# PART I.

## REPORT

UPON THE

CONDITION AND PROGRESS OF THE U.S. NATIONAL MUSEUM DURING THE YEAR ENDING JUNE 30, 1896.

BY

## G. BROWN GOODE,

assistant secretary, smithsonian institution, in charge of u. s. national museum.



#### REPORT

UPON

THE CONDITION AND PROGRESS OF THE U.S. NATIONAL MUSEUM DURING THE YEAR ENDING JUNE 30, 1896.

BY

G. BROWN GOODE,

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

## I.—GENERAL CONSIDERATIONS.

By act of Congress passed in 1846 the Smithsonian Institution became the only lawful place of deposit for "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." These collections have served as a nucleus for the National Museum of the United States. For many years this Museum was supported entirely at the expense of the Smithson fund, and a considerable portion of the collections is the property of the Institution through gift or purchase.

A "museum" has been defined by Professor Huxley as "a consultative library of objects." Not only is the National Museum such a consultative library, but it is an agency for the instruction of the people of the whole country. It keeps in mind the needs of those whose lives are not occupied in the study of science, as well as of the teacher and the skilled investigator. Its benefits are extended without cost or reserve to hundreds of thousands of visitors from all parts of the United States who enter its halls every year, and through the distribution of the duplicate specimens in the Museum, made up into sets and accurately named, to public institutions in all parts of the country.

## A.—ORIGIN AND DEVELOPMENT OF THE MUSEUM.

The history of the origin and development of the Museum has been detailed in previous reports, and was made the special subject of a paper entitled "The Genesis of the National Museum." For our pres-

<sup>1&</sup>quot;The Genesis of the National Museum," Report of the Smithsonian Institution (U. S. National Museum), 1891, pp. 273-330.

ent purpose it will suffice to repeat a few of the most essential facts as there stated.

The formation of a national museum in the city of Washington was first undertaken by a society organized in 1840, called "The National Institution," and afterwards "The National Institute," which was for four years exceedingly prosperous and active. The nucleus for a national museum was gathered by this society in the Patent Office building in Washington, and public opinion was educated to consider the establishment of such an institution worthy of the attention of the Government of the United States. In 1846, having failed in securing the public recognition at which it aimed, the society became inactive, and eventually, in 1861, passed out of existence. In the meantime the Smithsonian Institution had been organized, but from 1844 until 1858, when the so called "National Cabinet of Curiosities" passed into the charge of the Smithsonian Institution, the term "National Museum" was not in use. From that time onward it was used, unofficially, to designate the collections in the Smithsonian building.

In January, 1847, the first Board of Regents of the Smithsonian Institution, after many weeks of consultation and deliberation over the plans for organization, unanimously voted the following resolution:

Resolved, That it is the intention of the act of Congress, 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.

After the "national cabinet" had been delivered to the Regents, annual appropriations were made by Congress for its maintenance. During the twenty-three years which followed, the collections were greatly increased and were made the basis of numerous important memoirs upon the natural history and ethnology of America. The public halls, with their arrangements for the exhibition of a portion of the collection, also received a due share of attention, and a certain amount of instruction and pleasure was afforded to visitors. The appropriations, however, were meager, the space limited, and the staff was so inadequate that little could be done except to keep the collections in good preservation.

The broad plan upon which the operations of the National Museum are now conducted was anticipated as early as 1853, when Professor Henry wrote:

There can be little doubt that in due time ample provision will be made for a library and museum at the capital of this Union worthy of a Government whose perpetuity depends upon the virtue and intelligence of the people.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup>Report of committee on organization, p. 20.

<sup>&</sup>lt;sup>2</sup>Report of the Smithsonian Institution, 1853, p. 245.

The difficulties attending the formation of such a museum were appreciated by him, and in his report for 1849 he spoke with much emphasis of the difficulties attending the assumption by the Institution of the care of the national collections, and in the Report of the Institution for 1870 he again carefully expressed his opinion as to the aims proper to such a museum.

"There is [he wrote] scarcely any subject connected with science and education to which more attention is given at the present day than that of collections of objects of nature and art known under the general denominations of museums. This arises from their growing importance as aids to scientific investigation and instruction."

In the Report for 1873<sup>2</sup> allusion was made to the increase in the national collections, even then very great, "requiring the utmost exertions of the limited force connected with the National Museum for its proper treatment."

