. In it 42 species and 3 subspecies are described, 20 species and 3 subspecies being new.

Pages 234-312 were published on June 15, 1911; and pages 313-318 on June 22, 1911.

RANSOM, BRAYTON HOWARD. Two new species of parasitic nematodes.

Proc. U. S. Nat. Mus.,
41, No. 1864, Oct.
31, 1911, pp. 363-
369, figs. 1-6.

——— The life history of a parasitic nematode—*Habronema musce*.

Science (n. s.), 34,
No. 881, Nov. 17,
1911, pp. 690-692.

——— and MAURICE C. HALL. A new nematode, *Ostertagia bullosa*, parasitic in the alimentary tract of sheep.

Proc. U. S. Nat. Mus.,
42, No. 1892, Feb.
28, 1912, pp. 175-
179, figs. 1-4.

STILES, CHARLES WARDELL, and HARRY MCCLURE MILLER. Observations on the viability of the eggs of hookworms (*Necator americanus*) and of cestworms (*Ascaris lumbricoides*) in feces allowed to decompose in water.

Pub. Health Rep., U. S. P. H. and M. H. S.,
26, No. 41, Oct. 13,
1911, pp. 1565-1567.

ECHINODERMS.

CLARK, AUSTIN H. Notes sur les crinoides actuels du Muséum d'histoire naturelle de Paris.

Bull. Mus. d'Hist. Nat. Paris, 1911, No. 4, pp. 243-260, figs. 1, 2.

This paper includes a redescription of all the types of the species in the Paris Museum originally diagnosed by Lamarck and by Johannes Müller, as well as an account of the unidentified material in the museum. A set of duplicates is in the U. S. National Museum.

——— Crinoidea.

Die Fauna Südwest-Australiens. Ergebnisse der Hamburger südwest-australischen Forschungsreise 1905, 3, No. 13, 1911, pp. 435-467, 2 tables.

This is a detailed account of the crinoid fauna of west Australia, based upon the collections made by Drs. Michaelsen and Hartmeyer in 1905. A set of duplicates is in the U. S. National Museum.

——— The recent crinoids of Australia. Scientific results of the trawling expedition of H. M. C. S. "Thetis" off the coast of New South Wales, in February and March, 1898. Part 15.

Memoirs Australian Mus., 4, Aug. 17, 1911, pp. 705-804.

The crinoids of the coast of Australia are here discussed in great detail. A history of the study of Australian crinoids is given, and a complete bibliography is appended. The paper is based upon the collection of the Australian Museum at Sydney, N. S. W. A set of duplicates is in the U. S. National Museum.

——— Seventeen new East Indian crinoids belonging to the families Comasteridae and Zygometridæ.

Proc. Biol. Soc. Washington, 25, Mar. 19, 1912, pp. 17-28.

The seventeen new crinoids herein described form part of the collection made by the Dutch steamship "Siboga." A

CLARK, AUSTIN H.—Continued.

set of duplicates will come to the U. S. National Museum.

——— Naumachocrinus, a new genus belonging to the crinoid family Phrynocrinidæ.

Proc. U. S. Nat. Mus., 42, No. 1895, Mar. 19, 1912, pp. 195-197.

The new form herein described was dredged by the "Albatross" in the Hawaiian Islands; it is related to the Japanese genus *Phrynocrinus*.

——— Six new East Indian crinoids belonging to the family Charitometridæ.

Proc. Biol. Soc. Washington, 25, Apr. 13, 1912, pp. 77-84.

The new species here described form part of the collections of the Dutch steamship "Siboga." A set of the duplicates will come to the U. S. National Museum.

——— Description of eleven new crinoids belonging to the families Calometridæ and Thalassometridæ discovered by the "Siboga" in the Dutch East Indies.

Zool. Anzeiger, 39, Nos. 11-12, Apr. 23, 1912, pp. 420-428.

In this paper are included descriptions of the new species of *Calometridæ* and *Thalassometridæ* found in the collection of the "Siboga." A set of the duplicates will come to the U. S. National Museum.

