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ANNUAL REPORT
OF THE BOARD OF REGENTS OF
THE SMITHSONIAN INSTITUTION

SHOWING THE OPERATIONS, EXPENDITURES
AND CONDITION OF THE INSTITUTION
FOR THE YEAR ENDING JUNE 30

1911

REPORT OF THE
U. S. NATIONAL MUSEUM

WASHINGTON
GOVERNMENT PRINTING OFFICE
1912

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UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,
Washington, D. C., November 28, 1911.

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, 1911.

Very respectfully,

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

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

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REPORT ON THE PROGRESS AND CONDITION OF THE U. S. NATIONAL MUSEUM FOR THE YEAR ENDING JUNE 30, 1911.

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

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

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

If the wisdom of Congress in so fully providing for a museum in the Smithsonian law challenges attention, the interpretation put upon this law by the Board of Regents within less than six months from the passage of the act can not but command admiration. In the early part of September, 1846, the Regents took steps toward formulating a plan of operations. The report of the committee appointed for this purpose, submitted in December and January following, shows a thorough consideration of the subject in both the spirit and 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.

"Specimens of staple materials, of their gradual manufacture, and of the finished product of manufactures and the arts may also, your

[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.

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 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 responsi-

[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.

bility 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 five years, during which its interests have been markedly advanced.

With the completion of the new large granite structure on the Mall, the Museum comes 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 expected to enter upon an era of renewed prosperity and usefulness.

While it is the primary duty of a museum to preserve the objects confided to its care, as it is that of a library to preserve its books and manuscripts, yet the importance of public collections rests not upon the mere basis of custodianship, nor upon the number of specimens assembled and their money value, but upon the use to which they are put. Judged by this standard, the National Museum may claim to have reached a high state of efficiency. From an educational point of view it is of great value to those persons who are

so fortunate as to reside in Washington or who are able to visit the Nation's Capital. In its well-designed cases, in which every detail of structure, 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.

COMPLETION AND OCCUPATION OF THE NEW BUILDING.

The final work in the construction of the new building for the National Museum was completed on June 20, 1911, just six years after the excavations for its foundation walls were begun. That this result was not reached some months earlier, as had been anticipated, was mainly due to delays in the fulfillment of certain contracts, but the work has at all times been conducted with that deliberation and attention to details which were necessary to secure entire stability and permanency of structure and these, it is believed, have been obtained. The building is massive and imposing, a worthy addition to the group of Government structures at the Capital, and seems thoroughly adapted to the purpose for which it was erected.

The new building is located on the Mall directly in front of the Smithsonian building, which it faces, and from which it is distant about 750 feet. It is of classic design, four stories high, and finished in granite on all sides. It has a frontage of 561 feet, a depth of 365 feet, and a height of 82 feet. Its shorter axis is in a line with the center of Tenth Street, through which it may be reached from Pennsylvania Avenue, three blocks away. The principal feature exteriorly is a large pavilion at the middle of the south side, terminating in four pediments at some distance above the main roofs. Inclosed by this pavilion is an octagonal rotunda, 80 feet in diameter, with four massive stone piers and a curved tiled ceiling reaching to a height of 124 feet 7 inches. At the top the rotunda is carried beyond the pediments of the pavilion in the shape of a circular granite wall or drum, capped by a low rounded dome with slate covering, the crown of which is 162 feet 2 inches above the ground. The south pavilion contains the main entrance, which opens into the first story, is sheltered by a Corinthian portico and reached by the broad steps and platforms of the approaches from the driveway. On the northern side of the building there is another public entrance, leading into the ground story.

The main part of the building consists fundamentally of three great wings, which extent east, west and north from the south pavilion, producing a shape like the letter T. These wings, in turn, are joined near their outer ends by two ranges, each bent at right angles, which compose the northeastern and northwestern sections of the building and help to inclose two uncovered courts 128 feet square.

This arrangement gives to the entire building in horizontal section a general rectangular outline, with projections formed by the ends of the wings and the south pavilion. On the exterior of the wings the granite facings are carried the entire height, but in the ranges the upper story is inclosed by a mansard roof. The wings are 116 feet wide inside and the ranges 54 feet. In the latter the lighting is accomplished wholly by means of windows, but in each of the wings, on account of their unusual width, it has been necessary to use a large central skylight as well as windows. The light-wells, 50 feet wide, are carried down to the first story, which is completely floored over. The second and third stories are, therefore, of less area than the first story to the extent of these piercings, while the ground story has corresponding dark spaces, which are, nevertheless, entirely serviceable. In the wings, moreover, the lofts or attics directly under the roofs are of sufficient height to constitute what is in effect a fifth story suitable for the storage of specimens. The building is thoroughly fireproof, and its museum purpose is clearly denoted by its exceptionally large window openings, which are much wider than the intervening piers. Its construction and equipment include the best known appliances and methods for heating, lighting, ventilating, and cleaning, and for safe-guarding the collections.

The total floor area of the building is somewhat more than 10 acres, about one-half of which, comprising all of the first and second stories and the central part of the middle wing in the ground story, has been allotted to the general public, that is to say, to the installation of the exhibition collections. The rest of the building is devoted to those other various purposes which pertain to the maintenance and activities of a large museum. The ground story of the east wing is occupied by the heating and electric plant and the principal workshops for construction and repair. The space directly under the rotunda has been fitted up as an auditorium, with a seating capacity for 565 persons. The remainder of the ground story, the entire third story and the attics, divided into rooms of different sizes, are used for the storage of the reserve collections, and for the laboratories, preparators' workshops, library, and offices.

The new building was designed and erected to house those several branches of the national collections which are comprehended in the term "natural history" as broadly interpreted by American museums, including ethnology and archeology, as well as biology and geology. In these directions the National Museum has had its greatest and most important growth, mainly through the agency of Government surveys, and large as the structure is its area is not above what will be required in the near future for the preservation and exhibition of the collections relating to these subjects. In fact, it has been necessary to look elsewhere to find appropriate accommodations for the

division of plants, whose collections, already extensive, are increasing rapidly. With the readjustments now in progress, the older Museum building and the lower exhibition halls in the Smithsonian building will become entirely available for the arts and industries and American history.

While the division of space between the three departments under which the scientific collections are administered is not equal, owing to the fact that their requirements in this respect are not identical, it may be said that in a general way anthropology occupies the middle part of the building, geology with paleontology the eastern part, and biology the western part. The distribution of the reserve collections and laboratories of the several divisions within the departments has been determined by various considerations. The central dark area of the west wing in the ground story has been converted into a vast alcoholic storage room, about which are located the laboratories for reptiles, fishes, and marine invertebrates. To the division of mammals, which has the most bulky of all the reserve collections, has been allotted the entire western range in the same story; while the corresponding eastern range contains the section of vertebrate paleontology, and the geological and anthropological workshops. In the third story the divisions of birds, mollusks, and insects are on the western side; the divisions of ethnology, historic and prehistoric archeology, and physical anthropology are on the northern side and in the middle wing; and the divisions of physical and chemical geology, mineralogy, and paleontology are on the eastern side. The storage spaces in the attics are apportioned among the several divisions in accordance with their needs.

In preparing the new building for occupancy many difficult problems, relating chiefly to the subject of furnishings, have been encountered, but they have been mostly settled satisfactorily. As very little of standard commercial make is applicable to museum needs, it has been necessary to have the great majority of the furniture constructed specially and to plan separately for the various requirements of different classes of specimens. After careful consideration it was decided to use fireproof or fire-resisting material for the storage furniture, which is mainly contained in closed rooms, and nearly all of the storage cases, racks, and shelving have been built of or covered with steel. While experience has shown that entire reliance can not be placed on metal furniture to secure immunity from the effects of fire, still by its employment the surfaces on which a fire might catch or along which a fire might be carried may be greatly reduced in extent if not eliminated, and with constant oversight by an efficient watch force this is an advantage to be counted. In the large public halls, however, where a fire is less likely to originate and may more readily be detected, the use of

metal is less significant, and for this and other reasons wood has been adopted as the common material for the frames and bases of the exhibition cases.

As it was desirable to first establish the scientific staff and the general collections in the building, the construction of the storage and laboratory furniture was taken up and mostly finished before work on the exhibition cases was begun. The moving of the reserve collections was commenced in August, 1909, and by the close of last year not only had it been practically completed, but the systematic arrangement of the specimens in their new quarters, either permanently or tentatively, had also been mainly accomplished. While the new installation had not been perfected to the same extent in all of the divisions, yet, as a whole, it was so far advanced as to produce conditions vastly superior to those existing at any previous time. Such a result, however, was only made possible by the greatly increased and more convenient accommodations, which permitted the spreading out in an accessible and orderly manner of essentially all of the material belonging to each division, and by the employment of temporary help exceptional progress was made in the work of recording and cataloguing specimens. The mechanical and scientific workshops and the offices generally were also among the first of the new quarters to be furnished.

The building of exhibition cases, started in 1910, was carried on actively during last year, and must still be continued for some time longer. The furnishing of 5 acres of exhibition space is an undertaking of considerable magnitude and complexity, since, while certain units may be established, each case or set of cases must be planned with reference to some particular display feature, and this in turn depends upon a thorough understanding of the material that is available and suitable for the purpose. Furthermore, a large proportion of the specimens, as illustrated especially by the mammals, birds, skeletons, and ethnological groups, must first undergo preparation by slow and laborious processes, and in regard to these the case requirements can not be foretold. This explanation is made for the benefit of those who, not acquainted with the circumstances, may wonder why the exhibition halls in the new building are not being finished more rapidly. There has, in fact, been no interruption to the work since it was started, and a very considerable area was early made accessible for the public by temporarily utilizing many old cases and old groupings. Other spaces have been and will continue to be opened under similar conditions, and in a comparatively short time the public may expect to gain entire possession of the two stories which are designed to be their province. Whatever additions and improvements are subsequently made, they will not interfere with the movement of visitors. It should also be explained that

the installations now in progress will be much more extensive and effective than those with which the public has been acquainted in the older buildings. Serving as a nucleus, these are being thoroughly weeded out, much of the old material giving place to better specimens, while the number of additions will be very great and their character such as to markedly increase the interest and educational value of the halls.

As stated in the last report, the middle hall on the main floor was opened to the public on March 17, 1910, the central part being occupied by the paintings of the National Gallery of Art and the sides and ends by a tentative but very attractive exhibition of ethnological groups and objects. Since that time the provisional installation has also been finished in the two northern ranges on the same floor, both of which are likewise devoted to the subject of ethnology, and the work of revision looking to a permanent arrangement has been actively carried on. Included in the latter were the initial steps toward enlarging and elaborating 12 family lay-figure groups for which the cases, measuring 8½ by 12 feet each, had been built. The series of transparencies was remounted and, with the addition of a number of new subjects, was arranged in steel frames in northern and western windows. The large totem poles were effectively installed at the southern end of the middle hall, and models of a Zuñi altar and of an Iroquois village were constructed and placed. The other exhibitions which were most rapidly approaching completion were those relating to historic and prehistoric archeology, systematic geology, mineralogy, and vertebrate and invertebrate paleontology.

At the close of the year the following collections destined for the new building were still on exhibition in the older buildings, namely, the American mammals, the birds, marine invertebrates, and skeletons; the gems, building stones, fossil plants, and a section of ethnological objects.

The work done upon the new building during last year comprised the completion of the rotunda and the south or main approaches, and the painting of the interior plastered walls and ironwork. It is also to be noted that the improvement of the grounds about the building, under the direction of the officer in charge of public buildings and grounds, was nearly finished. This included extensive grading and sodding, the readjustment and rebuilding of certain parts of the main roads, and the construction of driveways and walks to the several entrances.

OPERATIONS OF THE YEAR.

APPROPRIATIONS.

The appropriations for the maintenance and operations of the National Museum for the year covered by this report, namely, from July 1, 1910, to June 30, 1911, inclusive, were provided in the sundry civil act approved June 25, 1910, and were as follows:

Preservation of collections	$300,000
Furniture and fixtures	125,000
Heating and lighting	50,000
Building repairs	15,000
Purchase of books	2,000
Postage	500
Printing and binding	34,000
Total	526,500

The general deficiency act approved on the same date as the above authorized the installation of an ice plant from an existing appropriation for preservation of collections at an expense not exceeding $2,500, and also contained the following provision:

"For the completion of the new building of the United States National Museum and its surroundings, namely, the construction of roads and walks, grading and sodding, construction of a waterproof granolithic platform along the outer walls of the building, and the painting of the interior walls of the building, to be expended under the direction of the Secretary of the Smithsonian Institution, seventy-seven thousand dollars."

The following appropriations for the year ending June 30, 1912, were made by Congress 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

BUILDINGS AND FURNITURE.

The work done in connection with the new building has been described on a previous page. The older Museum building and the Smithsonian building have been maintained in a satisfactory condition, and the adaptation of the large second story hall in the latter, formerly occupied by the archeological collections, for the purposes of the division of plants, including the National Herbarium, was completed.

With the removal of the natural history and anthropological collections, now in large part accomplished, the exhibition halls in both of these buildings will, with minor exceptions, be entirely devoted to the arts and industries and American history. The space which is being vacated is sufficiently large to accommodate many of the subjects which have hitherto been crowded out, and at the same time to permit of the necessary extension of some of the existing exhibits. The opening up of the very large amount of material which has been held in storage awaiting this opportunity has so far been deferred because of the importance of directing the energies of the staff toward completing the arrangements in the new building, but it will soon be commenced.

Under a special appropriation made by Congress to the Smithsonian Institution, two automatic electric passenger elevators were introduced in the Smithsonian building, where the lack of such conveniences has been greatly felt. One of these, installed at the north or main entrance, gives access to the National Herbarium and the offices of the Bureau of American Ethnology, while the other, located at the east entrance, connects the several floors occupied by the offices of general administration.

Considerable progress was made in providing furniture and fixtures for the new building, the greater part of which were constructed under contract, though the Museum shops were run to their full capacity, and such articles as could be obtained in the markets were purchased. The principal acquisitions comprised 318 exhibition cases, 108 storage cases and pieces of laboratory furniture, 151 pieces of office and miscellaneous furniture, 4,444 wooden and 1,000 steel unit specimen drawers, and 426 specimen drawers of special sizes. Additional items consisted of case fittings, such as shelving, small bases and trays for specimens, label holders, window curtains, etc. One hundred and fifty-seven exhibition and 815 storage cases were remodeled in the Museum shops.

An inventory covering all furniture belonging to the Museum shows that there were on hand at the end of the year 2,724 exhibition cases of all kinds and sizes, 5,990 storage cases and pieces of laboratory furniture, 2,800 pieces of office and miscellaneous furni-

ture, 32,976 unit specimen drawers of wood, 4,712 unit specimen drawers of steel, 6,839 insect drawers, and 13,253 miscellaneous specimen drawers and boxes of various sizes.

COLLECTIONS.

The total number of specimens received by the Museum during the year as permanent acquisitions was approximately 228,642, of which 17,361 were anthropological, 204,540 were biological, 6,647 were geological and paleontological, and 94 were paintings and engravings presented to the National Gallery of Art. In addition, 1,629 objects were accepted as loans for exhibition in several of the divisions of the department of anthropology and in the National Gallery of Art. A complete list of the accessions will be found in the latter part of this report.

DEPARTMENT OF ANTHROPOLOGY.

Ethnology.—A collection from Liberia, lent by Mr. George W. Ellis, jr., formerly secretary of the American Legation in that country, is especially interesting as representing a region in which the culture of the Sudan has been carried to the coast by the Mandingans and other Vai-speaking peoples who have reached a comparatively high state of progress. It comprises cotton blankets of superior pattern and weave; fine examples of leather work on weapons or as bags, sandals, and trappings; basketry; vessels of wood, gourd, and horn; knives, swords, spears, and other iron work; articles connected with daily life; and ceremonial objects. Mr. Hoffman Philip, late consul general at Adis Ababa, Abyssinia, now secretary of the American Embassy at Constantinople, deposited an important collection consisting of basketry, a silver-mounted shield, a miter, crucifixes, necklaces, bracelets, ecclesiastical paintings, a manuscript book, etc., from Abyssinia, and a number of other objects from the neighboring tribes under the rule of Emperor Menelek II.

A valuable series of American Indian objects, including aboriginal buckskin costumes, pouches, clubs, bows, arrows and quivers, cradles, musical instruments, ceremonial headdresses, baskets, and blankets, collected by the late Capt. Allyn K. Capron, United States Army, and Mrs. Capron, during the prolonged service of the former on the southern plains, was purchased. Several Osage Indian sacred packs, formerly regarded with great veneration and the basis of certain traditional ceremonies, were obtained for the Museum by Mr. Francis La Flesche, of the Bureau of American Ethnology. They are very old and contain objects and material in weaving, etc., which cast light on the industries of perhaps a century ago. In one is a set of instruments for tattooing, the practice of which art was

considered a sacred rite by the Osage. Another of these packs was received from the Bureau of American Ethnology, to which it had been presented by Mr. and Mrs. Arthur Bonnicastle. Thirty-one paintings, illustrating the social and ceremonial life of the Hopi Indians, by Miss Kate T. Cory, of Prescott, Arizona, who has lived with this tribe for several years, were lent by the artist. A small but interesting series of bows, arrows, textiles, garments, and ancient pottery from the Province of Chiriqui, together with a vocabulary of 100 words of the San Blas Indian language, were received as a gift from Mrs. William H. Bell.

Small lots of material obtained by purchase comprised objects from tribal remnants of the Alibamu Indians and the Seminoles and Shawnees; light buff earthenware pottery with red decorations, a variety new to the Museum, together with the tools used in making it, collected in the vicinity of Tampico, Mexico, by Dr. Edward Palmer; a number of articles of art and ceremony, from the Chippewa Indians of Minnesota; and a supplementary collection of games secured by Mr. Stewart Culin, of the Museum of the Brooklyn Institute, during a recent trip to Japan and China. Loans additional to those above mentioned were as follows: A collection of Japanese brasses, bronzes, porcelains, and lacquers, from Mrs. Oliver Ellsworth Wood; four panels and a robe of beautiful Chinese textiles of the Ming Dynasty, from Mr. Bailey Willis; three pieces of antique Japanese draperies of couched work, from Miss Mabel McCalmont, of Warren, Pennsylvania; and a choice lot of ethnologica from southeast Africa, from Mrs. R. L. Beard, of Washington. Mr. Frank Deedmeyer, American consul at Charlottetown, Prince Edward Island, contributed models of canoes, stone implements, an old Micmac grammar, and other literature in the Micmac language; Dr. F. W. Goding, American consul at Montevideo, Uruguay, presented specimens from New Zealand and South Africa; and the Department of State transmitted a number of photographs and maps from Formosa, obtained by Mr. Samuel C. Reat, American consul at Tamsui.

The reserve collections were mostly moved to the new building during the early part of the year, and subsequently the work of rearranging them in the metal cases provided in the laboratories, storerooms, and corridors assigned to the division was steadily carried on. For the first time in many years the facilities now permit of the segregation of all objects of each kind or class. The opportunity was utilized to give such objects as required it a thorough cleaning, and good progress was made in the writing of the card catalogue.

The exhibition space allotted to the subject of ethnology, comprising the middle hall on the main floor, except the central part occupied by the paintings of the National Gallery of Art, and the

two adjacent ranges, had nearly all been fitted up and opened to the public by the close of the year. The arrangement was, however, in great part only provisional, but its revision looking to a permanent installation had been commenced, as described elsewhere.

The curator of the division, Dr. Walter Hough, prepared an illustrated catalogue of the Abyssinian collection lent by Mr. Hoffman Philip and completed a paper on American censers and incense. He also continued investigations on the collection of the Museum-Gates expedition of 1905, on East Indian and Philippine weapons, on apparatus connected with heating and illumination, and on Pueblo Indian material. He was called upon to revise a manuscript "Dictionary of the Immigrant Races of Man," prepared for the Committee on Immigration of the United States Senate; to aid in the reprinting of the bulletin of the Pan American Union on Mexico, and to instruct recently appointed consuls in anthropological subjects.

Prehistoric archeology.—Of first importance, probably, among the accessions received by this division were the collections made by Dr. Aleš Hrdlička, and in part by Mr. Bailey Willis, in Argentina, and by the former in Peru and Mexico. The expedition on which they were obtained, conducted under the auspices of the Smithsonian Institution, was undertaken for the purpose of determining, as far as possible, the exact nature and value of the evidence relating to man's antiquity in South America, and is referred to in greater detail in connection with the division of physical anthropology. The archeological collection from Argentina, numbering 1,533 objects, contains hammerstones, pitted anvil stones, mortars, pestles, mullers, axes, projectile points, drills, and other implements, all of exceptional interest as bearing upon the much-discussed question of the age of man on the South American Continent. The Peruvian material includes earthenware vessels, images and musical instruments of varied and in part of novel forms, implements of wood, implements and ornaments of copper, mummy wrappings, and other textile articles obtained along with skeletal remains from burial places in the Chicama Valley. The Mexican material comprises stone implements, earthenware, and miscellaneous sculptures. A second Peruvian collection, received as a gift from Mr. Otto Holstein, of Lima, consists of 82 objects from Inca and pre-Inca graves and dwelling sites near Chosica, and covers a wide range of ancient handiwork.

During excavations made at sites in the Navaho National Monument and at the ancient Hopi pueblo of Wukoki at Black Falls, Little Colorado River, Arizona, Dr. J. Walter Fewkes, of the Bureau of American Ethnology, obtained an important series of 595 specimens, including earthenware ollas, bowls, cups, ladles, jars and pots, basketwork trays and sandals, cords of yucca fiber, pot rests of corn husks

and cedar bark, sacred cigarettes or closed blowers (sections of corn stalks and reeds), bags of woven cord containing bundles of feathers, two wooden implements, a stone hatchet, fragments of woven fabrics, pointed sticks of wood, a "feather box," fire sticks, spindle whorls, bone awls, shell beads and pendants, stone axes, hammers, mauls, and disks. A collection of implements and other objects, numbering 131 specimens, from the ruined pueblo of Gyusiwa, New Mexico, was secured through exchange with the School of American Archaeology of the Archaeological Institute of America, at Santa Fe. It contains pottery vessels and potsherds showing a great variety of painted geometric and symbolic decorations, stone implements, bone scrapers, chisels, awls, beads, shell ornaments, fragments of tubular pottery pipes, and three ancient war clubs of wood. In the same exchange were also 118 specimens from an ancient pueblo near Rito de los Frijoles, New Mexico, consisting of stone metates, mortars, hand-stones, grooved hammers and axes, rubbing hammerstones, roughly chipped pointed implements, arrowshaft straighteners, and discoidal stones. A collection of approximately 840 archeological specimens, mainly from Genesee County, Michigan, comprising all the objects which had been deposited by Mr. Byron E. Dodge since 1891, was purchased. The series includes polished stone implements, chipped blades, projectile points, scrapers, drills, tablets, pipes, and objects of copper, and among them are many fine examples, notably a stone hatchet with the original handle, some curious forms of stone axes and hatchets, stone clubs resembling northwest coast specimens, and a number of good bannerstones and amulets.

Also worthy of mention are 97 photographs of gold and terra-cotta images, ornaments, utensils, etc., from Colombia, South America, presented by Capt. H. R. Lemly, United States Army (retired), of Washington; a collection of relics of wide range from Mexico, lent by Mr. A. H. Blackiston, of Cumberland, Maryland; objects of primitive manufacture from British East Africa, collected by the Smithsonian African Expedition, and a model of an elaborate stone portal from an ancient building at Labna, Yucatan, contributed by the American Antiquarian Society, of Worcester, Massachusetts.

During the year much attention was given to the sorting and assembling of collections preparatory to exhibition and storage; and the repair, restoration, and coloring of the great series of casts of Mexican, Central and South American antiquities was carried well toward completion. The work of public installation was in large measure provisional, since it was necessary to utilize the old cases until the new were received. Twelve of the new American cases were used for material from Alaska, Oregon, Washington, California, Ohio, and other States and Territories; and in new wall cases collections from Argentina, Peru, Chiriqui, Costa Rica, Nica-

ragua, Guatemala, Salvador, Honduras, and Mexico were arranged somewhat tentatively. The installation of the large collection of aboriginal American sculptures, involving a great amount of care and labor, was practically finished.

Important observations were made by Dr. Aleš Hrdlička, curator of physical anthropology, on the manner of occurrence of the large collection of stone implements obtained by him in Argentina and on his archeological collections from Peru and Mexico. They are fully recorded in reports submitted and in part published before the close of the year. A detailed study of the Argentine collection was prepared by Mr. William H. Holmes, head curator of the department, and will be incorporated in an extended account of the expedition which was practically completed at the close of the year. Mr. Holmes also carried forward his work on the stone implements of northern America, previously begun, which is to be published as one of the handbooks of the Bureau of American Ethnology.

Historic archeology.—An accession of considerable interest consisted of rubbings of the Nestorian Tablet in China, a large stone engraved, in the Chinese and Syrian languages, with the record of the establishment of Christianity in China by the Nestorian Christians in the seventh century. The rubbings are mounted on canvas and provided with rollers, and were presented by the Rev. H. J. Openshaw, missionary in Yachow. A carving in Mexican onyx, representing Christ carrying the cross, supposed to have been made by a soldier of the army of Hernando Cortez in 1524, was received as a gift from Mr. Sydney H. Shadbolt, of New Brighton, New York. Of some artistic value is a china plate decorated with the symbols of the Jewish Feast of the Tabernacles, donated by the Mikve Israel Association, of Philadelphia, Pennsylvania, through its president, Miss Mary M. Cohen.

The installation of the sections of Egyptian, Oriental, and Græco-Roman antiquities was completed. The Græco-Roman and Etruscan potteries, terra-cottas, and bronzes, transferred from the division of prehistoric archeology, were mostly catalogued and tentatively arranged in chronological order. Such specimens as could not be suitably shown in the exhibition space assigned to this division were placed in the study series. For the exhibition of the archeological collections from the Old World, both historic and prehistoric, the west middle hall on the second floor of the new building has been assigned.

Physical anthropology.—The additions to this division greatly exceeded, both in number of specimens and in scientific value, those of any previous year, and with this increase the collection of physical anthropology in the National Museum has become superior to all others in American material, while it is second only to that of the

Muséum d'Histoire Naturelle at Paris in world-wide material. The principal accession consisted of skeletal material from South America, including 3,400 crania and over 6,000 long and other bones, collected by the curator of the division, Dr. Aleš Hrdlička, under the auspices of the Smithsonian Institution. Of ancient skeletons and crania from the northeastern pueblo region of New Mexico two important collections were obtained. One was received in exchange from the School of American Archaeology of the Archaeological Institute of America; the other, resulting from joint explorations by the same school and the Bureau of American Ethnology, was a transfer from the bureau. A series of 76 ancient skulls and skeletons from Arkansas and Mississippi, some of the crania showing a remarkable preservation of the denture, were donated by Mr. Clarence B. Moore, of Philadelphia, Pennsylvania. Additional material secured through exchange comprises some 2,000 long and other bones, identified as to class, age, and nationality, and of fundamental value, from the anatomical department of the College of Physicians and Surgeons, of New York; five Kaffir skeletons from the Albany Museum, Grahamstown, Cape Colony; a cast of the Gibraltar fossil human skull, from the Royal College of Surgeons, London; and a cast of an Australian and one of an African pigmy, from Prof. A. Thomson, of Oxford, England. The division is also indebted to Dr. D. S. Lamb, of Washington, for a number of anatomical specimens.

The reclassification and rearrangement of the collections, made necessary by their transfer to the new building, has been completed, and all of the material is now in good condition as regards both preservation and recording. A beginning was also made in preparing and cataloguing the South American collections. An important step in installation was the placing of six exhibition cases in one of the rooms of the division for series of special anthropological and anatomical value. While this work was not finished, it has already attracted much attention from scientific men, and during convocation week, at the end of December, it was visited by over 70 members of the American Institute of Dental Pedagogics, which was then in session in Washington. The selection of certain material which can be placed to advantage among the public exhibits of the department of anthropology was commenced.

The principal studies of the year related to the South American explorations described below. They were completed and the results submitted for publication. Some progress was also made on the report of the anthropological researches at the Kharga Oasis, Egypt, and in the subjects of brain weight and cranial capacity. Investigations were conducted in the division by Dr. A. B. Emmons, of Boston, Massachusetts, who worked on the racial characteristics of the pelvis; and by Prof. J. S. Foote, of Omaha, Nebraska, who studied the his-

tology of the human and animal femora. Mr. F. E. Johnson, of England, received instructions in anthropometry, preparatory to proposed explorations in northern Africa.

On April 1, 1910, under the auspices of the Smithsonian Institution, Doctor Hrdlička proceeded to South America for the purpose of conducting investigations relative to the antiquity of man in Argentina. He was absent six months and during half that time was accompanied by Mr. Bailey Willis as geologist. The trip also afforded the opportunity for making observations in Brazil, Peru, Panama, and Mexico. While his stay in Brazil was very short, it permitted the examination of the more important human skeletal remains in the Museu Nacional and the Instituto Historico e Geographico Brazileiro at Rio de Janeiro. Two months were spent in Argentina in studying the skeletal and archeological remains attributed to ancient man contained in the museums, in visiting the most important localities where the remains of supposedly early man or his forerunners have been discovered, and in making such further explorations and collections as the time permitted. Field work was mainly limited to the coastal region of the Province of Buenos Aires, although it extended as far south as the Rio Negro. Subsequently Doctor Hrdlička touched in Chile and proceeded to Peru, where he visited the important regions of Pachacamac and Gran Chimu, in each of which he secured valuable skeletal collections. Thence he went to Panama and later to Mexico, in both of which countries limited explorations were made and collections obtained.

The results of the expedition were, in brief, the gathering at first hand of a large amount of evidence on the subject of early man in South America, particularly Argentina; a considerable extension of knowledge regarding the anthropology of the coastal region of Peru, with valuable data on the ancient occupants of Teotihuacan, Mexico; and the collection of over 3,400 crania, several thousand individual human bones, and many hundreds of archeological, zoological, and other specimens.

Important facilities for exploration were furnished and valued aid and advice were given by a number of the scientific men and others in the countries visited. For such courtesies the Museum has been placed under obligations especially to Sr. D. Francisco P. Moreno, member of the Argentine Chamber of Deputies; Dr. Florentino Ameghino and Sr. Carlos Ameghino, of the Museo Nacional de Historia Natural, at Buenos Aires; Dr. Santiago Roth, of the Universidad Nacional de La Plata; Prof. J. B. Ambrosetti, of the Universidad Nacional de Buenos Aires; Sr. Dermidio Galindez, vice governor of the Province of Patagonia; Dr. Max Uhle, director of the Museo de Historia Nacional, Lima, Peru; and Sr. Victor Larco y Herrera, of Trujillo, Peru.

Technology.—A gasoline automobile presented by the inventor, Mr. Elwood Haynes, of Kokomo, Indiana, by whom it was built in 1893–94, constituted one of the most interesting accessions of the year. On a trial trip made July 4, 1894, being then equipped with a one-horsepower motor and carrying two persons, this machine ran about 5 miles at a rate of 6 to 7 miles an hour; but with the substitution of a two-horsepower motor and other modifications, its speed was increased to 12 miles an hour. An important donation of guns, pistols, and swords from Mrs. James William Reilly, of Washington, includes a Hall breech-loading rifle of 1837, a Merrill breech-loading rifle with Harpers Ferry lock of 1848, a Robbins and Lawrence rifle made at Windsor, Vermont, in 1850, a Gibbs breech-loading carbine of 1856, a Joslyn breech-loading carbine of 1861, a Springfield breech-loading carbine, model of 1873, two flintlock pistols, a pair of very fine percussion-cap pistols bearing English proof marks and inscribed "John Mullin, New York," and a military sword of the period of the War of 1812. Mrs. Reilly also presented an antique thumb ring, said to have been made in Poland several generations ago, and a rare, finely finished and embellished English verge watch marked "John Cooper, Swanzey." An Edison chemical meter, the gift of the Easton Gas and Electric Company, Easton, Pa., is a type of instrument that was generally employed for measuring electric light currents before the introduction of electro-mechanical meters, which came into use about 1880. A model of a polar sundial with perpendicular gnomon, devised and made by the donor, Mr. Claude L. Woolley, of Baltimore, is an important addition to the series of sundials already contributed by Mr. Woolley. Seven examples of Springfield, Hotchkiss, and Lee military rifles, types of the arms used in the United States Navy from 1870 to 1905, were deposited by the Navy Department.

Among other gifts were specimens of materials and pieces of apparatus used by Thomas A. Edison in his early experiments with the electric light, from Mrs. George F. Barker, of Philadelphia, Pennsylvania; a French fencing foil and a light, pliable Toledo blade made to show the extreme flexibility of the steel manufactured at the famous Toledo factories, from Mrs. A. L. Barber, of Washington; a rare foreign horse-pistol, with quill percussion lock, from Mr. Jacob Steiner, of Brooklyn, New York; a Chinese sundial, with string gnomon, from Dr. C. H. Barlow, of Huchow, China; six sections of typical modern rails, manufactured by the Maryland Steel Company for use on steam railroads, from Mr. G. P. Raidabaugh, of Sparrow Point, Maryland; the original British patent, No. 725, granted to Edward Maynard for improvements in breech-loading firearms, March 22, 1859, to which is attached the official seal used at that time and weighing 25½ ounces, from Mr. George

Willoughby Maynard, of New York; models of a schooner yacht and a sloop yacht, representing types of United States vessels introduced about 1875 and used on the Atlantic coast, from Mr. Edward Pearce Casey, of New York; and an English watch movement embodying some unique and interesting devices in construction, from Mr. W. E. Emory, of Washington. Ten modern sporting guns used by the naturalists on the Smithsonian African Expedition were deposited by the Smithsonian Institution.

A provisional extension of the exhibition space into the west hall and two ranges permitted the installation during the year of much additional material withdrawn from storage. Several of the more important exhibits were improved in their arrangement, and advantageous changes were made in the installation of the many models received from the United States Patent Office. The bicycles and tricycles, of which there is an interesting series, were cleaned and prepared for exhibition.

The exhibits of the division were the subject of study and of graphic representation by many individuals, including journalists, publishers, model makers, mural decorators, and representatives of other museums and institutions. Photographs were furnished to a number of applicants, and information relative to the collections and to technical matters was freely given. The models of inventions were utilized by the Patent Office, and were inspected by patent attorneys and others interested in questions of litigation. Several visits were made by the assistant curator in charge of the division, Mr. George C. Maynard, to New York and other places for the purpose of studying collections and of examining material required by or offered to the Museum.

Ceramics.—There were few additions in ceramics, the principal ones being as follows: An important collection of ancient Korean pottery, assembled and fully catalogued by the late Gustavus Goward, of the United States Consular Service, was deposited by his heirs, through the executrix, Miss Jennie Lawson, of Washington. It consists of 39 pieces, mostly of porcelaneous stoneware with soft, greenish glazes, dating mainly from about the fifteenth century, though a number of the pieces belong to a much earlier period. A Japanese vase, 31 inches high and 22 inches in diameter, presented by General Julius Stahel, of New York, through Mr. Simon Wolf, of Washington, is regarded as an exceptionally fine example of Sumida ware. It is decorated with wistaria blooms in high relief and with colored glazes, and is about 200 years old. A series of 29 American tiles from the Mosaic Tile Company, of Zanesville, Ohio, was donated by Mrs. Charles W. Richardson, of Washington, and a vase of Brower ware was lent by Mrs. Julian James, of Washington.

While little work was done in connection with the collection of ceramics, and with the objects of glass and metal work installed with it in the same gallery, the material has been maintained in good condition, and the exhibition arrangement, while provisional, is satisfactory for the present.

Graphic arts.—The quarters occupied both for the storage and exhibition of the processes and results of engraving have for several years been so overcrowded that no special efforts have recently been made to add to the collection. The material on hand has been constantly looked after and is in satisfactory condition, but with the small space allotted to it it has been impossible to keep the exhibition series in touch with the times. Shortly before the close of the year, however, additional room was set aside for overhauling the collection and for revising and increasing the public display. It is expected that considerable progress will soon be made in these directions, and substantial help has been promised by printing and engraving establishments.

Among the accessions of the year were a series of engravings lent by Mrs. Emma K. Hanvey, of Washington; an artist's proof etching of Doré's "Neophyte," deposited by Mrs. E. P. Wood, of Washington; an example of brush line work and a photo-engraved reproduction of it, representing "Head of Lion," after Rosa Bonheur, presented by Mr. W. Frank Clark, of Washington; and 35 prints of vignettes, from bank-note dies engraved by Frederick Girsch, 1849 to 1894, donated by Mr. Charles W. Girsch, of Mount Vernon, New York.

Preparations were begun for placing on exhibition the exceedingly valuable collection illustrating the history of photography in all its branches which has been assembled under the supervision of the custodian of the section of photography, Mr. Thomas W. Smillie. This work has involved most earnest and painstaking effort on the part of Mr. Smillie during a long term of years, and the collection has no equal elsewhere for completeness and rarity of objects. It will be found to be, on the completion of its installation, one of the most interesting and instructive exhibits in the Museum. Among the additions of the year were a number of fine ambrotypes and daguerreotypes, some of which were purchased, while others were presented by the Misses Long, of Washington, and Mr. John H. Clark, of New Orleans, Louisiana.

Musical instruments.—The valuable collection of musical instruments is also one of those which long ago outgrew its original allotment of exhibition space, but it will soon be given the facilities for an appropriate presentation. The collection has been for many years in the direct charge of Mr. E. H. Hawley, who has not only looked after the preservation of the material, which is in excellent condition, but has also paid much attention to the subject of a scientific classifica-

tion of musical instruments and has brought together a large amount of information regarding the instruments in this and other collections. Six wind and string instruments peculiar to Catalonia, Spain, and more distinctly antique than other European instruments of corresponding varieties, were purchased; and a Böhm flute, a concert instrument of rosewood, silver tipped and banded, made by A. G. Badger, of New York, was presented by Mr. Robert E. Seel, of Washington. The latter is a good example of a type not previously represented in the Museum.

Medicine.—Founded to illustrate on broad lines the theories and methods for the relief of sickness and injuries as held and practiced by man from earliest historic times to the present, the plan of this division contemplates an extensive and comprehensive collection which shall be both interesting and instructive. In some directions a considerable amount of material has been brought together, and the exhibition series is well installed and labeled. There is still a vast amount of work to be done in order to even approximately cover the entire field, but the subject is of sufficient importance to warrant renewed efforts toward building up the division and increasing its usefulness. Except for brief intervals, the charge of the division has devolved on Dr. James M. Flint, United States Navy, who started the collection and to whose zealous services, voluntarily contributed, its development and status as a museum feature is mainly due. There is a complete descriptive card catalogue of the collection. Among the accessions of the year were the results of the chemical tests made by the late Prof. George F. Barker in the Sherman poisoning case of 1872, contributed by Mrs. Barker; and a series of Chinese books treating of the various things used as medicines by the Chinese, presented by Prof. N. Gist Gee, of Soochow University.

History.—This division received both as permanent acquisitions and as deposits many objects of exceptional value and importance. Of special interest was a loan from Rear Admiral Robert Edwin Peary, United States Navy (retired), consisting of 16 gold and 2 silver medals which had been conferred upon him by various geographical societies in recognition of his services to science in arctic explorations, notable among them being the great gold medals of the National Geographic Society of Washington and the Royal Geographical Society of London; two of the flags carried by the explorer to the North Pole in 1909, namely, the Peace Flag of the Society of the Daughters of the American Revolution and the flag of the Delta Kappa Epsilon fraternity, of which Admiral Peary is a member; two maps illustrating the routes traversed by various arctic explorers from 1800 to 1909; a silver replica of a model of the type of sailing vessel used by Henry Hudson, John Davis, and William Baffin in their search for the Northwest Passage during

the seventeenth and eighteenth centuries, presented to him by the Royal Scottish Geographical Society in 1910; and three silver loving cups presented by the cities of Bangor, Portland and South Portland, Maine, and the Delta Kappa Epsilon Association of New York City. The flag of the Navy League of New York City, which was also displayed at the North Pole by Admiral Peary, was deposited by the Admiral Trenchard Section 73 of the League, through Mr. Edward E. Trenchard, of Babylon, New York, and has been installed in connection with the Peary objects.

A valuable collection of memorials of the Salter and Codwise families of Colonial and Revolutionary New York and New Jersey, lent by Miss Louise Salter Codwise, of Kingston, New York, includes three miniatures on ivory in gold frames, two of which are set with precious stones, the portraits being of Manasseh Salter, Harriette Matilda Spencer Salter, and Elisha Rogers Codwise; an ivory fan, a gold watch and key, a gold locket, necklace, bracelet and earrings of pearls, two pearl stick pins, a sampler, two handkerchiefs and case of silk, and articles of the toilet; and also five pieces of rare old lace, 18 foreign coins and a pack of Torot cards. To her already large loan collection of memorials of the Bailey-Myers-Mason family, important additions were made by Mrs. Julian James, of Washington, comprising two green Bohemian cut-glass toilet pitchers, two shell back-combs, a cap of silk and lace, a silver fork and three silver spoons; four gold medals conferred on Lieut. Commander Theodorus Bailey Mason Myers, United States Navy, and a gold riding whip, meerschaum pipe, and six naval buttons that had belonged to him; a photograph of the commission of Hugh C. Mason as captain of militia in the Colony of Massachusetts, 1655, and six daguerreotypes of members of the Bailey-Myers-Mason family.

The Gustavus Vasa Fox collection was increased by a series of autographed photographs of Russian nobles of the court of Alexander II, presented to Mr. Fox in 1866, many manuscripts relating to the Fox mission to Russia, a number of Russian books and pamphlets, two bronze medals and two fragments of historic rocks. A service sword, with scabbard and belt, used during the Spanish-American War by Capt. (afterwards Rear Admiral) John W. Philip, United States Navy, and a pair of field glasses found by Captain Philip on board the Spanish battleship *Maria Theresa* after the engagement off Santiago in 1898, were deposited by Mr. Barrett Philip, of Washington. Mrs. Emma K. Hanvey, of Washington, lent 14 examples of old German glass painted in colored enamels with coats of arms, dates and historic names, and also two miniatures, a silver ornament in the form of a coach, a silver snuffbox,

13 crucifix spoons, 5 apostle spoons, 2 cable and ship spoons, and a Louis Philippe cup and saucer.

An inhaler of the type used by Dr. William T. G. Morton in the first operation he performed with the aid of ether as an anesthetic in 1846 was presented by Dr. Gustave P. Wiksell, of Boston; and two busts of Doctor Morton, one in bronze by Helen F. Mears, the other in plaster from a mask made by Clark Mills, were received as a gift from his son, Dr. William J. Morton, of New York.

Eleven pieces of furniture which once belonged to Brig. Gen. Rufus Putnam and had been donated to the Museum by his great-grandson, the late Judge E. M. P. Brister, of Newark, Ohio, were received from Mrs. Brister. An interesting collection of relics, consisting mainly of examples of the handiwork of the Schenck family of New Jersey for three generations, and including wearing apparel, textiles, toilet articles, etc., was presented by Dr. Clara Southmayd Ludlow, of Washington. It is to be known as "The Sutphen-Schenck-Hunt Memorial Collection."

The National Society of the Colonial Dames of America added to its collection deposited in the Museum an antique sword with silver handle carried in the War of the Revolution by Col. John Cropper, of Virginia, a number of colonial relics of the Cropper family, and other objects dating from colonial times. A gold medal awarded to Capt. John Cropper by the British Government in 1840 was lent by Mrs. John Cropper, of Washington.

The plaster model of the statue of Rear Admiral Andrew H. Foote, by Mr. William Couper, of New York, from which the bronze statue for the Vicksburg National Military Park was cast, was deposited in the Museum by the War Department.

An interesting series of articles of nickel produced by the late Joseph Wharton, of Philadelphia, who was recognized as the leader in the technology of this metal, was received as a donation from the executors of his estate. This collection, which had been preserved by Mr. Wharton in a cabinet at his home, comprises over 60 pieces, including pure nickel in several forms, harness and door trimmings, household utensils, forceps, magnetic needles, coinage blanks, etc., and is of much historical value.

Numerous additions were made to the collections of coins, medals, and stamps, and to the series of portraits of scientific men and other persons of note.

The exhibition space for the division of history was increased during the year by the assignment to this subject of the west-north range in the old Museum building. In this hall have been arranged the collection of Washington relics, many miscellaneous objects belonging to the period of the American Revolution and the first quarter of the nineteenth century, the Gustavus Vasa Fox collection,

a part of the Cromwell stamp collection, and numerous historical documents and paintings. Many changes and improvements were made in the installations in the north hall, and additional cases were ordered and partly finished to relieve the congested condition of some of the exhibits.

Much progress was made in cataloguing and in preparing lists of the extensive collections which are not on exhibition. The collection of portraits, of which there are about 15,000, was gone over for the purpose of perfecting the arrangement and labeling, and about 300 new portraits were added. The entire study series of the division is in fair condition, and the work of placing it in thorough systematic order is proceeding rapidly. When these plans have been carried out it is expected that all the articles in storage will be as accessible for study and reference as are those in the exhibition cases. The assistant curator of history, Mr. T. T. Belote, has in preparation a descriptive catalogue of the Washington relics preserved in the Museum.

Anthropological laboratory.—The work of making and coloring casts, constructing lay figures, and cleaning, poisoning, restoring, and mounting specimens has been in charge of Mr. H. W. Hendley. The largest undertaking of the year was connected with the reconstruction, painting, and installation of the entire series of plaster casts of the department, moved from the old building. Other important work consisted in the rebuilding of the model of the Tower of Babel, and of the lay figure group representing the Virginia Indians trading with John Smith, the former on a reduced scale, and the casting of numerous stone implements.

DEPARTMENT OF BIOLOGY.

Mammals.—Through the generosity of Mrs. Edward H. Harriman, of New York, by whom it was purchased and presented to the Institution, the Museum has acquired the notable collection of North American mammals assembled by Dr. C. Hart Merriam before his connection with the Government service. It comprises about 5,800 skins, 6,000 skulls, of which 235 are of seals, and 100 complete skeletons, and contains about 80 type specimens. Among the receipts of the early part of the year were the last two shipments made by the Smithsonian African Expedition, under the direction of Col. Theodore Roosevelt, including most of the mammals from Uganda, and about 425 small mammals obtained in Java by Mr. Owen Bryant and Mr. William Palmer. One hundred and five mammals collected for the Museum in Shan-si, China, were received from Mr. Arthur de C. Sowerby. Mr. John J. White, of Washington, presented 27 specimens from British East Africa, including an example of the rare antelope *Damaliscus phalius*, and Mr. Hoffman Philip donated six

specimens from Abyssinia, one of which has been made the type of a new species, *Mellivora abyssinica*, recently described by Mr. N. Hollister.

The exceptional number of specimens received in the rough state during the past two years has severely taxed the resources of the division in providing for their final preparation. Of the large and medium sized skins over 300 were tanned, in order to preserve them in a soft and pliable condition; more than 3,000 skulls of all sizes were cleaned, and good progress was made in cleaning the large skeletons from the African expedition.

The entire collection of mammal skins is now, for the first time since it outgrew its quarters in the older Museum building 25 years ago, completely and satisfactorily installed, being systematically arranged in the capacious laboratory of the division, which occupies the entire ground floor of the northwest range in the new building. The collection of skulls has also been thoroughly revised and rearranged, and with the exception of the ungulates and pinnipeds was systematically placed in standard cases, but a proper disposition of the skeletons and alcoholic specimens awaits the completion of the necessary accommodations for their storage. The work of supplying uniform typewritten labels for all the skins and skulls was actively taken up about the middle of the year.

Mr. Gerrit S. Miller, jr., curator, and Mr. N. Hollister, assistant curator, of the division, prepared several short papers descriptive of Museum material which are noted in the bibliography. Mr. Hollister also completed his monograph of the genus *Fiber*, on which he has been engaged for some time, and Mr. Edmund Heller continued his investigations on the mammals collected by the Smithsonian African Expedition. Dr. M. W. Lyon, jr., of Howard University, finished his report on the mammals from Borneo, collected and presented by Dr. W. L. Abbott, and has made good progress on a monograph of the tree-shrews, a peculiar group of Malayan mammals especially well represented in the contributions from Doctor Abbott. Members of the staff of the Biological Survey of the Department of Agriculture and Dr. C. Hart Merriam have, as usual, made constant use of the collections, and visits were paid to the Museum for the purpose of examining specimens by Mr. Roy C. Andrews, of the American Museum of Natural History, Dr. Glover M. Allen, of the Museum of Comparative Zoology, and Mr. W. H. Osgood, of the Field Museum of Natural History. Thirteen lots of specimens were lent for study to institutions and specialists both in this country and abroad.

Birds.—The final accession of birds from the Smithsonian African Expedition comprised 1,379 dried skins and 213 alcoholic specimens, skeletons, and eggs, and supplied many desiderata, of which the

most important is the shoe-bill heron, *Balæniceps rex*, a form not hitherto represented in any American museum. It also contained other genera new to the collection, including *Anastomus*, *Dicrocercus*, *Macrodipteryx*, *Scotornis*, *Cryptorhina*, *Sorella*, and *Elminia*, and numerous species and subspecies which are now first obtained from this source. Ninety skins of Chinese birds were received from the Museum of Comparative Zoology in exchange, and 83 skins from Luzon, Philippine Islands, were presented by Dr. H. C. Curl, United States Navy. The last consignment from the Java expedition of Mr. Owen Bryant, consisting of skins, nests, and eggs, contained several examples of the interesting Weaver birds (Ploceidæ). Skins of North and Central American species to the number of 1,240, among which are many well-prepared specimens of water birds and waders, were obtained from Mr. Edward J. Brown, of Washington, partly by gift and partly by purchase. In the course of a hunting trip to the coast of South Carolina near Charleston, lasting five weeks, Dr. E. A. Mearns, United States Army, Mr. J. H. Riley, and Mr. E. J. Brown made for the Museum an interesting collection consisting of 607 skins, 52 eggs, and 2 nests, and including topotypes of numerous species originally described from the drawings of Mark Catesby. Several important forms new to the Museum and desired for the exhibition series were purchased. Among them are 2 birds of paradise, *Astrapia rothschildi* and *Parotia carolæ*, a hornbill, *Rhyticeros narcondami*, and a jay, *Lalocitta lidthi*, and specimens of *Globicera wilkesi*, *Globicera aurorœ*, and other species from Polynesia.