Although the appropriations for the Museum have of late years been more liberal, it is certain that, on account of the immense annual increase in the quantity of material received, quite as much caution as ever is needed in the development of its plans for the future.

The Smithsonian Institution, from its foundation, fostered explorations, and its museum was enriched by the numerous ethnological and natural history objects brought home by the explorers. Many gifts were received from private sources, and valuable objects were deposited in its museum for safe keeping. The nucleus of its collections was a small but valuable cabinet of minerals formed by the founder, James Smithson, who was himself a chemist and mineralogist of high repute, and a Fellow of the Royal Society of London.

At the time of the establishment of the Institution several naval expeditions and surveys of the public domain were being organized by the Government, and during their progress large collections of ethnological and natural history objects were made. Important foreign material was obtained by the Pacific Exploring Expedition, Perry's Expedition to Japan, and other naval expeditions, while the naturalists attached to the Pacific Railroad Survey, the Mexican Boundary Survey, and the surveys under the Army Engineer Corps brought together great collections illustrating the natural resources and ethnology of North America.

A new source of growth, subsequent to 1871, was the exploration of the waters of North America by the United States Fish Commission, The great collections of all forms of aquatic life made by the Commission found their way gradually into the National Museum, to be placed beside the collections of other bureaus of the Government engaged in scientific work.

At the close of the Centennial Exhibition of 1876 the exhibits of the United States Government and those of numerous foreign governments and of private exhibitors came to the National Museum.

A new period now began. The storage rooms and exhibition halls of the Smithsonian building were already overflowing with the accumulations of thirty years, and the small number of persons employed in earing for them were overburdened and unable properly to perform the requisite work. The limits of the collections had become wider, and a new and broader classification was found to be necessary. The growth of the country in wealth and culture had led to the establishment of many local museums, and the educational influences flowing from these and from the Centennial Exhibition caused a demand for more efficient methods of museum administration. The exhibition of 1876 had been indeed an event of great educational importance to the people of the United States; and not the least of its good works was the lesson it taught as to the possibilities for good in public museums.

The objects which at the close of the Centennial Exhibition were given to the United States for its National Musem were of large intrinsic value, and were also very important from the fact that the necessity of caring for them led to the erection of a large building for the expansion of the Museum itself.

In the early years Professor Baird, then assistant secretary of the Institution, with two or three assistants, had been able to give all necessary attention to the care of the collections, and the Museum had never been formally divided into departments. When the reorganization was made in 1881, under the immediate care of the present assistant secretary, the diversity of the collections made it necessary to establish a number of departments, each of which was placed in charge of a curator.

There are now twenty-eight organized departments and sections in the Museum, the larger number of which are in charge of specialists who receive no salary from the Museum. There are also seven administrative offices.

#### SPECIAL EPOCHS IN THE HISTORY OF THE MUSEUM.

The history of the National Museum may be divided into three periods:

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

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

Third, the present period (beginning in the year 1876), in which the

Museum has undertaken more fully the additional task of gathering collections and exhibiting them on account of their value from an educational standpoint.

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

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

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

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

In conclusion let us review what seems to have been definitely accomplished since the time of reorganization in 1881.

The definite steps of progress may be summarized as follows:

- (1) An organization of the Museum staff has been effected, efficient for present purposes and capable of expansion and extension as occasion may require, and many capable museum experts have been trained for work in other institutions.
- (2) Through the agency of the staff the materials in the Museum, the accumulations of nearly half a century, have been examined, classified, and brought under control and arranged in such manner as to insure their sefety and make them available for study.
  - (3) The collections have been increased eighteenfold.
- (4) A considerable beginning has been made toward the development of a well-labeled and effectually installed exhibition series, available for the instruction of the public.
- (5) A thorough study of the organization and systems of classification in other museums throughout the world has been made, the results of which are beginning to appear in the work of the Museum staff and which will be made available for other institutions from time to time through the publications of the Museum.

(6) Many new methods of installation have been developed by experiment in the Museum, and the best and most available employed elsewhere have been adopted. Our new methods are being applied in many similar establishments at home and abroad.

(7) The art of taxidermy and the making of museum models has been advanced and dignified by the policy adopted in the treatment of the

experts in the employ of the Museum.