FISHER, WALTER K. The genus *Blaklaster* Perrier.

Bull. Mus. Comp. Zool., 54, No. 4, Mar., 1911, pp. 161-164, pls. 1, 2.

Figures in detail and gives notes on one of the type specimens of *Blaklaster conicus* Perrier collected by the U. S. Coast Survey steamer "Blake" off Havana in 175 fathoms. The specimen is in the Museum of Comparative Zoölogy.

HARTLAUB, CLEMENS. Reports on the results of dredging. Under the supervision of Alexander Agassiz, in the Gulf of Mexico (1877-78), in the

HARTLAUB, CLEMENS—Continued.

Caribbean Sea (1878-79), and along the Atlantic coast of the United States (1880), by the U. S. Coast Survey steamer "Blake," Lieut. Commander C. D. Sigsbee, U. S. N., and Commander J. R. Bartlett, U. S. N., commanding. XLV. Die Comatuliden.

Memoirs Mus. Comp. Zoöl., 27, No. 4, Apr., 1912, pp. 277-491, pls. 1-18, figs. 1-16.

In this memoir Dr. Hartlaub presents the results of his studies upon the unstalked crinoids collected by the U. S. North Pacific exploring expedition, and by the U. S. Coast Survey steamers "Corwin," "Hassler," "Bibb," and "Blake." In addition there are recorded some specimens from other sources which are in the collection of the Museum of Comparative Zoölogy at Cambridge, Mass. In all 29 species are considered, of which 20 (3 new) are assigned to the genus *Antedon*, 7 (2 new) to the genus *Actinometra*, 1 to *Atelecrinus*, and 1 to *Promachocrinus*. In addition one of the species of *Antedon* is divided into 13 varieties, all with new names, and one of the species of *Actinometra* into 21 varieties, also all with new names.

MORTENSEN, THEODOR. On some West Indian echinoids.

Bull. U. S. Nat. Mus., 74, Oct. 3, 1910, pp. i-v, 1-31, pls. 1-17.

Gives detailed descriptions of 7 species of *Cidarida*, *Diademata*, and *Echinothurida* based on specimens in the U. S. National Museum. Describes 1 new species and 1 new variety. Gives a revised list of North American and West Indian Echinoidea, with the corresponding names in Agassiz's "Revision of the 'Blake' Echini."

WESTERGREN, A. M. Reports on the scientific results of the expedition to the tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross," from August, 1899, to March, 1900, Commander Jefferson F. Moser, U. S. N., commanding. XV. Echini. *Echinonëus* and *Micropetalon*.

Memoirs Mus. Comp. Zoöl., 39, No. 2, Aug., 1911, pp. 41-68, pls. 1-31.

The author gives a minutely detailed account of *Echinonëus cyclostomus*, based upon material from both the Pacific and the Atlantic, and of a single specimen of *Micropetalon purpurcum* dredged by the "Albatross" in the Hawaiian Islands.

BRYOZOANS.

OSBURN, RAYMOND C. The Bryozoa of the Woods Hole region.

Bull. Bur. Fisheries, vol. 30, 1910, issued June 25, 1912, Document No. 760, pp. 203-266, pls. 18-31.

The region covered embraces Vineyard Sound and Buzzards Bay, besides a few extra-limital

OSBURN, RAYMOND C.—Continued.

localities such as Nantucket and Chatham, Cape Cod. Twenty-two families, 37 genera, and 84 species and varieties are enumerated, of which 4 species are described as new. Two new names also are given to previously known species.

CELENTERATES.

BIGELOW, HENRY B. Reports on the scientific results of the expedition to the eastern tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross," from October, 1904, to March, 1905, Lieut. Commander L. M. Garrett, U. S. N., commanding. XXIII. The Siphonophoræ.

BIGELOW, HENRY B.—Continued.