The reserve collection of bird skins and eggs occupies 420 large standard cases. The rearrangement of the skins, which had become exceedingly crowded in their quarters in the Smithsonian building, was completed for 96 cases, 52 of which were also furnished with case labels. Labels indicating the contents of each drawer were prepared for the North American eggs, and a beginning was made in assembling the data for those required for the skins. Specimen labels were written for about 2,700 skins. Some 3,500 mounted specimens withdrawn from exhibition several years ago were examined, and those considered desirable to return to the reserve series were set aside for dismounting. About 30 types reclaimed from the general collection were suitably labeled and placed in the type cases. The alcoholic specimens, now stored on the ground floor in the same compartment as the reptiles, were extensively renovated and rearranged, and much was done toward completing their labeling and recording. The collection of skeletons, skulls, and sterna remains to be overhauled. The card catalogue serving as an index to the alcoholic specimens and skeletons has, to a large extent, been verified and the nomenclature revised.

The curator of the division, Mr. Robert Ridgway, completed the manuscript of part 5 of Museum Bulletin 50, entitled "The Birds of North and Middle America," and by the close of the year the printing of this volume was well advanced. He also made considerable progress in the arrangement of data for part 6 of the same work. Dr. E. A. Mearns continued the preparation of his report on the birds collected by the Smithsonian African Expedition, and Mr. William Palmer devoted some time to working up the birds obtained in Java by Mr. Owen Bryant and himself. Mr. A. C. Bent, of Taunton, Massachusetts, who, at his own expense, is proceeding with the work on the "Life Histories of North American Birds," begun by Major Bendire and continued by Doctor Ralph, examined material at the Museum and made one or more field trips during the year.

The collections of the division were consulted by members of the staff of the Biological Survey and by many ornithologists from different parts of the country and from abroad. Among the latter may be mentioned Mr. W. E. Clyde Todd, of the Carnegie Museum; Mr. Witmer Stone, curator of the Academy of Natural Sciences of Philadelphia; Mr. Frank M. Chapman and Mr. W. de W. Miller, of the American Museum of Natural History; Dr. Glover M. Allen and Mr. William Brewster, of the Museum of Comparative Zoology; Mr. Charles B. Cory and Mr. W. H. Osgood, of the Field Museum of Natural History; Mr. B. H. Swales, of Grosse Ile, Michigan; Dr. L. C. Sanford, of New Haven, Connecticut; Mr. Abbott H. Thayer, of Monadnock, New Hampshire; Dr. R. W. Shufeldt, and Rear Admiral R. E. Peary, United States Navy, of Washington; Hon. Dean C. Worcester, secretary of the interior of the Philippine Islands; Mr. Anastasio Alfaro, director of the Museo Nacional, San José, Costa Rica; and Mr. J. H. Fleming, of Toronto, Canada.

Reptiles and batrachians.—The acquisitions by this division were especially important and supplied many species new to science as well as many others new to the collection. The largest accession, received by transfer from the Biological Survey of the Department of Agriculture, comprised 3,707 specimens from various localities in the United States and Mexico, and furnished the second specimen of *Ascaphus truei.* The working up of the Mexican material is expected to add very extensively to our knowledge of the herpetology of that country. The Javan collection made by Mr. Bryant and Mr. Palmer and determined by Mr. Thomas Barbour, of the Museum of Comparative Zoology, added a large number of specimens and the type of a new species of snake. From the Smithsonian African Expedition 399 additional specimens were received, making the total number of reptiles and batrachians obtained from that source 2,223. The Bureau of Fisheries transmitted 330 specimens collected partly in different sections of the United States and partly during the cruise

of the steamer *Albatross* to the Philippine Islands, the material from this expedition containing many species new to the Museum from Celebes, Amboina, etc. The Hon. J. D. Mitchell, of Victoria, Texas, presented a well-preserved and well-labeled series of 187 specimens from Texas, the result of many years' collecting; and Mr. H. Sauter, of Anping, Formosa, 72 batrachians from the southern part of that island. A single specimen of a small lizard with degenerate legs, received as a gift from Mr. A. G. Reynolds, of Veteran, Florida, proved to be one of the most remarkable recent discoveries in North American herpetology, as its relationship seems to be with species inhabiting the eastern Mediterranean and Persian regions of the Old World. It was described during the year by the curator as *Neoseps reynoldsi*. Mr. Allan H. Jennings, of Ancon, Canal Zone, contributed the unique type of a remarkable new tree toad from Panama, and Mr. C. H. T. Townsend, of Piura, Peru, the type of a new Amphisbænoid lizard. Mr. A. Alfaro, of San José, Costa Rica, presented five specimens representing three species, two of which were undescribed.

The entire collection of the division was transferred to the new building early in the year, and the rearrangement and installation of the North American reserve series of both reptiles and batrachians were practically completed by the end of the year. In this work was included the card-cataloguing of the North American specimens, each jar being represented by two cards, one for the systematic, the other for the geographic record. The types have been segregated and nearly all are card-catalogued, full reference to the original description and illustration of the species being recorded on the cards. A separate card index to this series has also been made.

While the curator, Dr. Leonhard Stejneger, prepared a number of descriptions of new species, routine work in connection with the moving, and the verification of the old records and identifications, which in many cases involved considerable research, occupied essentially all of his time. Mr. Thomas Barbour visited the division on several occasions for the purpose of examining material in connection with his studies of the herpetology of the Malay Archipelago.

Fishes.—There were received as transfers from the United States Bureau of Fisheries 2,911 specimens of fishes from North Carolina, Virginia, the lower Potomac River, and Indiana; and 64 specimens, chiefly of lake herring, including types of several new species, collected in the Great Lakes by the International Fisheries Commission. The last shipments from the Smithsonian African Expedition contained a valuable series of fishes from the River Nile. A collection from Wisconsin was presented by Mr. N. Hollister, of the Museum staff, and another from Bemus Point, New York, was contributed by the New York Forest, Fish, and Game Commission.

A finely preserved specimen, with young, of the torpedo ray (*Narcine*) was received as a gift from Mr. A. G. Reynolds, of Veteran, Florida.

The very extensive collections of this division, almost exclusively alcoholic, were moved to the new building during July and August, 1910, and by the end of the year they had been tentatively arranged on the shelves of the alcoholic storage room, in accordance with the classification of the families of fishes proposed by Dr. Theodore Gill, somewhat modified by himself, 324 families being recognized. The number of specimens incorporated in the collections during the year was about 15,000, exclusive of material from the Smithsonian biological survey of the Panama Canal Zone, which had not been accessioned. With much left over to be done in connection with the exceptionally large receipts of the previous year, the past year has been one of the busiest in the history of the division. Four thousand entries, covering 25,000 specimens, were added to the register, thousands of cards were prepared for the systematic catalogue, and thousands of labels for the jars and bottles.

Investigations by the assistant curator, Mr. B. A. Bean, and the aid, Mr. A. C. Weed, have related to the fish fauna of the District of Columbia, the Bryant collection of fishes from Java, and the lesser star-gazers, Dactyloscopidæ. A number of small collections and much other material received during the year were identified. The collections have been consulted by Dr. Theodore Gill, of the Smithsonian Institution, and by Dr. W. C. Kendall and Mr. Lewis Radcliffe, of the Bureau of Fisheries. For the working up of the extensive collection of fishes made in the region of the Philippine Islands by the steamer *Albatross* of this bureau, laboratory quarters have been provided in one of the Museum buildings. Visits were made to the Museum by Prof. T. D. A. Cockerell, of the University of Colorado, and Prof. E. C. Starks, of Stanford University, the former for the purpose of studying some forms of cyprinoid fishes, the latter to examine certain sharks and other fishes.

Insects.—The Bureau of Entomology of the Department of Agriculture was, as usual, the principal contributor to this division. Mr. S. A. Rohwer, of that bureau, also generously presented his private collection of hymenoptera (exclusive of the sawflies which he had given the previous year), comprising about 800 specimens, representing about 500 species, and containing 121 types and paratypes of Vespoidea and Sphecoidea, and the types of 3 parasitic hymenoptera. Mr. P. R. Myers, aid in the division of insects, likewise donated his private collection of hymenoptera, consisting of about 3,400 specimens. From Prof. T. D. A. Cockerell several small lots of specimens, including 5 types and 7 cotypes of new species, were received as a gift. Mr. F. Du Cane Godman, of London, presented, through Mr.

G. C. Champion, about 220 calandrids and cossonids from Central America.

The general work on the collection of insects, which had been moved to the new building the year previous, consisted mainly in the transfer of specimens to drawers and cases of the standard equipment. This work was completed for the lepidoptera, and the cards for the index required to locate material in this order were mostly written. Considerable progress was also made in the corresponding reinstallation of the hymenoptera, hemiptera, and coleoptera.

The only investigations conducted by members of the staff consisted of certain detached studies indicated by the published papers cited in the bibliography. Dr. Arthur Neiva, of the Instituto Oswaldo Cruz, Rio de Janeiro, Brazil, continued in researches on mosquitoes. Among other entomologists who consulted the collections were Dr. E. Bergroth, of Fitchburg, Massachusetts; Prof. E. S. G. Titus, of Logan, Utah; Mr. J. R. de la Torre Bueno, of White Plains, New York; Mr. William Beutenmüller, of the American Museum of Natural History; Mr. John D. Sherman, jr., of Brooklyn, New York; Mr. William T. Davis, of New Brighton, New York; Mr. A. B. Gahan, of College Park, Maryland; Mr. A. A. Girault, of Urbana, Illinois; and Prof. T. D. A. Cockerell.

Mollusks.—The principal accession of the year consisted of the collection made in Alaska by Dr. William H. Dall while in the field for the United States Coast and Geodetic Survey and later for the United States Geological Survey, between 1871 and 1899. Comprising about 15,000 lots and 50,000 specimens of shells, both dry and alcoholic, it is undoubtedly the largest collection of the mollusks of moderate depths of water ever assembled from that region, and, although it has been in the custody of the Museum for some years, it had never been officially transferred. Doctor Dall hopes to make it, together with the collections of the Bureau of Fisheries steamer *Albatross* from deep water in the same region, the basis of a comprehensive report on the marine mollusk fauna of Alaska and the adjacent parts of the northwest coast of America. The second accession in point of size and importance was received from the Imperial University of Tokyo, through Prof. E. S. Morse, of Salem, Massachusetts, on condition that a named series be sent to the university. The part to be retained by the Museum will, it is estimated, comprise about 12,000 specimens. The shells are nearly all shore or shallow water species, many of which have not been represented in the Museum's series from Japan, and will admirably supplement the collection made in deeper water by the *Albatross* during its visit to the Japanese coast. A very interesting series of fresh-water shells from the upper waters of the Nile was contained in the final shipment from the Smithsonian African Expedition.

In connection with explorations about the Coronado group of islands belonging to Lower California, Dr. Fred. Baker and Miss J. M. Cooke, of San Diego, California, collected a quantity of shells, chiefly minute forms, which were sent to the Museum for determination. A selection from this material donated to the Museum contains the types of a number of new species and of one new genus of bivalves, *Bernardina*. Mr. Charles R. Orcutt, also of San Diego, presented many shells obtained by him in various parts of Mexico, including types of several new species and a number of desiderata. Through Dr. John Macoun the undetermined shells from last season's collecting by the Geological Survey of Canada were sent to Washington to be named and divided between the Survey and the Museum. Mr. Arthur Haycock, of Bailey Bay, the Bermudas, contributed a series of shells secured during explorations about those islands, in return for assistance in working up his material. From Dr. T. W. Stanton, of the United States Geological Survey, there was received an interesting lot of shore shells from northern Alaska, and from Dr. R. H. Tremper, of Ontario, California, a beautifully prepared series of desiderata from his fine collection of west coast shells. A notable specimen of *Haliotis cracherodii*, in that it had never developed any branchial orifices though otherwise apparently normal, was obtained by purchase at Venice, California.

The progress made in labeling, recording, and administering on the collection was much greater than in any previous year in the history of the division. For addition to the reserve series 9,019 separate lots comprising some 27,000 specimens were labeled and registered, and about 25,000 labels were prepared for the collection recently made at the Philippine Islands by the steamer *Albatross*. The incorporation of this new material in the systematically arranged collection was only partly accomplished during the year.

The researches with which the curator of the division, Dr. William H. Dall, was chiefly occupied related to his monograph of the marine mollusks of northwestern America, already mentioned. This, in connection with work on the Pleistocene and Tertiary faunas for the Geological Survey, is making slow but constant progress. A number of papers on minor investigations by Doctor Dall were published. During such time as could be spared from the general work, the assistant curator, Dr. Paul Bartsch, continued his studies on the Turton collection of marine mollusks from Africa. The collections of the division were utilized by a number of persons. Dr. T. Wayland Vaughan, of the Geological Survey, continued his investigations on the fauna of the coastal plain of the southeastern United States, and Mr. G. Dallas Hanna, of the same survey, his work on the land and fresh-water mollusks of Kansas. Miss Julia Gardner examined Tertiary fossils in connection with her work for the Geological Sur-

vey of Maryland, and Miss Mary Breen, collaborator of the division, conducted researches on the mollusks of the District of Columbia. Among others who visited the division for the purpose of examining specimens and making comparisons were the Hon. T. H. Aldrich, of Birmingham, Alabama; Dr. H. A. Pilsbry, of the Academy of Natural Sciences of Philadelphia; Mr. Bryant Walker, of Detroit, Michigan; Prof. G. D. Harris and Miss Carlotta Maury, of Cornell University; and Mr. Anastasio Alfaro, of the Museo Nacional of Costa Rica.

Marine invertebrates.—The most important additions to this division were received from the Bureau of Fisheries as transfers. Four of these consisted of collections obtained during explorations by the steamer *Albatross*, which had been worked up and made the subject of official reports, as follows: Over 200 specimens of isopod crustaceans, representing 67 species and including types of 3 new genera and 38 new species, from the Philippine Islands, 1907–1910, determined by Dr. Harriet Richardson; about 150 specimens of medusæ, representing 26 species and including the types of 4 new species, from the same region, determined by Dr. Alfred G. Mayer; over 300 packages of hydroids, containing 99 species and including types and cotypes of 5 species, from the northwestern Pacific Ocean, determined by Prof. C. C. Nutting; and over 800 specimens representing 42 species of siphonophores from the eastern Pacific Ocean, 1904 and 1905, determined by Dr. Henry B. Bigelow. The Indian Museum at Calcutta, India, sent in exchange 165 specimens of decapod crustaceans, representing 102 species, nearly all of which are new to this Museum, and also 14 species of Indian and European bryozoans. From the Muséum d'Histoire Naturelle, Paris, France, there were received as gifts two collections of isopod crustaceans, one obtained by the Charcot expedition to the Antarctic Ocean, the other from the explorations of the French steamers *Travailleur* and *Talisman* in 1880 to 1883, both worked up and described by Dr. Harriet Richardson. Collections of shrimps and crinoids were also obtained from the same museum in exchange. The Zoological Museum at Copenhagen, Denmark, transmitted, likewise in exchange, 34 species of crinoids, represented by 92 specimens. Dr. James M. Flint, United States Navy (retired), presented to the Museum 347 microscopic slides of foraminifera, selected chiefly from dredgings by the Bureau of Fisheries steamer *Albatross* from 1883 to 1887, and mounted and identified by himself. Dr. Charles B. Wilson and Dr. E. A. Andrews, while at the Johns Hopkins laboratory, Montego Bay, Jamaica, during the summer of 1910, kindly collected for the Museum in that locality about 250 lots of crustaceans, both marine and fluviatile. In the collection received from the Imperial University of Tokyo through Prof. E. S. Morse are a large number of miscellaneous

marine invertebrates, in addition to the mollusks already referred to, which were sent subject to the same conditions.

The collections and laboratories of the division were moved to the new building during the first half of the year, and by the close of the year the alcoholic material, filling several thousand jars and bottles, had been mostly arranged. In the alcoholic storage room the stacks were lettered and the shelves numbered; the family names were pasted on the edges of the shelves, and large labels to be fastened at the end of each stack and briefly indicating its contents were in course of preparation. While the transfer was in progress care was taken to see that all receptacles were properly filled with alcohol, and it is hoped that the low temperature in the new quarters will prevent the rapid evaporation which has been a serious menace to the collection in the overheated Smithsonian basement. The dried collection placed in the laboratories on the ground floor has been systematically installed, but of the material assigned to the attic storage only the samples of ocean bottom had been put in final order.

To assist in the arrangement of the reserve collection a scheme of classification was adopted and a tabulated list was made of the orders, families, and genera of each phylum. This list, typewritten and bound, forms a systematic index to the collection, and also indicates the desiderata, asterisks marking those families and genera not represented. The variety and extent of the collection is shown by the number of families so far arranged, namely 560, and this will be considerably increased when the Protozoa and Trochelminthes, in the form of microscopic mounts, have been added. Many hundreds of cards were written and the catalogues of alcoholic sponges, medusæ, hydroids, and crustaceans were completed to date.

On account of the amount of routine work attendant upon the moving of the collections, Miss M. J. Rathbun, assistant curator, was unable to carry on other investigations than were necessary for the identification of the decapod crustaceans received during the year. Mr. Austin H. Clark, assistant curator, completed his reports on the crinoids in the Paris Museum, the Leyden Museum, and the Indian Museum, and on those collected by the steamer *Investigator*. He submitted a preliminary paper on the crinoids obtained by the steamer *Albatross* during the Philippine cruise, and finished the first part of his monograph of the recent crinoids, comprising the historical introduction and the discussion of the skeletal system. He also began work on the crinoids of the Hamburg West Australian, the *Siboga*, and the *Ingolf* expeditions. During the summer of 1910 Mr. Clark spent several months in Europe, having been detailed to enable him, among other things, to study the collections of crinoids and the methods of exhibiting and storing specimens in the principal museums. Eighteen cities containing important museums

were visited. Dr. Harriet Richardson, collaborator, continued her studies on isopod crustaceans, naming such as were received during the year, especially some collected by the Charcot expedition to the Antarctic Ocean, and also preparing descriptions of a number of single species from various localities.

Sir John Murray, of Edinburgh, Scotland, while in Washington in the spring of 1911, examined cursorily the entire collection of marine deposits derived from the explorations of the steamers of the Bureau of Fisheries and from other sources, and selected many samples which were to be forwarded to him at Edinburgh for more detailed investigation. The bottom samples from the dredgings made by the steamer *Albatross* in the north Pacific Ocean in 1906 were gone over by Dr. Albert Mann, of the Department of Agriculture, for the purpose of sorting out the diatoms, on which he will report to the Bureau of Fisheries. Dr. Harold Heath, of Stanford University, examined the alcoholic collections of alcyonarians and hydroids for specimens of parasitic or commensal solenogastrids which he is studying. Satisfactory progress is to be noted in the working up of collections belonging to this division by persons attached to other institutions. Dr. J. A. Cushman, of the Boston Society of Natural History, completed the second part of his bulletin on the foraminifera (Textulariidæ) of the north Pacific Ocean, and has the third part (Lagenidæ) well under way. Dr. Nelson Annandale, of the Indian Museum, Calcutta, finished part 5 of the series of papers he is preparing on the fresh-water sponges. Reports on the Cumacea by Dr. W. T. Calman, of the British Museum, and the Euphausiacea by Dr. H. J. Hansen, of Copenhagen, Denmark, are nearly ready. Other studies were being actively continued, as follows: On the starfishes of the north Pacific Ocean by Dr. W. K. Fisher, of Stanford University; parasitic copepods by Dr. Charles B. Wilson, of the State Normal School, Westfield, Massachusetts; New England bryozoa by Dr. R. C. Osburn, of Columbia University; the Sipunculoidea by Dr. J. H. Gerould, of Dartmouth College; shrimps of the family Crangonidæ by Dr. H. Coutière, of the University of Paris; certain Echinoidea by Dr. Th. Mortensen, of the Zoological Museum, Copenhagen; amphipod crustaceans from the Gulf of Mexico by Dr. A. S. Pearse, of the University of Michigan; hydroids by Prof. C. C. Nutting, of the University of Iowa; and medusæ of the Pacific Ocean by Dr. H. B. Bigelow, of the Museum of Comparative Zoology. Prof. J. W. Spengel, of the University, Giessen, Germany, has undertaken the study of the Echiuroidea, and Dr. C. Dwight Marsh, of the Department of Agriculture, of the fresh-water copepods.

The helminthological collections which constitute a section in the division of marine invertebrates are, for the convenience of the honorary custodians who have charge of them, partly kept and cared

for at the Hygienic Laboratory of the Bureau of Public Health and Marine-Hospital Service, the Bureau of Animal Industry, and the Naval Medical School. The additions during the year, which were numerous, were in part collected by officers and members of these services and in part received as gifts and exchanges. Among the outside contributors were Mr. C. W. Howard, of the Department of Agriculture of Portuguese East Africa; Prof. A. Railliet, of Alfort, France; Dr. R. P. Strong, of the Bureau of Science, Manila; Dr. Bell, of Hongkong, China; Dr. Paul R. Stalnaker, passed assistant surgeon, United States Navy, Culebra, Porto Rico; Capt. J. F. Siler, United States Army, Post-Graduate School, New York; and Dr. B. F. Kaup, of Port Collins, Colorado.

Investigations on material added to the collections were completed and published on the following subjects: The taxonomic value of the microscopic structure of the stigmal plates in the tick genus *Dermacentor*, by Dr. Charles Wardell Stiles; some known and three new endoparasitic trematodes from American fresh-water fish, some new parasitic trematode worms of the genus *Telorchis*, and a new trematode (*Styphlodora bascaniensis*) with a blind Laurer's canal, by Mr. Joseph Goldberger; a new species of *Athesmia* (*A. foxi*) from a monkey, by Mr. Joseph Goldberger and Mr. Charles G. Crane; a new cestode from an African bustard, by Dr. B. H. Ransom; the gid parasite and allied species of the cestode genus *Multiceps*, and methods for the eradication of gid, by Mr. M. C. Hall.

Plants.—The total number of specimens of plants received during the year was 38,716, of which nearly one-third were obtained in connection with the biological survey of the Panama Canal Zone now being conducted under the auspices of the Smithsonian Institution, as described elsewhere. The collections transferred by the Bureau of Plant Industry, the Biological Survey and the Bureau of Entomology of the Department of Agriculture aggregated 6,541 specimens, and by the Bureau of Fisheries, 1,700 specimens. Private collectors presented 2,390 specimens, while 8,740 were obtained through exchange, principally from the Bureau of Science at Manila, the New York Botanical Garden, and the Yale University Forest School. The number of specimens purchased was 5,900.

It is gratifying to note that in connection with the changes made possible by the completion of the new building this division has been able to secure convenient quarters with ample space for the growth of some years to come. To this purpose has been allotted the entire upper story of the main part of the Smithsonian building, formerly occupied by the exhibition collections of prehistoric archeology. It consists of a single large hall, 200 feet long, 50 feet wide and 29 feet high, in which 12 rooms for laboratory and office purposes have been screened off at one end. The rest of the hall furnishes accommoda-

tions for the herbarium storage cases, and an adjacent room in the south tower has been fitted up as a library and reference room. The transfer of the division was accomplished during the year. The furniture equipment of the herbarium comprises 643 steel-covered, insect-proof cases, with 14,468 pigeonholes, of which 75 cases, providing 1,800 pigeonholes, were added during the year. The number of plants mounted was 62,432, covering all arrears in this respect and greatly exceeding any previous record. A total of 69,253 sheets of plants was recorded.

The associate curator, Dr. J. N. Rose, continued his studies of Mexican and Central American plants and his cactus investigations. Mr. W. R. Maxon, assistant curator, continued his work on the ferns of North America, and Mr. E. S. Steele his studies of Laciniaria. Capt. John Donnell Smith, of Baltimore, an associate of the Museum, described a number of interesting new species from Central America, and, in conjunction with Dr. Rose, is writing a monograph of the genus *Hauya* and two allied new genera from Mexico and Central America. Prof. E. O. Wooton, who is preparing a paper on the flora of New Mexico for the division, spent the winter and spring at the Museum, working with Mr. Paul C. Standley, assistant curator, and satisfactory progress is reported. Besides members of the scientific staff of the Department of Agriculture, who consulted the herbarium freely, the following persons visited the division for the purpose of examining specimens: Dr. Ezra Brainerd, of Middlebury, Vermont; Dr. William Trelease, director of the Missouri Botanical Garden; Dr. John K. Small, of the New York Botanical Garden; Mr. E. L. Morris, of Brooklyn, New York; Prof. W. A. Setchell, of the University of California; Miss Mary Wilkins, of Washington; and Mr. A. A. Heller, of Reno, Nevada. Nearly 1,200 specimens of plants were lent for study to botanists both in this country and abroad.

Explorations.—Beginning in the latter part of the winter the Bureau of Fisheries in conjunction with the American Museum of Natural History, which paid a part of the expenses, conducted an exploration along the west coast of Mexico, the steamer *Albatross* being used for the purpose. By invitation, the National Museum detailed two members of its staff to participate in the expedition, Dr. J. N. Rose, associate curator of plants, and Dr. Paul Bartsch, assistant curator of mollusks. The *Albatross* left San Diego, California, February 28, 1911, visited Guadaloupe Island, and then proceeded down the coast of Lower California to the Gulf of California, which was traversed as far north as Angel de la Guarda Island. Dredgings were made off the outer coast of Lower California both going and returning, and shore and shallow water collecting was carried on in the Gulf. Owing to the short duration of the cruise, somewhat less than two months, it was impossible to make more than a brief

stop at any place, but, nevertheless, the results of the trip were exceedingly satisfactory. Of marine invertebrates, especially mollusks, a large and fine series was obtained, and of plants, about 2,000 herbarium specimens and 1,000 living specimens, mostly cacti, were secured.

During the year, a biological survey of the Panama Canal Zone and adjacent regions was begun on the initiative and partly at the expense of the Smithsonian Institution. That the completion of the interoceanic canal and consequent mingling of the fresh waters of the Atlantic and Pacific watersheds may influence the distribution of certain classes of organisms and even lead to the extermination of some forms, made it important that such an exploration be undertaken without delay, but the work was planned on a broad basis, to be conducted with such assistance and cooperation as could be secured from any source. The project received the approval of the President of the United States and has been warmly supported by the Secretaries of War, of Agriculture, and of Commerce and Labor. The War Department has aided by furnishing transportation and subsistence. Field work was conducted during last year by the Bureaus of Plant Industry, Entomology, and Biological Survey of the Department of Agriculture, and during next year is expected to be taken up by the Bureau of Fisheries of the Department of Commerce and Labor. The Field Museum of Natural History has also participated in the exploration, having sent Prof. S. E. Meek with a party to investigate the fishes. The collections made by the Government bureaus will eventually be deposited in the National Museum, and those obtained by Professor Meek will be divided. While this survey is certain to yield interesting scientific results, it is also likely to lead to information of much economic value, which is important in view of the close relationship of the region with the United States.

Only one member of the Museum staff, Mr. W. R. Maxon, assistant curator of plants, was detailed to this exploration during the year, the main object of his trip being to collect ferns and the lower cryptogams. On February 3, 1911, he joined Prof. Henry Pittier, of the Bureau of Plant Industry, who, on account of his special qualifications and his experience in Central America, had been placed in charge of the botanical investigations and was already in the field. From Culebra as headquarters, collecting was actively carried on along the 50-mile stretch of the Panama Railroad and into the adjacent jungle and forest. Several days were also spent in the neighborhood of Porto Bello, on the Atlantic coast. The most interesting expedition, lasting between five and six weeks, was one to the mountain region of Chiriqui in Panama, adjacent to Costa Rica, the botany of which was almost wholly unknown. From Boquete, at the southern base of the interoceanic divide, several trips were made success-

fully to the higher peaks, including the ascent of the volcano Chiriqui, over 11,000 feet high, which had not previously been visited by botanists. The locality was found to be especially rich in ferns, and much valuable material was obtained. Mr. Maxon returned to Washington on April 18.

Mention has already been made of a visit by Dr. E. A. Mearns, United States Army, Mr. J. H. Riley, of the Museum staff, and Mr. E. J. Brown to the coast of South Carolina near Charleston, a region which, though very interesting ornithologically, has been but poorly represented in the collections of the Museum. In February, 1911, Mr. Edmund Heller left Washington to accompany Mr. Paul J. Rainey, of New York, on an extended hunting expedition to British East Africa and the country immediately to the north of it, Mr. Rainey having generously tendered to the Museum all material of scientific value that is collected. Near the close of the year, Mr. A. C. Bent, of Taunton, Massachusetts, in furtherance of his investigations relative to the life histories of North American birds, started with a party of assistants for the Aleutian Islands and other localities in Alaska. Among other private expeditions during the year by which the Museum has been especially benefited may be mentioned the work of Mr. and Mrs. Arthur de C. Sowerby, in the Province of Shan-si, China; the hunting trip of Mr. John J. White, of Washington, to British East Africa, through which a number of interesting mammals were secured; and the journey of Mr. Harry V. Radford, of New York, into the home of the wood bison in the almost unknown region of northwestern Canada, west of the Slave River and north of the lower Peace. This exploration, made in 1909 and 1910, and including track surveys over many hundreds of miles, furnished Mr. Radford the opportunity of closely studying the wood bison in its haunts, and of making the first recorded observations on this rare animal in life. Eighteen individuals were seen, and, under a permit from the Canadian Government, one was killed. It weighed 2,402 pounds, and both the skin and skeleton were preserved. The former was presented by Mr. Radford to the Provincial Museum at Edmonton, Alberta, while the skeleton was obtained for the National Museum at a moderate cost.

Preparation of specimens.—In view of the exceptional amount of work involved in preparing material for the exhibition halls, it became necessary to materially increase the staff of taxidermists at the beginning of the year, and excellent progress was made in all matters relating to this subject. Under the immediate supervision of the chief taxidermist about 30 mammals, chiefly from the collection of the Smithsonian African Expedition, were mounted. Seventeen of these were of medium to large size, consisting of an African buffalo, five lions, a leopard, a jaguar, a Grant's gazelle, a thar, a

wart hog, two hyenas, a zebra, a klipspringer, a bear, and a goat. The remainder were chiefly rodents. Small models were made of a topi antelope, a duiker antelope, and two water bucks, and the mounting of a reticulated giraffe was begun. Much additional work also devolved upon the mammal taxidermists in attending to the preservation of skins as they were received from the field, and the preparation of specimens for the reserve series as well as for future mounting.

For the new exhibition series of birds, 34 specimens were mounted, among them being two examples of the remarkable whale-billed stork from the African expedition of the Smithsonian Institution, which were combined in a group; 33 important mounted specimens, including several birds of paradise and other valuable exotic species, were made over; and the mounted domestic pigeons, an interesting series of thoroughbred birds which had been in storage for some years, were renovated and placed on the dove-cot which had been rebuilt for their reception. Other work consisted in the preparation of skins for the reserve series, the repair of specimens, etc.

In osteology, 128 skeletons of birds and 32 of mammals, both ligamentary and disarticulated, were prepared; 69 skeletons and over 3,000 skulls of mammals, besides many separate bones, were cleaned; and skeletons of a humpback whale and a killer whale were cleaned and partly mounted. A large part of the above material was from east Africa, and in addition a number of skeletons from specimens received from the National Zoological Park were roughed out. Casts of several cetaceans, reptiles, and batrachians were also made for the exhibition collections.

The exhibition collections.—The installation of the exhibition collections in biology, which for the present are being restricted to zoology, presents exceptional difficulties on account of the variety of subjects and the diversity in character of the objects to be provided for. Furthermore, the overcrowding of the quarters heretofore occupied by the zoological exhibits necessitated some years back a practical cessation in their increase and rendered inexpedient any special effort for their betterment. It has, therefore, all along been recognized that a creditable installation for zoology would require not only a thorough overhauling and renovation of the old exhibits but also the replacing of large numbers of the specimens with new and fresh material and such extensive additions as will completely change the complexion of the collections and greatly improve their character and effectiveness. The revision contemplates systematic and faunal arrangements, a synoptic series, several special exhibits illustrative of biological subjects, such as anatomy, embryology, color variation, etc., and a collection for young people, carrying out and enlarging

upon the idea expressed in the children's room in the Smithsonian building, founded by the late Secretary Langley.

The designing and building of cases has, in view of the number of kinds and sizes required, demanded more time than was anticipated, and at the close of the year only a relatively small proportion of the furniture had been delivered, though the greater part of it was under construction or included in contracts about to be awarded. Such of the collections as had been brought from the older buildings, together with the specimens recently prepared, have been assembled in the halls which they will occupy, but no part of the exhibition had been sufficiently advanced for opening to the public. It is expected, however, that some sections will be in readiness early in the present year. The American mammals and osteological preparations have continued on exhibition in the older Museum building, and the birds and marine invertebrates, exclusive of the mollusks, in the Smithsonian building.

DEPARTMENT OF GEOLOGY.

Accessions.—The total number of specimens acquired by the department of geology was approximately 6,647, the number of separate lots or accessions received by each of the several divisions and sections having been as follows: Systematic and applied geology, 45; mineralogy, 27; invertebrate paleontology, 41; vertebrate paleontology, 27; paleobotany, 6. Among the more important additions in geology were several hundred specimens illustrating the silicification of fossils and the formation of geodes, collected by Dr. R. S. Bassler; six fine examples of billitonite, the gift of Dr. R. D. M. Verbeck, The Hague, Holland; and 42 polished slabs of marble and granite for the exhibition series of ornamental stones, presented by the Vermont Marble Company, the Alabama Marble Company, the Georgia Marble Company, the Georgia Verd Antique Marble Company, the Colorado Yule Marble Company, the Henry A. Schweyer Company, and the Norcross Brothers Company. There should also be mentioned a series of specimens illustrating the geology and ore deposits of the Bullfrog District, from the United States Geological Survey; monazite sand, pyrrhotite, graphite, and pegmatite from Mr. E. Masillamani, of Trivandrum, India; two meteorites, and samples of monazites and other radio-active minerals, which had been the subject of investigation by the late Prof. George F. Barker, presented by Mrs. Barker; and a collection of rocks from Hawaii, the gift of Prof. C. H. Hitchcock.

The additions in mineralogy comprised much noteworthy material. Zeolites from New Jersey to the number of 98 specimens, the majority suitable for exhibition, and including a remarkable large mass

of prehnite, were received as a gift from Dr. William S. Disbrow, of Newark. Three transfers from the United States Geological Survey are important from the number of type specimens they contain, namely, arizonite, tantalornite, molybdite, powellite, ludwigite, natramblygonite, warrenite, gageite, emmonsite, bismite, lepidolite, and cookeite. One of these collections in particular, made by Mr. W. T. Schaller in the Tourmaline field of San Diego County, California, furnished several specimens of a very striking character, which have been placed on exhibition. A specimen of autunite of extraordinary crystal development was presented by Mr. H. Weber, of Paris, France, through Mr. Frank L. Hess, of the Geological Survey. A collection of minerals and ores illustrating the important silver deposits of Cobalt, Canada, including large veins of smaltite and nuggets of dyscrasite, was obtained in exchange from Mr. Otto F. Pfordte, of Rutherford, New Jersey; and a number of minerals from the copper region of Ducktown, Tennessee, were donated by Dr. F. B. Laney. A large series of showy cave calcites was transferred by the General Land Office of the Department of the Interior, and a fine example of crystallized ferberite and one of kröhnkite, the latter being a recently discovered copper mineral from Chile, were purchased.

Most important of the accessions in invertebrate paleontology were two collections of Middle Cambrian fossils from British Columbia, collected and described by Dr. Charles D. Walcott and deposited by the Smithsonian Institution. The first consists of the unique types of Eurypterids, on which a new suborder of crustaceans was founded by Doctor Walcott, and the second of equally valuable types of Holothurians. Investigations in Kentucky and Tennessee by Doctor Bassler and the Hon. Frank Springer yielded about 2,000 specimens of Silurian and Mississippian fossils, on which were based a communication by Mr. Springer on the crinoids of the Knobstone formation and one by Doctor Bassler on the Waverlyan period of Tennessee. A choice series of 800 specimens of Silurian and Devonian fossils from western Maryland was received from the estate of the late Robert H. Gordon, of Cumberland, Maryland; and a valuable collection of Devonian fossils was presented by Dr. Cooper Curtice, of Livingston, Alabama. Other noteworthy gifts comprised Cincinnatian fossils from Toronto, Canada, contributed by Prof. W. A. Parks, of the University of Toronto; Mesozoic fossils from near Cañon City, Colorado, and from near El Paso, Texas, the former donated by Lieut. Stephen Abbot, United States Army, the latter by Mr. Harvey Barrett; and Cenozoic fossils presented by Mr. C. H. T. Townsend and Mr. Joseph Willcox.

Among the acquisitions in vertebrate paleontology were 20 specimens of fossil mammals, nearly all of which are desirable for exhibi-

tion, and 3 specimens of Permian reptiles, including a complete skull of *Eryops* and a part of a skeleton of *Dimetrodon*, obtained in exchange from the American Museum of Natural History. A series of the teeth and jaws of fossil mammals from the Fort Union formation of Montana was purchased, and a collection of mammal and sharks teeth from the phosphate deposits near Mulberry, Florida, was transferred by the United States Geological Survey.

The principal additions in paleobotany consisted of specimens of plants from the Coal Measures of Butler County, Pennsylvania, presented by Mr. Kemp G. Acker, of Washington, and Mr. Theodore Gubler, of Butler, Pennsylvania.

General work on the collections.—The transfer of the geological collections from the old Museum building to the new, begun the previous year, was continued as rapidly as the necessary cases could be provided, and was completed except as to a few of the exhibition series. A tentative rearrangement of the reserve collections was also in large part accomplished. The moving furnished an excellent opportunity for a thorough overhauling of the specimens, during which many duplicates were sorted out, to be made available for distribution in the future. From the reserve collections, in all instances where the amount of material is extensive, it has been sought to select study series, including types, which have been assigned the more convenient places for reference on the working floors, while the attic space, though readily accessible, is being used for the storage of those portions of the collections for which there is the least demand. The department of geology occupies parts of all the floors on the east side of the building, but a large share of the Tertiary fossils is cared for in connection with the recent mollusks on the west side, and the unworked material in Cambrian paleontology is kept in the laboratories of Doctor Walcott, in the Smithsonian building.

The material in applied geology selected for ready reference and arranged on the third floor includes all type collections described in current Government publications and such other collections as are likely to be of active interest, aggregating about 16,000 specimens; and a systematic drawer series of economic occurrences, numbering about 9,000 specimens, designed to meet the requirements for greater refinement of detail in study than is offered by the exhibition series. A system of indexing, in course of preparation, will afford a classified record of exactly what is available for study in the combined collections and indicate the location of the material, whether in the storage or the exhibition cases.

The overhauling, cleaning, and numbering of all specimens in the reserve collection of mineralogy was completed during the year. The study series, unencumbered by duplicates or other unnecessary material, has also been systematically arranged in drawers, in accord-

ance with the classification employed by Dana in his "System of Mineralogy."

The reserve collections of the section of invertebrate paleontology, except the Cambrian material retained at the Smithsonian Institution, were moved to the new building before the close of the previous year, and the most important routine work of the past year consisted in overhauling and rearranging them in the permanent storage cases. The splendid Ordovician collection is now for the first time well classified, and fills about 2,500 of the large standard drawers, approaching, in point of size at least, the Cambrian collection, which is unrivaled. The Silurian collection, occupying some 400 drawers, has also been placed in good condition for reference. Much remains to be done with the series of Devonian, Mississippian, and Pennsylvanian fossils, although they have been made available for consultation. The Mesozoic collections have been classified, rearranged, and installed, except a few boxes of old material still remaining to be unpacked. The Tertiary fossils have been provisionally arranged and are accessible for reference, but are awaiting additional furniture before they can be permanently stored. It is interesting to note the introduction in this section during the year of a stone-cutting machine for trimming the matrix about fossils which can not be removed from the rock. By means of this device much extraneous stone has been removed from specimens of this character, an important collection that weighed about 3 tons when it reached the Museum having been reduced in weight to some 500 or 600 pounds.

In the section of vertebrate paleontology all of the material that has been worked out from the matrix was brought together in the new building, but there remain some 300 boxes containing mainly such portions of the Marsh collection as have not yet been sufficiently cleaned to establish their full value. The preparation of specimens, both for study and for exhibition, progressed as satisfactorily as could be expected with the small force employed. The principal mountings made were for the exhibition hall, as described below. Material for other mounts, some of which is duplicate and available for exchanges, was also assembled. Considerable time was spent in the arrangement of the reserve collections and in the work of classifying and cataloguing.

The reserve collection in paleobotany was in course of transfer at the close of the year, delays having occurred in completing the furniture required. This collection now fills about 7,000 of the standard drawers, but its bulk is being materially lessened by cutting down the size of all specimens that permit of it, as in the case of fossil invertebrates.

With reference to the entire department of geology it may be said that the general card catalogues have been brought practically up to

date, while the card catalogues of types and illustrated specimens in mineralogy, invertebrate paleontology, and vertebrate paleontology have been perfected. Some 384 lots of specimens of rocks, minerals, and fossils, received from outside sources for examination and report, were identified during the year.

Exhibition collections.—By the close of the year all of the geological material which had been exhibited in the older building had been transferred except the fossil plants, the gems, and a part of the collection of applied geology, but none of the installations in the new building had been completed, owing in part to the delay in obtaining furniture and in part to the large amount of work involved in preparing, arranging, and labeling the specimens. The progress made is, nevertheless, to be regarded as satisfactory.

The exhibition in mineralogy had been about two-thirds installed, and it was expected to have it entirely ready for the public by the autumn of 1911. The part completed consisted of the systematic series, comprising about 4,000 specimens, or 1,000 more than had previously been shown. This series was entirely reorganized, many of the old specimens being replaced by newer and superior ones, and additions will continue to be made as desirable material is received. The classification used is that proposed by Professor Dana. Washing with warm water and soap was found to greatly improve the looks of most of the specimens, and about 95 per cent of them were subjected to this treatment. With new cases throughout, and the collection of gems to be added, the hall of mineralogy promises to present a very gratifying appearance.

The large eastern skylighted hall assigned to fossil vertebrates can probably be opened at about the same time as the hall of mineralogy, though its installation will still be very incomplete. New preparations will be added as they are finished, but in the case of large specimens the work of cleaning and assembling parts of skeletons is slow and laborious. Among the improvements introduced are new standard styles of pedestals for the floor and of framed inclosures for flat mounts displayed on the walls. The principal preparations made for the exhibition series during the year consisted of skeletons of the zeuglodon (*Basilosaurus cetoides*), of the type specimen of *Ceratosaurus nasicornis* Marsh, and of *Camptosaurus browni* and *Camptosaurus nanus*. The two latter specimens have been grouped on the same base in a unique and attractive manner. Among large forms previously made ready for the hall are an oreodon (*Merycoidodon gracilis*), a *Triceratops prorsus* and a *Trachodon annectens*. The skeletons of the large mastodon (*Mammut americanum*), the "Irish elk" (*Alce gigantea*), and a New Zealand moa (*Emeus crassus*), from the older collections, were entirely remounted and their appearance greatly improved. Many smaller specimens were also prepared, and

much time was spent in repairing damages occasioned by the moving. Among the lesser though interesting mounts that have been installed may be mentioned the skull and antlers of an *Alce gigantea*, two mammoth tusks, 10 specimens of fishes, and several turtles. Work on a complete composite skeleton of *Teleoceras fossiger*, a short-legged rhinoceros, is well under way.

The exhibition of fossil invertebrates has been planned on a much more comprehensive scale than before, and good progress was made in bringing together and preparing the material. Not more than two-thirds of the specimens shown in the old building will be utilized, but to this nucleus much that is new and attractive will be added, and it is hoped that the work can be completed before the end of the calendar year 1911. The exhibition collection of paleobotany was still in the old building, awaiting the completion of cases which have been ordered for it.

Researches.—On account of the amount of work involved in the moving, the extent of original investigations by members of the staff was much curtailed. Dr. George P. Merrill, head curator of the department, completed a paper on the origin of the sporadic glasses known under the names of moldavite, billitonite, etc., and has conducted studies on the composition of meteorites, under a grant from the National Academy of Sciences. Dr. J. E. Pogue, assistant curator of mineralogy, continued the preparation of his treatise on the turquoise, and conducted petrographic researches on ottrelite schists. The descriptions of calamine crystals, a phlogopite-biotite intergrowth and pseudomorphs of marcasite after pyrrhotite, mentioned in the last report, were finished and published.

Dr. Charles D. Walcott, Secretary of the Institution, continued his investigations on Cambrian fossils mainly obtained during his own explorations in the Rocky Mountain region of the Northwest, during which some remarkable paleontological discoveries were made. Papers on the eurypterid crustaceans, the medusæ and the holothurians from this formation were issued during the year, while contributions on the annelids, sponges, and certain groups of crustaceans were in course of preparation. Dr. R. S. Bassler, curator of paleontology, submitted for publication his extensive bulletin on the Bryozoan faunas of the Baltic Provinces, which is now in press. He also described a new genus of tubuliporoid Bryozoa, and completed papers on stratigraphical and paleontological studies of the Waverlyan rocks of Tennessee, and the geologic section of a deep well at Waverly, Ohio. Dr. William H. Dall, associate curator, reported investigations in progress on the Tertiary faunas of the Canal Zone, the Pacific coast of North America, the gold-bearing gravels of Alaska, and the Silex beds of Tampa, Florida. Mr. L. D. Burling, assistant curator of invertebrate paleontology, was mainly occupied

in connection with the publication of Doctor Walcott's monograph on Cambrian brachiopoda.

Mr. C. W. Gilmore, custodian of fossil reptiles, described a new genus and species of alligator from the Hell Creek beds of Montana, and has in preparation a paper on the recently mounted skeletons of *Ceratosaurus* and *Camptosaurus*. He also continued work on the fossil reptiles of North Carolina for the Geological Survey of that State. Mr. J. W. Gidley, custodian of fossil mammals, continued his studies on zeuglodon and on mammals from the Fort Union formation, subjects mentioned in the last report, and brought together most of the data required for papers on a new species of horse from the Pleistocene of Nebraska, new species of rodents from the Miocene beds of Kansas and Dakota, and a new species of deer from the Mascall beds of Oregon.

Most of the paleontological work of the United States Geological Survey is conducted at the Museum, since it is necessary in that connection to have constant access to the extensive collections of identified specimens which are here deposited, and several of the paleontologists of the Survey have long held honorary positions of responsibility on the Museum staff. The results of their scientific studies are not, however, reported to the Museum. Other establishments which made use of the collections were the American Museum of Natural History, the State Geological Survey of Maryland and Johns Hopkins University, the Peabody Museum of Yale University, and the Geophysical Laboratory of the Carnegie Institution. Dr. O. P. Hay continued his researches on Museum material, giving special attention to the distribution of the Pleistocene fauna of North America. Among others who spent more or less time at the Museum, engaged in investigations, may be mentioned Dr. J. P. Iddings; Mr. A. S. Coggeshall, of the Carnegie Museum; Dr. John C. Merriam, of the University of California; Dr. H. M. Ami, of the Geological Survey of Canada; Prof. C. A. Reeds, of Bryn Mawr College; Dr. Arthur Hollick, of the New York Botanical Garden; Mr. F. L. Canfield, of New Jersey; Mr. S. Ko, of Japan; Dr. Friedrich von Huene, of the University of Tübingen, Germany; Dr. Jaroslaw Perner, of the Royal Bohemian Museum, Prague; and Dr. Marie C. Stopes, of Manchester University, England.

Specimens were lent for study to Dr. John M. Clarke, State Geologist of New York; Prof. R. L. Moodie, of the University of Kansas; Prof. W. H. Reed, of the University of Wyoming; Prof. H. F. Wickham, of the University of Iowa; Dr. G. F. Loughlin, of the Massachusetts Institute of Technology; Dr. J. E. Whitfield, of Philadelphia; and Dr. J. H. Bonnema, of Groningen, Holland.

Field work.—The explorations in the Rocky Mountain region of British Columbia by the Secretary of the Smithsonian Institution

greatly enriched the collection of Cambrian fossils, and field work in Tennessee by Doctor Bassler and the Hon. Frank Springer resulted in an important accession. Twice during the year the head curator was called on for service not directly connected with his Museum duties; first, in July, 1910, to inspect limestone quarries at Bedford, Indiana, with a view to the adoption of the stone for the St. Alban's Cathedral building in Washington, and again in May following, at the request of the Secretary of the Interior, to inspect the fossil forests near Adamana, Arizona, for the purpose of setting aside certain areas from which collections may be made, and also of reducing the size of the reservation. Incidentally, he obtained a considerable quantity of silicified wood for exhibition and study purposes.

DISTRIBUTION AND EXCHANGE OF SPECIMENS.