(8) Science has been forwarded by the publication of some thousands of papers describing the materials in the Museum, while the work of specialists in the production of these papers has greatly enhanced the value of the national collections.

(9) Popular educational work of unquestioned value has been accomplished by participation in the great expositions in Philadelphia, Berlin, London, New Orleans, Cincinnati, Louisville, Madrid, and Chicago.

(10) Hundreds of thousands of named specimens have been distributed to other museums and to colleges and schools.

#### EXPECTATIONS OF FUTURE DEVELOPMENT.

That the United States must have a National Museum worthy of the dignity of the nation is self-evident.

Every country has a museum or group of museums in its capital city—centers of scientific and educational activity—the treasure-house of the people, filled with memorials of national triumphs in the fields of science, art, and industrial progress.<sup>1</sup>

These are legitimate objects of national pride, for upon the character of its museums and libraries, intelligent persons, visiting a country, very properly base their judgment as to the nature and degree of the civilization of the people.

Washington may without question be made the seat of one of the greatest museums in the world. It may perhaps be neither practicable nor desirable to gather together in this city extensive collections of ancient medieval art, but a representative series of such objects will undoubtedly grow up which will tend to educate the public taste, promote the study of the elements of art and the history of civilization, and forward the arts of design. This having been accomplished, attention should be directed mainly toward the exhibition of the geology and natural history of America and its natural resources, to the preservation of memorials of its aboriginal inhabitants, and the encouragement of the arts and industries of our own people.

It is evident that the National Museum of the United States will of necessity have features peculiar to itself, developed in response to the peculiar needs of the people of this continent. It should be remembered that the national collections of every principal European nation are divided into several groups, each under separate administration,

Most of the older nations have museums devoted to their military achievements and triumphs, but our country has no need or desire to enter into this field of work.

though often within the general control of some central authority. In France, for instance, most of the museums are under the Ministry of Public Instruction, and in England, to a less extent, under the Department of Science and Art.

In the great capitals of Europe the public collections are scattered through various parts of the same city, in museums with distinctive names and independent in their organizations. Much of the work which should properly be done by such museums is omitted, because no one of them has seen fit to undertake it; while, on the other hand, much labor is duplicated, which is perhaps equally unfortunate—collections of similar scope and purpose being maintained in different parts of the same city. One of the chief objections to such division of effort is that much of the value of large collections in any department is lost by failure to concentrate them where they may be studied and compared side by side. In Washington the national collections are all, without exception, concentrated in one group of buildings. The Army Medical Museum now occupies a building side by side with those under the control of the Smithsonian Institution, and this proximity, in connection with the long-established policy of cooperation between the two organizations, renders them, for all practical purposes, united in interest.

Although the appropriations from the public treasury for the maintenance of the National Museum are small compared with those in several European countries, the value of objects given by private individuals is proportionately large. The actual value of such contributions for ten years past has not, it is estimated, fallen short of \$20,000 a year, and in some years it has been greater.

Among important gifts may be mentioned the George Catlin Indian gallery, of inestimable value to the American historian and ethnologist; the collection of North American insects, given by Prof. C. V. Riley; the collection bequeathed in 1887 by the late Dr. Isaac Lea, of Philadelphia, containing, besides minerals and other objects, about 20,000 conchological specimens, and appraised by the State at \$10,000; the collections of mollusks, gems, and precious stones presented by the Rev. L. T. Chamberlain and Mrs. Frances Lea Chamberlain; the large and valuable collections of African mammals, birds, etc., made and presented by Dr. W. L. Abbott and Mr. William Astor Chanler; the Bendire and Ralph collections of American birds' eggs, given to the Smithsonian Institution; the Lacoe collection of fossil plants, and the collection of the American Institute of Mining Engineers, for the transfer of which from Philadelphia to Washington a special appropriation was made by Congress.

Some exceedingly valuable collections in this country and in Europe have been bequeathed to the Smithsonian Institution, which have not yet come into its possession. It is estimated that within the past fifteen years individuals to the number of more than 2,000 have made gifts to the Museum to the value of \$100 each, or more.

The National Museum now contains more than three and a half millions of objects.