Memoirs Mus. Comp. Zoöl., 38, No. 2, Dec., 1911, pp. 173-401, pls. 1-32, figs. A-D.

Thirty-five genera and 52 species are determined, of which 3 genera, *Nectodroma*, *Archisoma*, and *Dromalia*, and 6 species are new. The report also presents the actual state of our

BIGELOW, HENRY B.—Continued.

knowledge of the classification of the Siphonophoræ. The anatomy of 3 species of different genera is worked out in detail.

BIGELOW, HENRY B. Reports on the scientific results of the expedition to the eastern tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross," from October, 1904, to March, 1905, Lieut. Commander L.

BIGELOW, HENRY B.—Continued.

M. Garrett, U. S. N., commanding. XXVI. The Ctenophores.

Bull. Mus. Comp. Zool.,
54, No. 12, Apr.,
1912, pp. 369-404,
pls. 1, 2, fig. A.

Describes 6 species from studies made on fresh specimens, and discusses the interrelationships of the various described species of *Hormiphora*.

PROTOZOANS.

CRAWLEY, HOWARD. *Trypanosoma americanum*, a common blood parasite of American cattle.

U. S. Dept. Agric.,
Bur. Animal Industry,
Bull. 145, Jan.
17, 1912, pp. 1-39,
figs. 1-15.

CUSHMAN, JOSEPH A. New arenaceous foraminifera from the Philippine Islands and contiguous waters. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907-1910.—No. 17.]

Proc. U. S. Nat. Mus.,
42, No. 1898, Apr.
16, 1912, pp. 227-
230, pl. 28.

A new genus, *Ammosphaerulina*, is described, and 6 new species belonging to as many genera.

KOFOID, CHARLES ATWOOD, and E. JOSEPHINE RIGDEN. Reports on the scientific results of the expedition to the eastern tropical Pacific, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer "Albatross," from October, 1904, to March, 1905, Lieut. Commander L. M. Gar-

rett, U. S. N., commanding. XXIV. A peculiar form of schizogony in *Gonyaulax*.

Bull. Mus. Comp. Zool.,
54, No. 10, Feb.,
1912, pp. 335-348,
pls. 1, 2, figs. A, B.

Describes a type of reproduction shown in *Gonyaulax* which is unknown elsewhere among the Dinoflagellates. The species is called *Gonyaulax series*.

RIGDEN, E. JOSEPHINE. (See under Charles Atwood Kofoid.)

STILES, CHARLES WARDELL. The presence of *Entamoeba histolytica* and *E. coli* in North Carolina.

Pub. Health Rep., U. S.
P. H. and M. H. S.,
26, No. 34, Aug. 25,
1911, p. 1276.

—The presence of *Lambliæ duodenalis* in man in North Carolina and the recognition of amebæ in feces several days old.

Pub. Health Rep., U. S.
P. H. and M. H. S.,
26, No. 36, Sept. 8,
1911, pp. 1347,
1348.

BOTANY.

BRITTON, N. L., and J. N. ROSE. Undescribed species of Cuban cacti.

Torreya, 12, No. 1,
Jan., 1912, pp. 13-
16.

CHRIST, H. On *Psomiocarpa*, a neglected genus of ferns.

Smithsonian Misc.
Colls., 56, No. 23,
Nov. 21, 1911, pp.
1-4, pl. 1, 1 fig.

GREENE, EDWARD L. Miscellaneous specific types—IV.

Leaflets, 2, Nov. 18,
1911, pp. 153-159.

—The genus *Saviniona*.

Leaflets, 2, Nov. 18,
1911, pp. 159-163.

—Accessions to *Apocynum*.

Leaflets, 2, Nov. 18,
1911, p. 164.