The only duplicates arranged in systematic series, to meet the needs of educational establishments, available for distribution during the year, were fossil invertebrates. Of these, 27 sets, aggregating 1,393 specimens, were supplied to as many schools and colleges. In meeting special applications for teaching purposes, 697 duplicate specimens of animals and plants and 1,094 duplicate specimens of rocks and fossils, besides some 3,350 pounds of assay and blow-pipe material, were distributed. For making exchanges, 23,582 duplicate specimens were used, of which 88 were anthropological, 22,160 biological, and 1,334 geological. There were sent to specialists for study, either in the interest of the Museum or otherwise, 38 objects of anthropological subjects, approximately 24,000 animals and plants, and 576 geological specimens, a total of 24,614 specimens.

Exchanges were made during the year with the following institutions abroad: The Museum of the Royal College of Surgeons of England, London, and the Royal Botanic Gardens, Kew, England; the National Museum, Dublin, Ireland; the Muséum d'Histoire Naturelle, Paris, France; the Museum für Naturkunde, Berlin, the Königl. Botanisches Museum, Dahlem, Steglitz bei Berlin, and the Zoologische Sammlung des Bayerischen Staates, Munich, Germany; the K. K. Naturhistorisches Hofmuseum, Vienna, Austria; the Botanisk Museum and the Zoologiske Museum, Copenhagen, Denmark; the Zoological Museum, Christiania, Norway; Hid Islenzka Náttúrufraedisfèlag & Náttúrugripasafn, Reykjavik, Iceland; the Albany Museum, Grahamstown, Cape Colony; the Indian Museum and the Royal Botanic Garden, Calcutta, India; the Selangor Museum, Kuala Lumpur, Selangor, Federated Malay States; the Imperial University, Tokyo, Japan; the Museo Nacional de Historia Natural,

Buenos Aires, Argentina; Museo Nacional, San José, Costa Rica; and the Hope Gardens, Department of Agriculture, Kingston, Jamaica.

Material was also exchanged with the following individuals abroad: Messrs. Sowerby and Fulton, Riverside, Kew, Mr. Oldfield Thomas, London, and Prof. Arthur Thomson, Oxford, England; M. Marius Filliozat, Vendome, M. Stanislas Meunier and Prof. C. E. Porter, Paris, Prof. A. Peyrot, Bordeaux, and M. C. Vaney, Lyon, France; Mr. Frantz de Laet, Contich, Belgium; Prof. L. Döderlein, Strassburg, Mr. J. A. Purpus, Darmstadt, and Mr. L. Quehl, Halle (Saale), Germany; Dr. J. Perner, Prague, Bohemia, Victor Ritter von Tschusi zu Schmidhoffen, Salzburg, Austria; Mr. Runar Forsius, Helsingfors, Finland; Maj. F. Wall, Chitral, Northwest Frontier, and Mr. E. Masillamani, Trivandrum, India; Mr. Frank M. Littler, Launceston, Tasmania; Dr. Arthur Neiva, Rio de Janeiro, Brazil; Señor F. Eichlam, Guatemala; and Señor A. Toñduz, San José, Costa Rica.

NATIONAL GALLERY OF ART.

The paintings of the National Gallery of Art, which occupy the central part of the middle hall in the new building, remained on exhibition throughout the year except for a period of two months, from the last of January until the last of March, 1911, when they were removed to permit of the painting of the adjacent walls. In reinstalling them the same general arrangement was observed, though some changes were made in the distribution of individual pictures.

Mr. William T. Evans, of New York, continued his generous benefactions, adding 13 examples to his collection of the works of contemporary American painters, which has attracted so much attention throughout the art world and which now consists of 127 pieces, representing 90 artists. The contributions of the year comprised "Plymouth Hills," by John W. Beatty; "The Wain Team," by George Elmer Browne; "Caresse Enfantine," by Mary Cassatt; "May Flowers," by Louise Cox; "The Plaza," by William R. Derrick; "Depths of the Woods," by Lillian Matilde Genth; "The Georgian Chair," by Childe Hassam; "Friendly Neighbors," by Alfred C. Howland; "Idle Hours," by Henry Siddons Mowbray; "Mists of the Morning," by George Glenn Newell; "The Mirror," by Robert Reid; "Algerian Water Carrier," by William Sartain; and "Columbus Circle—Winter," by Guy C. Wiggins. Two of these paintings, "Plymouth Hills" and "Depths of the Woods," had not been received in Washington at the close of the year, having been permitted to remain on exhibition elsewhere. The latter, at the time of

its presentation to the Gallery, was at the eighty-sixth annual exhibition of the National Academy of Design, March 11 to April 16, at which it was awarded the First Hallgarten Prize.

Mr. Evans did not confine his donations to paintings, however, since he also presented 81 framed engravings as part of a series of 100 proofs designed to illustrate the best work of American wood engravers, which he had announced his intention of placing in the Gallery. They were hung with the paintings. Fifteen engravers are represented, Henry Wolf by the greatest number of examples, the others being Timothy Cole, Victor Bernstrom, William B. Closson, John P. Davis, Frank French, T. Johnson, F. S. King, Elbridge Kingsley, G. Kruell, R. A. Muller, Caroline A. Powell, S. G. Putnam, John Tinkey, and F. H. Wellington.

Mr. Charles L. Freer, whose important gift to the Nation of American and oriental art still remains in the keeping of the donor at his home in Detroit, Michigan, spent a large part of the year abroad in the interest of the enrichment of this notable collection, to which he made extensive and valuable additions. During most of the winter Mr. Freer traveled in China, visiting many places which promised opportunities for observation and acquisition, and especially some of the interior cities which, centuries ago, were great producing centers of art.

The Gallery was also fortunate in securing a number of interesting loans, the most noteworthy of which is a choice collection of 15 paintings, kindly deposited by Mr. William A. Slater, of Washington. It has been installed in and fully occupies one of the two small rooms at the northern end of the Gallery inclosure. Fourteen artists are represented as follows: Rembrandt, by "The Rabbi"; Ruysdael, by "The Dunes near Haarlem"; Hobbema, by "The Mill"; Millet, by "Seamstresses Sewing on Shroud" and "The Drinking Place," the latter a pastel; Corot, by "Nymphs and Fauns"; Troyon, by "Horses at Watering Trough"; Diaz, by "Forest of Fontainebleau"; Rousseau, by "Sunset in a Wood"; Daubigny, by "Springtime"; Delacroix, by "Return of Columbus to Court of Ferdinand"; Mettling, by "Portrait of a Boy"; Madame Le Brun, by "Portrait of a Lady"; Herkomer, by a portrait of Mr. Slater's father; and Wyant, by a landscape.

To his loan of the previous year, numbering nine paintings by Raeburn, Romney, Stanfield, Wilson, Flinck, Maes, Guardi, Hogarth, and Cox, Mr. Ralph Cross Johnson, of Washington, generously added two fine canvases, a "Portrait of Mrs. Towry," by Sir Thomas Lawrence, and "Portrait of the Duchess of Ancaster," by Sir Joshua Reynolds.

Through the courtesy of Mr. T. B. Walker, of Minneapolis, the Gallery has been given the opportunity of exhibiting a large canvas by Benjamin West, the famous early American painter and one-time president of the Royal Academy of Arts. It is entitled "The Raising of Jairus' Daughter," and was purchased last winter by Mr. Walker for his private collection.

Seven paintings lent by Mr. and Mrs. Archibald Hopkins, of Washington, comprise a Russian winter scene, by Alfred von Kowalski-Wierusz; "Devotional Reading," by Karl Wilhelm Räuber; a portrait of a Dutch lady, attributed to Ravenstein; a landscape with cattle, by William Hart; two landscapes, attributed to Salvatore Rosa; and "Saint Joseph," attributed to Guercino. Other loans, all from residents of Washington, were received as follows: From Miss Murray Ledyard, four paintings, namely, "Beggar Boys," by Murillo; "Portrait of John R. Murray," by Gilbert Stuart; "Portrait of Col. Nicholas Rogers," by John Wesley Jarvis; and "Farm Yard Scene," by George Morland. From Mr. Julius A. Truesdell, four paintings by his brother, the late Gaylord Sangston Truesdell, entitled "The Shepherd's Lunch," "The Wayside Shrine," "After the Rain," and "Changing Pastures." From Mrs. John W. Powell, a painting by Thomas Moran, executed in 1878, entitled "In the Grand Canyon of the Colorado." From Dr. Anton Gloetzner, a painting named "The Nativity," attributed to Otho van Veen.

Of loans mentioned in the last report, nearly all remained on exhibition during the year, the principal ones consisting of the collections of Mr. Ralph Cross Johnson and Dr. George Reuling, selections from the Lucius Tuckerman collection, and the historical series by Edward Moran, deposited by Mr. Theodore Sutro.

Eight paintings belonging to the Evans collection of the Gallery were lent for exhibition, as follows: "High Cliff, Coast of Maine," by Winslow Homer, to the National Academy of Design, New York, for the winter exhibition from December 10, 1910, to January 8, 1911, at which a few representative paintings by this artist were hung together as a memorial to a fellow member. "The Visit of the Mistress," by Winslow Homer, to the Metropolitan Museum of Art, New York, for a memorial exhibition from February 6 to March 19. "The Siren," by Louis Loeb, to the Lotos Club, New York, for a memorial exhibition during the last of January and first of February. "Plenty," by Kenyon Cox, to the Art Institute of Chicago for an exhibition of the works of Mr. Cox, from April 4 to 30. "A Gentlewoman," by J. Alden Weir, and "Depths of the Woods," by Lillian M. Genth, to the Carnegie Institute, Pittsburgh, for the fifteenth

annual exhibition, from April 27 until the end of the fiscal year. "Musa Regina," by Henry Oliver Walker, and "Plymouth Hills," by John W. Beatty, to the International Exposition of Art and History at Rome, Italy, from March 27 to November 1, 1911.

A number of requests for permission to make and publish photographic reproductions of paintings in the Gallery were granted during the year. Some of these reproductions were to be issued in the form of separate pictures of a high standard of process work, and others in books and periodicals. In anticipation of such demands, a set of regulations was formulated, which is designed to restrict the copying of any work in the Gallery to legitimate art purposes, whether professional or for the benefit of the public.

ART TEXTILES.

The collection of laces and other art textiles continued to receive the same hearty support as during the previous two years, and has now attained such a growth as to make its importance notable. It occupies the eastern north range in the older Museum building, where the specimens are installed in table and upright cases and to some extent on the walls. The collection consists mostly of loans and contains much that is old, rare, and choice—selections generously made from their treasure stores by many ladies of Washington to assist in establishing this interesting feature of museum exhibition. There have been some valuable gifts, and it is hoped that, as the significance of the collection in stimulating art studies and art work becomes better understood, it will assume more and more a permanent character, which is one of the objects sought to be attained. The success of the movement has been mainly due to the untiring efforts of Mrs. James W. Pinchot, by whom it was initiated and to whom the Museum is indebted for important gifts and loans.

The number of accessions during last year was 35, all of which with three exceptions were loans. They comprised 249 specimens, and since only 21 specimens from previous loans were withdrawn, the total number on exhibition at the end of the year was 1,007.

The loan contributions of laces, aggregating 107 examples, were principally as follows: Miss Emily Tuckerman, Venetian rose point, gros point de Venise, Venetian "seaweed" lace, point de France et Personages of Louis XIV, Spanish point, point de Gênes, reticella, Alençon, early Mechlin, and Italian bobbin; Mrs. Richard G. Lay, Binche, old Spanish, Argentan, Flemish, Gothic, Mechlin, and thread; Mrs. John Cropper, reticella of the seventeenth century, deep points of reticella of the early seventeenth century which had been used as trimmings for a noble's boot tops, punto in aria, bobbin lace, and Alençon

needlepoint of Louis XV; Mrs. Thomas F. Richardson, Italian cut work and lace, unusual netted and darned lace, guipure de Gênes, Belgian pillow lace, and Bretonne; Mrs. James Lowndes, reticella cuffs and collar, point de France, point de Milan of the seventeenth century, point de Lille, Buckinghamshire and Brussels; Mrs. Archibald Hopkins, old Italian embroidery and lace, Spanish blonde, priest lace, Honiton, and old Valenciennes; Mrs. Alfred E. Bates, English hand-run lace, Mechlin, Honiton, Chantilly, and fine examples of Brussels lace; Mrs. E. H. G. Slater, a collar and sleeves of very fine point d'Alençon; Mrs. Arnold Hague, a Flemish collar of the eighteenth century; the Misses Long, two strips of macramé; Mrs. Elizabeth C. Hobson, a piece of Mechlin lace of the nineteenth century; and Mrs. Julian James, a black Spanish lace mantilla and a Porto Rican filet handkerchief. A pair of baby's cuffs of fine Binche was presented by Mrs. Livingston Hunt.

For the loan of fabrics other than laces acknowledgments are due to Mrs. H. K. Porter for 22 embroidered bags, nine squares of brocades, a piece of Gothic velvet, a large piece of old Spanish green brocade, a green-and-gold brocade stole, and two fragments of old Genoese velvet; to Mrs. Thomas F. Richardson for an antique Perugian towel, an Italian chasuble, Spanish gold embroidery, four pieces of Algerian embroidery, Spanish brocade, yellow brocade of Louis XIV, and six squares of brocade of Louis XIV and Louis XV; to Mr. Walter R. Tuckerman for seven examples of elegant brocades and velvets of the seventeenth and eighteenth centuries, and five embroidered pictures; to Mrs. James W. Pinchot for a cover of a chest of English stumpwork embroidery of the time of Charles II, representing the presentation of the head of John the Baptist to Herod and his Queen, an embroidered panel from a vestment, and two pictures of St. George and the Dragon in tinsel and color; to Mrs. Alfred E. Bates for an Italian cope of dark rose brocade of the seventeenth century, two Italian brocade chasubles of the eighteenth century, and three examples of antique brocades; to Miss Hegeman for seven brocaded and embroidered bags; to Mrs. Robert de Forest for two art textile bags; to Mrs. John Jay White for a brocade cope, a square of brocade, and a Chinese embroidered costume; and to Mr. N. N. Hekimian for a mosque hanging of blue velvet embroidered in gold. A table cover of Genoese velvet was received from Mrs. Pinchot, and an old Spanish brocade vestment from the mission of San Xavier del Bac, near Tucson, Arizona, from Maj. George F. Foote, United States Army (retired), both as gifts.

Miss Emily Tuckerman also deposited a fine silk Persian rug and three tapestries, consisting of a Verdura, a panel of Flemish weave,

and a large Ferrara; and Mr. George Oakley Totten, jr., lent seven antique rugs, two of which were from China and five from Asia Minor, the latter being of Ladik, Bergoman, and Yahdiz weaves in soft, harmonious shades of color.

Of fans, Mrs. Alfred E. Bates lent 12 of French and Spanish design, Mrs. Julian James, six of French and Austrian design, Mrs. Archibald Hopkins, four, and Mrs. Charles D. Walcott, a carved ivory fan of about 1860. A fan with engraved leaf on which psalms are printed was presented by Mrs. Livingston Hunt.

Mrs. Thomas F. Richardson added to her collection of rare and precious objects 14 examples of art work in silver, consisting of boxes, bangles, clasps, figures, a ring and spoon, an Austrian prayer book exquisitely bound in repoussé silver and a cloisonné vase; and Mrs. Alfred E. Bates deposited a miniature, set in pearls and jet, of Mrs. Morgan, wife of Edwin Dennison Morgan, governor of New York in 1860.

MISCELLANEOUS.

VISITORS.

During the past year the number of visitors to the older Museum building was 207,010, a daily average of 661; to the new Museum building, 151,112, a daily average of 482; and to the Smithsonian building, 167,085, a daily average of 533. The following tables show, respectively, the attendance during each month of the past year, and for each year beginning with 1881, when the older Museum building was first opened to the public. The relatively small attendance at the new building last year is accounted for by the fact that in only a few of the exhibition halls had the installations been sufficiently advanced for the admission of the public.

Number of visitors during the year ending June 30, 1911.

Year and month.	Old Museum building.	New Museum building.	Smithsonian building.	Year and month.	Old Museum building.	New Museum building.	Smithsonian building.
1910.				1911.			
July	15,263	7,740	12,122	January	10,981	10,504	8,561
August	31,097	13,384	22,481	February	12,912	10,890	10,455
September	23,234	13,661	18,492	March	14,870	12,926	12,471
October	17,134	14,289	13,806	April	24,304	20,692	21,946
November	12,011	11,069	10,343	May	16,416	12,703	13,090
December	12,247	11,387	9,761	June	16,541	11,867	13,557
				Total	207,010	151,112	167,085

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

Year.	Old Museum building.	New Museum building.	Smithsonian building.	Year.	Old 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	167,085
1894–95	201,744	.....	105,658				
1895–96	180,505	.....	103,650	Total	6,955,001	201,515	4,103,893
1896–97	229,606	.....	115,709				

PUBLICATIONS.

Nine completed volumes and 116 papers printed separately, descriptive of the collections and activities of the Museum, were issued during the year. The volumes consisted of the Annual Report for 1910, volumes 37 and 38 of the Proceedings, volume 15 of the Contributions from the National Herbarium, entitled "The North American Species of Panicum," by A. S. Hitchcock and Agnes Chase, and five bulletins, as follows: No. 71, "A Monograph of the Foraminifera of the North Pacific Ocean, Part II. Textulariidæ," by Joseph Augustine Cushman; No. 73, "An account of the beaked whales of the family Ziphiidæ in the collection of the United States National Museum, with remarks on some specimens in other American museums," by Frederick W. True; No. 74, "On some West Indian Echinoids," by Theodor Mortensen; No. 75, "North Pacific Ophiurans in the collection of the United States National Museum," by Hubert Lyman Clark; and No. 76, "Asteroidea of the North Pacific and Adjacent Waters, Part I. Phanerozonia and Spinulosa," by Walter Kenrick Fisher.

Of the 116 papers issued also in separate form, 110 comprised parts of volumes 37, 38, and 41, and all of volumes 39 and 40, of the Proceedings, while 6 belonged to volumes 13 and 14 of the Contributions from the National Herbarium. Their titles are given in the list of publications at the end of this report.

The institutions and individuals named in the regular mailing lists were promptly supplied with the publications of the year, a work

which involved the wrapping and labeling of approximately 88,000 books and separates. About 23,100 copies of these and of earlier publications were also distributed in response to special applications.

A number of papers on collections belonging to or soon to be deposited in the Museum were published in the Miscellaneous Collections of the Smithsonian Institution. Six of these, descriptive of Cambrian geology and paleontology, were by Dr. Charles D. Walcott, Secretary of the Institution, and were entitled as follows: "Olenellus and other genera of the Mesonacidæ," "Pre-Cambrian rocks of the Bow River Valley, Alberta, Canada," "Abrupt appearance of the Cambrian fauna on the North American continent," "Middle Cambrian Merostomata," "Middle Cambrian Holothurians and Medusæ," and "Cambrian faunas of China." The other papers were "Some results of recent anthropological exploration in Peru," by Aleš Hrdlička; "Descriptions of fifteen new African birds," and "Descriptions of ten new African birds," by Edgar A. Mearns; "New species of rodents and carnivores from equatorial Africa," "New species of insectivores from British East Africa, Uganda, and the Sudan," and "Descriptions of seven new species of East African mammals," by Edmund Heller; "Two new African ratels," by N. Hollister; "Notes on a horn-feeding lepidopterous larva from Africa," by August Busck; "New landshells from the Smithsonian African Expedition," by William Healey Dall; and "The flying apparatus of the blow-fly," by Wolfgang Ritter.

In addition to the oversight of publications through the press, the editorial office also has charge of the miscellaneous printing, which has to do chiefly with labels, blanks, and record cards, the labels forming the principal item.

LIBRARY.

With the addition during the year of 1,911 books, 4,014 pamphlets, and 202 parts of volumes, the Museum library now contains 40,211 volumes and 66,074 unbound papers. The acquisitions were secured by purchase, exchange, and gift, among those to whom the library is especially indebted for donations being the following members and associates of the Museum staff, namely, Dr. Theodore N. Gill, Dr. C. W. Richmond, Mr. Robert Ridgway, Mr. J. H. Riley, Dr. William H. Dall, Dr. Paul Bartsch, Dr. Walter Hough, Mr. William H. Holmes, Dr. F. H. Knowlton, Dr. O. P. Hay, Mr. J. C. Crawford, and Mr. D. W. Coquillett.

Eight hundred and seventy-eight books, 1,033 volumes of periodicals, and 4,181 pamphlets were catalogued, and 809 volumes were sent to the Government Printing Office for binding. Thirty sectional libraries are now recognized, one in connection with each of the divisions and principal offices, and to these 4,142 books and papers were assigned during the year. The number of publications borrowed

from the central library was 23,886, including 5,582 obtained from the Library of Congress and other libraries. The records of the library consist of an accession register in book form, a card catalogue by authors, a card index of periodicals and a lending record also kept by means of cards.

The quarters occupied by the central library in the old Museum building have long been greatly overcrowded, and during the year a thorough overhauling of their contents was begun. Space in adjoining galleries was allotted for the purpose and several additional persons were temporarily employed. The work is expected to be completed during the current year, and is preliminary to the transfer to the new building of all publications relating to natural history and anthropology. The present quarters will then furnish sufficient room for the works on the arts and industries, to which subjects the older building will be devoted.

PHOTOGRAPHY.

The photographic laboratory was called upon for a somewhat larger amount of work than usual, as is indicated by the number of negatives and prints produced. Besides the making of illustrations for the scientific publications of the Museum, photography was extensively resorted to for pictorial additions to the catalogues and other records of the collections in order to insure the identity of especially valuable objects; and was also used for preparing pictures for the exhibition halls and for reproducing plans and sketches relating to the buildings and to furniture and other equipment. The work of the year included the making of 2,330 negatives, 3,906 silver prints, 2,843 velox prints, 2,299 blue prints, and 102 van dyke prints.

CONGRESSES AND MEETINGS.

The Museum was represented at two important scientific congresses abroad, both of which were held during the summer of 1910. The first of these was the Eighth International Zoological Congress, at Gratz, Austria, from August 15 to 20, at which the delegates on the part of the Museum, as also of the Smithsonian Institution and the United States Government, were Dr. Charles Wardell Stiles, of the Bureau of Public Health and Marine-Hospital Service; Mr. Austin H. Clark, of the Museum staff; Dr. William R. Kellicott, of Goucher College, Baltimore; and Dr. Herbert Haviland Field, director of the Concilium Bibliographicum, Zurich, Switzerland. The other was the second meeting of the Seventeenth International Congress of Americanists, held in the city of Mexico from September 8 to 14, which was attended by Dr. Aleš Hrdlička, curator of physical anthropology, as a representative of the Museum, the Institution, and the Government.

The auditorium in the new building of the Museum was used during the year for three meetings and two lectures. The meetings were those of the First American International Humane Conference, which also occupied several of the side rooms of the adjacent main hall with an interesting exhibition relating to the objects of the Congress, from October 10 to 15, 1910; the Twenty-eighth Annual Congress of the American Ornithologists' Union, from November 15 to 17, 1910; and the annual session of the National Academy of Sciences, from April 18 to 20, 1911. Dr. Svante August Arrhenius, of Sweden, director of the Physico-Chemical Department of the Nobel Institute, delivered a lecture on "The Climate of Planets," on the evening of March 25, 1911, under the auspices of The Washington Academy of Sciences and The Philosophical Society of Washington; and Sir John Murray, of Edinburgh, Scotland, spoke on the subject of "The Ocean," on the evening of April 18, under the auspices of The Washington Academy of Sciences.

ORGANIZATION AND STAFF.

On June 1, 1911, Dr. Leonhard Stejneger, curator of reptiles and batrachians, was appointed head curator of the department of biology, in succession to Dr. Frederick W. True, who on that date became assistant secretary of the Smithsonian Institution in charge of library and exchanges. Doctor Stejneger will also continue in direct charge of the division of reptiles and batrachians. Dr. A. D. Hopkins and Mr. Frederick Knab, both of the Bureau of Entomology of the Department of Agriculture, were made custodians in the division of insects, the former of the section of forest tree beetles on July 1, 1910, the latter of the section of Culicidæ on October 26, 1910. Dr. Philip E. Garrison, passed assistant surgeon, United States Navy, was designated an assistant custodian of the section of helminthological collections on November 1. Dr. E. O. Wooton served for a short time during the autumn and winter as an assistant curator in the division of plants, and Prof. Francis P. Daniels was temporarily appointed to a corresponding position, beginning June 16, 1911.

Dating from June 16 the organization of all the paleontological collections and work was consolidated in one division, called the division of paleontology, with Dr. R. S. Bassler as curator. The three divisions of invertebrate paleontology, vertebrate paleontology, and paleobotany will hereafter be known as sections. Mr. Chester G. Gilbert was appointed assistant curator of the division of physical and chemical geology on April 1, and Mr. Neil M. Judd, an aid in the division of ethnology on June 20.

THE MUSEUM STAFF.

[June 30, 1911.]

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; T. F. Lane, Aid.

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

Division of Graphic Arts: Paul Brockett, Custodian.

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

Division of Medicine: J. M. Flint, United States Navy (Retired), Curator.

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, Assistant Curator; Paul R. Myers, Aid.

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

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

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

Section of Culicidæ: Frederick Knab, Custodian.

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

Section of Lepidoptera: Harrison G. Dyar, Custodian.

DEPARTMENT OF BIOLOGY—Continued.

Division of Insects—Continued.

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

Section of Arachnida: Nathan Banks, Custodian.

Section of Hemiptera: Otto Heidemann, Custodian.

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; Harriet Richardson, Collaborator.

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; J. N. Rose, Associate Curator; W. R. Maxon, Assistant Curator; P. C. Standley, Assistant Curator.

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.

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: 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, Custodian of Mammalian Collection; Charles W. Gilmore, Custodian of Reptilian Collection.

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 Paleobotany: Lester F. Ward.

DEPARTMENT OF MINERAL TECHNOLOGY:

Charles D. Walcott, Curator.

NATIONAL GALLERY OF ART:

W. H. Holmes, Curator.

ADMINISTRATIVE STAFF.

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

Disbursing Agent, W. I. Adams.

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

Editor, Marcus Benjamin.

Editorial Clerk, E. S. Steele.

Assistant Librarian, N. P. Scudder.

Photographer, T. W. Smillie.

Registrar, S. C. Brown.

Property Clerk, W. A. Knowles.

LIST OF ACCESSIONS TO THE COLLECTIONS DURING THE FISCAL YEAR 1910–1911.

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

ABBOT, Lieut. STEPHEN, U. S. Army: Tarantula representing the species *Eurypelma hentzi* (52148); 60 Cretaceous fossils from near Cañon City, Colo. (52546).

ACADEMY OF NATURAL SCIENCES, Philadelphia, Pa.: 7 bird skins, types of Picidæ (51780: loan).

ACKER, KEMP G., Washington, D. C., and THEODORE GUBLER, Butler, Pa.: 34 fossil plants from the Coal Measures of Pennsylvania (51885).

ADOLPHY, WILLIAM, Sebatik, British North Borneo: 2 turtles from Sebatik (52085).

AGRICULTURE, DEPARTMENT OF:

Large American flag (with pole and case) of American raised silk, made under the auspices of The Women's Silk Culture Association of the United States and presented by that association to the U. S. House of Representatives in 1885 (52143); 3,500 plants and also a specimen of limestone resembling a stone axe, fossil wood, insects, and recent and fossil shells, collected in Panama by H. Pittier (52691). (See under H. H. Rousseau and Dr. John B. Todd.)

Bureau of Animal Industry: Skin and skull of zebra-ass hybrid (51824).

Bureau of Biological Survey: Nest and 4 eggs of *Geothlypis trichas occidentalis* from Wyoming (51781); 235 plants collected by Merritt Cary (51782; 52441); nest and 4 eggs of a species of *Junco* (51826); skull of *Coccyzus americanus* (51845); 81 plants collected by A. H. Howell (51859; 51924); 16 specimens representing 2 species of crustaceans from birds' stomachs (52125); 205 plants collected in British Columbia by E. A. Preble and George Mixter (52493); a crinoid, *Heliometra inexpectata*, collected by Dan Brown at Etolink, Alaska, in 6 fathoms of water (52517); 301 plants collected in the southeastern part of the United States by W. L. McAtee (52556); alcoholic collection of reptiles and batrachians (52687); 5 sets of eggs of *Megaquiscalus major*, and 4 eggs of *Nyctanassa violacea*, collected in Mobile Bay, Ala., by A. H. Howell (52765; 52820); 25 plants collected in Panama by E. A. Goldman (52816); egg of a ferruginous rough-leg, *Archibuteo ferrugineus* (52835); freshwater shells, representing 3 species, found in the crops of ducks in Big Lake, Ark. (52885).

Bureau of Entomology: Crayfishes from Alabama (51785); 7 specimens of *Limnerium* from Beirut, Syria (51803); specimen of *Asilus oberthuri*, from Sutchuen, China (51808); 32 insects received from A. L. Montandon; also 76 specimens of European Coleoptera and Hemiptera which he determined (51925; 52134; 52668); specimens of *Nymphæa americana* collected in Massachusetts by Frederick Knab (52001); dried isopods which formed part of the Asa Fitch collection purchased

AGRICULTURE, DEPARTMENT OF—Contd.

some years ago by the Bureau of Entomology (52057); 57 named specimens of Coleoptera and 3 of Neuroptera from Europe (52062); 55 insects named by A. L. Montandon (52288); 6 specimens of *Conotrochelus* representing 2 species (52322); about 700 insects collected by L. E. Ricksecker at San Diego, Cuba (52356); specimen of *Eleodes suturalis* (52358); 7 packages and 3 boxes of insects collected by E. A. Schwarz and August Busck in Panama (52432; 52460); 4 parasitic Hymenoptera, types of *Habracytus piercei* (52448); 80 bees (67 belonging to the genus *Diadasia* and 13 to *Perdita*, the latter being the types of 6 species described by Prof. Cockerell) (52463; 52667); type of a strepsipteron, *Triozocera texana* (52496); 10 specimens of the chalcid, *Hunterellus hookeri* (52508); collections made by the Division of Forest Insect Investigations, numbering probably 800,000 specimens (52555); 2 lizards, a frog, a snake, 3 crabs, 5 boxes and 3 packages of insects collected by A. Busck in Panama (52598; 52856; 52881); 13 specimens of *Conœcus ovipennis*, and 1 specimen of *Blapstinus* sp. (52681); 2 wasp nests collected by A. Busck, one of them containing wasps (52708); 3 specimens of *Anthonomus* n. sp.? from the Hardenberg collection, Cranmoor, Wis. (52724); about 500 specimens of *Lachnosterna*, representing 11 species, and a few other beetles from the brown tail moth trap light experiments at Wilmington, Mass. (52743); 10 specimens of *Spinthcroplyta* (*Colaspoides*) *macrocephalus* from Brownsville, Tex., collected by M. M. High (52744); 10 specimens, representing 2 species, of isopods (52761); 20 specimens of the blistering-beetle, *Oxacis* n. sp. from M. Grabham (52769); 12 specimens of *Anthonomopsis mixtus*, bred on blossoms of wild goose plum by Dr. T. J. Headley, at Manhattan, Kans. (52779); 6 specimens of *Ixodes*, being the types of 2 new species and 2 new varieties (52786); 52 insects, chiefly beetles, from Roumania and other localities, mostly determined by A. L. Montandon (52831); specimens of galls from about 21 species of plants collected by Frank N. Meyer (52897); 56 packages of insects collected by E. A. Schwarz in Panama between January and July, 1910 (52935). (See under Ed. Foster, Takeshi Fukai, Prof. C. P. Gillette, and M. A. Yothers.)

AGRICULTURE, DEPARTMENT OF—Contd.

Bureau of Plant Industry: Specimen of *Echinocactus* collected in Texas by F. L. Lewton (51783); 2 specimens of *Hesperonia californica*, collected in California by Mrs. Agnes Chase (51806); 3 living specimens of Cactaceæ collected in Colorado by H. L. Shautz (51836); 121 specimens of plants, constituting a set of Baker's "Economic Plants of the World" (51837); 6 specimens of *Mamillaria*, 18 plants, chiefly Allioniaceæ, collected in Mexico by A. S. Hitchcock (51860; 52440; 52502); specimen of *Opuntia* from Nevada (51906); 21 living specimens of cacti collected in Texas by C. R. Ball (51913; 51940); 2 packets of seeds of *Anona* (through P. J. Wester) (51951); 181 plants from various localities (51973); 3 specimens of cultivated *Castilla*, received through H. Pittier, and living and dried plants and a lizard collected by him in Panama (52044; 52482; 52540; 52659; 52799; 52817); specimen of *Prunus ilicifolia*, collected in California by Silas C. Mason (52088); type specimen of *Abronia latiuscula* (52096); 13 living specimens of *Opuntia* collected by W. L. McAtee in Florida, Louisiana, and Texas (52150; 52246; 52291; 52416); 1,250 plants collected in Chesapeake Bay region in 1902–3 by George H. Shull (52181); 2 plants collected in Wisconsin by J. C. McDowell (52293); 670 plants collected chiefly

AGRICULTURE, DEPARTMENT OF—Contd. in Colorado, California, and New Mexico (52378; 52579; 52707); 51 ferns collected in Mexico by A. S. Hitchcock, and a living specimen of *Opuntia* collected in Florida by T. R. Robinson (52433); 61 plants of the United States (52458); 2 living specimens of *Opuntia* collected in Porto Rico by J. R. Johnston; 3 living specimens of *Cereus* collected in Florida by T. R. Robinson; 1 specimen of *Garrya* from Texas (52613). (See under Mrs. C. W. Howard and John R. Johnston.)

AGRICULTURE, DEPARTMENT OF (St. Clair Experiment Station), Port-of-Spain, Trinidad, British West Indies: 6 skins of woodpeckers, *Centurus terricolor*, from Tobago Island (52634).

AGUILERA, Dr. JOSÉ G., Instituto Geologico de Mexico, Mexico: 8 specimens of obsidian (52446).

AINSLIE, C. N., Salt Lake City, Utah: 5 living specimens of Cactaceæ from Utah (52238).

ALABAMA MARBLE COMPANY, Gantts Quarry, Ala.: 4 slabs of Alabama marble (52717).

ALBANY MUSEUM. (See under Grahamstown, Cape Colony, South Africa.)

ALBRIGHT, W. H., Bellevue, Ohio: A hemipteron representing the species *Reduvius personatus* (52573); specimen of leaf-hopper, *Phlepsius irroratus* (51760).

ALFARO, ANASTASIO, Museo Nacional, San José, Costa Rica: 8 specimens of Tertiary fossils from various localities in Costa Rica (52386); 5 batrachians from Costa Rica, collected by C. Picado, among them being the types of *Gastrotheca coronata* and *Spelerpes picadoi* (52929).

ALTHOUSE, J. E., Prairie Depot, Ohio: Specimen of the common praying mantis, *Stagmomantis carolinus* (52013).

AMBROSE, J. S., Fellows, Cal.: Specimen of a fossil shell (52501).

AMERICAN ANTIQUARIAN SOCIETY, Worcester, Mass.: Cast of a portal from the ruins at Labna, Yucatan (52410).

AMERICAN ENTOMOLOGICAL SOCIETY, Philadelphia, Pa.: 115 specimens of Ichneumonoidea, including paratypes of 23 species and homotypes of 16 species (52630: exchange).

AMERICAN MUSEUM OF NATURAL HISTORY, New York City: Casts of the skull and lower jaw of *Camptosaurus nanus*, and of the epidermis of *Trachodon* (51765: exchange); 24 specimens of vertebrate fossils, in completion of the exchange for the Cope collection from Bridger Basin (52006: exchange); 12 artificially deformed skulls from Bolivia (52267: exchange); 3 skins of *Trogon elegans* (52273: loan); 51 skins of clapper rails (52344: loan).

ANDERSON, Mr. and Mrs. LARZ, Washington, D. C.: Mural decoration, "Diana of the Tides," by John Elliott, executed in Rome, Italy, during the years 1906–8 (51792).

ANDERSON, Rev. R. W., Uvalde, Tex.: A moth and a lichen from Texas (51834; 52031).

ANDREWS, Dr. E. A., Johns Hopkins University, Baltimore, Md.: 3 specimens representing 2 species of crabs from Jamaica (51905); crustaceans and alcoholic specimens of tree oyster, *Ostrea parasitica* Gm., chiefly from Montego Bay, Jamaica (52113); insects, mollusks, crustaceans, mongooses, bats, snakes, and a turtle from Jamaica (52152; 52163: collected for the Museum).

ANONYMOUS SOURCE, New York City: Facsimile of a letter dated January 29, 1861, signed by John A. Dix, Secretary of the Treasury (52814).

ANTHONY, A. W., Portland, Oreg.: Metacarpal of *Teleoceras*, an extinct, very short-limbed rhinoceros (52333).

ANTHONY, H. E., Zortman, Mont. (through Vernon Bailey): Fossils from Montana (51862).

APPEL, W. D., Anacostia, D. C.: Crustaceans, a sample of river bottom, and an insect from Dyke, Va. (52451); 2 salamanders, *Hemidactylium scutatum*, from Virginia (52489); 4 leeches from the Eastern Branch, D. C. (52615). (See also under Clarence R. Shoemaker.)

ARIZPE, JOSÉ M., Saltillo, Coahuila, Mexico: Specimen of pocket gopher, *Cratogeomys castanops* (52008).

AVETTA, Prof. C., Parma, Italy: Specimen of *Mozinna* (51802).

BAGLEY, L. K., De Soto, Ga.: Specimen of moth, *Hemerocampa leucostigma* (52574).

BAILEY, H. B., Newport News, Va.: 5 mammal skulls from Warwick County, Va. (52543); 739 specimens of beetles of the genera *Lachnosterna* and *Chlænius*, principally from the vicinity of Newport News (52290); 3 bird skins from Florida (52545).

BAILEY, Rev. H. E., Eggleston, Va.: Specimen of jumping-mouse, *Zapus insignis* (51938).

BAILEY, H. H., Newport News, Va.: 11 mammal skulls from Warwick County, Va. (52286).

BAILEY, Dr. H. M., Glenville, Nebr.: Larva of a moth representing the species *Prionoxystus robiniæ* (52588).

BAILEY, VERNON, Biological Survey, Department of Agriculture, Washington, D. C.: Specimen of *Phoradendron juniperinum* from New Mexico (52375). (See also under H. E. Anthony.)

BAKER, A. B., National Zoological Park, Washington, D. C.: 2 specimens of *Eptesicus fuscus* from Washington (52397).

BAKER, Prof. C. F., Pomona College, Claremont, Cal.: About 50 bees of the genus *Prosopis*, and a cotype of *Prosopis conspicua* (52907).

BAKER, Dr. FRED., and Miss J. M. Cooke, San Diego, Cal.: Shells representing about 12 species, dredged near the Coronado Islands, Cal. (52263).

BAKER, HENRY D. (See under Mrs. Mary G. Roberts, and Cape Barren Island, School Children of, Bass Strait, Tasmania.)

BALDRIDGE, Mrs. MARIA, Los Angeles, Cal.: 3 shells, and a crab representing the species *Heterocrypta occidentalis* (52078).

BALLOU, H. A., Imperial Department of Agriculture, Barbados, West Indies: About 50 insects (52367).

BANFF, ALBERTA, CANADA, ROCKY MOUNTAINS PARK MUSEUM: Type specimen of bee, *Halictus sansoni* (52499).

BANKS, NATHAN, Department of Agriculture, Washington, D. C.: Specimen of *Theronia* (51863).

BARBER, Mrs. A. L., Washington, D. C.: A Toledo blade and foil (51757).

BARBER, H. G., Roselle Park, N. J.: Cotypes of *Pseudocnemodus brunerei*, *Araphe minetica*, *Alydus rufescens*, *Jalysus elongatus*, and *Esuris castanea* (52876).

BARBER, H. S., Department of Agriculture, Washington, D. C.: 2 specimens (skins and skulls) of *Marmota monax* (52910).

BARBOUR, THOMAS, Museum of Comparative Zoology, Cambridge, Mass.: Reptiles from Grenada (52298: exchange).

BARKER, Mrs. GEORGE F., Philadelphia, Pa.: 30 portraits (photographs and engravings) of physicists and chemists, etc., miscellaneous pictures and objects, 9 Egyptian molds from El-Amarna, Egypt, a book, and a small collection of minerals, from the estate of the late Prof. George F. Barker (52207).

BARLOW, Dr. C. H., Huchow, China: A Chinese sun-dial (52058).

BARNES, Dr. WILLIAM, Decatur, Ill.: About 50 insects from Redington, Ariz. (52424).

BARNHART, P. S., University of Southern California, Los Angeles, Cal.: Specimen of sea-pen, *Stylatula elongata* (51986).

BARRETT, CHARLES, Melbourne, Victoria, Australia: 3 photographs of young *Chalcococcyx basalis* (51846).

BARRETT, HARVEY, El Paso, Tex.: 54 fossils from near El Paso (52772).

BARRETT-HAMILTON, G. E. H., Kilmanock, Campile, Waterford, Ireland: 3 hares from Ireland, a mouse from France, and a shrew from Kamchatka (52109).

BARROTT, A. F., Washington, D. C.: Stone implements and a piece of fossil bone from Bowen, Pike County, Ark. (51861).

BARTLETT, H. H., Bureau of Plant Industry, Department of Agriculture, Washington, D. C.: 29 specimens of oaks from the District of Columbia and vicinity (52521).

BARTSCH, Dr. PAUL, U. S. National Museum: Piece of Igorot cloth and a loin-cloth, collected by him in the Philippine Islands (51886: purchase).

BASSLER, Dr. R. S., U. S. National Museum: Specimen of chalcopyrite and sphalerite from Joplin, Mo. (52509).

BATES, Mrs. ALFRED E., Washington, D. C.: A shawl and 2 flounces of Belgian lace (52436); collection of laces, fans and brocades (52528); miniature, set in pearls and jet, of Mrs. Morgan, wife of Edwin Dennison Morgan, Governor of New York in 1860 (52670). Loan.

BAXTER, M. S., Rochester, N. Y.: 4 specimens of ferns from Monroe County, N. Y. (52133: exchange).

BEACH, SUMNER, Wilder, Mont.: 8 stone implements (52450).

BEAN, B. A., U. S. National Museum: 2 catfish, *Ictalurus punctatus*, from the Potomac River (51985); fishes from the Susquehanna River (52016); crustaceans and a squid from Woods Hole, Mass., and vicinity (52311).

BEAN, Dr. TARLETON H., New York City: Fishes, crustaceans and insects from Gravesend Bay, N. Y., and from the New York Aquarium (52232).

BEARD, Mrs. R. L., Washington, D. C.: Ethnological specimens from Africa (52340: loan).

BEARSS, J. T., Kearney Park, Cal.: Living specimen of *Selenicereus* (52420); living specimen of *Mamillaria* (52453).

BEDFORD QUARRIES COMPANY, THE, New York City: 2 six-inch cubes of Bedford limestone (51797).

BEERS, CHARLES H., Eustis, Fla.: 6 specimens of calamine; cabochon cut stones, elliptical girdles (52059).

BELL, Mrs. WILLIAM H., Cristobal, Panama Canal Zone: Archeological and ethnological specimens relating to the Indians of Panama; also 5 photographs of Peruvian Indians (52672).

BENEDICT, C. J., Silver Spring, Md.: An abnormal chicken without head, yet living when taken from the shell (52711).

BENEDICT, JAMES E., jr., Woodside, Md.: Specimen of Gordiidæ from Gunpowder Swamp, Prince Georges County, Md. (52794).

BENSON, Maj. H. C., U. S. Army. (See under Yellowstone National Park.)

BERLIN (DAHLEM BEI STEGLITZ) GERMANY, KÖNIGL. BOTANISCHES MUSEUM: 190 plants from Africa (52319: exchange).

BERLIN, GERMANY, MUSEUM FÜR NATURKUNDE: 23 specimens of recent crinoids, representing 15 species (51749: exchange).

BEUTENMÜLLER, WILLIAM, American Museum of Natural History, New York City: 5 specimens of Coleoptera, of which one is a cotype; also 4 specimens of Orthoptera, including cotypes of 3 species (51763); about 25 specimens of Cynipidæ and galls; also about 85 specimens of Cecidomyidæ and galls, both mostly type material (52196); specimen of *Dryophanta clarkei*; adult and 3 galls, types of *Andricus pisiformis* (52480); specimen of gall-wasp, *Holcaspis weldi*, from Mexico (52877). (See also under Lewis H. Weld.)

BINFORD, R., Johns Hopkins University, Baltimore, Md.: 5 specimens, representing 3 species, of crabs from Beaufort. N. C. (52825).

BLACKISTON, A. H., Cumberland, Md.: 3 antique oil paintings from ruins of the Church of San Francisco, Antigua, Guatemala (51820); skeletons and shells from near San José del Cabo, Lower California (51821); archeological objects principally from Oaxaca and Chihuahua, Mexico (51979; 52021; 52258); archeological specimens from Central America and Mexico (52341); archeological specimens from Mexico (52435; 52620). Loan.

BLANCHARD, C. J., Washington, D. C.: A flint nodule (51974).

BLODGETT, Miss ELEANOR, New York City: Oil painting by Frederick E. Church, entitled "Aurora Borealis" (52623).

BLUMER, J. C., Tucson, Ariz.: 6 plants from the southern part of Arizona (52120).

BOOY DE, THEODOOR, St. Matthews, Ky.: Fragments of Lucayan pottery from the Caicos, or southern Bahama Islands (52657).

BOTANISK MUSEUM. (See under Copenhagen, Denmark.)

BÖTTCHER, ERNST A., Berlin, Germany: 3 bird skins (51909: purchase).

BOWRON, W. M., Chattanooga, Tenn.; Fossil blastoid showing internal anatomy (52697).

BOYLE, Dr. F. M., Valdez, Alaska: Partly mummified remains of an adult and infant, from a cave on Knights Island, Prince William Sound, about 75 miles from Valdez (52106).

BRAINERD, EZRA, Middlebury, Vt.: Specimen of *Viola pedata* from South Carolina (52043); 181 specimens of *Viola* from the United States (52282: purchase).

BRANDEGEE, T. S., University of California, Berkeley, Cal.: 478 plants collected in Mexico by C. A. Purpus (52635: purchase).

BRANSON, Miss ANNE J., U. S. National Museum: Specimen of white-breasted nuthatch, *Sitta carolinensis* (52637).

BREWER, H. H., Lanham, Md.: Skin and skull of a specimen of *Lutreola* from Lanham (52476).

BRISTER, Judge E. M. P. (through Mrs. Jennie M. Brister, Newark, Ohio): 11 pieces of furniture which belonged to his great-grandfather, Gen. Rufus Putnam; also a framed photograph of Gen. Putnam (52661).

BROCKETT, PAUL, Smithsonian Institution: Drawing of the insignia of the Daughters of the American Revolution, adopted by the board of managers of the society on May 7, 1891 (52437).

BRODE, Prof. H. S., Whitman College, Walla Walla, Wash.: Specimens of *Physa* and *Ancylus* from Walla Walla (52562).

BROWN, EDWARD J., Washington, D. C.: 900 bird skins from North and Central America (52070); 282 bird skins, chiefly water-birds and waders (52071: purchase); 59 bird skins from Washington, D. C., and vicinity (52228; 52923).

BROWN, EDWARD J., and J. H. RILEY, U. S. National Museum: 3 specimens of wood duck, *Aix sponsa*, and 2 specimens of woodcock, *Philohela minor*, from Alden, Va. (52178).

BROWN, HERBERT, Tuscon, Ariz.: Lizard (51873); snake, *Tantilla wilcoxi*, from Arizona (52822).

BROWN, Lieut. JOHN FRANK, Philippine Scouts, U. S. Army, Davao, Mindanao, P. I.: Specimen of walking-stick, belonging to the orthopterous family Phasmidæ (52723).

BROWNELL, Dr. C. deW., U. S. Navy, Naval Hospital, Las Animas, Colo.: Mounted specimen of baldpate duck, *Mareca americana* (52771).

BRYAN, Hon. W. J., Lincoln, Nebr.: Specimen of wood representing the genus *Bignonia*, from Brazil (51779).

BRYANT, OWEN, Boston, Mass.: Mammals, birds, insects, shells, plants, fishes, and marine invertebrates, chiefly from the Regency of Bantam, Java (51791: collected for the Museum).

BUENOS AIRES, ARGENTINA, SOUTH AMERICA, MUSEO NACIONAL DE HISTORIA NATURAL: Skull of a Patagonian Indian (52056: exchange); 3 casts relating to ancient man in Argentina (52127).

BULLARD, C. L., Bowling Green, Va.: Specimen of two-headed snake from Virginia (52612: purchase).

BULLARD, R. C., Bullards, Oreg.: Specimen of iridosmine (52782).

BULLEN, G. E., Hertfordshire County Museum, St. Albans, England: 2 microscopic slides of British hydroid zoophytes (51748); 78 microscopic slides of invertebrates and 1 slide of alga (51921: purchase); 30 vials of British Hydromedusæ (52388: purchase).

BUREAU OF SCIENCE. (See under Manila, P. I.)

BURNS, Mrs. T. S., Washington, Ga.: Specimen of beetle representing the species *Dynastes tityus* (51743).

BUSH, B. F., Courtney, Mo.: 180 plants collected in Missouri by E. J. Palmer (52281); 275 plants from Missouri (52518). Purchase.

BUSH-BROWN, H. K., Newburgh, N. Y.: Bronze cast of a study model of the Arabian stallion "Haleb" (51786).