The intrinsic value of such collections as these can not well be expressed in figures. There are single specimens worth hundreds, others worth thousands of dollars, and still others which are unique and priceless. Many series of specimens, which owe their value to their completeness and to the labor which has been expended on them, can not be replaced at any price. The collections at a forced sale would realize more than has been expended on them, and a fair appraisal of their value would amount to several millions of dollars.

One of the most striking features in the affairs of the Museum is the manner in which its collections are increasing. In 1896 the number of specimens is more than eighteen times as great as in 1882.

In the direct purchase of specimens but little money has been spent, less perhaps in fifty years than either France, England, Germany, or Austria expends in a single year on similar objects. The entire Museum is the outgrowth of Government expeditions and expositions, and of gifts prompted largely by the generosity of the American people.

As might be supposed, a considerable proportion of the objects given are duplicates of material already on hand, and although these contributions can, with the utmost advantage, be used for distribution to museums and schools, they do not materially increase the value of the collections for study by specialists and for general educational purposes.

The need of a larger fund for the purchase of specimens is yearly becoming more manifest. Exceedingly important material is constantly offered at prices very much below what it would cost to obtain it by collecting, and in many instances, when refused, it is eagerly taken by the museums and institutions of Europe.

The Museum in its present condition may be compared to a book from which pages here and there have been omitted, so that the narrative is disjointed and incomplete.

The museums of England are rich with the accumulations of centuries. The National Museum of the United States is young, and has enormous deficiencies in every department. It needs, more than any museum in Europe, the opportunity to increase its resources through purchase. The total amount expended for the purchase of specimens for the National Museum since 1891 has averaged less than \$7,000 a year.

For the purchase of specimens for the South Kensington Museum, from 1853 to 1887, \$1,586,634 was expended, or a yearly average of nearly \$47,000.

Toward her other museums England is equally liberal. Exact statistics are not at hand, but it is quite within bounds to assert that her average expenditures for the purchase of new objects for museums in London is not less than \$500,000 a year.

Our Museum is the result of the activities of an enlightened Government. Through a thousand channels materials for the formation of a museum come into the possession of the Government, and out of such materials our Museum has been built. A museum formed in this man ner, however, suffers sooner or later from immense accumulations of objects of certain kinds and from the absence of others. This is true of the National Museum. At the outset no additions were unwelcome, and the expectation that all important deficiencies would be supplied might properly be indulged in. As the years have passed, however, it has become more and more apparent that many of these deficiencies can only be supplied by purchase.

More striking present results might certainly have been attained by limiting the developments of the Museum to special fields. We have, however, had in view the future as well as the present, and no object has been refused a place in the Museum which is likely to be needed, even in the remote future, in the development of whatever grand museum plans the nation may ultimately be willing to promote.

#### B.—Organization and Scope of the Museum.

The National Museum is under the charge of the Smithsonian Institution, and its operations are supervised by the Board of Regents of the Institution.

The Secretary of the Smithsonian Institution is by law the "keeper of the Smithsonian Museum," and the assistant secretary, by the usage of nearly fifty years, its executive head.

In the act of Congress passed in 1846, to establish the Smithsonian Institution, are contained the following provisions concerning the scope of the museum to be placed under its charge:

1. The act above referred to provides that "all objects of art and of foreign and curious research, and all objects of natural history, plants, and geological and mineralogical specimens belonging, or hereafter to belong, to the United States, which may be in the city of Washington," shall be delivered to the Regents of the Smithsonian Institution, and, together with new specimens obtained by exchange, donation, or otherwise, shall be so arranged and classified as best to facilitate examination and study.

2. It provides that, in proportion as suitable arrangements can be made for their reception, these objects shall be delivered to such persons as may be authorized by the Board of Regents to receive

them.

3. It provides that they shall be arranged in such order and so classified as best to facilitate their examination and study.

4. It provides that they shall thus be arranged in the building to

be erected for the Institution.

5. It authorizes the Regents to obtain new specimens, by exchange of duplicate specimens and by gift, and directs also that they shall be appropriately classified and arranged.

The National Museum thus became the authorized place of deposit for all objects of art, archæology, ethnology, natural history, miner-

alogy, geology, etc., belonging to the United States or collected by any agency whatsoever for the Government of the United States, when no longer needed for investigations in progress.

The collections in the Museum are intended to exhibit the natural and industrial resources, primarily of the United States and secondarily

of other parts of the world, for purposes of comparison.