- GREENE, EDWARD L. Accessions to *Apocynum* (continued).
Leaflets, 2, Mar. 13, 1912, pp. 165-189.
- New species of *Trautvetteria*.
Leaflets, 2, Mar. 13, 1912, pp. 190-193.
- Some *Erigeron* segregates.
Leaflets, 2, Mar. 13, 1912, pp. 193-196.
- Some *Erigeron* segregates (continued).
Leaflets, 2, Apr. 11, 1912, pp. 197-218.
- Certain cruciferous types.
Leaflets, 2, Apr. 11, 1912, pp. 219-221.
- New species of *Chaenactis*.
Leaflets, 2, Apr. 11, 1912, pp. 221-225.
- Miscellaneous specific types—V.
Leaflets, 2, Apr. 11, 1912, pp. 225-228.
- Accessions to Canadian botany.
The Ottawa Naturalist, 25, No. 10, Jan. 17, 1912, pp. 145-147.
- GRIFFITHS, DAVID. The grama grasses: *Bouteloua* and related genera.
Contr. U. S. Nat. Herb., 14, pt. 3, Feb. 24, 1912, pp. i-xi, 343-428, pls. 67-83, figs. 19-63.
- MAXON, WILLIAM R. Notes on American ferns: VIII.
The Fern Bulletin, 19, No. 3, July, 1911, pp. 67-70. (Issued Jan., 1912.)
- A remarkable new fern from Panama.
Smithsonian Misc. Colls., 56, No. 24, Nov. 22, 1911, pp. 1-5, pls. 1-3.
- MAXON, WILLIAM R. On the identity of *Cyathea multiflora*, type of the genus *Hemitelia* R. Br.
Bull. Torrey Bot. Club, 38, No. 12, Dec., 1911, pp. 545-550, pl. 35. (Issued Jan. 6, 1912.)
- A new name for a Hawaiian fern.
- MAXON, WILLIAM R.—Continued.
Amer. Fern Journ., 2, No. 1, Jan., 1912, pp. 19, 20, 2 figs.
- A new fern from Panama.
Amer. Fern Journ., 2, No. 1, Jan., 1912, pp. 21, 22. (Issued Feb. 29, 1912.)
- Three new club-mosses from Panama.
Smithsonian Misc. Colls., 56, No. 29, Jan. 6, 1912, pp. 1-4, pls. 1-3.
- Notes on the North American species of *Phanerophlebia*.
Bull. Torrey Bot. Club, 39, No. 1, Jan., 1912, pp. 23-28. (Issued Feb. 10, 1912.)
- The relationship of *Asplenium andrewsii*.
Contr. U. S. Nat. Herb., 16, pt. 1, Feb. 13, 1912, pp. 1-3, pls. 1, 2.
- Studies of tropical American ferns—No. 3.
Contr. U. S. Nat. Herb., 16, pt. 2, June 19, 1912, pp. i-viii, 25-62, pls. 18-34.
- PITTIER, HENRY. Exploration in the southwestern States and west coast of Mexico.
Journ. N. Y. Bot. Garden, 12, No. 143, Nov., 1911, pp. 253-256.
- New or noteworthy plants from Colombia and Central America—3.
Contr. U. S. Nat. Herb., 13, pt. 12, Jan. 5, 1912, pp. i-viii, 431-466, pls. 78-96, figs. 57-91.
- ROSE, J. N. Exploration in Lower California.
Journ. N. Y. Bot. Garden, 12, No. 144, Dec., 1911, pp. 263-272, figs. 43-47.

ROSE, J. N. A new *Echeveria* from Mexico.

Journ. Washington Acad. Sci., 1, No. 9, Dec. 4, 1911, pp. 267-269, 1 fig.

—Tumamoca, a new genus of Cucurbitaceae.

Contr. U. S. Nat. Herb., 16, pt. 1, Feb. 13, 1912, p. 21, pl. 17.

—(See also under N. L. Britton.)

—and PAUL C. STANDLEY. Report on a collection of plants from the pinacate region of Sonora.

Contr. U. S. Nat. Herb., 16, pt. 1, Feb. 13, 1912, pp. 5-20, pls. 3-16, fig. 1.

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

Bot. Gazette, 52, No. 1, July, 1911, pp. 45-53.