BUTTON, FRED. L., Oakland, Cal.: West American shells representing 4 species (52055); specimens of *Cypræa similis* from South Africa and *Murex festivus* from Redondo, Cal. (52268).

CALCUTTA, INDIA, INDIAN MUSEUM: Specimen of the Gangetic porpoise, *Platanista gangetica* (52153); Indian and European Phylactolæmata representing 14 species (52300: exchange); 102 species of Indian crustaceans (52504: exchange).

CALCUTTA, INDIA, ROYAL BOTANIC GARDEN: 66 specimens of plants, chiefly Asiatic (52173: exchange).

CALIFORNIA, UNIVERSITY OF (Museum of Vertebrate Zoology), Berkeley, Cal.: 4 skins of *Dryobates pubescens glacialis* (52299: loan).

CAMBRIDGE, MASS., MUSEUM OF COMPARATIVE ZOOLOGY: 519 bird skins from Africa (52345: loan); 90 bird skins from China (52379; 52557: exchange).

CAPE BARREN ISLAND, SCHOOL CHILDREN OF, Bass Strait, Tasmania (through Henry D. Baker, American consul, Hobart, Tasmania): Collection of insects and birds' eggs (51766).

CAPRON, Mrs. ALLYN K., Washington, D. C.: Costumes, basketry, blankets, pictography, etc., collected by Captain and Mrs. Allyn K. Capron while stationed at Fort Sill, Okla., principally from the Indian tribes of the southern plains and the southwestern part of the United States (52933: purchase).

CARNEGIE INSTITUTION, Washington, D. C.: 3 living plants, specimen of *Cissus* from Arizona, 2 roots and a photograph of *Ibervillea*, transmit-

CARNEGIE INSTITUTION—Continued.
ted by Dr. D. T. MacDougal, director of the Desert Laboratory, Tucson, Ariz. (52030; 52095; 52159).

CARPENTER, WILLIAM D., U. S. National Museum: Specimen of cedar waxwing, *Bombycilla cedrorum* (52638); a small collection of zoological specimens from Montgomery County, Md. (52819); 11 skins of the house sparrow, *Passer domesticus* (52836); amphipods from a tributary of the Merrimac River, Mass. (52891); a small collection of zoological specimens from Essex County, Mass. (52893); 32 skins with skulls, and 4 skins of mammals from Nashotah, Wis. (52909).

CARR, WALTER P., U. S. Department of Agriculture, Washington, D. C.: 3 alcoholic specimens, with 2 skulls, of bats, *Mormoops megalophylla senicula*, from Texas (52766); red bat with 4 young, and 2 embryos from another individual (52852).

CARRUTHERS, S. O., Bretton Woods, N. H.: 4 specimens of black-nosed dace, *Rhinichthys atronasus* (52191).

CARTER, Hon. GEORGE R., Honolulu, Hawaii: 2 abnormally developed hoofs of wild cattle from the swampy forests of Hawaii (52625).

CARTER, RALPH E., Naskeag, Me.: A fragment of pottery, spearhead and bones from a shell heap at Naskeag; also the skull of a skunk, *Mephitis putida*, and 2 feet of a muskrat from Naskeag (52084); 2 mammal skulls from Naskeag (52544: purchase).

CASEY, EDWARD PEARCE, New York City: Rigged models of 2 yachts of about the period of 1875 (52589).

CASEY, Col. THOMAS L., U. S. Army, Washington, D. C.: 48 examples of Aleocharinæ, representing 12 species; 38 paratypes of Aleocharinæ; and 62 examples of other Staphylinids, in 16 species (52039); an amphipod (52904).

CHAFFEY, E., Mazapil, Zacatecas, Mexico: 82 living specimens of Cactaceæ (51741; 51788; 51866; 51948; 52005; 52068; 52122; 52151; 52237); 4 specimens of *Ariocarpus* (51823); 13 living plants (51939); specimen of *Leuchtenbergia* (52019); specimen of *Echinocactus* (52249); living specimen of *Selaginella*, 2 living specimens of Cactaceæ, bulbs, and a specimen of *Coldenia;* all from Mexico (52475; 52522; 52706; 52906).

CHAMPION, G. C. (See under F. D. Godman.)

CHANDONNET, Rev. Z. L., Perham, Minn.: 7 specimens of *Laciniaria* from Minnesota (52028: exchange).

CHIPPEWA TRADING STORE, Red Lake, Minn.: 3 medicine rattles of the Ojibwa Indians (52585: purchase).

CHRISTIANIA, NORWAY, ZOOLOGICAL MUSEUM: 4 specimens of *Rhizocrinus lofotensis* and 1 pentacrinoid, *Hathrometra sarsii* (52177: exchange).

CLARK, AUSTIN H., U. S. National Museum: Butterfly representing the species *Feniseca tarquinius* (51839); specimen of *Ceramaster japonicus* from southern Japan (52514).

CLARK, JOHN H., New Orleans, La.: Photograph of John H. Clark and brothers, a portrait of an Indian, and a daguerreotype of Charles Sumner, taken about 1853 (51756).

CLARK, W. FRANK, Washington, D. C.: Brush line work and photo-engraving reproduction of the same, representing the head of a lion, after Rosa Bonheur (52401).

CLARKE, Prof. F. W., U. S. Geological Survey, Washington, D. C.: Specimen of calcite filling ammonite (52315). (See also under Bennett McDaniel.)

COCKERELL, Prof. T. D. A., Boulder, Colo.: 33 insects (51849); 25 insects and 9 fossils (51931); types of 2 species of insects and cotypes of 1 species, together with about 40

COCKERELL, Prof. T. D. A.—Continued. other specimens (52052); 7 plants from New Mexico (52193); about 50 insects mostly from the United States; also including 2 from the British Tibet Expedition, and the type slide of a coccid (52231); types of 2 species of bees, *Osmia titusi* and *O. davidsonella* (52289); 12 bees (including cotypes of 6 species) and 36 miscellaneous insects (52368); type of chalcid, *Syntomaspis warreni* (52381); 4 fossil animals and a fossil plant (52644); 8 insects, including 7 species of named bees (52655); 43 plants from New Mexico (52692; 52806); insects and a lizard (52826); male and female specimens of *Psenulus* (*Neofoxia*) *townsendi* (52851); 14 wasps, including type of 1 species, and a paratype of a bee (52896); fish, *Notropis* sp. nov.?, collected by Horace Smith at Julesburg, Colo. (52939).

CODWISE, Miss LOUISE SALTER, Kingston, N. Y.: "The Louise Salter Codwise Collection," consisting of relics of the Salter and Codwise families of New Jersey and New York, both of Colonial and Revolutionary history, and comprising jewelry, miniatures, embroideries and laces, etc. (51998: loan).

COE, HENRY C., Newport, Oreg.: 3 specimens of rock oyster, Pholadidea, from Yaquina Bay, Oreg. (52756).

COHEN, Miss MARY M. (See under Mikve Israel Association, Philadelphia.)

COLLINS, F. S., Malden, Mass.: 150 specimens of North American algæ, Phycotheca Boreali-Americana, fascicles 33, 34, and 35 (51758; 52271; 52901); and 25 specimens of North American characeæ and algæ, Phycotheca Boreali-Americana, fascicle "E" (52374). Purchase.

COLMAN, H. F., Washington, D. C.: 12 postage stamps and 5 proofs (52197).

COLORADO YULE MARBLE COMPANY, Marble, Colo.: Slab of marble (52718).

COMMERCE AND LABOR, DEPARTMENT OF:

Bureau of Fisheries: 2 crabs and 5 insects from the Philippine Islands, received through Lieut. Wm. E. Moore (51738); about 190 specimens of isopods, collected by the Albatross Philippine Expedition (51771); 64 fishes, chiefly lake herrings, among which are types of several new species from the Great Lakes, collected by the International Fisheries Commission (51871); 1,225 fishes, chiefly from Indiana, Maryland, Nebraska, Ohio, Woods Hole, Mass., and Maine (51872); specimens of *Spongilla philippinensis* (51922); 1,391 fishes collected on the western coast of the United States, chiefly by Messrs. Rutter and Brady, and Scofield in 1897 (51959); 3 boxes of hydroids collected by the Albatross during the Northwest Pacific cruise of 1906, and identified by Prof. C. C. Nutting (51993); fishes, batrachians, invertebrates, insects, etc., collected for the Bureau in Grand River, Mich., in the summer of 1909 by Dr. R. E. Coker (52014); reptiles and batrachians from Indiana (52053); 2 mink skulls collected at Ten Mile Lake, Oreg., by Dr. S. E. Meek (52063); 2,911 fishes from North Carolina, Virginia, the Lower Potomac River, and Indiana; also 55 specimens of reptiles and batrachians from Indiana (52175); bat from Palawan, P. I. (52251); 6 fruit bats from Celebes (52252); 641 fishes collected chiefly by the U. S. S. Fish Hawk and the Grampus; 37 fishes from Biscayne Bay, Fla., and Crittenden, Vt.; 127 fishes from White River, Ind., and off Lower California and Mexico; 16 batrachians and reptiles from West Virginia; and 100 crustaceans, leeches, and mollusks from Maryland and West Virginia (52276); specimen of the rare flatfish, *Gymnachirus nudus* from Tisbury Great Pond, Marthas Vineyard, Mass., collected in 1906, by Vinal N. Edwards (52279); 1,100 specimens, chiefly ferns, collected princi-

COMMERCE AND LABOR, DEPARTMENT OF—Continued.
pally in the Philippine Islands by Dr. Paul Bartsch while connected with the Bureau of Fisheries Philippine Expedition of 1907–8 (52335); the Siphonophores of the Albatross East Pacific Expedition of 1904–5, identified by Dr. Henry B. Bigelow (52461); 2 microscopic slides of Cladocera, types of *Chydorus bicornutus* and *Parophyoxus tubulatus* (52593); 66 bottles of Medusæ from the Albatross collection of the Philippine Expedition of 1907–9 (52650); 600 plants collected on islands of the Central Pacific Ocean during the cruise of the Albatross in 1899–1900 (52824); recent bryozoans, incrusting rocks from Grand and Georges Banks, collected by Gloucester fishermen in 1877–1880 (52905).

COMSTOCK, Prof. HENRY, Cornell University, Ithaca, N. Y. (through Mr. W. Dwight Pierce): Specimen of Strepsiptera, type of a species described by Mr. Pierce (52497).

CONGRESS OF THE UNITED STATES, BY ACT APPROVED MAY 22, 1908: A colossal statue of Washington, by Horatio Greenough, partly nude, in Carrara marble, seated in a Roman chair on which are carved several small accessory figures (51996).

CONNECTICUT AGRICULTURAL EXPERIMENT STATION, New Haven, Conn.: A specimen of Lepidoptera (52704).

CONOVER, EDITH A., Springfield, Md.: Specimen of *Gentiana* from Maryland (52027).

CONZATTI, Dr. C., Oaxaca, Mexico: Living specimen of *Opuntia*, specimen of *Stauranthus*, and living specimen of *Cereus*, from Mexico; and 4 photographs of Cactaceæ (52119; 52189; 52492).

COOKE, Miss J. M., Point Loma, Cal.: Shells from the west coast of North America, including 2 specimens of the rare red variety of *Haliotis cracherodii* (52162); 13 specimens

COOKE, Miss J. M.—Continued.
of mollusks from San Diego, Lower California and the Gulf of California, including types of 3 new species (52343). (See also under Dr. Fred. Baker.)

COOLEY, F. E., Phoenix, Ariz.: 49 sacred cigarettes from a shrine where offerings were made by the prehistoric peoples of Arizona (52380; 52529).

COPENHAGEN, DENMARK, BOTANISK MUSEUM: 6 specimens of *Selaginella* (52804: exchange).

COPENHAGEN, DENMARK, ZOOLOGISKE MUSEUM: 92 specimens of recent crinoids, representing 34 species (51750); 7 specimens of Hydrocorallia from Tahiti and Marshall Islands (51770). Exchange.

CORY, Miss KATE T., Prescott, Ariz.: 31 paintings representing studies of Hopi ceremony and domestic life, by Miss Cory (52389; 52647; 52712). Loan.

COSENS, A., Toronto, Canada: Specimen of a sawfly with gall (52656).

COX, JENNINGS S., Daiquiri, Santiago de Cuba, Cuba: 15 living specimens of Cactaceæ from Cuba (52174).

CRAIGHEAD, F. C., State College, Pa.: 2 specimens of *Phymatodes varius* collected at State College (52785); larva of *Mycetocharis haldemanni* (52792).

CRAWFORD, Dr. A. C., Department of Agriculture, Washington, D. C.: A 5-kopek piece of 1832 (51847).

CROPPER, Mrs. JOHN, Washington, D. C.: Collection of French and Italian point lace, and a specimen of bobbin lace (52428); a gold medal presented by the British Government to Capt. John Cropper for saving the crew of the "Leonidas"; a spike used in the temporary railroad that conveyed President Garfield, after he was shot, from the main line to the cottage at Elberon, N. J.; iron spike from the church in which Patrick Henry delivered his

CROPPER, Mrs. JOHN—Continued.
famous speech; and a gold ornament from Chiriqui, Panama (52796); a brass cannon used during the War of the American Revolution (52846). Loan.

CROSS, WHITMAN, U. S. Geological Survey, Washington, D. C.: 13 specimens of igneous rocks from southern Norway, collected by Mr. Cross in September, 1910 (52285).

CULIN, STEWART, Brooklyn, N. Y.: Games obtained by him in Japan and China for the National Museum (52329: purchase).

CUMINGS, Prof. E. R., Indiana University, Bloomington, Ind.: 11 specimens of fossil bryozoans (52773).

CURL, Dr. H. C., U. S. Navy, Naval Hospital, Canacao, P. I.: 76 bird skins from Luzon (52224); 6 skins of *Caprimulgus griseatus* from Luzon, and a skin of *Caprimulgus manillensis* from Cavite Province, Luzon (52510; 52763).

CURTICE, Dr. COOPER, Livingston, Ala.: About 30 specimens of Devonian fossils from near Decaturville, Tenn. (52695).

CUSICK, WILLIAM C., Union, Oreg.: 275 plants collected in Oregon (52024; 52798: purchase); specimen of *Ligusticum* from Oregon (52123).

DAHLEM BEI STEGLITZ, KÖNIGL. BOTANISCHES MUSEUM. (See under Berlin, Germany.)

DALL, Dr. WILLIAM H., U. S. Geological Survey, Washington, D. C.: A unique specimen of *Haliotis cracherodii* from San Pedro Bay, Cal. (52128: purchase); collection of shells from Alaska, mostly marine, consisting of about 15,000 lots and some 50,000 specimens (52304).

DAVENPORT, HOMER, Holmdel, N. J.: The skeleton of an Arabian horse, "Haleb" (The Pride of the Desert) (52188).

DAVIDSON, A., Los Angeles, Cal.: 10 plants from California (51784).

DAVIS, FRED. P., Greenville, N. H.: Skull of a red fox (52853).

DAVIS, Maj. HENRY C., U. S. Marine Corps, Island of Guam: Snake, *Typhlops braminus*, from Guam (52221).

DAVIS, Dr. JOHN, Hannibal, Mo.: 145 specimens of *Cratægus* from Missouri (52520).

DAY, CRAIG C., Gantts Quarry, Ala.: Skin of an albinistic specimen of bobwhite, *Colinus virginianus* (52478).

DEAM, C. C., State Board of Forestry, Indianapolis, Ind.: 14 plants from Guatemala (52394: exchange).

DEEDMEYER, FRANK, American Consul, Charlottetown, Prince Edward Island, Canada (through Department of State): Parts of a prayer-book in the Micmac sign language (52325); 2 battle axes, models of 2 small canoes, a scalping-knife, a stone earring and a flint arrow, relating to the Micmac Indians (52537: purchase); 3 picture postals, a pamphlet, and 3 papers relating to the Micmac Indians (52538).

DE HART, Dr. W. M., Logansport, Ind.: Carved head of a wooden figure from India; pierced tablet from Ohio; lower jaw of an Indian with dental anomaly; and a hat-shaped concretion (52700).

DENSMORE, Miss FRANCES, Red Wing, Minn.: War shirt (flannel and ermine), war club, war badge, and 11 golden eagle scalp feathers, marked to indicate special acts of bravery of Odpro, the last warrior of the Chippewas, against the Sioux (52775: purchase).

DENTON, EDWARD S., West Point, N. Y. (through Lieut. Col. E. A. Mearns, U. S. Army (retired), Washington, D. C.): Nest of wood thrush, *Hylocichla mustelina*, from New York (52913).

DENTON, SHELLEY W., Wellesley, Mass.: 16 mammal skins (52434; purchase).

DISBROW, Dr. W. S., Newark, N. J.: Letter from Eadweard Muybridge, University of Pennsylvania, Philadelphia, dated November 24, 1887, to the editor of the Press, Philadelphia, re author's edition of "Animal Locomotion" (51945); 98 specimens of minerals (52179).

DIXON, Dr. WILLIAM S., Medical Director, U. S. Navy (retired), Washington, D. C.: A large and fine specimen of *Tridacna gigas* from the South Pacific (52187).

DÖDERLEIN, Prof. Dr. LUDWIG, Strassburg, Germany: Specimen of *Rhizocrinus chuni* from Somaliland, eastern Africa (51737: exchange).

DODGE, BYRON E., Davison, Mich.: A collection of about 840 archeological specimens, mainly from Genesee County, Mich., formerly on deposit (52641: purchase).

DODGE, C. K., Port Huron, Mich.: 3 specimens of *Laciniaria* from Ontario (52307).

DOLBEAR, SAMUEL H., Johannesburg, Cal. (through Mr. Frank L. Hess): Specimen of thenardite from Borax Lake, 40 miles north of Randsburg, Cal. (52199).

DONALDSON, W., Shreveport, La.: 2 specimens of fresh-water sponge; fresh-water sponge from settling basin of the waterworks at Granite City, Ill.; 2 large specimens of fresh-water sponge representing the species *Asteromeyenia radiospiculata* (51752; 51915; 52076).

DORMAN, J. W., Bellemont, Ariz.: Ancient jar from the Zuñi Mountains, N. Mex. (52535: purchase).

DOUBT, Miss SARAH L., Altair, Tex.: 2 living specimens of Cactaceæ from Texas (52003).

DOWELL, PHILIP, Port Richmond, N. Y.: 266 plants from the District of Columbia and vicinity, and Staten Island, N. Y.; also 50 ferns (51923; 52121). Exchange.

DUBLIN, IRELAND, NATIONAL MUSEUM: 12 specimens of Irish sponges and a deep-sea Alcyonarian (52526: exchange).

DUDLEY, Prof. W. R., estate of, Stanford University, Cal.: 100 plants collected in Mexico by Frank H. Lamb (52920).

DUKE, Mrs. YATES DAVIS, Orme, Md. (through Dr. D. S. Lamb): A vapor lamp made in 1860 (52748).

EASTON GAS AND ELECTRIC COMPANY, Easton, Pa.: An Edison chemical electric meter (52260).

EASTWOOD, Miss ALICE, Cambridge, Mass.: 170 plants from Colorado (52194: purchase).

EATON, D. W., U. S. Coast and Geodetic Survey, Washington, D. C.: 70 plants collected along the Alaska-Canada boundary (52264).

EDWARDS, AUBREY W., Washington, D. C.: An axe-like specimen of quartzite (52815: loan).

EGGLESTON, W. W., Department of Agriculture, Washington, D. C.: 174 plants from the southern part of the United States (52066: purchase); 48 specimens of *Cratægus* from the northeastern part of the United States (52490); 14 plants from the United States (52554).

EICHLAM, F., Guatemala, Guatemala: 5 specimens of *Opuntia eichlamii* (51947); 12 living specimens of Cactaceæ from Guatemala (52042; 52247). Exchange.

ELFORD, M. H., Dexter, N. Mex.: Fragmentary human skeleton (51869).

ELLIS, GEORGE W., jr., Lawrence, Kans.: Ethnological objects from the Western Sudan, Africa (51814: loan).

ELLSWORTH, FRANK S., Rochester, N. Y.: Chips from a camp site on the right bank of the Columbia River, about a mile below Hanford, Wash. (52713).

ELMER, A. D. E., Manila, P. I.: 1,204 plants from the Philippine Islands (51744; 51764). Purchase.

ELY, CHARLES R., Washington, D. C.: 175 specimens of Homoptera (52118).

EMERY, SLOAN MILLER, Oaxaca, Mexico: Knives, chips, and an obsidian arrowhead from Oaxaca (51854).

EMORY, W. E., Washington, D. C.: An English watch movement (52750).

ENTWISLE, W. B., Alexandria, Va.: 19 arrow points gathered by the donor at Jones Point, Alexandria (52427).

ERDIS, ELLWOOD C., Nuevas Casas Grandes, Chihuahua, Mexico: 6 snake skins, part of a snake skin, and reptiles and insects, from Mexico (51999; 52061; 52145).

ERGENZINGER, W. J., Empire, Canal Zone: Tertiary fossils from upper locksites, Gatun, and from Station 1727 (52205).

ERICSSON, CHARLES, Hallandale, Fla.: Specimen of a young ring-necked snake, *Diadophis punctatus* (52156).

EVANS, J. D., Central Ontario Railway, Trenton, Ontario: 33 specimens of Lepidoptera (51776).

EVANS, Dr. KATHERINE, Los Angeles, Cal.: Sea-urchin, *Echinarachnius excentricus*, from Redondo Beach, Los Angeles (52547).

EVANS, WILLIAM T., New York City: 24 oil paintings and 1 fire etching on wood, by American artists (51964; 52383; 52648; 52746; 52838); 81 framed proofs of American wood-engravings (52384; 52609).

EVERMANN, Dr. B. W., Bureau of Fisheries, Washington, D. C.: 66 plants, mainly from Colorado and California (52064).

EWING, E. C., Department of Agriculture, Washington, D. C.: 7 specimens of crayfishes, representing 2 species, from Muldon, Monroe County, Miss. (52222).

FEATHERSTONHAUGH, Dr. THOMAS. (See under Robert E. Seel.)

FELIPPONE, Dr. FLORENTINO, Montevideo, Uruguay: 3 specimens of *Lathrodectes mactans* and an egg-case of the same species (52515).

FERRARI-PEREZ, Prof. FERNANDO, Puebla, Mexico: 4 skins of an artificial variety of cardinal, *Cardinalis flavonotata* (51855: loan).

FILLIOZAT, MARIUS, Vendôme, Loir et Cher, France: 18 species of French Tertiary corals (51739); about 250 specimens, representing 42 species, of cretaceous bryozoans from France (52112). Exchange.

FISHER, GEO. L., Nara Visa, N. Mex.: 120 plants from New Mexico (52280; 52339; 52800).

FLINT, Dr. JAMES M., U. S. Navy (retired), Washington, D. C.: 347 microscopic slides of Foraminifera selected chiefly from dredgings of the Albatross from 1883–87, and mounted and identified by Dr. Flint (52506).

FOOTE, Maj. GEORGE FRANKLIN, U. S. Army (retired), Washington, D. C.: Brocade cope or vestment from the mission of San Xavier del Bac, near Tucson, Ariz. (52169); 8 pieces of Benares copper-work, consisting of a tray, 2 goblets, a carafe, teapot, sugar bowl, cream pitcher and a decanter (52170: loan).

FOOTE MINERAL COMPANY, Philadelphia, Pa.: Specimen of kröhnkite with natrochalcite (52203: purchase).

FORBES, H. L., Smithfield, Tex.: Spider, *Eremobates magna* (52561).

FOREST DE, Mrs. ROBERT W., New York City: A beaded purse-bag, and a peasant cap bag covered with relief work in gold thread and silver brocade (52527: loan).

FOREST, FISH AND GAME COMMISSION, Albany, N. Y.: 2 specimens of lake herring from Hemlock Lake, N. Y. (52275).

FOREST SCHOOL, YALE UNIVERSITY, New Haven, Conn.: About 750 plants from Arizona (52306: exchange).

FORSIUS, RUNAR, Langkokajen, Helsingfors, Finland: 75 specimens, representing 29 species, of determined Tenthredinidæ, including cotypes of 2 species (52854: exchange).

FOSTER, A. S., Aberdeen, Wash.: 23 plants from Washington (52733: exchange); invertebrates (52784).

FOSTER, ED., New Orleans, La. (through Bureau of Entomology, Department of Agriculture): About 165 insects (51944).

FOX, J. J., West Palm Beach, Fla.: Specimen of palm weevil, *Rhynchophorus cruentatus* (52828).

FOX, Mrs. VIRGINIA L. W. (through the executors): Addition to the Gustavus Vasa Fox collection of relics, consisting of books, manuscripts, photographs, and other articles (52309; bequest).

FRIERSON, L. S., Frierson, La.: 7 specimens, representing 4 species, of unios, partly cotypes of Pilsbry's new species from the Vallez River, Vera Cruz, Mexico (52928).

FRITSCHE, OSKAR, Taucha bei Leipzig, Germany: Skin of *Astrapia rothschildi* (male), and *Garrulus lidthi* (52767: purchase).

FUKAI, TAKESHI, Konosu, Saitama, Japan (through Bureau of Entomology, U. S. Department of Agriculture): About 100 specimens of Hymenoptera from Formosa and Japan (51955); 40 specimens of Hymenoptera (52116).

GARD, ALLEN, American Consul, Ceiba, Honduras: Moth (52709).

GARDNER, Miss JULIA, Johns Hopkins University, Baltimore, Md.: Plankton from the Severn River, Md. (52892).

GARREN, W. L., Wolfcreek, N. C.: Specimen of stag-beetle, *Lucanus elaphus* (51777).

GATUELLAS, M. S., Barcelona, Spain: 6 Catalonian musical instruments (51790: purchase).

GAUMER, Dr. GEORGE F., Izamál, Yucatan, Mexico: 26 mammal skins, 7 bird skins, and skull of a shrew, from Mexico (52041; 52255; 52431; 52698).

GEE, Prof. N. GIST, Soochow University, Soochow, China: 20 illustrated Chinese books relating to various objects used as medicines (52603).

GEISER, S. W., Independence, Iowa: 22 specimens, representing 2 species, of Pupidæ from Iowa (52886).

GENUNG, C. B., Forepaugh, Ariz.: 7 specimens of blister beetles, *Tegrodera erosa* (52810).

GEOLOGICAL MUSEUM. (See under Upsala, Sweden.)

GEOLOGICAL SURVEY OF CANADA. (See under Ottawa, Canada.)

GEORGIA MARBLE COMPANY, Tate, Ga.: 5 slabs of marble (52720).

GEORGIA VERD ANTIQUE MARBLE COMPANY, Chicago, Ill.: A slab of Verd Antique marble (52850).

GILBERT, Prof. GROVE KARL, Washington, D. C.: 3 gold medals awarded to Prof. Gilbert, namely, the Wollaston Medal, 1900; the Hubbard Medal, 1909, and the Daly Medal, 1910 (52764: loan).

GILL, DE LANCEY, Washington, D. C.: Stone implements, some of which are facsimiles made by the donor (51963).

GILL, Dr. THEODORE N., Smithsonian Institution: Small engraving of Gen. Wm. B. Franklin (52176).

GILLETTE, Prof. C. P., Fort Collins, Colo.: 20 specimens of beetles representing the species *Diabrotica virgata* and *D. filicornis*, from Fort Collins (52284); (through Bureau of Entomology, Department of Agriculture) specimen of *Cymbocera pauper* (52669).

GIRAULT, A. A., Urbana, Ill.: Cotype of *Anagrus spiritus* (52365); type of *Gonatocerus rivalis* (52414).

GIRSCH, CHARLES W., Mount Vernon, N. Y.: 35 prints of vignettes from bank-note dies engraved by Frederick Girsch, 1849–1894 (52862).

GLOETZNER, Dr. ANTON, Washington, D. C.: Oil painting of "The Nativity," attributed to Otho van Veen (51853: loan).

GLOVER, J. S., Elbridge, Tenn.: Specimen of "walking-stick," *Diapheromera femorata* (51932).

GODING, Dr. FREDERIC W., American Consul, Montevideo, Uruguay: 11 specimens of Diptera (52105); stone adzeblade from the Maori tribe of New Zealand, and an egg-shaped wooden cup from the Zulu tribe of South Africa (52171); samples of asbestos, fulgurites, and pectolite (52190).

GODMAN, F. D., London, England (through Mr. G. C. Champion): About 220 specimens of Calandrids and Cossonids from Central America (51848).

GOLDSTEIN, TAIVA, Baltimore, Md.: 8 Russian copper coins (52701).

GOODE, Mrs. G. BROWN, Middletown, Conn.: A cross (pendant) composed of 6 smoky-quartz crystal beads (52091: loan).

GORDON, Mrs. ROBERT H., Baltimore, Md. (through Prof. Charles Schuchert): About 800 specimens of Devonian and Silurian fossils from the western part of Maryland (52079).

GOWARD, GUSTAVUS, HEIRS OF (through Miss Jennie Lawson, Washington, D. C., executrix): Collection of Korean porcelains and pottery, consisting of 39 pieces (52370: loan).

GRAHAMSTOWN, CAPE COLONY, SOUTH AFRICA, ALBANY MUSEUM: 5 Kaffir skeletons (52532: exchange).

GRANT, Col. C. C., Hamilton, Ontario: 5 fossils from Hamilton (51950).

GRAY, GEORGE M., Marine Biological Laboratory, Woods Hole, Mass.: Crustaceans, representing 31 species, from Miami, Fla., and Panama (52395).

GREEN, E. E., Royal Botanic Gardens, Peradeniya, Ceylon (through Mr. W. Dwight Pierce): Specimen of Strepsiptera, the type of a species described by Mr. Pierce (52494).

GREINER, A. G., St. Louis, Mo.: Specimen of *Echeveria hoveyi* (52017).

GRIMES, WARREN W., U. S. National Museum: Coupon for interest on a Confederate bond which became due March 1, 1863 (51844).

GRIPP, C. W., San Diego, Cal.: Specimens of shells from San Diego (52161).

GROUT, A. J., Richmond Borough, N. Y.: 25 specimens of North American mosses (52429: purchase).

GUBLER, THEODORE. (See under Kemp G. Acker.)

GUMBINGER, J., Jacksonville, Fla.: A pistol from the Philippine Islands, the handle of which is made from the horn of a water buffalo (52551).

HAGER, JOSEPH, Keyport, N. J.: Skin of a starling, *Sturnus vulgaris*, from New Jersey (52684).

HAGUE, Mrs. ARNOLD, Washington, D. C.: A Flemish lace collar, 18th century (51813: loan).

HANNA, G. DALLAS, Bureau of Fisheries, Washington, D. C.: Type specimen of *Sphyradium hasta* n. sp., from Long Island, Kans. (52595); 6 species and varieties of land shells, types of published forms from Kansas (52626).

HANVEY, Mrs. EMMA K., Washington, D. C.: Collection of art objects consisting of glassware, pottery, silver, miniatures, and engravings (52702: loan).

HARL, Miss WILDA, Punxsutawney, Pa.: Green moth representing the species *Tropæa luna* (51775).

HARNED, J. E., Oakland, Md.: 6 specimens of Compositæ from Maryland (52454).

HARNED, Prof. R. W., Agricultural College, Miss.: Land shells from Mississippi representing the species *Pupoides marginata* (52101).

HARPER, R. M., Tallahassee, Fla.: 23 plants from the southeastern part of the United States (52209).

HARRINGTON, M. R., Shawnee, Okla.: Ethnological objects of the Shawnee and Seminole Indians (51789); 19 ethnological objects from the Alibamu Indians (Muskhogian) of Texas (51840). Purchase.

HARRIS, EDWARD, Cumberland, Md.: 9 specimens of *Solidago* from Maryland (51901; 52138).

HARRIS, Dr. J. V., Key West, Fla.: 2 specimens of mole crickets, *Scaptiriscus abbreviatus* (52778).

HARVARD UNIVERSITY, CRYPTOGAMIC HERBARIUM, Cambridge, Mass.: 2 specimens of fungi (52805: exchange).

HAYCOCK, ARTHUR, Whitby, Bailey Bay, Bermudas: Specimens of marine shells representing about 18 species from the Bermudas, including cotypes of new species (52348).

HAYNES, Miss CAROLINE COVENTRY, Highlands, N. J.: 13 specimens of Hepaticæ collected in New York and New Hampshire (52135: exchange).

HAYNES, ELWOOD, Kokomo, Ind.: A gasoline automobile constructed in 1893 and said to be the first vehicle of its kind operated in the United States (52009).

HEDLEY, CHARLES, Australian Museum, Sydney, New South Wales: A very fine specimen of *Voluta mamilla* (51958).

HEGEMAN, Miss, Washington, D. C.: 7 handbags representing textiles of different periods, brocaded, embroidered and garnished with silver lace (52411: loan).

HEKIMIAN, N. N., Washington, D. C.: A mosque hanging of blue velvet, embroidered in gold, the design in 7 sections representing the 7 heavens of the Mohammedan belief (52671: loan).

HELLEN, J. S., San Pedro Sula, Honduras: Specimen of sphinx moth, *Oryba achemenides* (52185).

HELLER, A. A., University of Nevada, Reno, Nev.: 185 plants from Nevada and 205 plants from Oregon (51952; 52597: purchase); 5 specimens of Umbelliferæ from Montana and 4 specimens of grasses from the western part of the United States (52858; 52870).

HENDEL, FRIEDRICH, Vienna, Austria: 7 specimens of Diptera representing the species *Cephalia rufipes*, *Desmometopa sordida*, *D. m-nigrum*, and *Lobioptera ludens* (52360).

HENDERSON, EDWARD, Chambersburg, Pa.: 2 metal pickaxes of the colonial period (52549: purchase).

HENDERSON, Hon. J. B., Washington, D. C.: Painting by Lucien Whiting Powell, entitled "Grand Canyon of the Yellowstone River" (51967).

HENDERSON, Judge JUNIUS, University of Colorado, Boulder, Colo.: 7 specimens of *Ostrea* from La Jolla, Cal. 52303); 2 salamanders from New Mexico (52192); lizard, *Coleonyx elegans*, from Arizona (52908).

HENSHAW, H. W., Bureau of Biological Survey, Department of Agriculture, Washington, D. C.: Fresh-water mollusks from Klamath Falls, Oreg. (51879); 150 fresh-water mollusks from Montana (51982).

HERRE, ALBERT C., Oakland, Cal.: 150 lichens from California (52728).

HERZER, Rev. H., Marietta, Ohio: Specimen of *Cleopatræ acus* (52270); 5 specimens of fossils from the Ordovician shales at Decorah, Iowa (52456).

HESS, FRANK L., U. S. Geological Survey, Washington, D. C.: 25 specimens of thenardite (51919); cassiterite crystal from King's Mountain, N. C. (52686). (See also under Samuel H. Dolbear; Irvin and Barnett, and H. Weber.)

HILGARTNER MARBLE COMPANY, Baltimore, Md.: A four-inch cube of marble from Potomac Refining Company's quarries (52580).

HIMES, JESSE E., Knoxville, Md.: Specimen of beetle representing the species *Dynastes tityus* (51912).

HITCHCOCK, Prof. C. H., Honolulu, Hawaii: A collection of Hawaiian rocks (52714).

HOBSON, Mrs. ELIZABETH C., Washington, D. C.: Piece of Mechlin lace, 19th century (52738: loan).

HODGE, H. G., York, Ill.: Living specimen of crayfish (52628).

HOLLISTER, N., U. S. National Museum: A broken pottery bowl and 8 pahos, found by the donor near the pueblo of Isleta, N. Mex. (52166).

HOLSTEIN, OTTO, Lima, Peru: Mummified remains of woman and child with wrappings, and trinkets and implements, from ruins of Inca dwellings and graves near Chosica, Peru (52142).

HOLZINGER, J. M., Winona, Minn.: 25 specimens of North American mosses (Fascicle XII, Musci Acrocarpi Boreali Americani) (52884: purchase).

HOPE GARDENS, DEPARTMENT OF AGRICULTURE. (See under Kingston, Jamaica.)

HOPKINS, Mrs. ARCHIBALD, Washington, D. C.: A collection of 19 pieces of lace, comprising Honiton, Priest, old Valenciennes, and Spanish silk blonde (52530); fan with bone sticks, inlaid with gold and silver; fan with engraved pearl sticks; fan with enamel-and-gold wooden sticks; fan made of West Indian lace bark (52843). Loan.

HOPKINS, Mr. and Mrs. ARCHIBALD, Washington, D. C.: 7 paintings in oil (52840: loan).

HOPKINS, L. S., Pittsburgh, Pa.: Moss from Ohio (51916).

HOWARD, Mrs. C. W., Lourenço Marquez, Portuguese East Africa (through Bureau of Plant Industry, U. S. Department of Agriculture): 78 native plants collected by the donor (52803).

HRDLIČKA, Dr. ALEŠ, U. S. National Museum: Skins of cats and foxes, and an otter from South America (51971); specimen of *Opuntia* from Argentina (52481).

HUNT, Mrs. LIVINGSTON, Washington, D. C.: Fan decorated with engraving and printed psalms, and a pair of baby's cuffs of fine Binche lace (51812).

HUNTINGTON, Prof. GEORGE S. (See under New York City, College of Physicians and Surgeons, Columbia University.)

HURTER, JULIUS, sr., St. Louis, Mo.: Reptiles and batrachians from Florida and Alabama (52034); salamander and 3 frogs from Mobile, Ala. (52090).

IDDINGS, Dr. J. P. (See under Dr. R. D. M. Verbeck.)

IHERING, Dr. H. VON, Museu Paulista, São Paulo, Brazil: Marine shells from the island of Fernando Noronha, Brazil (52146).

IMPERIAL UNIVERSITY OF TOKYO, JAPAN. (See under Tokyo, Japan.)

INDIAN MUSEUM. (See under Calcutta, India.)

INTERIOR, DEPARTMENT OF:

General Land Office: Minerals and ores from the Iron Blossom Mine, Tintic Mining District, and from the Clifton Mining District, Utah; collected by Horace R. Burritt (52645).

Office of Indian Affairs: Matrix (consisting of 140 molds or matrices for making Cherokee type) formerly belonging to the plant of the "Chero-

INTERIOR, DEPARTMENT OF—Continued.
kee Advocate," published by the Cherokee Nation of Indians at Tahlequah, Okla., in the English and the Cherokee languages (52484); old Cherokee type used in publishing the "Cherokee Advocate" (52882).

U. S. Geological Survey: 2 photographs, from the old Hayden Survey, by W. H. Jackson (one colored, of Bonneville; and the other, of Jim Bridger) (51822); about 400 specimens comprising basic granodiorite from the Coyote Hills near Haines, Oreg.; rhyolite tuff from near Baker City and Pleasant Valley, Oreg.; rhyolite from Pleasant Valley, and hornblende andesite from near Granite, Oreg. (51897); mammal teeth and other vertebrate remains from the Fort Union formation, Wyo., collected in 1910 by C. H. Wegemann, M. R. Calvert, and T. W. Stanton (52075); 25 specimens of minerals, including type material of arizonite and tantalornite (52233); 3 specimens of Pleistocene vertebrate fossils collected by J. S. Diller at the Union Hill mine, Douglas City, Trinity County, Cal. (52235); vertebrate fossils collected by G. B. Richardson in the Denver Basin, Colo., chiefly from the Monument Creek formation (52236); vertebræ and other bones of a specimen of *Tylosaurus* collected by Messrs. Calvert, Knowlton, and Stanton in the Bearpaw shale, Mont. (52244); 2 vertebræ of a dinosaur, *Triceratops*, collected by F. H. Knowlton about 40 miles northeast of Rawlins, Wyo. (52261); vertebrate fossils obtained by Frank A. Herald in the Lance formation, near Terry, Mont. (52313); vertebrate fossils collected by V. H. Barnett, consisting of crocodile remains from Alkali Creek, Weston County, Wyo., and a tooth of *Triceratops* from Warren, Lance Creek, in the same State (52314); about 40 specimens of minerals containing type material (52321); jaw of a small fossil mammal from the Fort Union formation southeast of Davis ranch, near Sussex, Wyo., collected by C. H. Wegemann (52403); a fossil turtle of the genus *Baptemys*, collected at Shumway, 5 miles northwest of Walsenberg, Colo., by W. T. Lee (52425); Oligocene mammals obtained by Dean E. Winchester and party in the White River group, near Douglas, Wyo. (52469); specimens of copper ore collected by W. H. Weed from the Virgilina district, Virginia-North Carolina, and from the Gold Hill mining district of North Carolina (52470); Cretaceous reptile and fish remains collected by L. W. Stephenson in Alabama and Mississippi (52472); 5 specimens of igneous rocks from the Silverton quadrangle, Colo., collected by Whitman Cross (52523); Eocene vertebrate fossils obtained by E. G. Woodruff near De Beque, Colo. (52525); 60 mineral specimens from the Tourmaline Field of southern California, and 3 mineral specimens from Colorado (52570); teeth and bones of *Bison* and *Elephas* from Bastrop and Washington Counties, Tex., collected by Alexander Deussen (52592); 64 specimens representing the geology and ore deposits of the Bullfrog District, collected by F. L. Ransome and W. H. Emmons (52696); vertebrate fossils from near Mulberry, Fla., collected by George T. Matson, from the uppermost Miocene or lowest Pliocene, and including 3 mammal genera, and several genera and species of sharks (52875).

IRVIN AND BARNETT, Washington, Ga. (through Mr. Frank L. Hess): Specimen of rutile (52225).

JACKSON, JOSEPH B., Ormond, Fla.: Specimen of *Phycomyces nitens* from Florida (52505); larva of a noctuid moth (52354).

JAMES, Mrs. JULIAN, Washington, D. C.: Fans and a piece of Brower ware (51799); memorials of the Bailey-Myers-Mason families (51800;

JAMES, Mrs. JULIAN—Continued.
52111); an amber shell comb carved in lace pattern — an heirloom (51987); filet lace handkerchief from Porto Rico (52462). Loan.

JAMESON, Dr. H. LYSTER, Alfriston, Ewell, Surrey, England: 28 small African mammals (51852: purchase).

JENNINGS, ALLAN H., Ancon, Panama Canal Zone: Specimen of *Crypturus soui panamensis* from Panama (52200); a collection of fishes, consisting of 7 specimens of *Tetragonopterus*, one of *Cichlasoma*, and one of *Charax*, from near Ancon (52312); tree frog, type of *Hyla ceratophrys*, from Panama (52832).

JEWELL, Commander C. T., U. S. Navy (retired), Washington, D. C.: A piece of matting from Bongao, P. I. (52774).

JOHNSON, J. CHESTER, Marine Mills, Minn.: 35 stone implements (52745: exchange).

JOHNSON, Mrs. J. T., Vanderpool, Tex.: Jaw of a fossil fish, new to science and representing an extinct family of the Cretaceous period (52627: purchase).

JOHNSON, RALPH CROSS, Washington, D. C.: 11 paintings in oil (51966; 52564). Loan.

JOHNSTON, JOHN R., San Juan, Porto Rico (through Bureau of Plant Industry, U. S. Department of Agriculture): Crustaceans, batrachians and insects collected in Cuba (52154).

JONAS, C., Denver, Colo.: Specimen of badger, *Meles meles*, from Austria-Hungary (52046).

JONES, Rev. ALFRED, Montgomery, W. Va.: Rhinoceros beetle, *Dynastes tityus* (52516).

JONES, FRANK MORTON, Wilmington, Del.: A lepidopteron and 2 larval cases of Psychidæ (52316); 3 specimens of Psychidæ, including the type, and 6 larval cases (52361).

JONES, M. E., Salt Lake City, Utah: 2 specimens of *Opuntia* from Montana (51856).

JORDAN, FRANK W., Sentinel, Ariz.: Arachnid representing the species *Hemiphrynus raptator*, and belonging to the family Phrynidæ (52584).

KAHN, Dr. J. S., Aire Libre, Puebla, Mexico: Larva of *Dermatobia hominis*, and an immature specimen of a species of *Aplopus* (52048).

KEARFOTT, W. D., Montclair, N. J.: 20 specimens of Lepidoptera (52639).

KEARNEY, THOMAS H., U. S. Department of Agriculture, Washington, D. C.: 80 specimens of plants from Plummer's Island, near Cabin John, Md., collected by the donor and William R. Maxon (51907; 52941).

KEENAN, MICHAEL, Springer, N. Mex.: About a dozen specimens of *Pediculus vestimenti* (52110).

KENDALL, HENRY, Washington, D. C.: 2 barn owls, *Aluco pratincola*, from Maryland (52915).

KENLY, GEORGE T., Baltimore, Md.: 3 specimens of sea-urchins (*Encope*) from Port Limon, Costa Rica (52214).

KEW, LONDON, ENGLAND, ROYAL BOTANIC GARDENS: Drawing and fragment of the type of *Diandrolyra bicolor* (52705: exchange).

KILBOURNE, A. E., East Hartford, Conn. (through Prof. E. P. St. John, Hartford, Conn.): 2 skulls, some fragmentary bones, and a skeleton with skull (51887).

KINDLE, E. M., U. S. Geological Survey, Washington, D. C.: Fresh-water shells, representing 4 species, from marl in a cave at Staunton, Va. (52212).

KING, ALFRED, Arlington, N. J.: 12 clay concretions (52829).

KINGSTON, JAMAICA, DEPARTMENT OF AGRICULTURE, HOPE GARDENS: Specimen of *Viola* from Jamaica (52660: exchange).

KIRK, EDWIN, U. S. Geological Survey, Washington, D. C.: 2 specimens of recent crinoids representing the species *Comanthus parvicirra* and *C. japonica* (52694).

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

KLETSCH, ERNEST, Washington, D. C.: 2 young ring-necked pheasants (51804).

KNOPF, ADOLPH, Washington, D. C.: 5 specimens of paigeite (52234).

KNY-SCHEERER COMPANY, New York City: A set of Welcker's models of blood-corpuscles (by Du Bois Reymond), consisting of 25 pieces, with explanatory list (52762: purchase).

KÖNIGL. BOTANISCHES MUSEUM. (See under Berlin, Dahlem bei Steglitz, Germany.)

KRAUSSE, Dr. A. H., Assuni, Sardinia, Italy: Mammals, birds, reptiles, fishes, insects, shells, crustaceans, worms, etc.; also rocks and ethnographical objects (52938: purchase).

KUALA LUMPUR, SELANGOR, FEDERATED MALAY STATES, SELANGOR MUSEUM: 8 mammals from the Malay Peninsula (52107: exchange).

KUESTER, ARTHUR, St. Louis, Mo.: 9 living specimens of Cactaceæ (52422).

KUNZÉ, Dr. R. E., Phœnix, Ariz.: 2 living specimens of Cactaceæ from Texas (52421); living specimen of *Mamillaria* from Arizona (52452). Exchange.

LADD, ALBERTO A., Santa Fé, Isla de Piños, Cuba: An iron manacle from the donor's farm, near certain supposed aboriginal structures called Casimbas (52673).

LAET, FRANTZ DE, Contich, Belgium: 6 living specimens of *Mamillaria* (52069: exchange).

LA FLESCHE, FRANCIS, Bureau of American Ethnology: 3 wa-xo-be, or sacred medicine packs of the Osage Indians, and 1 wa-xo-be, Osage sacred medicine pack for tattooing (52398; 52471). Purchase.

LAMB, Dr. D. S., Army Medical Museum, Washington, D. C.: 3 anatomical specimens (51977; 52653; 52839). (See also under Mrs. Yates Davis Duke.)

LANEY, Dr. F. B., U. S. Geological Survey, Washington, D. C.: Specimen of folded quartz from the East Tennessee mine at Copper Hill, Tenn. (51918); 35 specimens of minerals from Ducktown, Tenn. (52226).

LAW, S. A., Memphis, Tenn.: Mole cricket, *Gryllotalpa borealis* (51778).

LAWRIE, A., Pumpville, Tex.: Specimen of "hawk-moth," or "humming-bird moth," *Cocytius cluentius* (52364).

LAWSON, Miss JENNIE. (See under Gustavus Goward, Heirs of.)

LAY, Mrs. RICHARD G., Washington, D. C.: Specimens of laces: Binche, old Spanish, Angleterre (17th century), Flemish (17th century), thread, Gothic, and Mechlin (52735 loan). (See also under Mrs. E. H. G. Slater.)

LEA, ARTHUR M., Hobart, Tasmania: 14 specimens of *Leptops squalidus* (*hopei*) (52295).

LEDYARD, Miss MURRAY, Washington, D. C.: 4 paintings in oil (52841: loan).

LEMBKEY, W. I., Bureau of Fisheries, Washington, D. C.: Skeleton of a killer whale, *Orcinus* sp., from Northeast Point, St. Paul Island, Pribilof Group (52373: purchase).

LEMLY, Capt. HENRY ROWAN, U. S. Army (retired), Washington, D. C.: 97 photographs of golden and terra-cotta images, utensils, etc., found in the Republic of Colombia, South America (52781).

LÉON, HERMANO, Habana, Cuba: 11 aquatic plants from Cuba (51838; 52026).

LESTER, F. A., Washington, D. C.: Rocks, fossil shells, and fossil wood from the District of Columbia and vicinity (51753).

LEWIS, Lieut. GEORGE C., U. S. Army, Presidio, San Francisco, Cal.: 2 specimens of *Thomomys* from the Presidio Reservation (51801).

LEWIS, W. P., Phillipsburg, N. J.: 14 small arrowpoints showing the results produced by the donor in flaking projectile points (52863; 52903).

LINDGREN, WALDEMAR, U. S. Geological Survey, Washington, D. C.: 2 specimens of iodyrite from Tonopah, Nev., collected by J. E. Spurr (51990).

LITTLER, FRANK M., Launceston, Tasmania: 39 scarabæid beetles from Tasmania (52483: exchange).