STANDLEY, PAUL C. The Alliaceae of Mexico and Central America.

Contr. U. S. Nat. Herb., 13, pt. 11, July 12, 1911, pp. i-ix, 377-430, pls. 74-77.

A list of all the members of this family known from southern North America, with keys to the genera and species. The new genus *Pisoniella* is described, and 22 new species in various genera.

—The American species of *Fagonia*.

Proc. Biol. Soc. Washington, 24, Dec. 23, 1911, pp. 243-250.

STANDLEY, PAUL C.—Continued.

A monograph of the species of the New World, recognizing 12 species of which 4 are described as new.

—Three new plants from Alberta.

Smithsonian Misc. Colls., 56, No. 33, Feb. 7, 1912, pp. 1-3.

—A new leather flower from Illinois.

Smithsonian Misc. Colls., 56, No. 34, Feb. 7, 1912, pp. 1-3, pl. 1.

Description of a new species of *Viorna* from southern Illinois.

—Wootonella, a new genus of Carduaceae.

Proc. Biol. Soc. Washington, 25, June 29, 1912, pp. 119; 120.

—(See also under J. N. Rose and E. O. Wooton.)

WILLIAMS, R. S. New or interesting mosses from Panama.

Contr. U. S. Nat. Herb., 16, pt. 1, Feb. 13, 1912, pp. 23, 24.

WOOTON, E. O., and PAUL C. STANDLEY. The grasses and grass-like plants of New Mexico.

Bull. New Mex. Agric. Exp. Station, 81, 1911, pp. 1-175. (Issued May, 1912.)

A discussion of the grasses of New Mexico from an economic standpoint; also includes a list of the species with keys for their identification.

GEOLOGY AND MINERALOGY.

MERRILL, GEORGE P. A second meteoric find from Scott County, Kansas.

Proc. U. S. Nat. Mus., 42, No. 1905, June 15, 1912, pp. 295, 296, pl. 39.

Contains a brief petrographical description of a stone evidently belonging to a fall, a single individual of which had been described in a previous paper as belonging possibly to the Jerome fall. The name Scott City meteorite was applied.

POGUE, JOSEPH E. Mineralogische Mitteilungen.

Zeitschr. für Kristallographie und Mineralogie, 49, pt. 5, 1911, pp. 455-458, pl. 7.

Crystallographic descriptions of (1) calamine crystals from Chihuahua, Mexico; (2) a biotite-phlogopite-rutile intergrowth showing asterism, from Ottawa, Canada; and (3) pseudomorphs of marcasite after pyrrhotite, from Prussia.

POGUE, JOSEPH E. The great rainbow natural bridge of southern Utah.

Nat. Geog. Mag., 22,
No. 11, Nov., 1911,
pp. 1048-1056, 6 il-
lustrations.

A description of a wonderful natural bridge, discovered August 14, 1900, which is located near the southeast corner of Utah (lat. 37° 03' 21"; long. 110° 56' 48" west of Greenwich), and measures 309 feet in height by 278 feet between abutments. Copies of six negatives illustrating the bridge are deposited in the U. S. National Museum.

SCHALLER, WALDEMAR T. Crystallized variscite from Utah.

Proc. U. S. Nat. Mus.,
41, No. 1867, Jan.
31, 1912, pp. 413-
430, pl. 33, figs. 1, 2.

Gives a detailed description of the optical properties, crystallography, and chemical composition, with notes on the occurrence and gem quality, of well crystallized variscite from near Lucin, Utah. The material investigated comprises 2 specimens now in the U. S. National Museum.

PALEONTOLOGY.

BASSLER, RAY S. The early Paleozoic Bryozoa of the Baltic Provinces.

Bull. U. S. Nat. Mus.,
77, Dec. 23, 1911,
pp. 1-xxi, 1-382, pls.
1-13, figs. 1-226.

Based largely upon a collection presented to the Museum by the late Dr. August von Mickwitz, of Reval, Russia, upon condition that a detailed study be made of the numerous faunas represented in it. This bulletin presents, so far as possible, a complete account of all Russian Ordovician and early Silurian bryozoa, and is the first detailed inter-continental correlation to be published. The first 53 pages are devoted to a comparison of the stratigraphy and paleontology of Baltic Russia and North America. The study of the bryozoan faunas indicates that the greater part of the Russian Ordovician section may be directly correlated with the Black River group of America, while the Upper Lyckholm and Borkholm limestones of Russia are the equivalents of the American Richmond group. Sixty-five out of 161 species of bryozoa are common to the two areas in the Middle Ordovician beds, while in the higher strata the ratio is still greater.

BERRY, EDWARD W. A revision of the fossil ferns from the Potomac Group which have been referred to the

BERRY, EDWARD W.—Continued.

genera *Cladophlebis* and *Thyrsopteris*.

Proc. U. S. Nat. Mus.,
41, No. 1862, Oct. 6,
1911, pp. 307-332.

This is the last of a series of four papers dealing with the Lower Cretaceous plants of Maryland and Virginia, based almost entirely upon specimens in the U. S. National Museum.

— Systematic paleontology, Lower Cretaceous. (Pteridophyta, Cycadophytæ, Gymnospermæ, Monocotyledonæ, Dicotyledonæ.)

Maryland Geol. Surv.,
Lower Cretaceous,
1911, pp. 214-508,
pls. 22-97, figs. 2-15.

Gives descriptions and illustrations of all the known fossil plants from the Potomac Group of Maryland, as well as numerous species from Virginia and the District of Columbia. A large proportion of the specimens illustrated are the property of the U. S. National Museum.

GILMORE, CHARLES W. A new fossil alligator from the Hell Creek beds of Montana.

Proc. U. S. Nat. Mus.,
41, No. 1860, Sept.
9, 1911, pp. 297-
302, pls. 26, 27,
fig. 1.

Describes *Brachychampsamontana*, a new genus and species of the Alligatoridæ.

GILMORE, CHARLES W. A new mosasauroid reptile from the Cretaceous of Alabama.

Proc. U. S. Nat. Mus.,
41, No. 1870, Jan.
31, 1912, pp. 479-
484, pls. 39, 40, figs.
1-3.

Describes *Globidens alabamensis*, a new genus and species of the Mosasauridæ.

— The mounted skeletons of *Camptosaurus* in the United States National Museum.

Proc. U. S. Nat. Mus.,
41, No. 1878, Feb.
8, 1912, pp. 687-
696, pls. 55-61, figs.
1-4.

Description of two mounted skeletons, *Camptosaurus browni* Gilmore, and *C. nanus* Marsh, recently placed on exhibition in the hall of vertebrate paleontology in the U. S. National Museum. The specimens are noteworthy as being very complete fossil skeletons, and from the fact that both are types.

HAY, OLIVER PERRY. On an important specimen of *Edestus*; with description of a new species, *Edestus mirus*.

Proc. U. S. Nat. Mus.,
42, No. 1884, Apr.
25, 1912, pp. 31-38,
pls. 1, 2.

Describes and figures a new species of an extinct shark of the lower Carboniferous, founded on a rare specimen in which not only the teeth but portions of the cartilaginous skull and lower jaws are preserved. Also reviews the relationships of *Edestus* to *Helicoprion*, *Lisoprion*, and *Toxoprion*, and discusses at length the morphology of the peculiar dental system of these remarkable extinct sharks.

JACKSON, ROBERT TRACY. Phylogeny of the Echini, with a revision of paleozoic species.

*Memoirs Boston Soc.
Nat. Hist.*, 7, Jan.,
1912, pp. 1-491, pls.
1-76, figs. 1-256.

Describes and figures a number of specimens in the U. S. National Museum.

LULL, RICHARD S. Systematic paleontology of the Lower Cretaceous deposits of Maryland (Vertebrata).