LOACH, WILLIAM, Boulder, Colo.: Specimen of ferberite (float) (51817).

LONDON, ENGLAND, BRITISH MUSEUM (NATURAL HISTORY), ENTOMOLOGICAL RESEARCH COMMITTEE (Tropical Africa): 2 paratypes of *Tetrastichus ovivorus;* 3 of *Telenomus kingi;* and 3 of *T. benefactor* (52447).

LONDON, ENGLAND, THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields: Cast of skull from a quarry in the rock of Gibraltar (52216: exchange).

LONG, The Misses, Washington, D. C.: 2 strips of macramé lace 1860 (51978: loan); 11 daguerreotypes and 3 ambrotypes (51889); 2 daguerreotypes and an ambrotype (51890: purchase).

LOS ANGELES, CAL., UNIVERSITY OF SOUTHERN CALIFORNIA: 5 vials of worms and actinians (52596); 8 vials of marine worms (52710).

LOWE, J. E., Duluth, Ga.: Bronze badge or token of the Civil War (52747).

LOWNDES, Mrs. JAMES, Washington, D. C.: 4 paintings (51969); 9 specimens of laces: Reticella, point de France, point de Milan, point de Lille, Brussels, and Buckinghamshire (52739). Loan.

LOWNDES, Mrs. JAMES—Continued.

LÜBECK, GERMANY, NATURHISTORISCHES MUSEUM: 2 crabs (*Potamon*) from Lake Sibayi, Zululand (52594).

LUDLOW, Dr. CLARA SOUTHMAYD, Washington, D. C.: "The Sutphen-Schenck-Hunt Memorial Collection," family relics, consisting of examples of handiwork and apparel, mementoes, etc., of women from 1765 to 1865 (52752).

LUDWIG, ALFRED, Care of James A. McGuire & Co., New York City (through Mr. James D. McGuire): Chipped flint disk from Port Kent, Australia (52539).

LUMHOLTZ, CARL, New York City: Reptiles, fishes, and a scorpion from Mexico; also a worm found in the mouth of one of the fishes, *Cyprinodon macularius* (52294).

LUNN, H. B., Christina, Fla.: 3 specimens, portions of fossil mammals (51831).

MCATEE, W. L., Department of Agriculture, Washington, D. C.: 4 isopods representing the species *Mancasellus lineatus* (52372); 3 specimens of fishes representing the species *Notropis amœnus, Hybopsis kentuckiensis,* and *Chœnobryttus gulosus,* from near Plummer's Island (52377); 13 specimens of amphipods from Lagoon Catherine, La. (52444); isopod from Texas (52604).

MCBRIDE, T. H., Mt. Vernon, Ill.: Specimen of homopterous insect representing the species *Cicada canicularis* (52201).

MCCALMONT, Miss MABEL, Warren, Pa.: 3 pieces of Japanese drapery (52465: loan).

MCCORMICK, L. M., Asheville, N. C.: Specimen of snake, *Storeria,* from Asheville (52326).

McCREARY, Mrs. DORA B., Omaha, Nebr.: A brass button from a coat worn by the donor's grandfather during the War of 1812 (52274).

McDANIEL, BENNETT, Lovell, Me. (through Prof. F. W. Clarke): Specimen of topaz and 2 of phenacite from Baldface Mt., Chatham, N. H. (51946).

McGUIRE, J. D., Bureau of American Ethnology, Washington, D. C.: 2 blades and 2 arrow points from Moosehead Lake, Me. (52092).

McLAIN BROTHERS, Auburndale, Fla.: 3 specimens, portions of fossil mammals from Pleistocene deposits (51833).

McLOUGHLIN, THOMAS, Puerto Barrios, Guatemala: Partly grown larva of *Hyperchiria* sp. (52094).

MACKENSEN, BERNARD, San Antonio, Tex.: 4 living specimens of Cactaceæ from Texas (52065).

MACKENZIE, K. K., East Orange, N. J.: 320 plants, chiefly from Maine and New Jersey (52183: exchange).

MACOUN, Dr. JOHN, Geological Survey, Ottawa, Canada: 250 Canadian lichens and mosses (52327: purchase); mollusks collected in Nova Scotia and Queen Charlotte Islands, British Columbia, in 1910 (52350).

MADDREN, A. C., U. S. Geological Survey, Washington, D. C.: Fossil land shells from Bermuda (52408).

MAGINN, Mrs. JAMES. (See under Peoli, John J., The Children of.)

MANILA, PHILIPPINE ISLANDS, BUREAU OF SCIENCE: About 3,300 plants from the Philippine Islands (51949; 52393); land and fresh-water shells from the Philippine Islands, collected by C. B. Robinson and C. Canonizado (52102); specimen of *Cestrum* from the Philippine Islands (52248). Exchange.

MARNOCK, G. W., Helotes, Tex.: 2 frogs representing the species *Lithodytes latrans*, from Texas (52558).

MARSHALL, ERNEST B., Laurel, Md.: Prothonotary warbler, *Protonotaria citrea* (51927); 2 salamanders from Maryland (52114); muskrat, *Fiber zibethicus macrodon* (52223); fishes and a snake collected in the Patuxent River and Crow Branch (52241); 2 skulls of mammals (52250; 52287); fishes collected in the vicinity of Laurel (52599; 52889); specimen of lesser yellow-legs, *Totanus flavipes*, from Laurel (52610); salamanders from Laurel (52678; 52866). (See also under Henry Marshall.)

MARSHALL, GEORGE, U. S. National Museum: Turkey vulture, *Cathartes aura septentrionalis* (52770); 3 specimens of meadow lark, *Sturnella magna*, from Maryland (52787).

MARSHALL, HENRY and ERNEST B., Laurel, Md.; 2 leeches and 2 crayfishes from Laurel (52445).

MASILLAMANI, E., Trivandrum, India: 2 specimens of gneiss encrusted with crystals of monazite (52047); specimens of monazite sand, pyrrhotite, graphite, and pegmatite (52409: exchange).

MATTHEWS, DAVID A., Worcester, Mass.: Photograph of the donor, a Medal-of-Honor man (52934).

MAXON, WILLIAM R., U. S. National Museum: 100 plants, mainly from New York and Maryland, collected from 1893 to 1899 (51900). (See also under Paul C. Standley.)

MAYNARD, GEORGE WILLOUGHBY, New York City; British Patent, No. 725, March 22, 1859, granted to Dr. Edward Maynard for improvements in breech-loading firearms (52485).

MAZYCK, WILLIAM, Savannah, Ga.; 10 specimens of fossil vertebrates from the Pleistocene deposits (51832).

MEAD, M. A., Taylor, Cal.: Alcoholic specimen of a kangaroo rat, *Dipodomys californicus*, from Shasta County (52658).

MEARNS, Lieut. Col. E. A., U. S. Army (retired), U. S. National Museum: Mammals, birds, reptiles, fishes,

MEARNS, Lieut. Col. E. A.—Continued. mollusks, crustaceans, parasitic worms, insects, and plants from the Hudson Highlands, N. Y. (51943); 14 skins of the house sparrow, *Passer domesticus* (52631). (See also under Edward S. Denton; Arthur T. Wayne.)

MEARNS, LOUIS DI ZEREGA, Albany, N. Y.: 294 skins of American birds, formerly on deposit (52608).

MEARS, Lieut. FREDERICK, U. S. Army, Cristobal, Panama Canal Zone: 19 birds, a small collection of insects, and a mammal, from South America (52662).

MEDAL OF HONOR LEGION OF THE UNITED STATES OF AMERICA, Brooklyn, N. Y. (through Col. Charles J. Murphy, San Francisco, Cal.): Photographs of 2 Medal-of-Honor men (52328).

MENGEL, C. C., & BRO. Co., Louisville, Ky.: About 680 butterflies from the west coast of Africa (52355).

MENSCH, Maj. W. A., Kingman, Ariz. (through Mr. F. L. Ransome, U. S. Geological Survey, Washington, D. C.): Vein of bornite, chalcopyrite, and galena, from Enterprise Mine, Kingman (52676).

MERRIAM, Dr. C. HART, Washington, D. C.: Lizard from California (52243).

MERRILL, G. K., Rockland, Me.: 75 specimens of North American lichens ("Lichenes Exsiccati") (52336: purchase).

MERRILL, Dr. GEORGE P., U. S. National Museum: An abrading stone (51975); a collection of 48 portraits, the greater part of which are steel engravings (51976).

MESSIC, O. A., Trenton, N. J.: Species of hair-worm, *Gordius* sp. (52571).

MEUNIER, STANISLAS, Museum of Natural History, Paris, France: Specimens of pseudomorphous celestine in calcite (51747: exchange).

MEYER, FRANK N., Bureau of Plant Industry, Department of Agriculture, Washington, D. C.: A mouse, some beetles, and fresh-water shells from Turkestan (52103); 2 fossils from near Samarkand, Caucasus, collected by the donor (52180).

MICHIGAN, MUSEUM OF THE UNIVERSITY OF, Ann Arbor, Mich.: Shrimps from the River Hueyapam, Mexico (52567).

MIKVE ISRAEL ASSOCIATION, Philadelphia, Pa. (through Miss Mary M. Cohen, President): A china plate, one of a set used at the Feast of Tabernacles by the Congregation Mikve Israel in Philadelphia (52129).

MILLER, Mrs. EDWARD Y., Kirbyville, Pa.: 2 bamboo rice-planters, a drum and 4 bark masks, from Palawan, P. I. (51937).

MILLER, J. C., Bliss, Okla.: Skin, skull, and skeleton of a Texas steer, *Bos taurus* (51851).

MILLER, Mrs. J. W., Jemez, N. Mex.: 2 pieces of cotton fabric, painted with rain and cloud designs, taken from a modern shrine at "Soda Dam" north of the Jemez Hot Springs in San Diego canyon, N. Mex. (51992).

MILLNER, I. B., Washington, D. C.: Model of an Indian village (Iroquois house group); model of a Zuñi altar (51888; 51891). Purchase.

MILLWARD, WILLIAM, University of Nanking, China: Living orchid from China (52032); 9 brachiopods and 4 fragments of fossil crabs from China (52468).

MILSTEAD, ROBERT A., Washington, D. C.: About 150 tropical shells from various localities (52541).

MISSISSIPPI AGRICULTURAL AND MECHANICAL COLLEGE, Agricultural College, Miss.: 6 specimens representing 2 species of crayfish from Mississippi; 34 crayfishes, *Cambarus hagenianus;* 4 specimens of crayfish, *Cambarus hayi* and *C. mississippiensis* (52568; 52618; 52693).

MISSOURI BOTANICAL GARDEN, St. Louis, Mo.: 2 living specimens of *Phyllocactus* (52089: exchange).

MITCHELL, Hon. J. D., Victoria, Tex.: Collection of natural history specimens from Texas (51755).

MITCHELL, MASON, American Consul, Apia, Samoa: Skins of the Dodo pigeon, *Didunculus strigirostris*, and Samoan sultana, *Porphyrio samoensis* (52734).

MITCHELL, ROBERT H., Marked Tree, Ark.: Specimen of "horse-hair worm," *Gordius* sp. (52038); larva of a caddis-fly belonging to the family Limnephilidæ (52565).

MITCHELL, Mrs. W. L., Fort Spring, W. Va.: Fly, *Ornithoctona erythrocephala* (52572).

MOESER, FRANK E., Buffalo, N. Y.: 7 specimens of Lepidoptera (52464).

MONTGOMERY, Prof. HENRY, University of Toronto, Toronto, Canada: Dakota mound specimens (51892: loan).

MOORE, CLARENCE B., Philadelphia, Pa.: A collection of crania and bones from Arkansas, constituting parts of 56 skeletons (52259); Indian skulls, etc., from sites along the Mississippi River (52715).

MORRIS, C. E., Coleman, Tex.: Skin and skull of a white albino skunk, *Mephitis* sp. (52617: purchase).

MORRIS, HARRISON S. (See under Wharton, Joseph, estate of.)

MORSE, Prof. EDWARD S. (See under Tokyo, Japan, Imperial University.)

MORTON, Dr. WILLIAM J., New York City: 2 busts of the late Dr. William T. G. Morton, namely, a bronze bust by Miss Helen F. Mears and a plaster bust from life by Clark Mills, of Washington (52399). (See also under Dr. Gustave P. Wiksell.)

MOSBY, Col. JOHN S., Washington, D. C.: A pair of crutches used by the donor during the Civil war (51962).

MOSCROP, J. G., Douglas, Ariz.: Specimen of Lepidoptera, *Melittia* sp. (52576).

MOSELEY, FREDERICK S., jr., Newburyport, Mass.: Fishes from the Artichoke River, a tributary of the Merrimac (52895).

MUNICH, GERMANY, ZOOLOGISCHE SAMMLUNG DES BAYERISCHEN STAATES: 40 specimens representing 40 species of crustaceans and echinoderms (52860: exchange).

MURPHY, CHARLES J. (See under Medal of Honor Legion.)

MURPHY COMPANY, JOHN, Baltimore, Md.: Copy of the modern edition of the Douay translation (Catholic) of the Bible (52666: purchase).

MURRAY, JOHN W., Plainfield, N. J.: Piece of a brass knob from one of the doors in the "Marshall House," Alexandria, Va., upon the steps of which Col. E. E. Ellsworth, U. S. V., was shot and killed on May 24, 1861 (52902).

MUSEO NACIONAL. (See under San José, Costa Rica.)

MUSEO NACIONAL DE HISTORIA NATURAL. (See under Buenos Aires, South America.)

MUSÉUM D' HISTOIRE NATURELLE. (See under Paris, France.)

MUSEUM FÜR NATURKUNDE. (See under Berlin, Germany.)

MUSEUM OF COMPARATIVE ZOOLOGY. (See under Cambridge, Mass.)

MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND. (See under London, England.)

MYERS, P. R., U. S. National Museum: 3,400 specimens of Hymenoptera (52586).

NATIONAL MUSEUM. (See under Dublin, Ireland.)

NATIONAL SOCIETY OF THE COLONIAL DAMES OF AMERICA, Washington, D. C.: A silver teapot belonging to Mr. William E. Verplanck, and an

NATIONAL SOCIETY OF THE COLONIAL DAMES OF AMERICA—Continued.
Indian pipe and tobacco pouch belonging to Mrs. Henry D. Nicoll, lent to the National Society by the New York Society, through Mrs. Henry W. Everett, Chairman, Relic Committee, New York Society (52731); colonial relics of the Cropper family, lent to the National Society by Mrs. John Cropper, Washington, D. C. (52795); piece of old English thread lace, lent to the National Society by Mrs. William Ruffin Cox, Richmond, Va. (52812); a sword worn by Col. John Cropper, of Accomac County, Va., during the Revolutionary War, lent to the National Society by Mrs. John Cropper (52842); silver colonial knitting-needle case, lent to the National Society by Mrs. William Ruffin Cox (52864). Loan.

NATURHISTORISCHES MUSEUM. (See under Lübeck, Germany.)

NAVY DEPARTMENT: Portrait, in oil, of Andrew Jackson (51981: deposit).
Bureau of Ordnance: 7 military guns from the Brooklyn Navy Yard (52172).

NEBRASKA, UNIVERSITY OF, DEPARTMENT OF ENTOMOLOGY, Lincoln, Nebr. (through Mr. W. Dwight Pierce): 2 specimens of Strepsiptera, types of a species described by Mr. Pierce (52495).

NEIVA, Dr. ARTHUR, Instituto Oswaldo Cruz, Rio de Janeiro, Brazil: 20 specimens of South American Hemiptera, and life-history sets of 2 species of *Conorhinus* (52202: exchange).

NELSON, THOMAS, and SONS, New York City: Copy of the American "Standard Edition, A. D., 1901," of the revised version of the Bible (52665: purchase).

NEWCOMB, Mrs. CAROLINE H., Washington, D. C.: Framed copy, signed by Elihu Root, Secretary of State, of the act of Congress approved March 30, 1906, authorizing Prof. Simon Newcomb, U. S. Navy, retired, to accept the decoration "Pour le Merite für Wissenschaft und Kunste," conferred upon him by the German Emperor, William II (52845: loan).

NEWCOMB, Mrs. CAROLINE H.—Contd.

NEW HAVEN, CONN. (See under Peabody Museum of Natural History, Yale University.)

NEW MEXICO AGRICULTURAL COLLEGE, Agricultural College, N. Mex.: 125 plants collected in New Mexico (51787); type specimen of *Carex agrastoides* from New Mexico (52124). Exchange.

NEW YORK BOTANICAL GARDEN, Bronx Park, New York City: 156 ferns collected in Cuba (51774); 21 living specimens of Cactaceæ and 8 dried specimens of Cactaceæ (51865); 58 plants from Jamaica, and 183 sedges from the herbarium of Otto Kuntze; 1,212 plants from Cuba, and 128 plants from the Otto Kuntze herbarium (51895; 52382); 210 plants mainly from Utah (51917); about 100 plants collected in Mexico by H. H. Rusby (51972); specimen of *Hydrocotyle pygmæa* from Cuba (52158); 24 specimens of Cactaceæ and Crassulaceæ, and 2 living specimens of Cactaceæ from the West Indies (52206); specimen of *Juncus* from Jamacia (52266); specimen of *Selaginella* (52305); 1,139 plants collected in Cuba (52423); specimen of *Gymnogramme* from Jamaica (52587); 28 plants collected by the Peary Arctic Club Expedition, 1908–9 (52802); specimen of *Anemia nipeensis*, part of type material, from Cuba (52721); specimen of *Polypodium* from Cuba (52859); moss from Porto Rico (52871); plant from Cuba (52883); specimen of *Polypodium* from Mexico (52919). Exchange.

NEW YORK CITY, COLLEGE OF PHYSICIANS AND SURGEONS, COLUMBIA UNIVERSITY (through Prof. George S. Huntington): Anatomical specimens (52269; exchange).

NEW YORK FOREST, FISH AND GAME COMMISSION, Albany, N. Y.: Specimens of Maskalonge and other fishes collected at the Bemus Point station by Grant E. Winchester, foreman (52789).

NICHOLS, Mr., Victoria, B. C.: Crustaceans (52837).

NORCROSS BROTHERS COMPANY, Worcester, Mass.: Slab of Branford syenite (52807).

NORTH, H. B., Rutgers College, New Brunswick, N. J.: Limonite after marcasite, from Richland County, Wis. (52542).

NORTON, ARTHUR H., Portland, Me.: 2 salamanders representing the species *Plethodon cinereus*, and a scale insect "scurfy bark louse," *Chionaspis furfura*, from the bark of an apple tree (52362).

NURSE, Lieut. Col. C. G., Bury Saint Edmunds, England (through Mr. W. Dwight Pierce): 2 wasps representing the species *Tachytes xenoferus*, and 2 specimens of a strepsipteron, *Tachytixenos indicus* (52488).

O'BERN, JOSHUA H., Kittanning, Pa.: 14 specimens of fresh-water mollusks representing the species *Goniobasis livescens* (51934); 3 specimens of Unionidæ (51983).

OLDROYD, MRS. T. S., Long Beach, Cal.: About 107 specimens representing 17 species of marine shells from the vicinity of San Pedro, Cal. (52136).

OLWELL, F. W., Pasco, Wash.: Specimen of diatomaceous earth (51920).

OPENSHAW, H. J., Yachow, China: A rubbing of the original Nestorian tablet in Sian Fu, China (52217); ethnological objects from the Lolo and other tribes of Western China; also a Tibetan charm scroll (52323).

ORCUTT, CHARLES R., San Diego, Cal.: Tree-frog representing the species *Agalychnis callidryas*, from Veracruz, Mexico (51842); living specimen of *Echeveria* from Mexico (52067); shells, crabs, and an echinoid from Manzanillo, Mexico (52097); land and fresh-water shells, representing 14 species, from various localities in the State of San Luis Potosi, Mexico (52186); specimens of *Bulimulus* from San Luis Potosi (52211).

ORCUTT, CHARLES R.—Continued.

OTTAWA, CANADA, GEOLOGICAL SURVEY OF CANADA (through Dr. John Macoun): Crustaceans (52198).

OVER, W. H., Date, S. Dak.: 4 specimens of vertebrate and 30 specimens of invertebrate fossils (52353).

PAINE, VEEDER B., Axim, W. C., Africa: Collection of Lepidoptera, consisting of about 500 specimens, from West Africa (52007: purchase).

PALMER, Dr. EDWARD, Washington, D. C.: Natural history specimens, fossils and rocks, and ethnological material from Tampico, Mexico, and vicinity (51903); 510 plants collected in Mexico (52182). Purchase.

PALMER, JOSEPH, U. S. National Museum: Specimen of flicker, *Colaptes auratus*, from Washington, D. C. (52916).

PALMER, WILLIAM, U. S. National Museum: Skull of a deer representing the species *Odocoileus borealis*, from Maine (51875); 8 bird skins from Oregon (52912); 3 bird skins and a nest from Virginia (52914); skins and skulls of 7 squirrels (52925).

PANAMA, BIOLOGICAL SURVEY OF:

The material collected under the joint auspices of the Smithsonian Institution and Department of Agriculture, and received prior to June 30, 1911, is accessioned as follows, and is referred to in detail under the headings given:

Agriculture, Department of (52691).

Agriculture, Department of, Bureau of Biological Survey (52816).

Agriculture, Department of, Bureau of Entomology (52432; 52460; 52598; 52856; 52881; 52935).

PANAMA, BIOLOGICAL SURVEY OF—Con. Agriculture, Department of, Bureau of Plant Industry (52044; 52482; 52540; 52659; 52799; 52817). Smithsonian Institution, National Museum, collected by William R. Maxon (52474; 52503; 52629; 52649; 52690).

PAREYN, HRI., Antwerp, Belgium: Skull of a hippopotamus from the Upper Congo (52413: purchase).

PARIS, FRANCE, MUSÉUM D'HISTOIRE NATURELLE: 8 specimens of isopods representing the species *Helleria bicornis* from Corsica (52037); isopods from the Charcot Expedition to the Antarctic (52351); 5 specimens of *Leptometra celtica*, and 1 of *Endoxocrinus wyvillethomsoni* (52459: exchange); 13 specimens of recent crinoids (52477: exchange); isopods from the Antarctic, viz, 2 specimens of *Serolis triloboides*, and 1 specimen of *Antarcturus adareanus* and of *A. polaris* (52513); 13 specimens representing 7 species of isopods collected by the Travailleur and Talisman (52552); 24 specimens representing 7 species of Palæmonidæ (52725: exchange); isopods from the south polar regions (52788).

PARKER, Dr. A. C., Altmar, N. Y.: Specimen of the "Sugar maple borer," *Plagionotus speciosus* (51772).

PARKS, Prof. W. A., University of Toronto, Toronto, Canada: 40 specimens of Cincinnatian fossils from Ontario (52793).

PATCHEN, Dr. YORK, Westfield, N. Y.: United States envelopes and stamps; also Confederate stamps (52466).

PEABODY MUSEUM OF NATURAL HISTORY, YALE UNIVERSITY, New Haven, Conn.: Cast of skull of *Triceratops serratus* (52366: exchange).

PEARSON, F. W., Santa Rosa, N. Mex.: Sternum of a fossil reptile and some miscellaneous fragments; also 4 small fragments of fossil wood (52334).

PEARY, Rear Admiral ROBERT EDWIN, U. S. Navy (retired), Washington, D. C.: 16 gold medals, 2 silver medals and 2 flags presented to him in connection with his Arctic explorations, 1886–1909; also 2 maps showing the progress of North Polar explorations from 1800–1909 (52245); silver replica representing the type of ship used by Hudson, Davis, and Baffin in their exploration of the Northwest Passage, and presented to Admiral Peary by the Royal Scottish Geographical Society; 3 silver loving cups, presented to him by the city of Bangor, Me., the citizens of Portland and South Portland, Me., and the Delta Kappa Epsilon Association of New York (52878). Loan.

PENDLETON, ROBERT L., Saratoga, Cal.: 86 plants from California (51751: exchange).

PENNELL, F. W., Wawa, Pa.: 63 plants from the District of Columbia and vicinity (52000); 24 plants from the eastern part of the United States, chiefly of the genus *Gerardia* (52320). Exchange.

PEOLI, JOHN J., The Children of (through Mrs. James Maginn): Portrait, in oil, of Gen. José Antonio Paéz, by John J. Peoli (51988).

PERNER, Dr. J., Museum des Königreichs Böhmen, Prague, Bohemia: 4 fossils from Bohemia (52726); 4 specimens of moldavites from Netolitz, Bohemia (52727: exchange).

PETERS, G. W., Leonia, N. J.: Painting, in oil, by Mr. Peters, entitled "Battle of Caloocan, Island of Luzon" (51997: loan).

PEYROT, Prof. A., Bordeaux, France: About 500 specimens, representing 123 species, of Tertiary fossils from the vicinity of Bordeaux (52834: exchange).

PEYTON, J. B., U. S. National Museum: Specimen of golden plover, *Charadrius dominicus*, from Nanjemoy Creek, Md. (52607).

PFORDTE, OTTO F., Rutherford, N. J.: 15 specimens of minerals and ores from Cobalt, Canada, and Ogdensburg, N. J. (52010); 32 specimens of minerals (52371: exchange).

PHEILS, ISAAC F., Toledo, Ohio: A Seth Thomas clock with Pheils' Universal Time Dial (52140: loan).

PHILIP, BARRETT, Washington, D. C.: Service sword with scabbard, tassel, and belt, which belonged to Captain (afterwards Rear Admiral) John W. Philip, U. S. Navy; also a pair of binocular field-glasses picked up by Capt. Philip on the "Maria Theresa" after the battle of Santiago (52137: loan).

PHILIP, HOFFMAN, Secretary, American Embassy, Constantinople, Turkey: Abyssinian ethnological specimens, a set of coins in current use in that country, and a ring of Abyssinian gold (51876: loan); mammal skins and skulls, and a crocodile skin, from Abyssinia (51880).

PHILLIPS ACADEMY, Andover, Mass.: 2 complete crania, one from an old grave on the Mandan village site, N. Dak., and the other from a prehistoric cemetery at the mouth of the Wabash River, Ind. (52011: exchange).

PHILLIPS, FRANK J., Lincoln, Nebr.: Specimen of *Tillandsia* from Arizona (52208).

PIERCE, W. DWIGHT. (See under Prof. Henry Comstock; E. E. Green; Nebraska, University of, Department of Entomology; Lieut. Col. C. G. Nurse; Charles Robertson.)

PILSBRY, Dr. H. A., Academy of Natural Sciences, Philadelphia, Pa.: Land shells, *Holospira* and *Sonorella*, from Arizona and New Mexico (52219).

PINCHOT, Mrs. JAMES W., Washington, D. C.: 2 pictures of St. George and the Dragon, in tinsel and color, and an embroidered picture of St. Bartholomew, from a vestment

PINCHOT, Mrs. JAMES W.—Continued. (51810: loan); lid of a chest, embroidered in the time of King Charles II, to represent the presentation of the head of John the Baptist to Herod and his Queen (52402: loan); game bag of the Plains Indians, decorated with bead and quill-work (52426); table cover of Genoese velvet, made about the end of the 16th century (52818).

PINKLEY, FRANK, Prescott, Ariz.: Beetle, *Strategus julianus* (52575).

PITTIER, H., Department of Agriculture, Washington, D. C.: Specimen of *Oreamunoa* from Costa Rica (51796); 14 plants collected in Costa Rica by O. Jiménez (52265).

PLITT, C. C., Baltimore, Md.: Specimen of the fruit of *Canarium commune* (52601).

POINDEXTER, W. N., Fort Branch, W. Va.: Specimen of stag beetle, *Lucanus elaphus* (52827).

PORTER, Prof. C. E., Paris, France: 11 specimens of crustaceans from eastern Patagonia (52220); Chilian crustaceans (52310: exchange); about 45 specimens, representing 6 species, of isopods from South America (52582).

PORTER, Mrs. HENRY KIRKE, Washington, D. C.: Collection of 37 pieces of brocades, velvets, and embroideries (52352); brocaded bag of the 18th century, triangular shape, metal mounting backed with silver cloth (52531). Loan.

POTTER, A. O., Brookland, D. C.: Specimen of ferberite from Colorado (52396: purchase).

POWELL, Mrs. J. W., Washington, D. C.: An oil painting entitled "In the Grand Canyon of the Colorado," by Thomas Moran (52813: loan).

PRATT, HELEN S., Concord, Ill.: 4 specimens of *Laciniaria* from Illinois (52025).

PRINGLE, C. G., Burlington, Vt.: 100 specimens of mosses from Mexico (51798: purchase).

PUGH, JOHN, Skagway, Alaska: Specimen of botryoidal hematite (52082).

PURPUS, C. A., Zacuápam, Veracruz, Mexico: Specimen of *Echeveria* from Mexico (51857); 40 living specimens of Cactaceæ from Mexico (52457: purchase).

PURPUS, Dr. J. A., Grossh. Botanischer Garten, Darmstadt, Germany: 2 living specimens of *Phyllocactus* (52419: exchange).

QUEHL, L., Halle (Saale), Germany: Specimen of *Mamillaria senilis;* 2 living specimens of *Mamillaria* (51953; 52553; 52679). Exchange.

QUIGLEY, LEO, Washington, D. C.: Lizard, *Sceloporus undulatus* from Bristow, Prince William County, Va. (52930).

QUISENBERRY, Miss A. C., Washington, D. C.: Specimen of house sparrow, *Passer domesticus* (52918).

RADFORD, H. V., New York City: Skeleton of wood bison, *Bison bison athabascæ* (51970: purchase).

RAIDABAUGH, G. P., Sparrows Point, Md.: 6 railroad rails (52443).

RANDOLPH, Maj. Gen. WALLACE FITZ, U. S. Army, Estate of (through Mrs. Wallace F. Randolph, Washington, D. C.): Navaho chief's blanket captured at the battle of Wounded Knee (52758: loan).

RANSOME, F. L. (See under Maj. W. A. Mensch.)

RATHBUN, Mrs. C. S., San Pedro, Cal.: Marine shells representing 9 species from Alaska and San Pedro (52376); fresh-water shells from Chena, Alaska; also specimen of larval "bullhead shark," *Gyropleurodus francisci,* and egg case of same (52407).

READING, Mrs. FANNIE W., Washington, D. C.: 16 baskets from California (51835: loan).

REDMAN, AMBROSE, Superintendent, Point McLeay Mission, Point McLeay, South Australia: 2 specimens of basketwork made by the mission natives at Point McLeay or Rawkkon from Manockeree rush, and a braiding of coarser rush which grows in the same locality (52749).

REED, CHARLES O., Fairmont, W. Va.: 7 specimens of *Cychrus* (51877: exchange).

REIFF, WILLIAM, Forest Hills, Mass.: 24 larvæ of a rare moth (51809).

REILLY, Mrs. J. W., Washington, D. C.: An English verge watch and an old iron thumb-ring (52732); 6 guns, 2 swords, 2 flintlock pistols, 2 caplock dueling pistols, and 2 canteens (52754); a piece of wood secured from the "Merrimac" in 1862 (52776).

REYKJAVIK, ICELAND, HID ISLENZKA NÁTTÚRUFRAEDISFÈLAG & NÁTTÚRUGRIPASAFN: 13 specimens of *Mus,* from Iceland (51754: exchange).

REYNOLDS, A. G., Veteran, Fla.: Specimen of *Scalaria digrammata* from near Tampa, Fla. (51768); lizard, type of *Neoseps reynoldsi* (51828); female specimen of torpedo ray, *Narcine braziliensis,* and 14 young (51864); an eel, *Ophichthus gomesii,* and 2 minnows, *Mollienisia latipinna* (52755).

RHODES, CHARLES M., Brentwood, Long Island, N. Y.: Section of a mosaic floor from the baths of Caracalla, Rome (51994).

RICHARDS, Lieut. Commander T. W., Surgeon, U. S. Navy, Washington, D. C.: 2 eggs of albatross from Midway Island, representing the species *Diomedea immutabilis* and *D. nigripes* (51935); 5 bird skins from Australia (51936: exchange).

RICHARDSON, Mrs. CHARLES W., Washington, D. C.: Tiles made by the Mosaic Tile Company, Zanesville, Ohio, about 1876 (51870).

RICHARDSON, Mrs. THOMAS F., Washington, D. C.: Collection of silver, cloisonné enamel, jewelry and embroidery (52663); brocades and

RICHARDSON, Mrs. THOMAS F.—Contd. other fabrics; also pieces of Guipure de Genes (Louis XIV), Belgian and old Bretonne laces, and a piece of netted and darned lace (52736); piece of Italian filet, 17th century, and a square of Spanish brocade, salmon, 18th century (52783). Loan.

RIDGWAY, ROBERT, U. S. National Museum: Small collection of insects (51874).

RILEY, J. H., U. S. National Museum: 3 specimens of red squirrel, *Sciurus hudsonicus loquax*, from Falls Church, Va. (51761; 52619); 5 bird skins, 2 specimens of box tortoise and 15 mammals from Virginia (51957; 52080; 52157).

RILEY, J. H., and E. J. BROWN, U. S. National Museum: 3 specimens of wood duck, *Aix sponsa*, and 2 specimens of woodcock, *Philohela minor*, from Alden, Va. (52178).

ROBB, Dr. VANCE N., McPherson, Kans.: A muller and a chipped axe (52415).

ROBERTS, Mrs. MARY G., "Beaumarais," Hobart, Tasmania (through H. D. Baker, American consul, Hobart, Tasmania): Skeleton of a kangaroo rat (51767).

ROBERTS, Mrs. PERCY, Rockbridge Alum Springs, Va.: 2 specimens of *Tibicina septendecim*, with twigs and eggs (51811).

ROBERTSON, CHARLES, Carlinville, Ill. (through Mr. W. Dwight Pierce): 18 specimens of Strepsiptera, types of 18 species described by Mr. Pierce (52498).

ROBINSON, C. H., Secretary-Treasurer, Associated Fraternities of America, Chicago, Ill.: An enamel pennant (fraternity pin) bearing the letters "A. F. A." (51898).

ROBINSON, Miss MARIA FASSETT, Washington, D. C.: Oil portrait of Thomas Buchanan Read, painted by himself (51995).

ROCKWELL, J. E., Washington, D. C.: Sample of Middle Ordovician limestone with fossil algæ (52060).

ROCKY MOUNTAINS PARK MUSEUM. (See under Banff, Alberta, Canada.)

ROMAN, A., Upsala, Sweden: 76 specimens of Hymenoptera (52926: exchange).

ROSENBERG, W. F. H., London, England: 5 bird skins (51841); skins and skulls of 77 mammals, mostly South American (52664; 52689; 52730). Purchase.

ROTH, JOHN, San Angelo, Tex.: Shrimp from Devils River, Tex. (51830).

ROUSSEAU, H. H., Corps of Civil Engineers, U. S. Navy, Culebra, Panama Canal Zone (through Department of Agriculture): About 75 insects (51926).

ROUSSELET, CHARLES F., London, England: 24 slides of Rotifera (4th instalment) (52077: purchase).

ROWLETT, Mrs. S. C., Randolph, Va.: Specimen of buckeye, *Æsculus* sp., from Virginia (52801).

ROYAL BOTANIC GARDEN. (See under Calcutta, India.)

ROYAL BOTANIC GARDENS. (See under Kew, London, England.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND, MUSEUM OF. (See under London, England.)

RUSBY, H. H., New York Botanical Garden, Bronx Park, New York City: 57 plants collected in Bolivia by Buchtien (52894: purchase).

RUTH, ALBERT, Fort Worth, Tex.: 13 plants from Texas (52272).

ST. JOHN, Prof. E. P. (See under A. E. Kilbourne.)

SAN JOSÉ, COSTA RICA, MUSEO NACIONAL: 15 living specimens of *Cereus*, 2 packets of seeds and a plant, from Costa Rica (52418; 52491). Exchange.

SANSON, N. B., Rocky Mountains Park Museum, Banff, Alberta, Canada: Type specimen of *Autographa sansoni* (52600).

SARGENT, Mrs. H. H., Malabang, Mindanao, P. I.: A pair of deer horns from Mindanao (52023).

SAUNDERS, MORRIS, South Norwalk, Conn.: "Eyed click beetle," *Alaus oculatus* (52811).

SAUTER, H., Anping, South Formosa: Batrachians from South Formosa (52872).

SAVANNAH CHAPTER OF THE UNITED DAUGHTERS OF THE CONFEDERACY, Savannah, Ga. (through Mrs. Caroline P. Myers): A Stonewall Jackson Medal (52524).

SAYLES, ROBERT W., Cambridge, Mass.: 2 photographs of "tillite" at Squantum Head in Boston Harbor (52675).

SCHILLER, Dr. WILLIAM B., Houston, Tex.: Specimen of mole cricket, *Gryllotalpa borealis* (51742).

SCHLÜTER, WILHELM, Halle a. Saale, Germany: Nest and 2 eggs of *Paradisea augusta-victoriæ* (51795: purchase).

SCHMID, EDWARD S., Washington, D. C.: Specimen of solitaire, *Myadestes* (51793); an osprey, *Pandion haliætus carolinensis*, from Maryland (52809).

SCHMITT, WALDO L., Washington, D. C.: An isopod and a crayfish from the vicinity of Washington (52015).

SCHOOL OF AMERICAN ARCHAEOLOGY OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA, Santa Fe, N. Mex.: Skeletal remains and objects of stone and pottery from ancient pueblos in New Mexico, collected during the seasons of 1909 and 1910 (52369: exchange).

SCHUCHERT, Prof. CHARLES, Peabody Museum of Natural History, Yale University, New Haven, Conn.: 2 specimens of fossil invertebrates from the Richmond group of Newfoundland (52449); 10 specimens of fossil invertebrates from Nova Scotia (52688). (See also under Mrs. Robert H. Gordon.)

SCHULTZE, W., Bureau of Science, Manila, P. I.: Reptiles from the Philippine Islands (52229).

SCHWEYER, THE HENRY A. COMPANY, Easton, Pa.: Slab of "Sylvan Green" marble (52849).

SEEL, ROBERT E., Washington, D. C. (through Dr. Thomas Featherstonhaugh): A Böhm flute, made by A. G. Badger, of New York (52880).

SEELY, Mrs. C. S. N., Washington, D. C.: A two-thread spinning-wheel, more than 100 years old (52548).

SELANGOR MUSEUM. (See under Kuala Lumpur, Selangor, Federated Malay States.)

SETTLE, Miss ELLA, Sheldon, Ill.: 5 skulls of small mammals from Illinois (52262).

SHADBOLT, SYDNEY H., New Brighton, N. Y.: A piece of sculpture, in Mexican onyx, representing a "Station of the Cross" (52633).

SHANTZ, H. L., Department of Agriculture, Washington, D. C.: Specimen of *Laciniaria* from Colorado (52254); type of *Eucapsis alpina* from Colorado (52292).

SHELTON, A. L., Anthony, Kans.: 2 specimens of a moth, *Actias selene*, from the western border of China (52569).

SHEPARD, JOHN, Bristol, Md.: Fossil plant (52833).

SHEPHERD, B. B., Wonder, Nev.: Material composed of diatomaceous earth and volcanic ash (52642).

SHERMAN, F., Raleigh, N. C.: 9 sawflies (52652).

SHERMAN, JOHN D., jr., Brooklyn, N. Y.: 215 beetles from North America and Europe (52359: exchange).

SHOEMAKER, CLARENCE R., U. S. National Museum: Isopods and amphipods from a brook near Georgetown, D. C. (52404); 2 specimens of an isopod from Mt. Vernon, Va. (52821).

SHOEMAKER, CLARENCE R., and W. D. APPEL, U. S. National Museum: Insects and other invertebrates from the vicinity of Chain Bridge, D. C. (52486).

SHUFELDT, Dr. R. W., Washington, D. C.: Skin of a mammal, *Bassariscus*, from South Carolina (52349); snake, *Coluber quadrivittatus*, from the southern part of Florida (52560).

SIDELSKY, Mrs. N. S., Atlantic City, N. J.: An abnormal egg of a domestic fowl (51829).

SILBERLING, A. C., Shawmut, Mont.: 55 fossil mammals from Montana (52830: purchase).

SILER, Mrs. I. O., Slidell, La.: An Indian soapstone pipe (52536: purchase).

SILVESTRI, Dr. F., R. Scuola Superiore di Agricoltura, Portici, Italy: 5 specimens representing 3 species of parasitic copepods from the Rio de la Plata (52184).

SINGEWALD, J. T., jr., Johns Hopkins University, Baltimore, Md.: Specimen of ludwigite from near Vaskö, Banat, Hungary (52165).

SLATER, Mrs. E. H. G., Washington, D. C. (through Mrs. R. G. Lay): A collar and pair of sleeves of very fine point d'Alençon, 19th century (52624: loan).

SLATER, W. A., Washington, D. C.: 14 oil paintings and 1 pastel, by European and American artists (52740: loan).

SMITH, EDWIN, Coast and Geodetic Survey, Washington, D. C.: Maori man's cloak made of finely prepared New Zealand flax, *Phormium tenax* (52324: purchase); 52 ferns from New Zealand (52855).

SMITH, Dr. HUGH M., Bureau of Fisheries, Washington, D. C.: About 50 specimens of Helices from Holland (52040); a Chinese gauze lantern (52331: exchange).

SMITH, MILLARD H., Candler, N. C.: 7 arrow points and blades, fragment of a soapstone vessel and drilled banner stone, etc. (52512); 19 cocoons of silkworms (52578).

SMITH, OTTO M., Springfield, Mo.: Specimen of *Nymphæa*, from Missouri (51902).

SMITH, R. J., Milpitas, Cal.: Seeds of *Eulophus californicus* (52439).

SMITH, WILLIAM LETTERMAN, Harrisburg, Pa.: 2 pencil drawings, 2 campaign flags, an inaugural address on satin, and an Egyptian sepulchral figurine—"Ushabti" (52098).

SMITH, W. T., Kimberly, Ala.: Salamander, *Amblystoma maculatum*, from Alabama (52438).

SMITHSONIAN INSTITUTION:

Portrait, in oil, of Maj. John W. Powell, by E. C. Messer, presented to the Institution by Mrs. Powell (51980); anthropological, biological, geological, and paleontological material, collected in Argentina, South America, by Dr. Aleš Hrdlička and Mr. Bailey Willis (52049); anthropological, biological, geological, and paleontological material, collected by Dr. Aleš Hrdlička in Argentina, Chili, Peru, Panama, and Mexico (52050; 52051); the collection of North American mammals assembled by Dr. C. Hart Merriam, comprising about 5,800 skins, 6,000 skulls, of which 235 are of seals, 100 complete skeletons, and about 80 type specimens, presented to the Smithsonian Institution by Mrs. Edward H. Harriman (52722); a bronze medal commemorating the first annual dinner of the Aeronautical Society held at the Hotel Astor, New York City, April 27, 1911 (52729); 2 figured specimens of Middle Cambrian Medusæ, and 19 figured speci-

SMITHSONIAN INSTITUTION—Contd.

mens of Middle Cambrian Holothurians from British Columbia (52790); 14 figured specimens of Middle Cambrian Eurypterids from British Columbia (52791); copy of the M. C. Dow medal, presented to the Secretary of the Smithsonian Institution by The Ohio Humane Society (52847); medal of the Societa Ligure di Storia Patria, Genoa, Italy, commemorative of the celebration of its half-century anniversary, 1858–1908 (52921).

Smithsonian African Expedition, under the direction of Col. Theodore Roosevelt: Birds, mammals, reptiles, plants, mollusks, fishes, and anthropological material from British East Africa and Sudan; skin, skull, and leg-bones of *Bongo*, from British East Africa; 113 African mammals (51769; 51805; 51884).[1]

Bureau of American Ethnology: 200 plants used by the Zuñi Indians, collected by Mrs. Matilda Coxe Stevenson (52018); a dog travois made by Mrs. Eagle Child, a full-blooded Piegan Indian (52072); 6 boxes of human bones from the ancient pueblo of Giusiwa, Jemez Valley, and 10 boxes of Indian skeletons from the ancient Tewa ruins of Puye, on a mesa above the Santa Clara Canyon, about 10 miles west of Santa Clara pueblo, N. Mex.—all collected during the summer of 1910 by the joint expedition of the Bureau of American Ethnology and the School of American Archaeology of the Archaeological Institute of America (52073; 52218); pottery fragments collected by J. A. Jeançon, of Colorado Springs, Colo., in the upper part of the Rio Grande Valley, N. Mex. (52167); 19 archeological specimens from McPherson County, Kans., obtained by the Bureau from Dr. Vance N. Robb (52230); a wa-xo-be, or sacred pack, of the Osage Indians, presented by Mr. and Mrs. Arthur Bonnicastle through Francis La Flesche (52278); a buffalo-hide scraper collected from the Piegan Indians of Montana by Dr. Truman Michelson (52297); more than 500 archeological objects collected by Dr. J. Walter Fewkes from the Navaho National Monument and at the ancient Hopi pueblo of Wukoki at the Black Falls of Little Colorado River, Ariz. (52301); 2 plants used by the Chippewa Indians in making medicine, collected by Miss Frances Densmore (52927).

National Museum, collected by members of the staff: Bassler, R. S.: About 300 specimens illustrating silicification of fossils and the formation of geodes (51745); about 2,000 specimens of Mississippian and Silurian fossils from Kentucky and Tennessee (51746). Bean, Barton A., assisted by Herbert K. Bean: Fishes collected in the Susquehanna River and Conoy Creek, Pa. (52131); fishes collected in the District of Columbia (52887). Brown, E. J., Lieut. Col. E. A. Mearns, U. S. Army (retired), and J. H. Riley: Mammals, birds, reptiles, batrachians, mollusks, insects, crustaceans, plants, and a fragment of prehistoric pottery from South Carolina (52823). Hollister, N.: Mammals, fishes, reptiles, birds, crustaceans, and mollusks from Wisconsin (52115); skins and skulls of 5 mammals collected near Hyattsville, Md.; also an alcoholic specimen (52682). Hrdlička, Aleš: 13 specimens of crustaceans from Tabogan Island, Panama (52036); facial masks, in plaster, of 6 Aztec Indians from Xochimilco, Valley of Mexico, made by Dr. Hrdlička from life subjects while in Mexico (52045); 8 living specimens of Cactaceæ from Peru (52086); embryo turtle, *Terrapene carolina*, from the District of Co-

[1] The earlier collections received from this source were entered under accession numbers 50755, 50756, 50757, 50827, 51209, 51304, and 51495, and a notice of them will be found on page 107 of the Report for 1910.

SMITHSONIAN INSTITUTION—Contd.
lumbia (52865). Lane, Talbot F.: Anatomical specimen (52583). Maxon, William R.: 50 plants from central New York (51882); 2 batrachians from Prince Georges County, Md. (51961); 38 living plants and 480 dried plants collected in Panama (52474); 3 living specimens of *Cereus* collected in Panama (52503); 45 living plants; 28 packages of plants; 600 dried and 150 living plants, collected in Panama (52629; 52649; 52690). Paine, R. G.: Snake from Washington, D. C. (52213). Palmer, William: Snake, *Coluber obsoletus*, from the Potomac River (52868). Rathbun, Miss M. J.: Plant representing the species *Lycopodium selago*, from New Hampshire (51894). Ridgway, Robert: 253 plants from Illinois (51858). Riley, J. H.: Snake, *Lampropeltis rhombomaculatus*, from Falls Church, Va. (52867). Rose, J. N.: 300 plants from Hancock, Md. (52087); about 2,000 dried plants and 300 living plants from Lower California (52857). Weed, A. C., and W. W. Wallis: Fishes and 2 turtles taken in a fyke net near Bladensburg, Md. (51759); fishes, reptiles, and invertebrates collected in Sligo Creek and Northwest Branch, Md. (51807); fishes, frogs, insects, and crustaceans from the Northwest Branch, Md. (51933). Weed, A. C.: Fishes from Northwest Branch (51850); fishes, turtles, and leeches from a small stream near Bladensburg, Md. (51883); fishes and invertebrates collected in the District of Columbia (51929); fishes from the Eastern Branch, D. C. (52100; 52130); 2 leeches from a turtle, *Chrysemys picta*, from near Chain Bridge, Potomac River (52405); fishes collected in the District of Columbia (52888). Wood, N. R.: Snake-skin from Florida (52559).

National Zoological Park: Brant, *Branta bernicla glaucogastra;* anhinga, *Anhinga anhinga;* pale-headed paroquet, *Platycercus palliceps;* wood duck, *Aix sponsa;* weka rail, *Ocydromus australis;* massena quail, *Cyrtonyx montezumæ;* blue-winged paroquet, *Palæornis columboides;* 2 specimens of brush turkey, *Catheturus lathami;* upland goose, *Chlœphaga magellanica;* peafowl, *Pavo cristatus;* tovi parrakeet, *Brotogeris jugularis;* white pelican, *Pelecanus erythrorhynchos;* American bittern, *Botaurus lentiginosus* (52455); marbled cat, *Felis marmorata;* 2 specimens of clouded leopard, *Felis nebulosa;* American otter, *Lutra canadensis;* wallaroo, *Macropus robustus;* lion, *Felis leo;* brown bear, *Ursus kidderi;* Newfoundland caribou, *Rangifer terræ-novæ;* almiqui, *Solenodon paradoxus;* Barbary sheep, *Ovis tragelaphus;* 2 specimens of harbor seal, *Phoca vitulina;* deer; black buck, *Antelope cervicapra;* Abyssinian rodent, *Lophiomys* sp.; western porcupine, *Erethizon dorsatus epixanthus;* monkey, *Macacus cyclopis;* cougar, *Felis concolor;* American elk, *Cervus canadensis;* spotted hyæna, *Hyæna crocuta;* Hybrid, *Cebus fatuellus*, male monkey, *Cebus capucinus*, female; Northern fur seal, *Callorhinus ursinus;* leucoryx, *Oryx leucoryx;* almiqui, *Solenodon paradoxus* (52590); East African hawk, *Buteo* sp. (52591); golden eagle, *Aquila chrysætus;* alligator, *Alligator mississippiensis* (52632); wild cat, *Lynx rufus floridanus* (52685); wanderoo, *Macacus silenus* (52759); bald eagle, *Haliæetus leucocephalus alascanus* (52760); Florida cormorant, *Phalacrocorax dilophus floridanus* (52768); bald eagle, *Haliæetus leucocephalus* (52899); 2 specimens of *Dasypus villosus;* specimen of *Antilocapra americana;* and gray wolf, *Canis occidentalis* (52900).

Models made in the Anthropological Laboratory: Casts of an iron and a copper axe (51893); 2 imprints in clay showing the character of basket used in modeling pottery of supposed Ute make (52330); cast of

SMITHSONIAN INSTITUTION—Contd.
a bird pipe from Ohio, and of a banner stone from Kentucky (52342); plaster bust of a Sioux Indian, Dr. Lot, Sissiton, S. Dak. (52390); cast of a bird pipe (52751).

SOMMER, HARRY, Chicago, Ill.: Diatomaceous earth (51989).

SOUTHERN CALIFORNIA, UNIVERSITY OF, Los Angeles, Cal.: 5 vials of worms and actinians (52596); 8 vials of marine worms (52710).

SOWERBY, ARTHUR DEC., Tai-yuan-fu, Shan-si, China: About 105 mammals; skins and 3 skulls of mammals from China (51816; 52256). Collected for the Museum.

SOWERBY and FULTON, Riverside, Kew, England: Miscellaneous land-shells representing about 27 species (52147: exchange).

SPENCER, LOUIS P., Palm Beach, Fla.: Spider, *Ammotrecha cubæ* (52890).

SPURR, J. E. (See under Waldemar Lindgren.)

STAHEL, Gen. JULIUS, New York City (through Mr. Simon Wolf, Washington, D. C.): A large and exceptionally fine Japanese vase, Sumida ware (52117).

STANDLEY, PAUL C., U. S. National Museum: 137 plants from various localities (51941); 600 plants collected in the western part of North Carolina (51942); 140 plants collected in Virginia, Maryland, and West Virginia (52387).

STANDLEY, PAUL C., and WILLIAM R. MAXON, U. S. National Museum: 100 plants from Maryland (52020).

STANTON, Dr. T. W., U. S. Geological Survey, Washington, D. C.: Invertebrates, including shells, from Cook's Inlet, Alaska (52141).

STATE AGRICULTURAL COLLEGE, Fort Collins, Colo.: Paratype of *Lophyrus gillettei* (52074).

STATE DEPARTMENT: 15 photographs, with 2 maps, illustrating a report on the "Head Hunters of Formosa," transmitted by Samuel C. Reat, American Consul at Tamsui, Formosa (51899). (See also under Frank Deedmeyer; Sweden, Royal Mint of the Government of; E. A. Wakefield.)

STEAD, DAVID G., Department of Fisheries, Sydney, New South Wales: 6 picture postals illustrating aborigines of New South Wales (52332).

STEELE, E. S., U. S. National Museum: 411 plants from the eastern part of the United States (52099).

STEGER, A. M., Washington, D. C.: Specimen of ring-necked duck, *Marila collaris* (52347).

STEINER, JACOB, Brooklyn, N. Y.: An Austrian pill-lock horse pistol (52012).

STEPHENS, Mrs. KATE, San Diego, Cal.: Specimens of *Macoma* from Alaska, and *Rangia* from California (52563).

STERLING, Mrs. WILLIAM, Washington, D. C.: Mounted specimen of snowy owl, *Nyctea nyctea*, from Vermont (52677).

STINE, THOMAS, Fork Point, Md.: Deformed claw of a crab, *Callinectes sapidus* (52126).

STOCKS, STEPHEN, Point of Rocks, Md.: Beetle representing the species *Dynastes tityus* (51843).

STOUFFER, W. H., Wilsonville, Nebr.: 2 spiders and an egg-cocoon (51984).

STUART, Mrs. ALICE E., La Fayette, Ind.: 5 specimens of *Saxifraga cotyledon* from Norway (52195).

SUMNER, Dr. F. B., Bureau of Fisheries Laboratory, Woods Hole, Mass.: Specimen of *Tethys willcoxi* from Woods Hole, collected by Vinal N. Edwards (52931).

SWAN, Miss ETHELYN, Independence, Kans.: Specimen of longicorn beetle, *Acanthocinus nodosus*, belonging to the family Cerambycidæ (52874).

SWEDEN, ROYAL MINT OF THE GOVERNMENT OF (through Department of State): Gold replica of "The Great Medal of Merit of Sweden," conferred on the late Dr. Edward Maynard about fifty years ago by Oscar, King of Sweden and Norway (52283: purchase).

TAYLOR, GEORGE W., Washington, D. C.: Specimen of zinc, weighing about 40 pounds, from the Beulah zinc mines, Marion County, Ark. (52646).

TAYLOR, W. E., Norfolk, Va.: Specimen of ring-necked duck, *Marila collaris* (52363).

TAYS, EUGENE A. H., San Blas, Sinaloa, Mexico: Beetle (51868).

THAYER, Hon. JOHN E., Lancaster, Mass.: 30 skins of *Aphelocoma* and 19 clapper rails (52302; 52346). Loan.

THIERFELDER, A., Pelham, N. Y.: Specimen of star-nosed mole, *Condylura cristata* (52318).

THOM, WILLIAM, Gatun, Panama Canal Zone: Fossils from Gatun (52621).

THOMAS, OLDFIELD, British Museum (Natural History), London, England: 3 Asiatic mammals, *Microtus* (52108: exchange).

THOMPSON, CHARLES S., Paso Robles, Cal.: Skin of *Empidonax trailli trailli* (51825).

THOMSON, Prof. ARTHUR, Department of Human Anatomy, University Museum, Oxford, England: Plaster busts of an Australian and an African pigmy (52240: exchange).

TILDEN, Miss JOSEPHINE E., Minneapolis, Minn.: 156 flowering plants and ferns from New Zealand; 77 flowering plants and ferns from Tahiti; and 49 algæ from the Pacific Ocean (52936: purchase).

TODD, Dr. JOHN B., Syracuse, N. Y. (through U. S. Department of Agriculture): Specimen of fern from New York (51914).

TOKYO, JAPAN, IMPERIAL UNIVERSITY OF (through Prof. Edward S. Morse, Salem, Mass.): A collection of mollusks, fishes, marine invertebrates, and other zoological objects from Japan (52210: exchange).

TONDUZ, AD., San José, Costa Rica: Specimen of *Rhipsalis* from Costa Rica (52392: exchange).

TOOKER, Dr. FRED. J., East Orange, N. J.: 5 Chinese tobacco pipes, and a bundle of "pei-hu" (52337).

TORRE BUENO, J. R. DE LA, White Plains, N. Y.: Types of species of aquatic Hemiptera, consisting of *Notonecta raleighi* and *Pelocoris carolinensis* (52357).

TOTTEN, GEORGE OAKLEY, jr., Washington, D. C.: 4 Turkish rugs from Asia Minor (52507); an antique Ladik rug (52616); 2 Chinese rugs, one being an example of the work of the weavers in the early K'anghsi reign; the other, an antique, probably a Kang covering, made about fifty years ago in the Canton district, during the reign of Tao-Kuang (52703). Loan.

TOWNSEND, C. H. T., Piura, Peru: 156 plants from Peru and Ecuador (52338); lizard, type of *Amphisbæna townsendi* (52611); 150 fossil shells from Piura (52716).

TOWNSLEY, Mrs. CLARENCE PAGE (through Mrs. John Hay, Washington, D. C.): A water-color portrait of Clarence King, by Zorn (52797: loan).

TREMPER, Dr. R. H., Ontario, Cal.: About 110 specimens representing 16 species and varieties of marine and land shells from the southern part of California (52132); specimens of *Chama* and *Gonidea* from California (52577).

TRENCHARD, THE ADMIRAL, Section No. 73, Navy League of New York City (through Mr. Edward E. Trenchard, Babylon, N. Y.): The flag of the Navy League carried by Capt. Robert E. Peary to the North Pole in 1909 (52533; loan).

TRING, ENGLAND, ZOOLOGICAL MUSEUM: Specimen of *Nannus troglodytes szetschuanus* (52317).

TRISTÁN, Prof. J. FID., San José, Costa Rica: About 75 specimens of isopods from Costa Rica (52780).

TRUE, Dr. F. W., U. S. National Museum: Shrew from Maine (52391).

TRUESDELL, JULIUS A., Washington, D. C.: 4 paintings by the late G. S. Truesdell (52844: loan).

TSCHUSI ZU SCHMIDHOFFEN, VICTOR RITTER VON, Salzburg, Austria: Skin of *Sitta whiteheadi* (52753: exchange).

TUCKERMAN, Miss EMILY, Washington, D. C.: Painting by Eduardo Zamaçois, entitled "Refectory" (51968); specimens of antiue laces, Venetian, Venetian rose point, Gros point de Venise, point de France et Personages, Spanish point, point de Genes, Reticella, Alençon, Argentan, early Mechlin and Italian bobbin; 2 pieces of Italian tapestry, one piece of Flemish tapestry; and a Persian silk rug (52737). Loan.

TUCKERMAN, WALTER R., Washington, D. C.: 12 pieces of brocades, velvets, and embroideries, principally Spanish and Genoese, of the 17th and 18th centuries (52757: loan).

TURNER, GEORGE B., U. S. National Museum: Bronzed grackle, *Quiscalus quiscula æneus* (52636).

TYLOR, J. E., Washington, D. C.: Snake, *Agkistrodon piscivorus*, from Florida (52861).

UHLER, P. R., Baltimore, Md.: 111 specimens of Hemiptera (52155).

ULRICH, Dr. E. O., Washington, D. C.: Specimen of marcasite, showing weathering, from near Yellville, Ark. (52081).

UPHAM, E. P., U. S. National Museum: 8 plates of Hindu sculptures and 14 plates of Central and South American antiquities (51818); photograph of Hon. John Hay and M. Jules Cambon (51819).

UPSALA, SWEDEN, GEOLOGICAL MUSEUM. Specimen of a meteorite which fell in Lapland (52204).

URBAN, Dr. I., Dahlem bei Steglitz (Berlin), Germany: 166 plants collected in San Domingo by H. von Tuerckheim (52417); 719 plants from Africa (52602). Purchase.

VANATTA, E. G., Academy of Natural Sciences, Philadelphia, Pa.: Land and fresh-water shells, representing 18 species, from Bermuda (52430).

VAN AUKEN, F. L., Washington, D. C.: Uniform of a private soldier, worn by the donor through a number of engagements during the Civil War; also mess articles used during that period (52412).

VAN DENBURGH, Dr. JOHN, San Francisco, Cal.: Lizard representing the species *Tylototriton andersoni*, from Riukiu, Japan (51881: exchange).

VANDERBILT UNIVERSITY, Nashville, Tenn.: About 200 specimens of Ordovician and Silurian fossils (51773: exchange).

VAN DUZEE, E. P., Buffalo, N. Y.: 3 specimens of Hemiptera, *Platymetopius*, one a cotype (51930).

VAN DUZEE, M. C., Buffalo, N. Y.: 8 specimens of sawflies (52654).

VANEY, C., Université de Lyon, France: Specimen of *Antedon flava*, from "Caudan" Station, No. 4 (52406: exchange).

VERBECK, Dr. R. D. M., The Hague, Holland (through Dr. J. P. Iddings): 6 specimens of billitonite from the island of Billiton (52168).

VERMONT MARBLE COMPANY, Proctor, Vt.: 28 slabs of marble (52719).

VICK, JOHN, Uyak, Alaska: 5 specimens of fossils from Alaska (51991).

VIENNA, AUSTRIA, K. K. NATURHISTORISCHES HOFMUSEUM: 100 specimens of cryptogams (Kryptogamae Exsiccatae Century XVIII) (52614: exchange).

VINING, ARCHIE C., Rockford, Wash.: Specimen of opal (52622).

WAGNER FREE INSTITUTE OF SCIENCE, Philadelphia, Pa.: 4 specimens of *Fulgur* from the Neocene of Cape Fear River, N. C. (52606).

WAKEFIELD, E. A., American Consul, Port Elizabeth, Cape of Good Hope, South Africa (through Department of State): Specimens of fossil fishes from Caledon River, Orange River Colony (52473).

WALCOTT, Dr. CHARLES D., Secretary, Smithsonian Institution: Specimen of weathered Cambrian limestone from Mt. Field, British Columbia (52643).

WALCOTT, Mrs. CHARLES D., Washington, D. C.: An ivory fan (52104: loan).

WALKER, BRYANT, Detroit, Mich.: 3 specimens of *Anodonta hallenbeckii* from Calhoun, Ga. (51954).

WALKER, T. B., Minneapolis, Minn.: An oil painting by Benjamin West, entitled "The Raising of Jairus' Daughter" (52699: loan).

WALL, Maj. F., I. M. S., Chitral, Northwest Frontier, India: 6 snakes from Cochin Hills, India (51956: exchange).

WALLACE, CHARLES M., jr., Richmond, Va.: 7 anatomical specimens (52139).

WALLIS, WILLIAM W., U. S. National Museum: Fishes and invertebrates from the Chester River at Chestertown, Md. (51910); 25 specimens of *Meibomia* from the eastern shore of Maryland (52029); leech from *Lepomis gibbosus*, from Tramwell's Pond, Va. (52848); 2 crayfishes from the District of Columbia (52922); living specimen of ground mole, *Scalopus* (52924).

WALTON, W. R., Bureau of Entomology, Department of Agriculture, Washington, D. C.: Specimen of *Criorhina nigriventris*, and a specimen of *Syrphus fisherii* (52932).

WAR DEPARTMENT:

Plaster model of the statue of Rear Admiral Andrew H. Foote, by sculptor William Couper, from which was cast the bronze statue for the Vicksburg National Military Park (52898).

Army Medical Museum: 3 Indian skulls and a lower jaw (52640: exchange).

WASHINGTON, CHARLES S., U. S. National Museum: 2 specimens of Lepidoptera (51896); 4 living specimens of crayfishes (52566; 52674); 8 isopods (52808).

WATSON, J. HENRY, Withington, Manchester, England: 2 adults and 2 pupæ of the species *Hemileuca barnsi*, and 3 dipterous parasites of the same species (52680: exchange).

WAYNE, ARTHUR T., Mount Pleasant, S. C. (through Lieut. Col. E. A. Mearns, U. S. Army (retired), Washington, D. C.): 4 bird skins, including young of *Vermivora bachmani*, from South Carolina (52777).

WEBER, H., Paris, France (through Mr. Frank L. Hess, Washington, D. C.): Specimen of autunite from Guarda, Portugal (52227).

WEED, ALFRED C., U. S. National Museum: Specimens of *Esox reticulatus* and *Morone interrupta* (52242); 6 oyster crabs (52487).

WELD, LEWIS H., Evanston, Ill. (through William Beutenmüller): Cotype of the gall-fly, *Holcaspis weldi* (52479).

WENINGER, JOSEPH, Washington, D. C.: A bolo scabbard, captured by the donor in Leyte during the Philippine insurrection (52277); 26 postage stamps of the Confederate States of America (52442).

WESTER, P. J. (See under Department of Agriculture, Bureau of Plant Industry.)

WESTERN UNION TELEGRAPH COMPANY, Washington, D. C.: Pair of telegraph linemens' pole-climbers (52534).

WHARTON, JOSEPH, Estate of (through Mr. Harrison S. Morris, one of the executors, Philadelphia, Pa.): The Joseph Wharton historical exhibit of nickel (52385).

WHITE, JOHN JAY, Washington, D. C.: Mounted head of a buffalo, *Syncerus caffer*, from Mount Elgon, British East Africa (52741: loan); mounted head of an eland, *Taurotragus oryx pattersonianus*, from British East Africa (52742); 27 mammals from British East Africa, including a specimen of the rare antelope, *Damaliscus phalius* (52911).

WHITE, Mrs. JOHN JAY, Washington, D. C.: A cope, a square of brocade, and a Chinese embroidered costume (52873: loan).

WHITE, WILLIAM R., Nashville, Tenn.: Eggs of snail (52083).

WIKSELL, Dr. GUSTAVE P., Boston, Mass. (through Dr. William J. Morton, New York City): Complete Morton ether inhaler, with stand (52400).

WILCOX, Dr. G. B., San Francisco, Cal.: Disarticulated and mounted skull of a rattlesnake (52033).

WILEY, Miss HARRIET B., Waynesville, N. C.: Specimen of *Lycopodium obscurum* from the western part of North Carolina (52002).

WILKINS, J. F., Butte, Mont.: 6 arrow points and spearheads from Illinois, Montana, and Oregon (52144).

WILLCOX, JOSEPH, Philadelphia, Pa.: Oligocene fossils from White Beach, Little Sarasota Bay, Fla. (52605).

WILLIAMS, BEN, Ottanola, N. C.: 3 garnet crystals (51867).

WILLIAMS, FRANCIS X., University of Kansas, Lawrence, Kans.: 2 wasps (52651).

WILLIAMS, FRED T., Park City, Utah: Specimen of lead-silver ore, weighing about 40 pounds (52550).

WILLIAMS, GEORGE L., U. S. National Museum: Specimen of small-mouthed black bass, collected in the Potomac River below Great Falls (52940).

WILLIS, BAILEY, U. S. Geological Survey, Washington, D. C.: 2 specimens of *Tillandsia* collected in South America (52149); 3 plants from Argentina (52253); rocks collected by the donor in the Alps in 1907 (52467); collection of Chinese weaving and embroidery (52511: loan).

WILMER, Lieut. Col. L. WORTHINGTON, Lothian House, Ryde, England: Specimens of *Exogyra sinuata*, *Ancyloceras gigas*, and other Cretaceous mollusks (52160).

WILSON, Dr. CHARLES B., State Normal School, Westfield, Mass.: Mammals, fishes, 2 toads, invertebrates, 4 shells representing the species *Tagelus diversus*, and a bird, from Jamaica (51908).

WILSON, SCOTT B., Piccadilly, London, W., England: 8 bird skins from Polynesia (51762: purchase).

WINKLEY, Rev. H. W., Danvers, Mass.: Crustaceans from Massachusetts (52164).

WINN, Dr. JAMES, Sumter, S. C.: 3 specimens of *Phyllocactus* from South Carolina (52004).

WOLF, SIMON, and other friends of the artist, Washington, D. C.: Painting by Max Weyl, entitled "Indian Summer Day," presented in commemoration of the artist's 70th birthday (51965).

WOOD, Mrs. E. P., Washington, D. C.: Artist's proof etching of Doré's "Neophyte" (52022: loan).

WOOD, Mrs. JESSE J., Santa Barbara, Cal.: 2 varieties of *Acmæa* from Surf, Santa Barbara County, Cal. (52054).

WOOD, NELSON R., U. S. National Museum: 2 strawberry finches and a black cock (51794); 2 bird skins, from Washington, D. C. (52917).

WOOD, Mrs. OLIVER ELLSWORTH, Fort Riley, Kans.: Japanese brasses, bronzes, porcelains, and lacquers, numbering 48 specimens (52296: loan).

WOOD, Col. T. N., U. S. Marine Corps, Marine Barracks, Navy Yard, Boston, Mass.: A small piece of crepe taken from the catafalque of President Abraham Lincoln, April 20, 1865 (52308).

WOOLDRIDGE, EDGAR, Lakeport, Cal.: Specimen of volcanic rock from Mt. Konocti, Lake County, Cal.; one of red magnesite, also from Lake County; and a specimen of deposit from the hot springs, Geyser Canyon, Sonoma County, Cal. (52581).

WOOLLEY, CLAUDE L., Baltimore, Md.: Polar sun-dial (52257).

WOOTON, Prof. E. O., Agricultural College, N. Mex.: 5 photographs of *Mirabilis*, and 2 specimens of *Senkenbergia* from New Mexico (51740).

WYOMING, UNIVERSITY OF, Laramie, Wyo.: 443 plants collected in Idaho by J. F. Macbride (52937: exchange).

YALE UNIVERSITY MUSEUM, New Haven, Conn.: 15 cotypes of *Erichsonella attenuata* and 12 cotypes of *Exosphæroma faxoni* (52215).

YELLOWSTONE NATIONAL PARK, Yellowstone Park, Wyo. (through Maj. H. C. Benson, U. S. Army, superintendent): Skins, skulls, and skeletons of large mammals (51827).

YORK, H. H., Baltimore, Md.: 8 plants from New York and Jamaica (51928).

YOTHERS, M. A., Agricultural Experiment Station, Pullman, Wash. (through Bureau of Entomology, U. S. Department of Agriculture): 8 specimens of weevils, *Mimetes* sp., and *Amnesia alternata* (52500).

ZAILISCH, S., Covington, La.: Red-headed skink, *Eumeces fasciatus*, from Covington (52683).

ZIRKLE, T. L., Forestville, Va.: Beetle representing the species *Dynastes tityus* (51878).

ZOOLOGICAL MUSEUM. (See under Christiania, Norway; Copenhagen, Denmark; and Tring, England.)

ZOOLOGISCHE SAMMLUNG DES BAYERISCHEN STAATES. (See under Munich, Germany.)

LIST OF PUBLICATIONS OF THE U. S. NATIONAL MUSEUM ISSUED DURING THE FISCAL YEAR 1910-1911, 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 con- | dition of the U. S. National | Museum for the year | ending June 30, 1910 | (Seal) | Washington | Government Printing Office | 1911

8vo., pp. 1–146.

PROCEEDINGS.

Smithsonian Institution | United States National Museum | — | Proceedings | of the | United States National Museum | — | Volume 37 | — | (Seal) | Washington | Government Printing Office | 1910

8vo., pp. i–xii, 1–697, pls. 1–39, 108 figs., 2 maps.

Smithsonian Institution | United States National Museum | — | Proceedings | of the | United States National Museum | — | Volume 38 | — | (Seal) | Washington | Government Printing Office | 1911

8vo., pp. i–xv, 1–677, pls. 1–56, 147 figs.

BULLETINS.

Smithsonian Institution | United States National Museum | Bulletin 71 | — | A monograph of the Foraminifera | of the North Pacific Ocean | — | Part II. Textulariidæ | — | By | Joseph Augustine Cushman | Of the Boston Society of Natural History | (Seal) | Washington | Government Printing Office | 1911

8vo., pp. i–xiii, 1–108, figs. 1–156.

Smithsonian Institution | United States National Museum | Bulletin 73 | — | An account of the beaked whales of the family | Ziphiidæ in the collection of the United | States National Museum, with re- | marks on some specimens in | other American museums | By | Frederick W. True | Head Curator, Department of Biology, U. S. National Museum | (Seal) | Washington | Government Printing Office | 1910

4to., pp. i–v, 1–89, pls. 1–42.

Smithsonian Institution | United States National Museum | Bulletin 74 | — | On some West Indian Echinoids | By | Theodor Mortensen | Of the Zoological Museum, University of Copenhagen | (Seal) | Washington | Government Printing Office | 1910

4to., pp. i–v, 1–31, pls. 1–17.

Smithsonian Institution | United States National Museum | Bulletin 75 | — | North Pacific Ophiurans in the collec- | tion of the United States | National Museum | By | Hubert Lyman Clark | Museum of Comparative Zoölogy, Cambridge, Mass. | (Seal) | Washington | Government Printing Office | 1911

8vo., pp. i–xvi, 1–302, figs. 1–144.

Smithsonian Institution | United States National Museum | Bulletin 76 | — | Asteroidea of the North Pacific | and adjacent waters | By | Walter Kenrick Fisher | Assistant Professor of Zoology, Stanford University, California | — | Part 1. Phanerozonia and Spinulosa | (Seal) | Washington | Government Printing Office | 1911

4to., pp. i–vi, 1–419, pls. 1–122.

Smithsonian Institution | United States National Museum | — | Contributions | from the | United States National Herbarium | Volume 15 | — | The North American Species | of Panicum | — | By A. S. Hitchcock and Agnes Chase | (Seal) | Washington | Government Printing Office | 1910

8vo., pp. i–xiv, 1–396, figs. 1–370.

PAPERS PUBLISHED IN SEPARATE FORM.

FROM VOLUME 37 OF THE PROCEEDINGS.

No. 1719. The type-species of the North American genera of diptera. By D. W. Coquillett. pp. 499–647.

No. 1720. Description of a new isopod of the genus Notasellus from the east coast of Patagonia. By Harriet Richardson. pp. 649, 650, 1 fig.

No. 1721. The paradise flycatchers of Japan and Korea. By Pierre Louis Jouy. pp. 651–655.

No. 1722. Some new hymenopterous insects from the Philippine Islands. By S. A. Rohwer. pp. 657–660.

No. 1723. Notes on Anteliochimæra and related genera of chimæroid fishes. By Barton A. Bean and Alfred C. Weed. pp. 661–663, pls. 38, 39.

No. 1724. A new ophiuran from the West Indies. By Hubert Lyman Clark. pp. 665, 666, figs. 1, 2.

FROM VOLUME 38 OF THE PROCEEDINGS.

No. 1750. On some ostracoda, mostly new, in the collection of the United States National Museum. By Richard W. Sharpe. pp. 335–341, figs. 1–5.

No. 1751. Descriptions of some new species of monkeys of the genera Pithecus and Pygathrix collected by Dr. W. L. Abbott and presented to the United States National Museum. By D. G. Elliot, pp. 343–352.

No. 1752. Note on the gold-eye, Amphiodon alosoides Rafinesque, or Elattonistius chrysopsis (Richardson). By David Starr Jordan and William Francis Thompson. pp. 353–357, figs. 1, 2.

No. 1753. Studies of the North American geometrid moths of the genus Pero. By John A. Grossbeck. pp. 359–377, pls. 13–16.

No. 1754. Descriptions of new species of ichneumon flies. By H. L. Viereck. pp. 379–384, figs. 1–3.

No. 1755. A new carnivore from China. By Gerrit S. Miller, jr. pp. 385, 386, pl. 17.

No. 1756. Proisocrinus, a new genus of recent crinoids. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907–10.—No. 5.] By Austin Hobart Clark. pp. 387–390, figs. 1–3.

No. 1757. Descriptions of two new genera and sixteen new species of mammals from the Philippine Islands. By Gerrit S. Miller, jr. pp. 391–404, pls. 18–20.

No. 1758. Notes on the marine Copepoda and Cladocera of Woods Hole and adjacent regions, including a synopsis of the genera of the Harpacticoida. By Richard W. Sharpe. pp. 405–436, figs. 1–20.

No. 1759. New arenaceous foraminifera from the Philippines. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907–10.—No. 6.] By Joseph Augustine Cushman. pp. 437–442, figs. 1–19.

No. 1760. The dermaptera (earwigs) of the United States National Museum. By Malcolm Burr. pp. 443–467, figs. 1–8.

No. 1761. On a new Labradorean species of Onchidiopsis, a genus of mollusks new to eastern North America; with remarks on its relationships. By Francis N. Balch. pp. 469–484, pls. 21, 22.

No. 1762. Leidyosuchus sternbergii, a new species of crocodile from the ceratops beds of Wyoming. By Charles W. Gilmore. pp. 485–502, pls. 23–29, figs. 1, 2.

No. 1763. Report on the fishes collected by Mr. Owen Bryant on a trip to Labrador in the summer of 1908. By William Converse Kendall. pp. 503–510, pl. 30.

No. 1764. A review of the venomous toadfishes. By Barton A. Bean and Alfred C. Weed. pp. 511–526, pls. 31–34, figs. 1–8.

No. 1765. New moths of the genus Trichostibas. By August Busck. pp. 527–530, pl. 35.

No. 1766. The stalk-eyed crustacea of Peru and the adjacent coast. By Mary J. Rathbun. pp. 531–620, pls. 36–56, figs. 1–3.

No. 1767. Marine amphipods from Peru. By Alfred O. Walker. pp. 621, 622, 1 fig.

No. 1768. Fresh-water amphipods from Peru. By Ada L. Weckel. pp. 623, 624, 1 fig.

No. 1769. A revision of the fossil plants of the genera Acrostichopteris, Tæniopteris, Nilsonia, and Sapindopsis from the Potomac group. By Edward W. Berry. pp. 625–644.

No. 1770. Description of a new parasitic isopod from the Hawaiian Islands. By Harriet Richardson. pp. 645–647, figs. 1–6.

No. 1771. Fresh-water sponges in the collection of the United States National Museum. —Part IV. Note on the fresh-water sponge, Ephydatia japonica, and its allies. By Nelson Annandale. pp. 649, 650.

FROM VOLUME 39 OF THE PROCEEDINGS.

No. 1772. The annelids of the family Arenicolidæ of North and South America, including an account of Arenicola glacialis Murdoch. By James Hartley Ashworth. pp. 1–32, figs. 1–14.

No. 1773. A new genus and species of lizard from Florida. By Leonhard Stejneger. pp. 33–35, figs. 1–6.

No. 1774. The thorax of the hymenoptera. By Robert Evans Snodgrass. pp. 37–91, pls. 1–16, figs. 1–19.

No. 1775. Terrestrial isopods collected in Costa Rica by J. F. Tristan, with descriptions of a new genus and species. By Harriet Richardson. pp. 93–95, figs. 1–4.

No. 1776. A new scincid lizard from the Philippine Islands. By Leonhard Stejneger. pp. 97, 98.

No. 1777. Japanese sawflies in the collection of the United States National Museum. By S. A. Rohwer. pp. 99–120.

No. 1778. The fishes of the Lake of the Woods and connecting waters. By Barton Warren Evermann and Homer Barker Latimer. pp. 121–136.

No. 1779. Description of a new species of Anilocra from the Atlantic coast of North America. By Harriet Richardson. pp. 137, 138, 1 fig.

No. 1780. A new species of cestode parasite (Tænia balaniceps) of the dog and of the lynx, with a note on Proteocephalus punicus. By Maurice C. Hall. pp. 139–151, figs. 1–9.

No. 1781. The west American mollusks of the genus Alaba. By Paul Bartsch. pp. 153–156, figs. 1–4.

No. 1782. Notes on the structure and habits of the wolffishes. By Theodore Gill. pp. 157–187, pls. 17–28, figs. 1–13.

No. 1783. North American parasitic copepods.—Part 9. The Lernæopodidæ. By Charles Branch Wilson. pp. 189–226, pls. 29–36.

No. 1784. Description of a new rabbit from islands off the coast of Virginia. By Edgar A. Mearns. pp. 227, 228, pls. 37, 38.

No. 1785. Descriptions of new mollusks of the family Vitrinellidæ from the west coast of America. By Paul Bartsch. pp. 229–234, pls. 39, 40.

No. 1786. New South American parasitic hymenoptera. By J. C. Crawford. pp. 235–239, figs. 1–4.

No. 1787. A review of the sciænoid fishes of Japan. By David Starr Jordan and William Francis Thompson. pp. 241–261, figs. 1–4.

No. 1788. North American parasitic copepods belonging to the family Ergasilidæ. By Charles Branch Wilson. pp. 263–400, pls. 41–60, figs. 1–41.

No. 1789. New species of reared ichneumon-flies. By H. L. Viereck. pp. 401–408.

No. 1790. The recent and fossil mollusks of the genus Alabina from the west coast of America. By Paul Bartsch. pp. 409–418, pls. 61, 62.

No. 1791. Sperm transfer in certain decapods. By E. A. Andrews. pp. 419–434, figs. 1–15.

No. 1792. A review of the fishes of the families Lobotidæ and Lutianidæ, found in the waters of Japan. By David Starr Jordan and William Francis Thompson. pp. 435–471, figs. 1–8.

No. 1793. Thalassocrinus, a new genus of stalked crinoids from the East Indies. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907–10.—No. 7.] By Austin Hobart Clark. pp. 473–476.

No. 1794. On some hymenopterous insects from the Island of Formosa. By S. A. Rohwer. pp. 477–485.

No. 1795. On the inorganic constituents of the skeletons of two recent crinoids. By Austin Hobart Clark. pp. 487, 488.

No. 1796. A new labyrinthodont from the Kansas coal measures. By Roy L. Moodie. pp. 489–495, figs. 1–4.

No. 1797. Corynotrypa, a new genus of tubuliporoid bryozoa. By Ray S. Bassler. pp. 497–527, figs. 1–27.

No. 1798. On a collection of unstalked crinoids made by the United States Fisheries steamer "Albatross" in the vicinity of the Philippine Islands. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907–10.—No. 8.] By Austin Hobart Clark. pp. 529–563.

No. 1799. The west American mollusks of the genus Eumeta. By Paul Bartsch. pp. 565–568, figs. 1–3.

No. 1800. Description of a little-known rattlesnake, Crotalus willardi, from Arizona. By Frank A. Hartman. pp. 569, 570, figs. 1–4.

No. 1801. On calamine crystals from Mexico, rutile-mica intergrowth from Canada, and pseudomorphs of marcasite after pyrrhotite from Prussia. By Joseph E. Pogue. pp. 571–579, pls. 63, 64.

No. 1802. The recent and fossil mollusks of the genus Diastoma from the west coast of America. By Paul Bartsch. pp. 581–584, figs. 1–4.

No. 1803. A monograph of the flycatcher genera Hypothymis and Cyanonympha. By Harry C. Oberholser. pp. 585–615.

No. 1804. Descriptions of new hymenoptera. 1. By J. C. Crawford. pp. 617–623, figs. 1–3.

No. 1805. North American parasitic copepods. Descriptions of new genera and species. By Charles Branch Wilson. pp. 625–634, pls. 65–68.

No. 1806. Bees in the collection of the United States National Museum. 1. By T. D. A. Cockerell. pp. 635–658, 1 fig.

No. 1807. Hyalinothrix, a new genus of starfishes from the Hawaiian Islands. By Walter K. Fisher. pp. 659–664, pls. 69–71.

FROM VOLUME 40 OF THE PROCEEDINGS.

No. 1808. The recent crinoids of the coasts of Africa. By Austin Hobart Clark. pp. 1–51.

No. 1809. Mammals collected by Dr. W. L. Abbott on Borneo and some of the small adjacent islands. By Marcus Ward Lyon, jr. pp. 53–146, pls. 1–7, figs. 1, 2.

No. 1810. Notes on the distribution of millipeds in southern Texas, with descriptions of new genera and species from Texas, Arizona, Mexico, and Costa Rica. By O. F. Cook. pp. 147–167.

No. 1811. Descriptions of a new genus and species of isopod crustacean of the family Idotheidæ from the mouth of the Rio de la Plata, Argentina, South America. By Harriet Richardson. pp. 169–171, figs. 1–5.

No. 1812. Descriptions of six new genera and thirty-one new species of ichneumon flies. By H. L. Viereck. pp. 173–196.

No. 1813. Final supplement to the catalogue of the published writings of Charles Abiathar White, 1897–1908. By Timothy W. Stanton. pp. 197–199.

No. 1814. Notes upon two rare flatfishes (Gymnachirus fasciatus Günther and G. nudus Kaup). By W. C. Kendall. pp. 201–203, figs. 1, 2.

No. 1815. Descriptions of tineoid moths (Microlepidoptera) from South America. By August Busck. pp. 205–230, pls. 8, 9.

No. 1816. An electric ray and its young from the west coast of Florida. By Barton A. Bean and Alfred C. Weed. pp. 231, 232, pls. 10, 11.

No. 1817. A new trematode (Styphlodora bascaniensis) with a blind Laurer's canal. By Joseph Goldberger. pp. 233–239, figs. 1–3.

No. 1818. Bees in the collection of the United States National Museum. 2. By T. D. A. Cockerell. pp. 241–264.

No. 1819. The Hoffman Philip Abyssinian ethnological collection. By Walter Hough. pp. 265–276, pls. 12–34.

No. 1820. New species of shells from Bermuda. By William Healey Dall and Paul Bartsch. pp. 277–288, pl. 35.

No. 1821. A revision of several genera of gymnospermous plants from the Potomac group in Maryland and Virginia. By Edward W. Berry. pp. 289–318.

No. 1822. Descriptions of three new fishes of the family Chætodontidæ from the Philippine Islands. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907–10.—No. 9.] By Hugh M. Smith and Lewis Radcliffe. pp. 319–326, figs. 1–3.

No. 1823. The recent and fossil mollusks of the genus Cerithiopsis from the west coast of America. By Paul Bartsch. pp. 327–367, pls. 36–41.

No. 1824. Notes on the genus Lepomis. By Barton A. Bean and Alfred C. Weed. pp. 369–376, pls. 42–50.

No. 1825. Remarks on the long-tailed shrews of the eastern United States, with description of a new species. By N. Hollister. pp. 377–381.

No. 1826. The recent and fossil mollusks of the genus Bittium from the west coast of America. By Paul Bartsch. pp. 383–414, pls. 51–58.

No. 1827. New genera of starfishes from the Philippine Islands. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907–10.—No. 10.] By Walter K. Fisher. pp. 415–427.

No. 1828. Two amphibians, one of them new, from the Carboniferous of Illinois. By Roy L. Moodie. pp. 429–433, figs. 1, 2.

No. 1829. New mollusks of the genus Aclis from the North Atlantic. By Paul Bartsch. pp. 435–438, pl. 59.

No. 1830. Descriptions of new Hymenoptera. 2. By J. C. Crawford. pp. 439–449.

No. 1831. New tropical millipeds of the order Merocheta, with an example of kinetic evolution. By O. F. Cook. pp. 451–473, pl. 60, figs. 1–10.

No. 1832. Descriptions of one new genus and eight new species of ichneumon-flies. By H. L. Viereck. pp. 475–480.

No. 1833. On the supposed origin of the moldavites and like sporadic glasses from various sources. By George P. Merrill. pp. 481–486, pls. 61, 62.

No. 1834. Notes on insects of the order Strepsiptera, with descriptions of new species. By W. Dwight Pierce. pp. 487–511.

No. 1835. The relation of bornite and chalcocite in the copper ores of the Virgilina District of North Carolina and Virginia. By Francis Baker Laney. pp. 513–524, pls. 63–69.

No. 1836. Descriptions of new genera and species of fishes from Japan and the Riu Kiu Islands. By John Otterbein Snyder. pp. 525–549.

No. 1837. Descriptions of new species of wasps with notes on described species. By S. A. Rohwer. pp. 551–587.

No. 1838. Preliminary notices of some new Pacific cephalopods. By S. Stillman Berry. pp. 589–592.

No. 1839. Fresh-water sponges in the collection of the United States National Museum.—Part V. A new genus proposed, with Heteromeyenia radiospiculata Mills as type. By Nelson Annandale. pp. 593, 594.

No. 1840. A revision of the forms of the hairy woodpecker (Dryobates villosus [Linnæus]). By Harry C. Oberholser. pp. 595–621, pl. 70.

No. 1841. Description of a new species of Æga from the Atlantic coast of the United States. By Harriet Richardson. pp. 623, 624, figs. 1–4.

No. 1842. The hothouse milliped as a new genus. By O. F. Cook. pp. 625–631.

No. 1843. Descriptions of a new genus and species of Janiridæ from the northwest Pacific. By Harriet Richardson. pp. 633–635, 1 fig.

No. 1844. A new cestode from an African bustard. By Brayton Howard Ransom. pp. 637–647, figs. 1–7.

No. 1845. The systematic position of the crinoid genus Marsupites. By Austin Hobart Clark. pp. 649–654.

FROM VOLUME 41 OF THE PROCEEDINGS.

No. 1846. The structure and relationships of certain eleutherozoic Pelmatozoa. By Edwin Kirk. pp. 1–137, pls. 1–11.

No. 1847. A revision of the forms of the ladder-backed woodpecker (Dryobates scalaris [Wagler]). By Harry C. Oberholser. pp. 139–159, pl. 12.

No. 1849. A new unstalked crinoid from the Philippine Islands. (Scientific results of the Philippine cruise of the Fisheries steamer Albatross, 1907–10.—No. 11.) By Austin Hobart Clark. pp. 171–173.

No. 1850. The crinoid fauna of the Knobstone formation. By Frank Springer. pp. 175–208.

No. 1851. The Waverlyan period of Tennessee. By Ray S. Bassler. pp. 209–224.

No. 1852. Names applied to bees of the genus Nomada found in North America. By T. D. A. Cockerell. pp. 225–243.

No. 1854. The west American mollusks of the genus Amphithalamus. By Paul Bartsch. pp. 263–265, figs. 1–3.

No. 1855. Descriptions of new hymenoptera. No. 3. By J. C. Crawford. pp. 267–282, figs. 1–6.

FROM VOLUME 13 OF CONTRIBUTIONS FROM THE NATIONAL HERBARIUM.

Part 6. The type localities of plants first described from New Mexico. A bibliography of New Mexican botany. By Paul C. Standley. pp. i–xiv, 143–246, pl. 21 and map.

Part 7. A preliminary treatment of the genus Castilla. By Henry Pittier. pp. i–ix, 247–279, pls. 22–43, figs. 45–54.

Part 8. The genus Talinum in Mexico. By J. N. Rose and Paul C. Standley. pp. i–v, 281–288, pls. 44, 45. Two new species of Harperella. By J. N. Rose. pp. 289, 290.

Part 9. Studies of Mexican and Central American plants—No. 7. By J. N. Rose. pp. i–x, 291–312, pls. 46–67, 1 fig.

Part 10. Miscellaneous papers: The Gyrophoraceae of California. By Albert W. C. T. Herre. pp. 313–321, pls. 68–73. The plant life of Ellis, Great, Little, and Long Lakes in North Carolina. By William H. Brown. pp. 323–341, 1 fig. A revision of the subgenus Cyclobothra of the genus Calochortus. By Joseph H. Painter. pp. 343–350. A revision of the cichoriaceous genera Krigia, Cynthia and Cymbia. By Paul C. Standley. pp. 351–357. New or noteworthy plants from the eastern United States. By Edward S. Steele. pp. 359–374. Two new shrubs from Lower California. By Paul C. Standley and E. A. Goldman. p. 375.

FROM VOLUME 14 OF CONTRIBUTIONS FROM THE NATIONAL HERBARIUM.

Part 2. History of the coconut palm in America. By O. F. Cook. pp. i–xiii, 271–342, pls. 52–66.

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

MUSEUM ADMINISTRATION.

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, 1910 | (Seal) | Washington | Government Printing Office | 1911

8vo., pp. 1–146.

ETHNOLOGY, ARCHEOLOGY, PHYSICAL ANTHROPOLOGY.

HOUGH, WALTER. The Hoffman Philip Abyssinian ethnological collection.

Proc. U. S. Nat. Mus., 40, No. 1819, May 18, 1911, pp. 265–276, pls. 12–34.

A description of a rare Abyssinian collection, the first brought to America. The specimens are particularly interesting, because they conserve features of the ancient art of the Mediterranean culture centers. The collection is arranged by classes of objects and is illustrated completely.

HRDLIČKA, ALEŠ. Report on skeletal material from Missouri mounds, collected in 1906–7 by Mr. Gerard Fowke.

Bull. 37, *Bur. Am. Eth.*, 1910, pp. 103–112, 1 fig.

The paper gives a description of the skeletal material collected by Mr. Gerard Fowke during his excavations in central and southeastern Missouri.

The material, while in bad condition of preservation, gives some valuable data and shows a number of interesting anomalies.

——— Contribution to the anthropology of Central and Smith Sound Eskimo.

Anthropological Papers, Amer. Mus. Nat. Hist., V, Part II, 1910, pp. 177–280, pls. IX–XXIII.

The paper is based on the examination of a series of crania from Southampton Island and the neighboring regions; and on a number of living individuals with a series of skeletons from Smith Sound. The study brought out numerous interesting conditions and a number of especially important points of morphological significance.

The Central, and at least some of the Smith Sound Eskimos, are shown to differ in a number of characteristics, but especially in their relatively broader head, from those of Labrador and the more southern portions of Greenland. Pronounced modifications in the size and shape of the facial parts and also the shape of the cranial vault become evident as the results of great development of the temporal and masseter muscles, which in turn are due to the great amount of work the jaws are called upon to perform in mastication, etc. There is a total absence of caries of the teeth. The teeth themselves are strong and perceptibly larger than in whites.

A study of a number of skeletons of individuals who were also examined or measured when living resulted in a number of valuable data, one of which is that the proportions of the different long bones to the length of the body are different in the Eskimo from what they are in the whites. The long bones show but little tendency toward flatness. The humeri are relatively shorter than they are in whites, as the result of which the arms, as a whole, are shorter. The scapulæ present a characteristic and hitherto undescribed form.

[1] In a few instances papers which were published prior to this fiscal year are included, having been omitted inadvertently from previous Reports.

HRDLIČKA, ALEŠ. Some results of recent anthropological explorations in Peru.

Smithsonian Misc. Colls., 56, No. 16, 1911, pp. 1–16, pls. 1–4.

This paper gives the local observations made on the collecting grounds in Peru, with general observations, anthropological and medical, on the skeletal material. It includes some archeological notes, with illustrations of some highly interesting objects; and a bibliography of the physical anthropology of Peru.

HISTORY.

CASANOWICZ, I. Die Smithsonische Stiftung und das National Museum in Washington, D. C.

Kalender für Deutsche Presbyterische Gemeinden, 1911, pp. 52–58, with 2 plates.

Contains a description of the origin, development, and activities of the Smithsonian Institution, the National Museum, and the other branches of the Smithsonian Institution.

MAMMALS.

ANDREWS, ROY C. A new porpoise from Japan.

Bull. Amer. Mus. Nat. Hist., 30, Art. 4, May 16, 1911, pp. 31–51.

Describes *Phocœnoides truei*, new genus and new species, in American Museum of Natural History. United States National Museum material examined in preparation of paper.

CARY, MERRITT. A new pocket mouse from Wyoming.

Proc. Biol. Soc. Washington, 24, March 22, 1911, p. 61.

Describes *Perognathus fasciatus litus.*

ELLIOTT, D. G. Descriptions of some new species of monkeys of the genera Pithecus and Pygathrix collected by Dr. W. L. Abbott and presented to the United States National Museum.

Proc. U. S. Nat. Mus., 38, No. 1751, Aug. 6, 1910, pp. 343–352.

Describes *Pithecus lapsus, P. agnatus, P. lingungensis, P. lautensis, P. sirhassenensis, P. vitiis, P. carimatæ, P. mandibularis, P. baweanus, P. cupidus, P. lingæ, P. impudens, P. capitalis, Pygathrix ultima, P. flavicauda, P. sanctorum.*

GOLDMAN, E. A. Revision of the wood rats of the genus Neotoma.

North Amer. Fauna, No. 31, Oct. 19, 1910, pp. 1–124, pls. 1–8, figs. 1–14.

A detailed revision of the wood-rats of North America, based primarily on material in United States National Museum, including Department of Agriculture collection. Describes *Homodontomys*, p. 86.

HELLER, EDMUND. Descriptions of seven new species of East African mammals.

Smithsonian Misc. Colls., 56, No. 9, July 22, 1910, pp. 1–5, pls. 1–3.

Describes *Tatera varia, T. pothæ, Epimys panya, E. niveiventris ulæ, E. endorobæ, Tachyoryctes rex, Crocidura alpina.*

——— New species of insectivores from British East Africa, Uganda, and the Sudan.

Smithsonian Misc. Colls., 56, No. 15, Dec. 23, 1910, pp. 1–8, 1 pl.

Describes *Erinaceus sotikæ, Crocidura sururæ, C. mutesæ, C. nilotica, C. maanjæ, C. lutrella, C. planiceps, C. littoralis, Heliosorex, Heliosorex roosevelti, Sylvisorex gemmeus, Elephantulus phœus.*

——— New species of rodents and carnivores from Equatorial Africa.

Smithsonian Misc. Colls., 56, No. 17, Feb. 28, 1911, pp. 1–16.

Describes *Heliosciurus multicolor madogæ, Paraxerus kahari, Graphiurus personatus, Dendromus spectabilis, D. lineatus, Mus musculoides emesi, Mus wamæ, Mus tenellus acholi, Mus gratus sun-*

HELLER, EDMUND—Continued.

garœ, Mus bellus gondokorœ, Mus bellus enclavœ, Arvicanthis pulchellus micropus, A. jebelæ, Lophuromys pyrrhus, L. nudicaudus, Uranomys ugandæ, Acomys hystrella, Dasymys orthos, Dasymys savannus, Mungos sanguineus orestes, Crossarchus fasciatus colonus.

HOLLISTER, N. Notes on some names of lions.

Proc. Biol. Soc. Washington, 23, Sept. 2, 1910, p. 123.

Discusses the nomenclature of 4 forms of lions and fixes their proper specific names.

——— A new muskrat from the Great Plains.

Proc. Biol. Soc. Washington, 23, Sept. 2, 1910, pp. 125, 126.

Describes *Fiber zibethicus cinnamominus* from Kansas.

——— Two new African ratels.

Smithsonian Misc. Colls., 56, No. 13, Oct. 10, 1910, pp. 1–3.

Describes *Mellivora abyssinica* and *M. sagulata,* new species of African ratels.

——— A new musk deer from Korea.

Proc. Biol. Soc. Washington, 24, Jan. 28, 1911, pp. 1, 2.

Describes a new musk deer, collected by Dr. William Lord Smith in Korea, as *Moschus parvipes.*

——— The generic name of the muskrat.

Proc. Biol. Soc. Washington, 24, Jan. 28, 1911, pp. 13, 14.