*Maryland Geol. Surv.,
Lower Cretaceous,*
1911, pp. 183-211,
pls. 11-20.

Gives a systematic description of all the known reptilian forms from the Potomac of Maryland. The following species, based wholly or in part on U. S. National Museum specimens, are described as new: *Creosaurus potens* and *Goniopholis affinis*. The conclusion is reached that the weight of the evidence places this fauna beyond the Jurassic into the beginning of the Cretaceous.

WALCOTT, CHARLES D. Middle Cambrian annelids.

*Smithsonian Misc.
Colls.*, 57, No. 5,
Sept. 4, 1911, pp.
109-144, pls. 18-23.

This paper describes 1 new order, 7 new families, 12 new genera, and 20 new species of annelids, all of them being referred to the classes Chatognatha, Chatopoda, and Gephyrea. In common with the other fossils from the Burgess shale, these annelids are remarkable also in the manner in which even the minutest of details are preserved. The reference of *Hyalithes*, *Hyalithellus*, and other tube-like fossils to the annelids is discussed, and 3 new species of *Orthotheca*-like fossils, with the animal projecting from the tube, are described. A species of *Hyalithes* is figured, showing for the first time the curved supports of the fins of a pteropod.

— Middle Cambrian Branchiopoda, Malacostraca, Trilobita, and Merostomata.

*Smithsonian Misc.
Colls.*, 57, No. 6,
Mar. 13, 1912, pp.
145-228, pls. 24-34,
3 figs.

This paper includes all of the crustaceans of the subclasses Branchiopoda, Malacostraca, and Merostomata collected in the Burgess shale of

WALCOTT, CHARLES D.—Continued.

British Columbia during the field seasons of 1909 and 1910, together with a discussion of some new features in the appendages of the Trilobita. The mode of occurrence of the fossils is discussed, giving a section of the beds included in the Burgess shale, and the paper includes a report by E. S. Larsen, jr., on the chemical composition and microscopic structure of the shale.

— Cambro - Ordovician boundary in British Columbia with description of fossils.

Smithsonian Misc. Colls., 57, No. 7, Mar. 8, 1912, pp. 229-237, pl. 35.

This paper treats of the discovery by Mr. J. A. Allan and Mr. L. D. Burling of fossils which place the Cambro-Ordovician boundary above a series of 4,000 feet of shales and limestones measured by the former in the Ice River region of British Columbia. It is accompanied by one plate illustrating the 4 species of Ordovician brachiopods and trilobites which they collected.

WALCOTT, CHARLES D. The Sardinian Cambrian genus *Olenopsis* in America.

Smithsonian Misc. Colls., 57, No. 8, Mar. 8, 1912, pp. 239-249, pl. 36.

The trilobite genus *Olenopsis* has been identified from beds of uncertain stratigraphic position on the island of Sardinia, but has never before been recognized in America. This paper describes 3 new species from British Columbia, Montana, and Pennsylvania, in horizons near the top of the Lower Cambrian or in the passage beds to the Middle Cambrian.

WHITE, DAVID. The characters of the fossil plant *Gigantopteris* Schenk and its occurrence in North America.

Proc. U. S. Nat. Mus., 41, No. 1873, Feb. 8, 1912, pp. 493-516, pls. 43-49.

Description of a remarkable type of Pteridosperm hitherto known only from China. The characters of the genus are discussed, and the new species *Gigantopteris americana* is described.

MISCELLANEOUS.

DALL, WILLIAM HEALEY. The subantarctic islands of New Zealand.

Science (n. s.), 34, No. 866, Aug. 4, 1911, pp. 157, 158.

Review of the reports on these islands made by the scientific societies of New Zealand.

DALL, WILLIAM HEALEY. Duc d'Orleans, Campagne arctique de 1907. Par Charles Bulens. Bruxelles. 1910-11.

Science (n. s.), 34, No. 885, Dec. 15, 1911, pp. 849, 850.

Review of report on the arctic explorations of the Duke of Orleans.



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