Fixes type of *Ondatra* Link. *Fiber* considered the proper generic name for the muskrat.

——— The type locality of *Mellivora abyssinica.*

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, pp. 37–40.

Additional information regarding the exact locality where the type specimen was killed.

——— Remarks on the long-tailed shrews of the Eastern United States, with description of a new species.

Proc. U. S. Nat. Mus., 40, No. 1825, April 17, 1911, pp. 377–381.

Revision of the shrews of the Eastern States; describes *Sorex fontinalis* from Maryland.

HOLLISTER, N. A systematic synopsis of the muskrats.

North Amer. Fauna, No. 32, April 29, 1911, pp. 1–47, pls. I–VI.

A revision of the muskrats, recent and fossil. Describes 2 Pleistocene species from the Western United States, *Fiber oregonus* and *F. nebrascensis.*

——— Two new species of *Epimys* from Luzon.

Proc. Biol. Soc. Washington, 24, May 15, 1911, pp. 89, 90.

Describes 2 new rats collected in the Philippines by Dr. E. A. Mearns, *Epimys calcis* and *E. querceti.*

——— The Louisiana puma.

Proc. Biol. Soc. Washington, 24, June 16, 1911, pp. 175–178.

Describes *Felis arundivaga* from Louisiana.

——— The generic name of the African buffalo.

Proc. Biol. Soc. Washington, 24, June 23, 1911, pp. 191–194.

Shows the generic distinction of the Asiatic and African buffaloes and revives the name *Syncerus* for the latter, giving a list of species with type localities.

——— Description of a new Philippine flying-squirrel.

Proc. Biol. Soc. Washington, 24, June 23, 1911, pp. 185, 186.

Describes *Sciuropterus crinitus* from Basilan Island. The type is in the collection of the Philippine Bureau of Science.

LYON, MARCUS WARD, jr. Mammals collected by Dr. W. L. Abbott on Borneo and some of the small adjacent islands.

Proc. U. S. Nat. Mus., 40, No. 1809, April 25, 1911, pp. 53–146, pls. 1–7, figs. 1, 2.

Describes *Tragulus sebucus, Muntiacus rubidus, Iomys lepidus, Sciurus armalis, S. pelapius, S. lamucotanus, S. datus, S. siriensis, S. arendsis, S. poliopus, S. marinsularis, Ratufa cothurnata, R. griseicollis, R. vittata, R. vittatula, Epimys neglectus ducis, E. neglectus lamucotanus, E. sebucus, E. crassus, E. nasutus, E. per-*

LYON, MARCUS WARD, jr.—Continued.

flavus, E. saturatus, E. ubecus, E. spatulatus, Galeopterus borneanus, G. lautensis, G. abbotti, Hipposideros insolens, Emballonura pusilla, Kerivoula bombifrons, Pygathrix rubicunda rubida, Hylobates mülleri albibarbis.

——— *Sciurus poliopus* Lyon changed to *Sciurus conipus.*

Proc. Biol. Soc. Washington, 24, May 15, 1911, p. 98.

New name *Sciurus conipus* proposed for the preoccupied *Sciurus poliopus* Lyon.

——— Descriptions of four new tree-shrews.

Proc. Biol. Soc. Washington, 24, June 16, 1911, pp. 167–170.

Describes *Tupaia raviana, T. pemangilis, T. natunæ, T. sincepis.*

MEARNS, EDGAR A. Description of a new rabbit from islands off the coast of Virginia.

Proc. U. S. Nat. Mus., 39, No. 1784, Jan. 9, 1911, pp. 227, 228.

Describes *Sylvilagus floridanus hitchensi.*

——— New names for two subspecies of Peromyscus maniculatus (Wagner).

Proc. Biol. Soc. Washington, 24, May 15, 1911, pp. 101, 102.

Proposes the new names *Peromyscus maniculatus borealis,* and *Peromyscus maniculatus osgoodi* for the preoccupied *Peromyscus maniculatus arcticus* (Mearns) and *Peromyscus maniculatus nebracensis* (Mearns), respectively.

MERRIAM, C. HART. Ursus sheldoni, a new bear from Montague Island, Alaska.

Proc. Biol. Soc. Washington, 23, Sept. 2, 1910, pp. 127–130.

Describes *Ursus sheldoni,* based on material in Biological Survey collection.

MILLER, GERRIT S., jr. A new carnivore from China.

Proc. U. S. Nat. Mus., 38, No. 1755, Aug. 19, 1910, pp. 385, 386, 1 pl.

Describes *Vormela negans* from the Ordos Desert, Shansi, China.

MILLER, GERRIT S., jr. Descriptions of two new genera and sixteen new species of mammals from the Philippine Islands.

Proc. U. S. Nat. Mus., 38, No. 1757, Aug. 19, 1910, pp. 391–404, pls. 18–20.

Describes *Crocidura halconus, C. beatus, C. mindorus, C. grandis, Tupaia cuyonis, Pteropus pumilus, Chilophylla* new genus (*Hipposideridæ*); *Chilophylla hirsuta, Taphozous pluto, Epimys tyrannus, E. gala, Tryphomys,* new genus (*Muridæ*). *Tryphomys adustus, Batomys dentatus, Apomys bardus, A. major, A. musculus, Tarsius fraterculus.*

——— Descriptions of six new European mammals.

Ann. Mag. Nat. Hist., 8th series, VI, Nov. 1910, pp. 458–461.

Describes *Sorex araneus granarius, Pitymys atticus, Apodemus sylvaticus creticus, Capreolus capreolus canus* in British Museum, *Dyromys robustus* in collection of Knud Andersen, and *Microtus dentatus* in the Madrid Museum.

——— Descriptions of two new raccoons.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, p. 38.

Describes *Procyon pumilus* and *P. minor,* 2 species not hitherto described.

——— Descriptions of six new mammals from the Malay Archipelago.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, pp. 25–28.

Describes *Pipistrellus curtatus, Epimys mœrens, E. barussanus, E. mengurus, E. batus* and *Ratufa bicolor major.*

——— Note on the Mus comissarius of Mearns.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, p. 38.

Shows that the only house mouse yet known from the Philippines is identical with the Japanese species.

——— New names for two European voles.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, p. 39.

The preoccupied names *Pitymys ibericus fuscus* Miller and *P. selysii* (Gerbe) replaced by *Pitymys ibericus pascuus* and *P. druentius,* respectively.

MILLER, GERRIT S., jr. Four new Chinese mammals.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, pp. 53–56.

Describes *Eptesicus serotinus pallens, Microtus pullus, Allactaga mongolica longior, Ochotona annectens*, collected by Arthur de C. Sowerby in the Provinces of Kansu and Shansi, northwest China.

——— A new bat from the Caroline Islands.

Proc. Biol. Soc. Washington, 24, June 16, 1911, pp. 161, 162.

Describes *Emballonura sulcata*.

——— A new mouse-deer from the Rhio-Linga Archipelago.

Proc. Biol. Soc. Washington, 24, June 16, 1911, pp. 165, 166.

Describes *Tragulus pretiellus parallelus*.

ROOSEVELT, THEODORE. African game trails. Charles Scribner's Sons, New York, 1910.

Describes *Crocidura alchemillæ*, based on material in the U. S. National Museum. (Appendix B, p. 480.)

THOMAS, OLDFIELD. Notes on African rodents.

Ann. Mag. Nat. Hist., 8th series, VI, Aug. 1910, pp. 221–224.

THOMAS, OLDFIELD—Continued.

Specimens of *Lophiomys* in the U. S. National Museum were examined during the preparation of this paper.

TRUE, FREDERICK W. An account of the beaked whales of the family Ziphiidæ in the collection of the United States National Museum, with remarks on some specimens in other American museums.

Bull. U. S. Nat. Mus., 73, Sept. 28, 1910, pp. i–vi, 1–89, pls. 1–42.

This memoir is practically a monograph of the Ziphioid whales known to occur in the waters of the United States, no less than 7 species, belonging to 4 genera, occurring here. Five species are found on the Atlantic coast and 3 (including 1 of the Atlantic species) on the Pacific coast of the United States. The National Museum is comparatively rich in material belonging to this group of rare whales, no less than 8 specimens out of 14 known to have been taken in North American waters being preserved here. Of the 3 rare genera, *Mesoplodon, Ziphius*, and *Berardius*, the National Museum possesses about one-fourth of the material at present available in all the museums of the world.

BIRDS.

[AMER. ORNITHOLOGISTS' UNION COMMITTEE ON NOMENCLATURE.] Check-list of North American Birds, prepared by a committee of the American Ornithologists' Union, third edition (revised). Zoölogical nomenclature is a means, not an end, of Zoölogical Science. New York, American Ornithologists' Union, 1910.

8vo., pp. 1–430; 2 maps.

A list of the 1,200 forms (804 species and 396 subspecies) recognized by the American Ornithologists' Union Committee, giving the reference to the original description, type locality, and range of each. A hypothetical list of 20 species and a list of 72 fossil species are added. A map showing the life zones of North America, and another indicating the localities mentioned in the Check-list accompany the volume.

BANGS, OUTRAM. Two new woodpeckers from the Isle of Pines, West Indies.

Proc. Biol. Soc. Washington, 23, Dec. 29, 1910, pp. 173, 174.

Describes *Centurus superciliaris murceus* (p. 173) and *Xiphidiopicus percussus insulæ-pinorum* (p. 173) as new.

——— A new bell-bird from Auckland Island.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, pp. 23, 24.

Anthornis incoronata is described as new.

——— A new fantail from the Chatham Islands.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, p. 41.

Rhipidura flabillifera penitus is described as a new subspecies.

BANGS, OUTRAM. Descriptions of new American birds.

Proc. Biol. Soc. Washington, 24, June 23, 1911, pp. 187–190.

The following are described as new: *Rupornis magnirostris occidua, Penelope perspicax, Antrostomus rufus otiosus, Thamnophilus doliatus catus, Pyrocephalus rubineus blatteus,* and *Leistes superciliaris petilus.*

BARBOUR, T. Notes on some birds from the island of Grenada.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, pp. 57–59.

Hybris nigrescens noctividus and *Planesticus nigrirostris personus* are new subspecies, and *Blacicus flaviventris* Lawrence is found to belong to the genus *Empidonax*. As there is an earlier *E. flaviventris*, it is renamed *E. johnstonei*.

BREWSTER, WILLIAM. Concerning the nuptial plumes worn by certain bitterns and the manner in which they are displayed.

Auk, 28, No. 1, Jan., 1911, pp. 90–100.

An account of the manner of displaying the whitish nuptial plumes or "ruffs" in the bittern, with notes on the presence of these plumes in some other species of the genus *Botaurus*.

CARRIKER, M. A., jr. An annotated list of the birds of Costa Rica, including Cocos Island.

Annals Carnegie Mus., 6, Nos. 2–4, Aug. 29, 1910, pp. 314–915, 1 map.

A comprehensive list of the birds of Costa Rica, 753 in number, including full synonymies, statement of material examined (and not previously reported upon), and notes on distribution, habits, etc. The systematic list is preceded by several chapters upon "geography and physiography," "life-zones," "bibliography of titles referred to in the present list," and other pertinent data.

The following forms are described as new: *Crypturus soui panamensis* (p. 379), *Columba flavirostris minima* (p. 392), *C. nigrirostris brunneicauda* (p. 395), *Chæmepelia passerina neglecta* (p. 398), *Selasphorus simoni* (p. 550), *Dendrocincla anabatina saturata* (p. 649), *Campylorhamphus pusillus borealis* (p. 657), and *Corapipo altera albibarbis* (p. 679). *Dicrorhynchus* (p. 571) is a new genus of Capitonidæ.

CARRIKER, M. A., jr.—Continued.

COOKE, WELLS W. The type locality of Vireo belli.

Auk, 27, No. 3, July, 1910, pp. 342, 343.

From an examination of published journals of Audubon, the writer decides the type locality of this species to be St. Joseph, Mo.

——— Distribution and migration of North American shore-birds.

U. S. Dept. Agric., Biological Survey, Bull. No. 35, Oct. 6, 1910, pp. 1–100, pls. 1–4.

A detailed account of the distribution and migrations of the 85 recognized forms of North American shore-birds. The breeding range, winter range, migration range, and dates of spring and fall migration of each species are separately discussed.

EATON, ELON HOWARD. New York State Education Department | — | New York State Museum | John M. Clarke, Director | Memoir 12 | Birds of New York | by | Elon Howard Eaton | Part 1 | Introductory Chapters; Water Birds and Game Birds | [8 lines contents, double column] | Albany | University of the State of New York | 1910

4to., pp. 1–501 + 78 unpaged schedules; pls. 1–42; many text figs.; 1 map.

An elaborate work on the birds of New York, the present volume covering the water birds, to and including the game birds. The contents of the volume are grouped in the following categories: Summary of the New York State avifauna, Life Zones of New York State, the Mt. Marcy region, increase and decrease of species, suggestions to bird students, bird migration, spring arrivals, published local lists, county schedules, classification, descriptions of genera and species, and explanation of plates.

FAXON, WALTER. Brewster's warbler.

Memoirs Mus. Comp. Zoöl., 40, No. 2, Jan., 1911, pp. 57–78; 1 pl.

An account of observations made by the author, tending to prove

FAXON, WALTER—Continued.
this form a hybrid. The various published records on the subject are discussed and the results tested by Mendel's law.

FERRY, JOHN FARWELL. Catalogue of a collection of birds from Costa Rica.
Field Mus. Nat. Hist., Pub. 146, Ornith. Ser., 1, No. 6, Sept., 1910, pp. 257–282.
An annotated list of 74 species collected by the author in eastern Costa Rica.

HELLMAYR, C. E. The birds of the Rio Madeira.
Novit. Zool., 17, No. 3, Dec. 15, 1910, pp. 257–428.
A carefully prepared catalogue of the birds of the Rio Madeira region, Brazil, based chiefly upon the early collections of Natterer, and the recent explorations of W. Hoffmanns. 463 species and subspecies are enumerated, with pertinent comment on most of them, followed by lists of the species peculiar to the Madeira Valley and several neighboring districts.
The following are described as new: *Tachyphonus cristatus madeiræ* (p. 277), *Pipra aurcola calamæ* (p. 303), *Hypocnemis myotherina sororia* (p. 358), and *Grallaria macularia diluta* (p. 370).

JOUY, PIERRE LOUIS. The paradise flycatchers of Japan and Korea.
Proc. U. S. Nat. Mus., 37, No. 1721, Aug. 4, 1910, pp. 651–655.
Terpsiphone atrocaudata (Eyton) is the name adopted for the species of southern Japan and Korea. The form inhabiting Hondo, Japan, and Amoy and Hongkong, China, is described as new under the name *T. owstoni*. The introduction, and a footnote on p. 652 pertaining to the use of the generic name *Terpsiphone*, are by Dr. Stejneger.

KLOSS, C. BODEN. On mammals and birds from Trengganu.
Journ. Fed. Malay States Museums, 4, No. 2, April, 1911, pp. 135–143.
An annotated list of 79 species, based chiefly upon a collection made by Dr. W. L. Abbott and the writer in September and October, 1900.

MEARNS, EDGAR A. Descriptions of ten new African birds.
Smithsonian Misc. Colls., 56, No. 14, Dec. 23, 1910, pp. 1–7.
Francolinus schuetti maranensis, F. s. kapitensis, F. s. keniensis, Nectarinia johnstoni idius, Cinnyris mediocris keniensis, Cyanomitra changamwensis, Anthreptes collaris elachior, Pseudonigrita arnaudi kapitensis, Lagonosticta incerta and *Sporopipes frontalis abyssinicus* are described as new, chiefly from material collected by the Smithsonian African Expedition.

——— Descriptions of fifteen new African birds.
Smithsonian Misc. Colls., 56, No. 20, April 17, 1911, pp. 1–11.
The following are diagnosed as new: *Pternistes leucoscepus keniensis, P. l. kilimensis, Francolinus grisescens, F. grantii delutescens, F. schuetti zappeyi, Ptilopachus fuscus keniensis, Turnix sylvatica alleni, Xanthophilus bojeri alleni, Urœginthus bengalus brunneigularis, Pycnonotus layardi fayi, P. l. peasei, P. l. phœocephalus, Pogonocichla cucullata keniensis, Eminia lepidus hypochlorus*, and *Sylvietta whytii loringi*. The types of 11 of the above are in the U. S. National Museum.

OBERHOLSER, HARRY C. A monograph of the flycatcher genera Hypothymis and Cyanonympha.
Proc. U. S. Nat. Mus., 39, No. 1803, Feb. 25, 1911, pp. 585–615.
This paper is based on a series of 205 skins, of which 180 are in the U. S. National Museum. *Hypothymis superciliaris* is made the type of a new genus, *Cyanonympha*. *Hypothymis* proper is divided into 3 species, *H. rowleyi, H. abbotti*, and *H. azurea*, the last with 17 subspecies, of which the following are characterized as new: *H. azurea prophata, H. a. gigantoptera, H. a. forrestia, H. a. opisthocyanea, H. a. idiochroa, H. a. ponera, H. a. isocara, H. a. leucophila, H. a. amelis, H. a. calocara*, and *H. a. richmondi*.

——— A revision of the forms of the hairy woodpecker (Dryobates villosus [Linnæus]).
Proc. U. S. Nat. Mus., 40, No. 1840, June 3, 1911, pp. 595–621, pl. 70.

OBERHOLSER, HARRY C.—Continued.

Based on a series of 1,070 specimens, representing all of the known forms, of which 20 are here recognized. New subspecies are described as follows: *Dryobates villosus leucothorectis, D. v. orius, D. v. icastus, D. v. enissomenus, D. v. hylobatus,* and *D. v. fumeus.* A map (plate 70) showing the ranges of the various forms accompanies the paper.

——— A revision of the forms of the ladder-backed woodpecker (Dryobates scalaris [Wagler]).

Proc. U. S. Nat. Mus., 41, No. 1847, June 30, 1911, pp. 139–159, pl. 12.

A revision based on a series of over 500 specimens. The author recognizes 15 subspecies of the ladder-backed woodpecker, of which the following are described as new: *Dryobates scalaris ridgwayi, D. s. percus, D. s. leucoptilurus, D. s. azelus, D. s. agnus, D. s. eremicus, D. s. cactophilus, D. s. symplectus,* and *D. s. centrophilus.* A map (plate 12) accompanying the paper gives the geographical range of each form.

PHILLIPS, JOHN C. A year's collecting in the state of Tamaulipas, Mexico.

Auk, 28, No. 1, Jan., 1911, pp. 67–89.

A list of 260 species and subspecies obtained in Tamaulipas, with the dates when they were collected. Pertinent notes are added in many cases. The new forms are: *Strix virgata tamaulipensis* (p. 76), *Heleodytes narinosus* (p. 81), and *Dendroica æstiva ineditus* (p. 85).

RIDGWAY, ROBERT. Diagnoses of some new forms of Picidæ.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, pp. 31–35.

Colaptes auratus borealis, C. chrysoides mearnsi, Centurus chrysogenys flavinuchus, C. uropygialis brewsteri, Chloronerpes rubiginosus trinitatis, C. r. tobagensis, C. r. meridensis, Veniliornis kirkii darienensis, Phlœotomus pileatus floridanus, Scapaneus guatemalensis nelsoni, and *Picumnus olivaceus panamensis* are described as new subspecies. *Balanosphyra* is a new genus, with *Picus formicivorus* Swainson as type.

RILEY, J. H. Description of a new Dryonastes from China.

Proc. Biol. Soc. Washington, 24, Feb. 24, 1911, pp. 43, 44.

Dryonastes perspicillatus shensiensis is described as a new subspecies.

ROTHSCHILD, WALTER. On recently described Paradiseidæ, with notes on some other new species.

Ibis, 9th series, 5, No. 18, April, 1911, pp. 350–367, pls. 5, 6.

The data here given are chiefly supplemental to those given in the author's account of the family (Tierreich, Lief. 2) published in 1898. The number of species recognized is 66, with 42 additional subspecies, a total of 108 forms. The eggs of 33 forms have been described to date.

SWARTH, HARRY S. Birds and mammals of the 1909 Alexander Alaska Expedition.

Univ. Cal. Pub. Zool., 7, No. 2, Jan. 12, 1911, pp. 9–172, pls. 1–6, figs. 1–3.

The report on birds, occupying pages 26–112 of this paper, includes an account of 137 species and subspecies observed, of which 106 were actually collected by the expedition. The region covered was from Juneau south to Cape Chacon and return, collections being made at 16 islands and 6 points on the mainland.

Copious notes on distribution, habits, plumages, etc., are given under most of the species.

TODD, W. E. CLYDE. Two new woodpeckers from Central America.

Proc. Biol. Soc. Washington, 23, Dec. 6, 1910, pp. 153–155.

Melanerpes formicivorus albeolus and *M. pucherani perileucus* are described as new.

——— The Bahaman species of Geothlypis.

Auk, 28, No. 2, April, 1911, pp. 237–253.

The author discusses in detail the status and relationships of the Bahaman forms of the *Geothlypis rostrata* group, of which he recognizes 3 as valid: *G. rostrata rostrata, G. r. tanneri,* and *G. r. coryi.* Tables of measurements and full synonymies of each form are added.

REPTILES AND BATRACHIANS.

STEJNEGER, LEONHARD. A new genus and species of lizard from Florida.

Proc. U. S. Nat. Mus., 39, No. 1773, Sept. 23, 1910, pp. 33–35, figs. 1–6.

Describes as a new genus and species: *Neoseps reynoldsi*, type, Cat. No. 42147, U. S. National Museum.

The discovery in central Florida of this remarkable skink with greatly reduced limbs is one of the most noteworthy herpetological events of recent years, the most startling feature being that the species is not related to any of our North American scincids, but to a group of degenerate forms extending from the Mediterranean to Persia.

STEJNEGER, LEONHARD—Continued.

——— A new scincid lizard from the Philippine Islands.

Proc. U. S. Nat. Mus., 39, No. 1776, Oct. 25, 1910, pp. 97, 98.

Describes as a new species, *Tropidophorus partelloi*, type, Cat. No. 39308, U. S. National Museum.

This species is noteworthy for its extremely spiny tail.

FISHES.

BEAN, BARTON A., and ALFRED C. WEED. Notes on the Anteliochimæra and related genera of chimæroid fishes.

Proc. U. S. Nat. Mus., 37, No. 1723, Aug. 4, 1910, pp. 661–663, pls. 38, 39.

——— ——— A review of the venomous toadfishes.

Proc. U. S. Nat. Mus., 38, No. 1764, Oct. 15, 1910, pp. 511–526, pls. 31–34, figs. 1–8.

——— ——— An electric ray and its young from the west coast of Florida.

Proc. U. S. Nat. Mus., 40, No. 1816, April 13, 1911, pp. 231, 232, pls. 10, 11.

——— ——— Notes on the genus Lepomis.

Proc. U. S. Nat. Mus., 40, No. 1824, May 6, 1911, pp. 369–376, pls. 42–50.

——— ——— Notes on the coloration of fishes.

Proc. Biol. Soc. Washington, XXIV, March 22, 1911, pp. 69–76.

——— ——— Recent additions to the fish fauna of the District of Columbia.

Proc. Biol. Soc. Washington, XXIV, June 16, 1911, pp. 171–174.

EVERMANN, BARTON W., and HOMER B. LATIMER. The fishes of the Lake of the Woods and connecting waters.

Proc. U. S. Nat. Mus., 39, No. 1778, Oct. 25, 1910, pp. 121–136.

GILL, THEODORE. Notes on the structure and habits of the wolffishes.

Proc. U. S. Nat. Mus., 39, No. 1782, Jan. 9, 1911, pp. 157–187, pls. 17–28, figs. 1–13.

JORDAN, DAVID STARR, and WILLIAM F. THOMPSON. Note on the gold-eye, Amphiodon alosoides Rafinesque, or Elattonistius chrysopsis (Richardson).

Proc. U. S. Nat. Mus., 38, No. 1752, Aug. 6, 1910, pp. 353–357, figs. 1, 2.

——— ——— A review of the Sciænoid fishes of Japan.

Proc. U. S. Nat. Mus., 39, No. 1787, Jan. 30, 1911, pp. 241–261, figs. 1–4.

——— ——— A review of the fishes of the families Lobotidæ and Lutianidæ, found in the waters of Japan.

Proc. U. S. Nat. Mus., 39, No. 1792, Jan. 30, 1911, pp. 435–471, figs. 1–8.

KENDALL, WILLIAM C. Report on the fishes collected by Mr. Owen Bryant on a trip to Labrador in the summer of 1908.

Proc. U. S. Nat. Mus., 38, No. 1763, Oct. 15, 1910, pp. 503–510, 1 pl.

——— Notes upon two rare flatfishes (Gymnachirus fasciatus Günther and G. nudus Kaup).

Proc. U. S. Nat. Mus., 40, No. 1814, Apr. 10, 1911, pp. 201–203, figs. 1, 2.

LATIMER, HOMER B. (See under Barton W. Evermann.)

RADCLIFFE, LEWIS. (See under Hugh M. Smith.)

SEAL, WILLIAM P. Breeding habits of the viviparous fishes Gambusia holbrookii and Heterandria formosa.

Proc. Biol. Soc. Washington, XXIV, May 15, 1911, pp. 91–96, 1 pl.

SMITH, HUGH M., and LEWIS RADCLIFFE. Descriptions of three new fishes of the family Chætodontidæ from the Philippine Islands. [Scientific results of the Philippine cruise of the Fisheries steamer "Albatross," 1907–10.—No. 9.]

SMITH, HUGH M., and LEWIS RADCLIFFE—Continued.

Proc. U. S. Nat. Mus., 40, No. 1822, Apr. 17, 1911, pp. 319–326, figs. 1–3.

SNYDER, JOHN O. Descriptions of new genera and species of fishes from Japan and the Riu Kiu Islands.

Proc. U. S. Nat. Mus., 40, No. 1836, May 26, 1911, pp. 525–549.

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

WEED, ALFRED C. (See under Barton A. Bean.)

ASCIDIANS.

VAN NAME, WILLARD G. Compound ascidians of the coasts of New England and neighboring British provinces.

Proc. Boston Soc. Nat. Hist., 34, No. 11, Sept., 1910, pp. 339–424, pls. 34–39, figs. 1–25.

VAN NAME, WILLARD G.—Continued.

Based on material at the Peabody Museum of Yale University, including the collections obtained by the U. S. Fish Commission up to 1887, and since removed to the U. S. National Museum.

Discusses the distribution and describes and figures each species.

MOLLUSKS.

BARTSCH, PAUL. The West American mollusks of the genus Alaba.

Proc. U. S. Nat. Mus., 39, No. 1781, Oct. 25, 1910, pp. 153–156, figs. 1–4.

In this paper *Alaba jeannettæ* n. sp., and *Alaba supralirata* Carpenter, are described and figured.

——— Zoology.

Appleton's New Practical Encyclopedia, New York, vol. 6, 1910.

——— Descriptions of new mollusks of the family Vitrinellidæ from the west coast of America.

Proc. U. S. Nat. Mus., 39, No. 1785, Jan. 9, 1911, pp. 229–234, pls. 39, 40.

In this paper the following new species are described and figured: *Cyclostrema baldridgei, mirandi, adamsi; Circulus liriope* and *diomedeæ* and *Cyclostremella dalli.*

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

Proc. U. S. Nat. Mus., 39, No. 1790, Jan. 13, 1911, pp. 409–418, pls. 61, 62.

This paper is a monograph of the genus Alabina, in which all the

BARTSCH, PAUL—Continued.

species known from the west coast are described and figured. The following are new: *Alabina barbarensis, hamlini, phanea, diomedeæ, ignati, monicensis, tenuisculpta diegensis,* and *tenuisculpta phalacra.*

——— The west American mollusks of the genus Eumeta.

Proc. U. S. Nat. Mus., 39, No. 1799, Feb. 15, 1911, pp. 565–568, figs. 1–3.

In this paper *Eumeta intercalaris* Carpenter, *bimarginata* C. B. Adams, and *eucosmia,* the latter a new species, are described and figured.

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

Proc. U. S. Nat. Mus., 39, No. 1802, Feb. 15, 1911, pp. 581–584, figs. 1–4.

This paper is a monograph of the members of this genus, occurring on the west coast of America, all of the known species being described and figured. The following are new: *Diastoma chryssaloidea, oldroydæ,* and *stearnsi.*

BARTSCH, PAUL. The recent and fossil mollusks of the genus Cerithiopsis from the west coast of America.

Proc. U. S. Nat. Mus., 40, No. 1823, May 8, 1911, pp. 327–367, pls. 36–41.

This is a monograph of the west American members of this genus, containing descriptions of the new subgenera *Cerithiopsina, Cerithiopsida* and *Cerithiopsidella.* The following species are described as new: *Cerithiopsis (Cerithiopsis) fatua, oxys, carpenteri, abreojosensis, berryi, galapagensis, cesta, stejnegeri dina, halia, aurea; C. (Cerithiopsina) necropolitana, adamsi; C. (Cerithiopsida) diegensis, rowelli; C. (Cerithiopsidella) antefilosa, alcima; Cerithiopsis curtata, fossilis, gloriosa, paramoea, bicolor, arnoldi, magellanica, antemunda, diomedeæ* and *montereyensis.*

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

Proc. U. S. Nat. Mus., 40, No. 1826, May 12, 1911, pp. 383–414, pls. 51–58.

This is a monograph of the west American members of this genus, containing descriptions of the new subgenus Lirobittium.

The following species and subspecies are described as new: *(Bittium) panamense, johnstonæ; B. (Semibittium) attenuatum boreale, attenuatum latifilosum; subplanatum, nicholsi; B. (Lirobittium) catalinense inoratum, ornatissimum, munitum munitoide, asperum lomaense, cerralvoense; B. (Semibittium) larum; Bittium oldroydæ, fetellum, giganteum, casmaliense, arnoldi,* and *mexicanum.*

——— New mollusks of the genus Aclis from the North Atlantic.

Proc. U. S. Nat. Mus., 40, No. 1829, May 18, 1911, pp. 435–438, pl. 59.

In this paper *Aclis dalli, cubana, rushi, floridana, verrilli* and *carolinensis* are described as new.

——— The west American mollusks of the genus Amphithalamus.

Proc. U. S. Nat. Mus., 41, No. 1854, June 30, 1911, pp. 263–265, figs. 1–3.

—— (See also under William Healey Dall.)

DALL, WILLIAM HEALEY. New shells from the Gulf of California.

Nautilus, 24, No. 3, July, 1910, pp. 32–34.

Hindsia perideris, Cymatium adairense, and *Solariella triplostephanus* are described as new. The types are in the U. S. National Museum.

——— Two new Mexican land shells.

Nautilus, 24, No. 3, July, 1910, pp. 34–37.

Eucalodium (Anisospira) orcutti and *Epiphragmophora (Trichodiscina) verdensis* are described as new. The types are deposited in the U. S. National Museum.

——— New land shells from the Smithsonian African Expedition.

Smithsonian Misc. Colls., 56, No. 10, July 22, 1910, pp. 1–3, figs. 1–3.

Buliminus roosevelti, B. mearnsii and *Limicolaria catharia,* all from East Africa, are described as new.

——— Notes on Davisia and Malvinasia.

Nautilus, 24, No. 4, Aug., 1910, p. 47.

The former is shown to be a close relative of Kellia, and the latter a synonym of Rochefortia.

——— Notes on California shells.

Nautilus, 24, No. 8, Dec., 1910, pp. 95, 96.

Miscellaneous notes. *Terebratalia transversa* var. *rubescens, Lottia gigantea* var. *albomaculata,* and *Murex carpenteri* var. *tremperi* are named. *Terebratulina crossei* Davidson, described from Japan, is first recognized from the Pacific coast of the U. S., and a remarkable specimen of *Haliotis cracherodii* otherwise quite normal, but entirely destitute of holes, is described. The material is in the U. S. National Museum.

——— Description of a new genus and species of bivalve from the Coronado Islands, Lower California.

Proc. Biol. Soc. Washington, 23, Dec., 1910, pp. 171, 172.

Bernardina bakeri, probably belonging to the Astartacea, is described. The types are in the U. S. National Museum.

DALL, WILLIAM HEALEY. Notes on post glacial evidences of climatic changes in North America as indicated by marine fossils.

Postglaziale Klimaveränderungen, Stockholm (International Geol. Congress), 1910, pp. 365, 366.

——— Report on the Brachiopoda obtained from the Indian Ocean by the Sea Lark Expedition, 1905.

Trans. Linn. Soc. London, 2nd. Ser., Zool., XIII, pt. 3, 1910, pp. 439–441, pl. 26.

Kraussina gardineri and *Hemithyris sladeni* are figured and described as new. Cotypes are in the U. S. National Museum.

——— Notes on California shells (II).

Nautilus, 24, No. 10, Feb., 1911, pp. 109–112.

Miscellaneous notes on species represented in the U. S. National Museum and on various California collections. *Bathytoma tremperiana, Modiolus diegensis* and *Pachypoma inaequale* var. *spiratum* are described as new.

——— Notes on California shells, III.

Nautilus, 24, No. 11, Mar., 1911, pp. 124–127.

Miscellaneous notes on the distribution of many Californian species.

——— Notes on Gundlachia and Ancylus.

Amer. Naturalist, 45, Mar., 1911, pp. 175–189.

Biographical notes bearing on the validity and relationship of the 2 genera, illustrated by a series in the U. S. National Museum.

——— A giant Admete from Bering Sea.

Nautilus, 25, No. 2, June, 1911, pp. 19, 20.

Admete regina is described as new. The type is in the U. S. National Museum.

——— and PAUL BARTSCH. New species of shells collected by John Macoun at Barkley Sound, Vancouver Island, British Columbia.

Can. Geol. Surv., Memoir No. 14–N. No. 1143, Ottawa, 1910, pp. 5–22, pls. I, II.

The following new species, cotypes of which are in the National Museum, are described and figured: *Leda penderi, Bela maurellei, Mangilia hecetæ, M. arteaga, Boreotrophon macouni, Epitonium caamanoi, Turbonilla (Pyrgolampros) talama, T. (P.) pesa, T. (P.) rinella, T. (P.) macouni, Odostomia (Evalea) youngi, O. (E.) spreadboroughi, O. (E.) quadræ, O. (E.) vancouverensis, O. (E.) barkleyensis* and *Bittium vancouverensis.*

——— ——— New species of shells from Bermuda.

Proc. U. S. Nat. Mus., 40, No. 1820, May 8, 1911, pp. 277–288, pl. 35.

An account of species collected in Bermuda and of which a series is in the National Museum. The following are described as new and mostly figured: *Mitra haycocki, Columbella somersiana, Aclis bermudensis, Turbonilla (Careliopsis) bermudensis, T. (Strioturbonilla) peilei, T. (S.) haycocki, Cerithiopsis movilla, C. ara, C. pesa, C. vicola, C. io, Fissuridea bermudensis, Odostomia (Chrysallida) nioba,* and *Ischnochiton (Stenoplax) bermudensis.* A list of the species not new is also given, which contains several not previously reported from Bermuda.

GILL, THEODORE N. The Cypræa notata revived.

Smithsonian Misc. Colls., 52, pt. 3, No. 1868, July 15, 1909, p. 397.

The *Cypræa notata* was described and illustrated by 3 colored figures by Gill in 1858, but was not admitted by later writers as a distinct species. In 1907, however, Hidalgo, in a monograph of the genus *Cypræa,* has restored the name to its proper rank and referred to, as synonyms, the *C. macula* of Adams (1867) and the *C. interpunctata* of Brazier (1895). Two specimens are in the U. S. National Museum.

INSECTS.

BEUTENMÜLLER, WM. Descriptions of new species of Cynipidæ.
Ent. News, 22, No. 2, Feb., 1911, pp. 67–70.
The types of 4 of the species described are in the U. S. National Museum.

——— Three new species of Cynipidæ.
Ent. News, 22, No. 5, May, 1911, pp. 197, 198.
The types are in the U. S. National Museum.

BISHOPP, F. C. Some new North American Ixodidæ with notes on other species.
Proc. Biol. Soc., Washington, 24, June 23, 1911, pp. 197–208, pl. II.
Two new species and 2 new varieties are described, the types having been deposited in the U. S. National Museum.

BRADLEY, J. C. (See under J. C. Crawford.)

BURR, MALCOLM. The Dermaptera (earwigs) of the United States National Museum.
Proc. U. S. Nat. Mus., 38, No. 1760, Aug. 20, 1910, pp. 443–467, figs. 1–8.
Three new genera and 1 new species are described.

BUSCK, AUGUST. New Central-American Microlepidoptera introduced into the Hawaiian Islands.
Proc. Ent. Soc. Washington, 12, No. 3, Sept. 6, 1910, pp. 132–135.
Three new species, of which the types are in the U. S. National Museum, are described.

——— New moths of the genus Trichostibas.
Proc. U. S. Nat. Mus., 38, No. 1765, Oct. 15, 1910, pp. 527–530, pl. 35.
Four new species are described.

——— Descriptions of tineoid moths (Microlepidoptera) from South America.
Proc. U. S. Nat. Mus., 40, No. 1815, Apr. 13, 1911, pp. 205–230, pls. 8, 9.
Five new genera and 45 new species, from the collection of the U. S. National Museum, are described.

CAUDELL, A. N. Description of a new species of Orthoptera from Texas.
Can. Ent., 43, No. 4, Apr., 1911, pp. 137, 138, fig. 7.
A new species of the genus *Stipator*.

——— A new cactus - frequenting orthopteron from Texas.
Proc. Ent. Soc. Washington, 13, No. 2, June 19, 1911, pp. 79, 80.
A new species of the geuns *Stipator*.

COCKERELL, T. D. A. Bees in the collection of the United States National Museum. 1.
Proc. U. S. Nat. Mus., 39, No. 1806, Mar. 3, 1911, pp. 635–658, 1 fig.
In this paper 9 new species, 5 new subspecies, and 3 new varieties are described; there are notes on many other species, mostly in the U. S. National Museum.

——— Bees in the collection of the United States National Museum. 2.
Proc. U. S. Nat. Mus., 40, No. 1818, Apr. 11, 1911, pp. 241–264.
Fourteen new species and 1 new variety are described, together with notes on many other species in the collection of the U. S. National Museum.

——— Names applied to bees of the genus Nomada found in North America.
Proc. U. S. Nat. Mus., 41, No. 1852, June 30, 1911, pp. 225–243.
Four new species are described, together with notes on other species in the collection of the U. S. National Museum.

COQUILLETT, D. W. The type-species of the North American genera of Diptera.
Proc. U. S. Nat. Mus., 37, No. 1719, Aug. 4, 1910, pp. 499–647.

——— Corrections to my paper on the type-species of the North American genera of Diptera.
Can. Ent., 42, No. 11, Nov., 1910, pp. 375–378.

CRAWFORD, J. C. Two new species of African parasitic Hymenoptera.

Can. Ent., 42, No. 7, July, 1910, pp. 222, 223.

The type is in the U. S. National Museum.

——— Two new parasitic Hymenoptera.

Proc. Ent. Soc. Washington, 12, No. 3, Sept. 6, 1910, pp. 145, 146.

The type is in the U. S. National Museum.

——— A new Anthidium from New Jersey.

Ent. News, 21, No. 10, Dec., 1910, p. 456.

——— New South American parasitic Hymenoptera.

Proc. U. S. Nat. Mus., 39, No. 1786, Dec. 28, 1910, pp. 235–239, figs. 1–4.

Three new genera and 4 new species are described. The types are in the U. S. National Museum.

——— Descriptions of new Hymenoptera. 1.

Proc. U. S. Nat. Mus., 39, No. 1804, Feb. 25, 1910, pp. 617–623, figs. 1–3.

Two new genera and 10 new species, the types of which are in the U. S. National Museum, are described.

——— Descriptions of new Hymenoptera. 2.

Proc. U. S. Nat. Mus., 40, No. 1830, May 12, 1911, pp. 439–449.

Fifteen new species, types of which are in the U. S. National Museum, are described.

——— A new species of the genus Cheiloneurus.

Proc. Ent. Soc. Washington, 13, No. 2, June 19, 1911, p. 126.

——— Descriptions of new Hymenoptera. 3.

Proc. U. S. Nat. Mus., 41, No. 1855, June 30, 1911, pp. 267–282, figs. 1–6.

Three new genera and 21 new species, the types of which are in the U. S. National Museum, are described.

CRAWFORD, J. C., and J. C. BRADLEY. A new pelecinus-like genus and species of Platygasteridæ.

Proc. Ent. Soc. Washington, 13, No. 2, June 19, 1911, pp. 124, 125, pl. VIII.

The type female is in the U. S. National Museum.

DYAR, HARRISON G. Notes on the family Dolceridæ.

Proc. Ent. Soc. Washington, 12, No. 3, Sept. 6, 1910, pp. 113–121.

One new genus is described and notes given on many species in the collections.

——— Notes on Megalopygidæ.

Proc. Ent. Soc. Washington, 12, No. 4, Dec. 31, 1910, pp. 161–176.

Six new genera and 12 new species from the U. S. National Museum collections are described.

——— Two new species of Graptolitha.

Proc. Ent. Soc. Washington, 12, No. 4, Dec. 31, 1910, p. 190.

——— Notes on the grass-feeding Hemileucas and their allies.

Proc. Ent. Soc. Washington, 13, No. 1, Mar. 31, 1911, pp. 5–10.

Two new species are described.

——— Notes on the American species of Olene Hübner.

Proc. Ent. Soc. Washington, 13, No. 1, Mar. 31, 1911, pp. 16–20.

Two new species and 1 new variety are described.

——— Two species of Phycitinæ new to our fauna.

Proc. Ent. Soc. Washington, 13, No. 1, Mar. 31, 1911, p. 30.

One new species is described.

——— A new Basilodes from Texas.

Proc. Ent. Soc. Washington, 13, No. 1, Mar. 31, 1911, p. 64.

——— The American species of Diatræa Guilding.

Ent. News, 22, No. 5, May 15, 1911, pp. 199–207.

Fifteen new species and 2 new varieties are described.

DYAR, HARRISON G. Two new North American species of Eustrotia.

Proc. Ent. Soc. Washington, 13, No. 2, June 19, 1911, pp. 68, 69.

——— A new genus for Cirrhophanus duplicatus.

Proc. Ent. Soc. Washington, 13, No. 2, June 19, 1911, p. 69.

——— A new species of Dioryctria.

Proc. Ent. Soc. Washington, 13, No. 2, June 19, 1911, p. 81.

——— A new Coloradia.

Proc. Ent. Soc. Washington, 13, No. 2, June 19, 1911, p. 89.

——— Change of genus for certain species of Cochlidiidæ.

Proc. Ent. Soc. Washington, 13, No. 2, June 19, 1911, p. 106.

Five species are transferred from *Sisyrosea* to *Euclea.*

GIRAULT, A. A. Descriptions of 3 new North American species of the mymarid genus Polynema Haliday, parasitic on membracid eggs, with a list of the species described since the year 1898.

Journ. N. Y. Ent. Soc., 19, No. 1, Mar., 1911, pp. 12–23.

The types of these are in the U. S. National Museum.

——— Descriptions of 9 new genera of the chalcidoid family Trichogrammatidæ.

Trans. Amer. Ent. Soc., 37, No. 1, Mar. 29, 1911, pp. 1–42, pl. 1.

The types of 6 and a cotype of 1 are in the U. S. National Museum.

——— Synonymic and descriptive notes on the chalcidoid family Trichogrammatidæ with descriptions of new species.

Trans. Amer. Ent. Soc., 37, No. 1, Apr. 17, 1911, pp. 43–83, figs. 1–3.

The types of 6 and a cotype of 1 are in the U. S. National Museum.

GIRAULT, A. A. A supposed occurrence of Anagrus incarnatus Haliday in the United States.

Ent. News, 22, No. 5, May, 1911, pp. 207–210.

One new species, a cotype of which is in the U. S. National Museum, is described.

——— The chalcidoid parasites of the coccid Kermes pubescens Bogue, with descriptions of 2 new genera and 3 new species of Encyrtinæ from Illinois.

Can. Ent., 43, No. 5, May, 1911, pp. 168–178.

A cotype of 1 of the species has been deposited in the U. S. National Museum.

——— The occurrence of the mymarid genus Anaphoidea Girault in England.

Ent. News, 22, No. 5, May, 1911, pp. 215, 216.

One new species, the type of which is in the U. S. National Museum, is described.

GROSSBECK, J. A. Studies of the North American geometrid moths of the genus Pero.

Proc. U. S. Nat. Mus., 38, No. 1753, Aug. 19, 1910, pp. 359–377, pls. 13–16.

Three new species belonging to the U. S. National Museum are described.

HEIDEMANN, O. New species of Leptoglossus from North America.

Proc. Ent. Soc. Washington, 12, No. 4, Dec. 31, 1910, pp. 191–197, pls. VII, VIII.

Three new species are described.

——— Description of a new capsid.

Proc. Ent. Soc. Washington, 12, No. 4, Dec. 31, 1910, pp. 200, 201, 1 fig.

A new species of the genus *Capsus* is described.

HOPKINS, A. D. Contributions toward a monograph of the bark-weevils of the genus Pissodes.

U. S. Dept. Agric., Bur. Ent., Tech. Ser., No. 20, pt. 1, Jan. 7, 1911, pp. i–x, 1–68, pls. I–XXII, figs. 1–9.

A monographic revision with descriptions of 23 new species; tables of the adults on external characters and on sexual characters, together with tables of the pupæ and of the larvæ, are given.

HOWARD, L. O. A note on the Indian enemies of Aleyrodes citri R. & H., with a description of a new species of Prospaltella.

Journ. of Economic Ent. 4, No. 1, Feb., 1911, pp. 130–132.

——— A new species of Coccophagus with a table of the host relations of the species of the genus known to the writer.

Journ. of Economic Ent. 4, No. 2, April, 1911, pp. 276, 277.

——— The house fly—disease carrier.

Frederick A. Stokes Co., New York, May 25, 1911, pp. xix, 312; 1 colored plate, 40 text figures.

Contains a chapter on flies other than *Musca domestica* frequenting houses.

KNAB, F. Coquillett's "The type-species of the North American genera of Diptera."

Proc. Ent. Soc. Washington, 12, No. 4, Dec. 31, 1910, pp. 197–200.

A review with some corrections.

KRAUS, E. J. A revision of the powder-post beetles of the family Lyctidæ of the United States and Europe.

U. S. Dept. Agric., Bur. Ent., Tech. Ser., No. 20, pt. III, May 5, 1911, pp. i–iii, 111–138.

One new species, the type of which is deposited in the U. S. National Museum, is described.

METZ, CHAS. W. A revision of the genus Prosopis in North America.

Trans. Amer. Ent. Soc., XXXVII, No. 2, June 12, 1911, pp. 85–156, pl. II–IX, fig. 2–10, 1 map.

Based in part on the collection of the U. S. National Museum (the C. F. Baker collection of Hymenoptera). The type of one species described and a cotype of another are in the U. S. National Museum.

PIERCE, W. DWIGHT. Notes on insects of the order Strepsiptera, with descriptions of new species.

Proc. U. S. Nat. Mus., 40, No. 1834, May 17, 1911, pp. 487–511.

Three new genera and 26 new species are described, the types being in the U. S. National Museum.

ROHWER, S. A. Turner's genera of Thynnidæ with notes on Ashmeadian genera.

Ent. News, 21, No. 8, Oct., 1910, pp. 345–351.

Notes on some species in the U. S. National Museum.

——— Some Australian sawflies.

Ent. News, 21, No. 10, Dec., 1910, pp. 467–474.

Two new genera and 8 new species are described, of which paratypes are in the U. S. National Museum collections. The rest of the material is in the British Museum.

——— A new genus of Nomadine bees.

Ent. News, 22, No. 1, Jan., 1911, pp. 24–27, figs. 1–3.

A new genus is proposed for *Nomada pilipes* Cresson, with notes on specimens of the species in the U. S. National Museum.

——— The genotypes of the sawflies and woodwasps, or the superfamily Tenthredinoidea.

U. S. Dept. Agric., Bur. Ent., Tech. Ser., No. 20, pt. II, Mar. 4, 1911, pp. i–v, 69–109.

Contains also notes on various Ashmeadian species.

——— Additions and corrections to "The genotypes of the sawflies and woodwasps, or the superfamily Tenthredinoidea."

Ent. News, 22, No. 5, May, 1911, pp. 218, 219.

——— A new sawfly of economic importance.

Ent. News, 22, No. 6, June, 1911, pp. 263–265, figs. 1–6.

——— A new sawfly from Holland.

Ent. Ber., ———, p. 91. (Sep. recd. in Wash. Sept. 14, 1910.)

——— Notes on Tenthredinoidea, with descriptions of new species. Paper XII. (Genus Hoplocampa I.)

Can. Ent., 42, No. 7, July, 1910, pp. 242–244.

Two new species in the U. S. National Museum collections are described, and a redescription given of *Hoplocampa oregonensis* Ashm.

ROHWER, S. A. Notes on Tenthredinoidea, with descriptions of new species. Paper XIII. (Miscellaneous notes.)

Can. Ent., 43, No. 4, Apr., 1911, pp. 119–123.

——— Japanese sawflies in the collection of the United States National Museum.

Proc. U. S. Nat. Mus., 39, No. 1777, Oct. 25, 1910, pp. 99–120.

Four new genera, 1 new subgenus, 23 new species, 2 new subspecies are described, and 1 new name proposed.

——— On some hymenopterous insects from the island of Formosa.

Proc. U. S. Nat. Mus., 39, No. 1794, Jan. 11, 1911, pp. 477–485.

Nine new species in the U. S. National Museum collection described.

——— Descriptions of new species of wasps with notes on described species.

Proc. U. S. Nat. Mus., 40, No. 1837, May 26, 1911, pp. 551–587.

A new genus, 45 new species, 1 new subgenus, 2 new varieties and 8 new subspecies are described.

——— Studies in the sawfly genus Hoplocampa.

U. S. Dept. Agric., Bur. Ent., Tech. Ser., No. 20, pt. IV, May 17, 1911, pp. i–v, 139–148, pls. XXIII–XXVI, text fig. 10.

Ten new species are described, with notes on others and a table of the subgenus Hoplocampa for the nearctic region.

ROHWER, S. A.—Continued.

SNODGRASS, R. E. The thorax of the Hymenoptera.

Proc. U. S. Nat. Mus., 39, No. 1774, Oct. 25, 1910, pp. 37–91, pls. 1–16, figs. 1–19.

A contribution on anatomy with a definition of the sclerites of the parasitic Hymenoptera.

VIERECK, H. L. Descriptions of new species of ichneumon-flies.

Proc. U. S. Nat. Mus., 38, No. 1754, Aug. 6, 1910, pp. 379–384, figs. 1–3.

Eight new species are described.

——— New species of reared ichneumon-flies.

Proc. U. S. Nat. Mus., 39, No. 1789, Jan. 11, 1911, pp. 401–408.

Eleven new species are described.

——— Descriptions of six new genera and thirty-one new species of ichneumon-flies.

Proc. U. S. Nat. Mus., 40, No. 1812, Apr. 17, 1911, pp. 173–196.

In this paper 5 new genera, 1 new subgenus, 32 new species are described and 1 new name proposed.

——— Descriptions of one new genus and eight new species of ichneumon-flies.

Proc. U. S. Nat. Mus., 40, No. 1832, Apr. 17, 1911, pp. 475–480.

MYRIAPODS.

COOK, O. F. Notes on the distribution of millipeds in southern Texas, with descriptions of new genera and species from Texas, Arizona, Mexico, and Costa Rica.

Proc. U. S. Nat. Mus., 40, No. 1810, Apr. 10, 1911, pp. 147–167.

Four new genera and 7 new species are described.

——— New tropical millipeds of the order Merocheta, with an example of kinetic evolution.

COOK, O. F.—Continued.

Proc. U. S. Nat. Mus., 40, No. 1831, May 31, 1911, pp. 451–473, pl. 60, figs. 1–10.

In this paper 1 new family, 3 new genera and 5 new species are described.

——— The hothouse milliped as a new genus.

Proc. U. S. Nat. Mus., 40, No. 1842, June 19, 1911, pp. 625–631.

The genus *Oxidus* is erected for *Fontaria gracilis* C. L. Koch.

ARACHNIDS.

STILES, CHAS. WARDELL. The taxonomic value of the microscopic structure of the stigmal plates in the tick genus Dermacentor.

STILES, CHAS. WARDELL—Continued.

Bull. Hygienic Laboratory, U. S. P. H. & M. H. S., 62, Aug., 1910, 72 pp., 43 pls.

CRUSTACEANS.

ANDREWS, E. A. Sperm transfer in certain decapods.

Proc. U. S. Nat. Mus., 39, No. 1791, Jan. 11, 1911, pp. 419–434, figs. 1–15.

Describes the sperm receptacle in certain of the Peneidæ and shows how doubtful is the existence of any spermatheca in the Eryonidea.

HANSEN, H. J. The genera and species of the order Euphausiacea, with account of remarkable variation.

Bull. de l'Institut Océanographique, No. 210, 20, Mai, 1911, pp. 1–54, figs. 1–18.

A preliminary paper based on the study of various collections, including that in the U. S. National Museum. Describes remarkable variations in certain species, and gives a general survey of the order with descriptions of new and little known species.

PILSBRY, HENRY A. Barnacles of Japan and Bering Sea.

Bull. Bur. Fisheries, 29, 1909, No. 739, Feb. 17, 1911, pp. 61–84, pls. VIII–XVII, figs. 1–11.

A report on the Cirripedia collected by the expedition of the U. S. Fisheries Steamer "Albatross" to the Northwest Pacific in 1906. Twenty-four species and 3 subspecies were taken; 7 of the species and all the subspecies are described as new.

RATHBUN, MARY J. Decapod crustaceans collected in Dutch East India and elsewhere by Mr. Thomas Barbour in 1906–1907.

Bull. Mus. Comp. Zool., 52, No. 16, Sept., 1910, pp. 305–317, pls. 1–6.

Of the 59 species noted, 54 were collected in Dutch East India, 4 in British India, and 1 in deep water off Japan.

One new species is described, a fresh-water crab (Potamonid) from Buitenzorg.

The second set of specimens is in the U. S. National Museum.

RATHBUN, MARY J. The Danish Expedition to Siam, 1899–1900. V. Brachyura.

D. Kgl. Danske Vidensk. Selsk. Skrifter, 7. Række, Naturvidensk. og Mathem. Afd. V. 4, 1910, pp. 303–367, pls. 1, 2, text figs. 1–44, 1 map.

[Memoires de l'Académie Royale des Sciences et des Lettres de Danemark, Copenhague, 7me serie, Section des Sciences, t. V., No. 4, 1910, pp. 303–367, pls. 1, 2, figs. 1–44, 1 map.]

The collection of crabs obtained by Dr. Theodor Mortensen in 1899–1900 embraces 204 species and represents the eastern coast of the Gulf of Siam, from the head of the gulf to 11° north latitude.

The new forms were described in the previous year in the Proceedings of the Biological Society of Washington.

The second set of specimens is in the U. S. National Museum.

——— The stalk-eyed crustacea of Peru and the adjacent coast.

Proc. U. S. Nat. Mus., 38, No. 1766, Oct. 20, 1910, pp. 531–620, pls. 36–56, figs. 1–3.

Based on a large collection made by Dr. Robert E. Coker during his investigation of the fishery resources of Peru during 1906–1908. Each of the 70 species is figured, and an annotated list is given, followed by a bibliography and a list of species known to occur in the Peruvian Province.

Six new species are described in the genera *Speocarcinus, Dromidia, Hypoconcha, Dardanus, Munida,* and *Lysiosquilla,* and a new subspecies in *Synalpheus.*

RICHARDSON, HARRIET. Description of a new isopod of the genus Notasellus from the east coast of Patagonia.

Proc. U. S. Nat. Mus., 37, No. 1720, Aug. 4, 1910, pp. 649, 650, 1 fig.

The new species, *Notasellus trilobatus,* was taken at a depth of 58

RICHARDSON, HARRIET—Continued.

fathoms, east of Patagonia by the U. S. Fisheries steamer "Albatross" in 1888 during her cruise around Cape Horn.

——— Description of a new parasitic isopod from the Hawaiian Islands.

Proc. U. S. Nat. Mus., 38, No. 1770, Oct. 18, 1910, pp. 645–647, figs. 1–6.

Description of a new species, *Scyracepon hawaiiensis*, parasitic in the branchial cavity of *Pilumnoplax cooki* Rathbun.

The crab was dredged in Pailolo Channel in 277 to 284 fathoms by the U. S. Fisheries steamer "Albatross" in 1902.

——— Terrestrial isopods collected in Costa Rica by J. F. Tristan, with descriptions of a new genus and species.

Proc. U. S. Nat. Mus., 39, No. 1775, Oct. 25, 1910, pp. 93–95, figs. 1–4.

Three species are noted of which 1, *Coxopodias tristani*, represents a new genus and species.

——— Description of a new species of Anilocra from the Atlantic coast of North America.

Proc. U. S. Nat. Mus., 39, No. 1779, Oct. 25, 1910, pp. 137, 138, 1 fig.

The type specimens of the species described, *Anilocra acuta* were sent to the U. S. National Museum by Mr. W. J. Hoxie, of the Natural History Society of Savannah, Ga.

——— Marine isopods collected in the Philippines by the U. S. Fisheries steamer "Albatross" in 1907–8.

Bur. Fisheries Doc. No. 726, 1910, pp. 1–44, figs. 1–39.

The region covered by this paper embraces not only the Philippines but the China Sea and the Dutch East Indies, a region visited by the "Albatross" in 1907–1909.

Of the 67 species described, 38 are new, while 3 are types of new genera.

——— Descriptions of a new genus and species of isopod crustacean of the family Idotheidæ from the mouth of the Rio de la Plata, Argentina, South America.

Proc. U. S. Nat. Mus., 40, No. 1811, Apr. 10, 1911, pp. 169–171, figs. 1–5.

RICHARDSON, HARRIET—Continued.

Describes *Chiriscus australis*, a new genus and species of Idotheidæ, collected off the Rio de la Plata by the U. S. Fisheries steamer "Albatross" during her cruise around Cape Horn in 1888.

——— Description of a new species of Æga from the Atlantic coast of the United States.

Proc. U. S. Nat. Mus., 40, No. 1841, May 31, 1911, pp. 623, 624, figs. 1–4.

Describes *Æga ornata*, a new species of isopod parasitic on the red porgy, taken off the Atlantic coast of the southern United States by the U. S. Fisheries steamer "Albatross."

——— Descriptions of a new genus and species of Janiridæ from the Northwest Pacific.

Proc. U. S. Nat. Mus., 40, No. 1843, June 7, 1911, pp. 633–635, 1 fig.

Describes *Jaerella armata*, new genus and species of isopod taken at a depth of 300 fathoms off the western part of the Aleutian Islands by the U. S. Fisheries steamer "Albatross" in 1906.

SHARPE, RICHARD W. On some ostracoda, mostly new, in the collection of the United States National Museum.

Proc. U. S. Nat. Mus., 38, No. 1750, Aug. 6, 1910, pp. 335–341, figs. 1–5.

Of the 4 species described, all from fresh waters of North America, 3 are new.

——— Notes on the marine copepoda and cladocera of Woods Hole and adjacent regions, including a synopsis of the genera of the Harpacticoida.

Proc. U. S. Nat. Mus., 38, No. 1758, Aug. 20, 1910, pp. 405–436, figs. 1–20.

The notes are based on material obtained by the U. S. Fisheries schooner "Grampus," and from other collections in the vicinity of Woods Hole, Massachusetts.

They are preceded by a summary of the known species of copepoda and cladocera of the northeastern coast of the United States. A synoptic table of all the genera of Harpacticoida is included.

WALKER, ALFRED O. Marine amphipods from Peru.

Proc. U. S. Nat. Mus., 38, No. 1767, Oct. 18, 1910, pp. 621, 622, 1 fig.

The species *Stenothoe assimilis* Chevreux was taken at the Chincha Islands. A translation of Chevreux's description is given and a comparison made with *S. gallensis* Walker and *S. valida* Dana.

WECKEL, ADA L. Fresh-water amphipods from Peru.

Proc. U. S. Nat. Mus., 38, No. 1768, Oct. 18, 1910, pp. 623, 624, 1 fig.

The species, *Hyalella knickerbockeri* (Bate) was taken in vast abundance in Lake Titicaca.

WILSON, CHARLES B. North American parasitic copepods.—Part 9. The Lernæopodidæ.

Proc. U. S. Nat. Mus., 39, No. 1783, Jan. 9, 1911, pp. 189–226, pls. 29–36.

Treats in detail of the development of a single species of the Lernæopodidæ, *Achtheres ambloplitis*. The living material was obtained at Lake Maxinkuckee, Indiana, in 1906, 1908, and 1909, while the author was employed by the U. S. Bureau of Fisheries.

WILSON, CHARLES B.—Continued.

——— North American parasitic copepods belonging to the family Ergasilidæ.

Proc. U. S. Nat. Mus., 39, No. 1788, Jan. 11, 1911, pp. 263–400, pls. 41–60, text figs. 1–41.

Discusses at length the ecology, morphology, etc., of the Ergasilidæ, and describes the subfamilies, genera, and species. Two genera and 13 species are new.

——— North American parasitic copepods. Descriptions of new genera and species.

Proc. U. S. Nat. Mus., 39, No. 1805, Mar. 11, 1911, pp. 625–634, pls. 65–68.

Two new genera, *Midias* and *Paralebion*, are described and 4 new species, *M. lobodes, P. elongatus, Achtheinus dentatus,* and *Lernæopoda inermis.*

WORMS.

ASHWORTH, JAMES HARTLEY. The annelids of the family Arenicolidæ of North and South America, including an account of Arenicola glacialis Murdoch.

Proc. U. S. Nat. Mus., 39, No. 1772, Sept. 23, 1910, pp. 1–32, figs. 1–14.

Based chiefly on material in the U. S. National Museum. Contains a description of the genus *Arenicola* and a key to the American forms (5 species and 1 variety), each of which is described and figured. Discusses the distribution so far as known.

CLARK, HUBERT LYMAN. A new host for myzostomes.

Zool. Anzeiger, 25, No. 682, Sept. 29, 1902, pp. 670, 671.

The occurrence of myzostomes upon ophiurans is here recorded; these parasites were hitherto only known from crinoids.

GOLDBERGER, JOSEPH. Some known and 3 new endoparasitic trematodes from American fresh-water fish.

Bull. Hygienic Laboratory, U. S. P. H. & M. H. S., 71, Jan., 1911, 35 pp.

GOLDBERGER, JOSEPH. On some new parasitic trematode worms of the genus Telorchis.

Bull. Hygienic Laboratory, U. S. P. H. & M. H. S., 71, Jan., 1911, pp. 36–47.

——— A new trematode (Styphlodora bascaniensis) with a blind Laurer's canal.

Proc. U. S. Nat. Mus., 40, No. 1817, April 11, 1911, pp. 233–239, figs. 1–3.

——— and CHARLES G. CRANE. A new species of Athesmia (A. foxi) from a monkey.

Bull. Hygienic Laboratory, U. S. P. H. & M. H. S., 71, Jan. 1911, pp. 48–55.

HALL, MAURICE C. The gid parasite and allied species of the cestode genus Multiceps. 1. Historical review.

U. S. Dept. Agric., Bur. Animal Industry, Bull. 125, Pt. 1, Oct. 1910, pp. 1–68, 1 fig.

HALL, MAURICE C. A new species of cestode parasite (Tænia balaniceps) of the dog and of the lynx, with a note on Proteocephalus punicus.

Proc. U. S. Nat. Mus., 39, No. 1780, Oct. 25, 1910, pp. 139–151, 9 figs.

The types are in the National Museum.

——— Methods for the eradication of gid.

U. S. Dept. Agric., Bur. Animal Industry, Circ. 165, Dec. 29, 1910, pp. 1–29, pl. 1, figs. 1–14.

LUDWIG, HUBERT. Ein entoparasitischer Chætopid in einer Tiefsee-Ophiure.

Zool. Anzeiger, 29, No. 12, Sept. 19, 1905, pp. 397–399.

Describes a new genus and species of chætopod, *Ophiuricola cynips*, parasitic in an ophiuran, *Ophioglypha tumulosa* Lutken and Mortensen, from a depth of 2,845 fathoms off the coast of Peru, and collected by the U. S. Fisheries steamer "Albatross" in 1904.

MOORE, J. PERCY. A new species of sea-mouse (Aphrodita hastata) from eastern Massachusetts.

Proc. Acad. Nat. Sci. Phila., LVII, Pt. I, Mar., 1905, pp. 294–298, figs. 1–4.

Describes *Aphrodita hastata*, a new species allied to *A. japonica* and *A. aculeata*, with both of which it is compared.

Based partly on specimens taken by the U. S. Fisheries steamer "Fish Hawk" and by Mr. Vinal N. Edwards off Noman's Land.

——— Some marine Oligochæta of New England.

Proc. Acad. Nat. Sci. Phila., LVII, Pt. II, May, 1905, pp. 373–399, pls. XXXII, XXXIII.

Gives a key to the 10 species of marine Oligochæta of New England, describes each species, adding notes on their distribution and habits.

——— New species of Polychæta from the North Pacific, chiefly from Alaskan waters.

Proc. Acad. Nat. Sci. Phila., LVII, Pt. II, July, 1905, pp. 525–554, pls. XXXIV–XXXVI.

The first of a series of papers describing the Polychæta obtained during the Alaska Salmon Investigations in which the U. S. Fisheries steamer "Albatross" was engaged in 1903.

Eleven new species are described.

——— Five new species of Pseudopotamilla from the Pacific coast of North America.

Proc. Acad. Nat. Sci. Phila., LVII, Pt. II, July, 1905, pp. 555–569, pl. XXXVII.

The second paper on the Polychæta of the Alaska Salmon Investigations noticed above. Five new species of *Pseudopotamilla* are described.

——— New species of Ampharetidæ and Terebellidæ from the North Pacific.

Proc. Acad. Nat. Sci. Phila., LVII, Pt. III, Dec., 1905, pp. 846–860, pl. XLIV.

Third paper on the Polychæta of the Alaska Salmon Investigations. Seven new species belonging to 6 genera are described.

——— Additional new species of Polychæta from the North Pacific.

Proc. Acad. Nat. Sci. Phila., LVIII, Pt. I, Apr., 1906, pp. 217–260, pls. X–XII.

Fourth paper on the Polychæta of the Alaska Salmon Investigations.

Sixteen new species are described belonging to as many genera.

——— Descriptions of two new Polychæta from Alaska.

Proc. Acad. Nat. Sci. Phila., LVIII, Pt. II, July, 1906, pp. 352–355, 2 figs.

Fifth paper on the Polychæta of the Alaska Salmon Investigations. Two new species belonging to the genera *Syllis* and *Ammotrypane* are described.

——— Descriptions of new species of spioniform annelids.

Proc. Acad. Nat. Sci. Phila., LIX, Pt. I, May, 1907, pp. 195–207, pls. XV, XVI.

Based on 4 species of Spionidæ and 1 of Magelonidæ; the latter, *Spinoides japonicus*, was taken by the U. S. Fisheries steamer "Albatross" off Honshu, Japan, in 1910.

MOORE, J. PERCY. Some polychætous annelids of the northern Pacific coast of North America.

Proc. Acad. Nat. Sci. Phila., LX, Pt. II, June, 1908, pp. 321–364, 4 figs.

Final and comprehensive report on the Polychæta of the Alaska Salmon Investigations undertaken by the Bureau of Fisheries in 1903. 107 species in all were taken, 41 were new, but of these all but 2 were described in previous papers. (See above.)

——— The polychætous annelids dredged by the U. S. S. "Albatross" off the coast of Southern California in 1904: II. Polynoidæ, Aphroditidæ, and Segaleonidæ.

Proc. Acad. Nat. Sci. Phila., Apr., 1910, pp. 328–402, pls. XXVIII–XXXIII.

Represented by 26 species, 12 of which were previously undescribed.

RANSOM, BRAYTON HOWARD. The nematodes parasitic in the alimentary tract of cattle, sheep, and other ruminants.

RANSOM, BRAYTON HOWARD—Contd.

U. S. Dept. Agric., Bur. Animal Industry, Bull. 127, May 13, 1911, pp. 1–132, figs. 1–152.

In this article are described the various species of nematodes, about 50 in number, which occur parasitic in the alimentary tract of ruminants. The following species are described as new: *Strongyloides ovocinctus, Capillaria brevipes, Capillaria longipes.*

The family *Trichinellidæ* is divided into 2 new subfamilies, *Trichurinæ* and *Trichinellinæ*.

——— A new cestode from an African bustard.

Proc. U. S. Nat. Mus., 40, No. 1844, June 24, 1911, pp. 637–647, figs. 1–7.

In this paper is described a new species of tapeworm *Sphyroncotænia uncinata*, the type of a new genus belonging to the subfamily *Idiogeninæ*, family *Davaineidæ*, superfamily *Tænioidea*. The specimens upon which the description is based were collected by Mr. Loring, of the Smithsonian African Expedition, in British East Africa from the intestine of a bustard, *Neotis caffra*.

ECHINODERMS.

CLARK, AUSTIN HOBART. Proisocrinus, a new genus of recent crinoids. [Scientific results of the Philippine cruise of the fisheries steamer "Albatross," 1907–10.—No. 5.]

Proc. U. S. Nat. Mus., 38, No. 1756, Aug. 6, 1910, pp. 387–390, figs. 1–3.

The new genus *Proisocrinus* herein described includes a single species, *P. ruberrimus*, which is much the tallest fixed recent crinoid yet discovered, being slightly over 40 inches high. Its affinities are clearly with the *Pentacrinus mollis* described by P. H. Carpenter in the Challenger report, but it is uncertain whether it should be referred to the *Pentacrinitidæ, Apiocrinidæ, Bourgueticrinidæ*, or *Millericrinidæ*.

——— Thalassocrinus, a new genus of stalked crinoids from the East Indies. [Scientific results of the Philippine cruise of the fisheries steamer "Albatross," 1907–10.—No. 7.]

CLARK, AUSTIN HOBART—Continued.

Proc. U. S. Nat. Mus., 39, No. 1793, Jan. 11, 1911, pp. 473–476.

A new genus, *Thalassocrinus*, is described which is related to *Hyocrinus* of the Antarctic, and to *Gephyrocrinus* of the eastern mid-Atlantic. *Thalassocrinus* was found by the "Albatross" among the Philippine Islands.

——— On the inorganic constituents of the skeletons of two recent crinoids.

Proc. U. S. Nat. Mus., 39, No. 1795, Jan. 11, 1911, pp. 487, 488.

The analyses are here given of the skeletons of a specimen of *Metacrinus rotundus* from southern Japan, and of a specimen of *Heliometra glacialis* var. *maxima* from the northern part of the Sea of Japan. The proportion of MgCO to CaCO was found to be approximately as determined previously by H. W. Nichols in investigations on the former.

CLARK, AUSTIN HOBART. On a collection of unstalked crinoids made by the United States fisheries steamer "Albatross" in the vicinity of the Philippine Islands. [Scientific results of the Philippine cruise of the fisheries steamer "Albatross," 1907–10.—No. 8.]

Proc. U. S. Nat. Mus., 39, No. 1798, Feb. 15, 1911, pp. 529–563.

A record is here published of the unstalked crinoids contained in the third consignment sent home by the "Albatross" from the Philippine Islands. Two new genera, 22 new species, and 1 new variety are described, while several necessary changes are made in the specific names of well-known forms, the need for these changes having become apparent to the author as the result of the study of the type specimens in various European museums.

——— The recent crinoids of the coasts of Africa.

Proc. U. S. Nat. Mus., 40, No. 1808, Mar. 15, 1911, pp. 1–51.

This paper is based upon the African crinoids contained in the U. S. National Museum, the British Museum, the Bergen Museum, the Museum of Comparative Zoology at Cambridge, Massachusetts, the Copenhagen Museum, the Hamburg Museum, the Museum für Naturkunde and the Museum für Meereskunde, Berlin, the Oceanographic Museum at Monaco, and the Paris Museum. A history of the study of African crinoids is given, and a discussion of the faunal relationships of the African coasts. Fifty-three species are included in the report, of which 45 are unstalked and 8 are stalked; of the former there are described as new 15 species and 2 varieties.

——— A new unstalked crinoid from the Philippine Islands.

Proc. U. S. Nat. Mus., 41, No. 1849, June 24, 1911, pp. 171–173.

In this paper is described a new species of the genus *Comaster* from the Tawi Tawi group in the Philippine Archipelago, collected by the U. S. fisheries steamer "Albatross."

CLARK, HUBERT LYMAN. A new ophiuran from the West Indies.

CLARK, HUBERT LYMAN—Continued.

Proc. U. S. Nat. Mus., 37, No. 1724, Aug. 4, 1910, pp. 665, 666, figs. 1, 2.

A new species of *Ophiotholia* from the West Indies is described. The genus was hitherto known only from the Pacific.

——— North Pacific ophiurans in the collection of the United States National Museum.

Bull. U. S. Nat. Mus., No. 75, Feb. 23, 1911, pp. i–xvi, 1–302, figs. 1–144.

This report is based upon a collection of more than 40,000 specimens of ophiuroids, representing 189 species, of which 129 are here described for the first time. The greater part of this collection was brought together by the "Albatross," but many of the specimens were collected by Drs. W. H. Dall, L. Stejneger and others.

EDWARDS, CHARLES LINCOLN. Revision of the Holothurioidea. I. Cucumaria frondosa (Gunner) 1767.

Zool. Jahrbücher Bd. 29, Abt. für Syst., 1910, pp. 333–358, 1 pl., 1 table.

An historical sketch, and morphological and anatomical description of *Cucumaria frondosa* are herein given, together with a bibliography of the species.

——— Four species of Pacific Ocean holothurians allied to Cucumaria frondosa (Gunner).

Zool. Jahrbücher Bd. 29, Abt. für Syst., 1910, pp. 597–612, pl. 19.

In this paper descriptions are given of *Cucumaria frondosa, C. californica, C. japonica, C. miniata* and *C. fallax*, together with historical and critical discussions of the validity of the species, and a list of the bibliographical references bearing on the subject.

FISHER, WALTER K. Hyalinothrix, a new genus of starfishes from the Hawaiian Islands.

Proc. U. S. Nat Mus., 39, No. 1807, Mar. 11, 1911, pp. 659–664, pls. 69–71.

Describes *Hyalinothrix* and its single species, *H. millespina*, and compares the genus with *Chætaster*.

FISHER, WALTER K. New genera of starfishes from the Philippine Islands. [Scientific results of the Philippine cruise of the fisheries steamer "Albatross," 1907–10. No. 10.]

Proc. U. S. Nat. Mus., 40, No. 1827, May 17, 1911, pp. 415–427.

In this paper are described 6 new genera (each with a new type species), as follows: family Porcellanasteridæ, *Benthogenia*, (*B. cribellosa*); Astropectinidæ, *Anthosticte* (*A. aulophora*); Goniasteridæ, *Pontioceramus* (*P. grandis*), *Lithosoma* (*L. actinometra*), *Atelorias* (*A. anacanthus*); Pterasteridæ, *Hymenasterides* (*H. zenognathus*). All of these were dredged by the "Albatross" among the Philippine Islands.

FISHER, WALTER K. Asteroidea of the North Pacific and adjacent waters. Part 1. Phanerozonia and Spinulosa.

Bull. U. S. Nat. Mus., 76, June 30, 1911, pp. i–vi, 1–419, pls. 1–122.

This is the first part of a work intended to describe the *Asteroidea* north of a line drawn from the southern end of Sakhalin to the southern boundary of the United States.

All the forms are described and figured, with keys to the families and genera, the classification has been revised, the morphology has been studied, also variations, young stages, and the relations of this fauna to that of other regions.

Based chiefly on material in the U. S. National Museum, but includes also collections in Stanford University and the University of California.

CŒLENTERATES.

BIGELOW, R. P. A new Narcomedusa from the North Atlantic.

Biol. Bull., 26, No. 2, Jan., 1908, pp. 80–82, figs. 1, 2.

Describes a new species of *Pegantha*, *P. clara*, collected in 1899 by the U. S. fisheries steamer "Fish Hawk" off the southern coast of New England near the border of the Gulf Stream.

PORIFERA.

ANNANDALE, NELSON. Fresh-water sponges in the collection of the United States National Museum.—Part IV. Note on the fresh-water sponge, Ephydatia japonica, and its allies.

Proc. U. S. Nat. Mus., 38, No. 1771, Oct. 18, 1910, pp. 649, 650.

Notes the occurrence of *Ephydatia japonica* in the Eastern Branch of the Potomac River; gives a key to the 4 species of *Ephydatia* and states their distribution.

——— Fresh-water sponges in the collection of the United States National Museum.—Part V. A new genus proposed, with Heteromeyenia radiospiculata Mills as type.

Proc. U. S. Nat. Mus., 40, No. 1839, May 26, 1911, pp. 593, 594.

Makes *Heteromeyenia radiospiculata* Mills the type of a new genus, *Asteromeyenia*, on account of its free microscleres, and suggests that the genus *Dosilia* Gray should be revived for the same reason, with *Spongilla plumosa* Carter as type.

LENDENFELD, ROBERT VON. 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, and of other expeditions of the "Albatross," 1888–1904. XXI. The Sponges. 1. The Geodidæ.

Memoirs Mus. Comp. Zool., 41, No. 1, Aug., 1910, pp. 1–259, pls. 1–48.

This is the first part of a report on the siliceous sponges collected during the various cruises of the U. S. Fisheries steamer "Albatross" in the Pacific Ocean, be-

LENDENFELD, ROBERT VON—Continued.
ginning with the year 1888. It describes the species and varieties in the collection, gives a systematic account of the known Pacific *Geodidæ* and a discussion of of their distribution.

The "Albatross" specimens represent 3 genera and 18 species, 5 of which are subdivided into 13 varieties. 15 species and 2 varieties of previously known species are described as new.

——— 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, and of other expeditions of the "Albatross," 1888–1904. XXI. The Sponges. 2. The Erylidæ.

Memoirs Mus. Comp. Zool., 41, No. 2, Sept., 1910, pp. 267–323, pls. 1–8.

The second part of the report on the siliceous sponges collected by the "Albatross" in the Pacific, the first part of which is noticed above.

Only 1 genus is assigned to the *Erylidæ*. The specimens studied belong to 4 species, 1 of which is divided into 3 varieties. All the species and varieties are new.

PROTOZOA.

CUSHMAN, JOSEPH AUGUSTINE. New arenaceous Foraminifera from the Philippines. [Scientific results of the Philippine cruise of the fisheries steamer "Albatross," 1907–10.—No. 6.]

Proc. U. S. Nat. Mus., 38, No. 1759, Aug. 20, 1910, pp. 437–442, figs. 1–19.

One genus (*Sphærammina*) and 10 species, belonging to 7 genera, are described as new.

CUSHMAN, JOSEPH AUGUSTINE. A monograph of the Foraminifera of the North Pacific Ocean.—Part II. Textulariidæ.

Bull. U. S. Nat. Mus., 71, June 30, 1911, pp. i–xiii, 1–108, figs. 1–156.

This is the second part of a work on the Foraminifera of the North Pacific Ocean, the first part of which was published last year. This part is devoted to the family *Textulariidæ*, which is divided into 5 subfamilies, 20 genera, and 109 species. Each species is illustrated by text figures.

BOTANY.

BLUMER, J. C. (See under Paul C. Standley.)

BROWN, WILLIAM H. The plant life of Ellis, Great, Little, and Long Lakes in North Carolina.

Contr. U. S. Nat. Herb., 13, pt. 10, June 8, 1911, pp. 323–341, 1 fig.

CHASE, AGNES. (See under A. S. Hitchcock.)

COOK, O. F. History of the coconut palm in America.

Contr. U. S. Nat. Herb., 14, pt. 2, Dec. 31, 1910, pp. 271–342, pls. 52–66.

COVILLE, FREDERICK V. Experiments in blueberry culture.

U. S. Dept. of Agriculture, Bureau of Plant Industry, Bull. No. 193, Nov. 15, 1910, pp. 1–89, pls. 1–18, figs. 1–31.

COVILLE, FREDERICK V.—Continued.

GOLDMAN, E. A. (See under Paul C. Standley.)

GREENE, EDWARD L. Miscellaneous specific types.

Leaflets, 2, 3, October 6, 1910, pp. 105–112.

——— Some southwestern mulberries.

Leaflets, 2, October 6, 1910, pp. 112–121.

——— A further study of Agosens.

Leaflets, 2, May 11, 1911, pp. 121–132.

——— Some western roses.

Leaflets, 2, May 11, 1911, pp. 132–136.

GREENE, EDWARD L. A cruciferous monotype.
Leaflets, 2, May 11, 1911, pp. 136, 137.

——— Four new Potentillaceæ.
Leaflets, 2, May 11, 1911, pp. 137–139.

——— Three new Labiatæ.
Leaflets, 2, May 11, 1911, pp. 139–141.

——— Two California columbines.
Leaflets, 2, May 11, 1911, pp. 141–143.

——— Accessions to Antennaria.
Leaflets, 2, May 11, 1911, pp. 143–152.

——— Miscellaneous types.
Leaflets, 2, May 11, 1911, p. 152.

——— Antennaria in the Middle West.
Amer. Midland Naturalist, 2, No. 4, June, 1911, pp. 73–90.

——— Some Canadian Antennarias.
The Ottawa Naturalist, 25, No. 3, June 7, 1911, pp. 41–43.

HERRE, ALBERT W. C. T. The Gyrophoraceae of California.
Contr. U. S. Nat. Herb., 13, pt. 10, June 8, 1911, pp. 313–322, pls. 68–72.

HITCHCOCK, A. S., and AGNES CHASE. The North American species of Panicum.
Contr. U. S. Nat. Herb., 15, Oct. 22, 1910, pp. i–xiv, 1–396, figs. 1–370.

PAINTER, JOS. H. A revision of the subgenus Cyclobothra of the genus Calochortus.
Contr. U. S. Nat. Herb., 13, pt. 10, June 8, 1911, pp. 343–350.

PITTIER, HENRY. A preliminary treatment of the genus Castilla.
Contr. U. S. Nat. Herb., 13, pt. 7, Dec. 31, 1910, pp. i–ix, 247–279, pls. 22–43, figs. 45–54.

ROSE, J. N. Burseraceæ.
North Amer. Flora, 25, pt. 3, May 6, 1911, pp. 241–261.

——— Studies of Mexican and Central American plants— No. 7.
Contr. U. S. Nat. Herb., 13, pt. 9, April 11, 1911, pp. i–x, 291–312, pls. 46–67, 1 fig.

——— Two new species of Harperella.
Contr. U. S. Nat. Herb., 13, pt. 8, Feb. 24, 1911, pp. 289, 290.

——— and PAUL C. STANDLEY. The genus Talinum in Mexico.
Contr. U. S. Nat. Herb., 13, pt. 8, Feb. 24, 1911, pp. i–v, 281–288, pls. 44, 45.

STANDLEY, PAUL C. The type localities of plants first described from New Mexico.
Contr. U. S. Nat. Herb., 13, pt. 6, Oct. 31, 1910, pp. 143–227, pl. 21, and map.

——— A bibliography of New Mexican botany.
Contr. U. S. Nat. Herb., 13, pt. 6, Oct. 31, 1910, pp. 229–246.

——— A revision of the cichoriaceous genera Krigia, Cynthia, and Cymbia.
Contr. U. S. Nat. Herb., 13, pt. 10, June 8, 1911, pp. 351–357.

——— (See also under J. N. Rose.)

——— and J. C. BLUMER. A new castilleja from the southern Rocky Mountains.
Muhlenbergia, 4, April, 1911, pp. 44–47, pl. 5, figs. 1–4.
A new species described from Arizona and New Mexico.

——— and E. A. GOLDMAN. Two new shrubs from Lower California.
Contr. U. S. Nat. Herb., 13, pt. 10, June 8, 1911, p. 375.

STEELE, EDWARD S. New or noteworthy plants from the eastern United States.
Contr. U. S. Nat. Herb., 13, pt. 10, June 8, 1911, pp. 359–374.

GEOLOGY AND MINERALOGY.

LANEY, FRANCIS BAKER. The relation of bornite and chalcocite in the copper ores of the Virgilina district of North Carolina and Virginia.

Proc. U. S. Nat. Mus., 40, No. 1835, May 31, 1911, pp. 513–524, pls. 63–69.

The rocks of the district are greenstone and sericite schists, derived from a pre-existing series of volcano-sedimentary rocks in places intruded by gabbro and granite. The greenstone carries fissure veins of bornite and chalcocite in a gangue of quartz, epidote, and calcite. The ore minerals were studied in polished section under the microscope by a method in part developed by the author. The bornite is shown to be of one period of deposition; the chalcocite of two periods, namely, one younger than and filling minute fractures in the bornite, the other contemporaneous and intergrown with it. The bornite and greater part of chalcocite are considered primary. The mineralization is attributed to the granitic magma.

MERRILL, GEORGE P. On the supposed origin of the moldavites and like sporadic glasses from various sources.

Proc. U. S. Nat. Mus., 40, No. 1833, May 31, 1911, pp. 481–486, pls. 61, 62.

The author compares the markings on the outer surfaces of these glasses with those found on obsidian pebbles, and finds them agreeing so closely as to throw great doubt on the cosmic origin claimed for them by Suess and others.

POGUE, JOSEPH E. Cid mining district of Davidson County, North Carolina.

North Carolina Geol. and Econ. Surv., Bull. 22, 1910, 140 pp., 22 pls., 5 figs.

A detailed description is given of the geography, geology, petrology, physiography, structure, and mining development of a district in the Piedmont Plateau of North Carolina, formerly productive of silver, lead, copper, and gold. The type collection of rocks, including slate and tuff, acid volcanic breccia, rhyolite, dacite, andesite, andesitic tuff, gabbro, and diabase, detailed accounts of which are given in the report, has been deposited in the U. S. National Museum by the North Carolina Geological Survey.

POGUE, JOSEPH E.—Continued.

——— On calamine crystals from Mexico, rutile-mica intergrowth from Canada, and pseudomorphs of marcasite after pyrrhotite from Prussia.

Proc. U. S. Nat. Mus., 39, No. 1801, Feb. 24, 1911, pp. 571–579, pls. 63, 64.

Calamine crystals of large size from Chihuahua, Mexico, are described crystallographically, and their three habits are figured in orthographic and clinographic projection.

A biotite phlogopite intergrowth of unusual perfection from Ottawa, Canada, includes a triangular network of microscopic needles, which are shown to be rutile, and to which the asterism exhibited by the specimen is attributed.

Crystals of marcasite from Osnabrück, Prussia, with hexagonal form, are shown to be pseudomorphs after pyrrhotite.

——— Mineralogische Notizen. I. Gold- und Bleiglanzkrystalle in Verwachsung mit einem Würfel von Pyrit. II. Sand-Baryt von Kharga, Ägypten.

Zeitschr. für Krystallographie, Band XLIX, Heft 3, 1911, pp. 225–228.

A condensed reprint of two articles published in Smithsonian Misc. Colls., 42, 1909, pp. 477–484, and Proc. U. S. Nat. Mus., 38, 1910, pp. 17–24.

PALEONTOLOGY.

BASSLER, RAY S. The stratigraphy of a deep well at Waverly, Ohio.

Amer. Journ. Sci., 31, Jan., 1911, pp. 19–24.

This article is based upon borings from a deep well at Waverly, Ohio, sent to the U. S. National Museum for examination and report. The borings contained enough fossils to allow the determination of the underground geology with a considerable degree of accuracy. The article contains, in addition, comparisons with the general Paleozic section of the Ohio Valley.

BASSLER, RAY S.—Continued.

BASSLER, RAY S. Corynotrypa, a new genus of tubuliporoid bryozoa.

Proc. U. S. Nat. Mus., 39, No. 1797, Jan. 30, 1911, pp. 497–527, figs. 1–27.

A study of the variation, distribution, and subdivisions of a new generic bryozoan type, with descriptions of all the known forms—16 species, 7 of which are new.

——— Bryozoa [of the Wisconsin Devonic].

Bull. 21, Wisconsin Geol. Nat. Hist. Surv., by Cleland, 1911, chap. 5, pp. 49–67, pls. 5–11.

Describes a bryozoan fauna of 25 species from the Wisconsin Devonic, and shows its intermediate character between eastern and western North American faunas.

——— The Waverlyan period of Tennessee.

Proc. U. S. Nat. Mus., 41, No. 1851, June 24, 1911, pp. 209–224.

A discussion of the early Mississippian rocks of Tennessee for which the term Waverlyan is employed. The new term, Ridgetop shale, is proposed, the Tullahoma formation is shown to be of Keokuk age, and the New Providence formation is recognized for the first time in Tennessee as an embayment deposit. This paper supplements the one by Mr. Frank Springer on the crinoid fauna of the Knobstone formation.

BERRY, EDWARD W. A revision of the fossil plants of the genera Acrostichopteris, Tæniopteris, Nilsonia, and Sapindopsis from the Potomac Group.

Proc. U. S. Nat. Mus., 38, No. 1769, Oct. 18, 1910, pp. 625–644.

——— Contributions to the Mesozoic flora of the Atlantic coastal plain. VI. Georgia.

Bull. Torrey Bot. Club, 37, Oct., 1910, pp. 503–511, figs. 1, 2,

——— A Cretaceous Lycopodium.

Amer. Journ. Sci., 4th series, 30, Oct., 1910, pp. 275, 276, 1 fig.

BERRY, EDWARD W. A Lower Cretaceous species of Schizæaceæ from eastern North America.

Annals of Botany, 25, Jan., 1911, pp. 193–198, pl. 12, 1 fig.

——— A revision of several of the genera of gymnospermous plants from the Potomac Group in Maryland and Virginia.

Proc. U. S. Nat. Mus., 40, No. 1821, May 8, 1911, pp. 289–318.

——— An Engelhardtia from the American Eocene.

Amer. Journ. Sci., 4th series, 31, June, 1911, pp. 491–496.

BURLING, LANCASTER D. Photographing fossils by reflected light.

Amer. Journ. Sci., 31, 1911, pp. 99, 100, 1 fig.

Outlines a method whereby fossils having no relief, but preserved as a shiny film, may be photographed by direct reflected light without distortion, both the object and the photograph being rotated through corresponding angles.

CLARK, AUSTIN HOBART. The systematic position of the crinoid genus Marsupites.

Proc. U. S. Nat. Mus., 40, No. 1845, June 24, 1911, pp. 649–654.

The genus *Marsupites*, known only as a fossil, is assigned to the *Comatulida*; the family *Marsupitidæ*, together with the family *Uintacrinidæ*, are placed in the suborder *Comatulida Innatantes*, the remaining comatulids being divided into the 2 suborders *Comatulida Oligophreata* and *Comatulida Macrophreata*.

The unique calyx structure of *Marsupites* is considered as the result of its pelagic habits, which are, for crinoids, very aberrant.

GILMORE, CHARLES W. Leidyosuchus sternbergii, a new species of crocodile from the Ceratops beds of Wyoming.

Proc. U. S. Nat. Mus., 38, No. 1762, Oct. 15, 1910, pp. 485–502, pls. 23–29, figs. 1, 2.

Describes and figures the new species *Leidyosuchus sternbergii*.

HOLLICK, ARTHUR. Results of a preliminary study of the so-called Kenai flora of Alaska.

Amer. Journ. Sci., 4th series, 31, April, 1911, pp. 327–330.

This paper briefly describes and discusses the flora and points out the significance of the facts brought out in the author's preliminary study. It is further stated that "the identity of the Tertiary floras of northwestern America and northeastern Asia is confirmatory evidence of a former land connection between the two continents in recent geologic times."

KIRK, EDWIN. The structure and relationships of certain eleutherozoic Pelmatozoa.

Proc. U. S. Nat. Mus., 41, No. 1846, June 7, 1911, pp. 1–137, pls. 1–11.

The paper seeks to prove the widespread maintenance of an eleutherozoic form of life among the Pelmatozoa, animals that are commonly held to be essentially statozoic in habit. Certain structural features are discussed at length, in so far as such treatment may throw light on the affinities of the organisms. The modifications incident to the assumption and maintenance of a detached or semidetached existence, and the effect of such a mode of life on the ecology of the organisms, receives considerable attention.

KNOWLTON, F. H. The climate of North America in later-glacial and subsequent post-glacial time.

Postglaziale Klimaveränderungen, Stockholm, 1910, pp. 367–369.

——— The Jurassic age of the "Jurassic flora of Oregon."

Amer. Journ. Sci., 4th ser., 30, July, 1910, pp. 33–64.

There are two fossil floras known in the Mesozoic rocks of California and Oregon, the one Jurassic and the other Cretaceous. While other writers have claimed that the so-called "Jurassic flora of Oregon" is Cretaceous in age, the present paper presents the paleobotanical evidence which proves that the two floras are always perfectly distinct, there being only one species out of 100 that is common to the two, and the conclusion is reached that this "Jurassic flora" is undoubtedly of true Jurassic age. The line between the Jurassic and Cretaceous is to be drawn through the upper part of the Knoxville formation, and not at its base.

KNOWLTON, F. H.—Continued.

MOODIE, ROY L. A new labyrinthodont from the Kansas Coal Measures.

Proc. U. S. Nat. Mus., 39, No. 1796, Jan. 30, 1911, pp. 489–495, figs. 1–4.

Describes and figures the type specimens of the new genus and species *Erpetosuchus kansensis*. The types belong to the U. S. National Museum.

——— Two amphibians, one of them new, from the Carboniferous of Illinois.

Proc. U. S. Nat. Mus., 40, No. 1828, May 8, 1911, pp. 429–433, figs. 1, 2.

Discusses the alimentary canal and skeletal structure of *Eumicrerpeton parvum*, and describes the new species *Amphibamus thoracatus*. The specimens are in the U. S. National Museum.

PARKS, WILLIAM ARTHUR. Ordovician stromatoporoids of America.

University of Toronto Studies, Geological Series, No. 7, 1910, pp. 295–344, pls. 21–25.

Describes all the valid species of Ordovician stromatoporoids and reviews the invalid forms. Many of the types or typical examples are in the U. S. National Museum.

SPRINGER, FRANK. The crinoid fauna of the Knobstone formation.

Proc. U. S. Nat. Mus., 41, No. 1850, June 24, 1911, pp. 175–208.

A detailed study of large collections of crinoids from the Knobstone formation at the classic localities in Kentucky and Tennessee, notably the knobs south of Louisville, Kentucky, and Whites Creek Springs, Tennessee, showed that, upon phylogenetic grounds alone, these could not all have been derived from the Keokuk group, as hitherto reported in the literature and on collectors' labels. A

SPRINGER, FRANK—Continued.

field expedition was undertaken to obtain authentic evidence bearing upon this question with the results published in this and the paper entitled "The Waverlyan period of Tennessee," by R. S. Bassler.

STANTON, TIMOTHY W. Fox Hills sandstone and Lance formation ("Ceratops Beds") in South Dakota, North Dakota, and eastern Wyoming.

Amer. Journ. Sci., 30, Sept., 1910, pp. 172–188.

The paleontologic evidence cited is based on Geological Survey collections which will be transferred to the U. S. National Museum. The paper is an argument for assigning the Lance formation to the Cretaceous and for correlating it with a part of the Laramie.

WALCOTT, CHARLES D. Olenellus and other genera of the Mesonacidæ.

Smithsonian Misc. Colls., 53, No. 6, August 12, 1910, pp. 231–422, pls. 23–44, figs. 10–17.

Proposes 4 new genera, 14 new species, and 1 new variety of the Mesonacidæ, and redefines, describes, and discusses the known *Olenellus*-like trilobites, distributing them among 10 genera. The telson of *Olenellus* is shown to have resulted from the great development of the median spine on the fifteenth segment and the absorption of the posterior rudimentary segments and pygidium of *Mesonacis* and *Pædeumias*. Figures the visual surface of the eye of *Olenellus gilberti*, showing 42 facets.

——— Pre-Cambrian rocks of the Bow River Valley, Alberta, Canada.

Smithsonian Misc. Colls., 53, No. 7, August, 1910, pp. 423–431, pls. 45–47.

Announces the discovery of a series of strata unconformably underlying the Cambrian strata in the Bow Valley of Alberta, giving sections, and proposing the terms Hector and Corral Creek for the beds in question. Accompanied by a topographic and geologic map of the Bow Valley.

WALCOTT, CHARLES D. Abrupt appearance of the Cambrian fauna on the North American continent.

Smithsonian Misc. Colls., 57, No. 1, August 18, 1910, pp. 1–16, with 1 map.

Discusses the pre-Cambrian sedimentation of North America, concludes that the strata were deposited in fresh-water lakes having no connection with the ocean, proposes the term Lipalian era for the period between the formation of the Algonkian continents and the earliest encroachment of the Lower Cambrian sea, and concludes that the apparently abrupt appearance of the Cambrian fauna is to be explained by the absence on our present land areas of the sediments, and hence faunas, of the Lipalian period.

——— Middle Cambrian Merostomata.

Smithsonian Misc. Colls., 57, No. 2, April 8, 1911, pp. 17–40, pls. 2–7.

Describes and figures numerous specimens representing a new suborder of Eurypterid crustaceans. These show the dorsal and ventral surfaces, the branchiæ and appendages.

——— Middle Cambrian holothurians and medusæ.

Smithsonian Misc. Colls., 57, No. 3, June 13, 1911, pp. 41–68, pls. 8–13, figs. 2–6.

Describes and figures 1 new family and 4 new genera and species of holothurians from the Burgess shale member of the Stephen formation, a name which is defined; and a new genus and species of medusæ.

——— Cambrian faunas of China.

Smithsonian Misc. Colls., 57, No. 4, June 17, 1911, pp. 69–108, pls. 14–17, figs. 7, 7a.

Describes and figures 23 new species of fossils collected in China by Eliot Blackwelder, and in Manchuria by J. P. Iddings; 2 new species from Quebec, and 4 new species from Alabama. Proposes 5 new genera and 1 new subgenus, figuring the type specimens of each; also figures the type species of 1 old genus. A list gives the new generic reference of all species affected by the changes in the genera.

MISCELLANEOUS.

DALL, WILLIAM HEALEY. W. G. W. Harford.

Nautilus, 25, No. 1, May, 1911, p. 8.

Obituary notice of a former collaborator of the U. S. National Museum.

——— Biographical sketch of R. E. C. Stearns.

Smithsonian Misc. Colls., 56, No. 18, pp. 1–3, with portrait.

Biographical sketch of a former assistant curator and collaborator of the U. S. National Museum.

DALL, WILLIAM HEALEY. Bibliographical memoir of Charles Abiathar White, 1826–1910.

Nat. Acad. Sciences, Biogr. Memoirs, VII, pp. 225–243, July, 1911, with portrait.

Memoir of a former curator and long-time collaborator of the U. S. National Museum.

GILL, THEODORE. A new translation of Aristotle's "History of Animals."

Science (n. s.), 33, No. 854, May 12, 1911, pp. 730–738.