The activities of the Museum are exerted especially in three directions:

1. The permanent preservation of the collections already in its possession, which depends chiefly upon the vigilance of the curators and the skill of the preparators.

2. The increase of the collections, which are acquired-

(1) From the various Government surveys and expeditions, in accordance with law;

(2) By gift from individuals, from other institutions, and from

foreign governments;

(3) By exchange for its duplicate specimens or for publications;

(4) By the efforts of officers of the Museum, who make collections in connection with their regular duties, or are detailed for special service of this nature;

(5) By purchase, when appropriations are made by Congress for

that purpose.

3. The utilization of the collections, which is effected by exhibiting them to the public, and by encouraging investigations on the part of the officers of the Museum and other suitable persons, and facilitating the publication of the results; also by the distribution to other museums and educational institutions of duplicate specimens, which have formed the basis of scientific investigation, these being identified and labeled by the best authorities.

The collections of the National Museum are made up to a very large extent of the following materials:

1. The natural history and anthropological collections accumulated since 1850 by the efforts of the officers and correspondents of

the Smithsonian Institution.

2. Collections which have resulted from explorations carried on more or less directly under the auspices of the Smithsonian Institution, or resulting from explorations carried on by the Smithsonian Institution in connection with educational institutions or commercial establishments.

3. Collections which have been obtained through the courtesy of the Department of State and the cooperation of United States

ministers and consuls.

4. The collection of the Wilkes Exploring Expedition, the Perry

Expedition to Japan, and other naval expeditions.

5. Collections made by the scientific officers of Government surveys, such as the Pacific Railroad Survey, the Mexican Boundary Survey, and the surveys carried on by the Engineer Corps of the United States Army and by officers of the Signal Corps of the United States Army stationed in remote regions.

6. Collections obtained by the United States Geological Survey, the United States Fish Commission, and those resulting from the activities of the United States Department of Agriculture and other

Departments of the Government.

7. The remnant of the collections of the old "National Institute."

8. The collections made by the United States to illustrate the animal and mineral resources, the fisheries, and the ethnology of the native races of the country on the occasion of the Centennial Exhibition at Philadelphia in 1876; the fishery collections displayed by the United States at the International Fisheries Exhibition at Berlin in 1880 and at London in 1883, and the collections obtained from various local expositions, as, for instance, the New Orleans Cotton Centennial Exposition in 1884 and 1885, the Cincinnati Exposition in 1887, and the World's Columbian Exposition in 1893.

9. The collections given by the Governments of the several foreign nations, thirty in number, which participated in the exhibition

at Philadelphia in 1876.

10. The industrial collections given by numerous manufacturing and commercial houses of Europe and America at the time of the Philadelphia Exhibition and subsequently.

11. The materials received from museums in Europe and America

in exchange for duplicate specimens.

12. Collections received as gifts, deposits, or in exchange from individuals, numbering usually from 1,000 to 1,500 each year.

The publications of the Museum consist of-

1. The Annual Report.

2. The Proceedings of the National Museum.

3. The Bulletin of the National Museum.

4. The series of circulars.

Papers by members of the Museum staff, based upon the collections, have been printed in every scientific periodical in the United States and in many of those of Europe.

#### RELATIONS OF THE MUSEUM TO THE SMITHSONIAN INSTITUTION.

The Smithsonian Institution, although it bears the name of a foreigner, has for half a century been one of the most important agencies in the intellectual life of our people. It has been a rallying point for the workers in every department of scientific and educational work and the chief agency for the free exchange of books, apparatus of research, and of scientific intelligence between this and other countries. Its publications, which include more than two hundred volumes. are to be found in all the important libraries in the world, and some of them, it is safe to say, on the work-table of every scientific investigator. Its great library constitutes an integral and very important part of the national collection at the Capitol, and its museum is the richest in existence in many branches of the natural history and ethnology of the New World. Many wise and enlightened scholars have given their best years to its service, and some of the most eminent men of science to whom our country has given birth have passed their entire lifetime in working for its success.

Through these books, through the reputation of the men who have worked for it and through it, and through the good accomplished by its system of international exchange, by means of which within the past forty-four years about one and a half million packages of books and other scientific and literary materials have been distributed to every region of the earth, it has acquired a reputation at least as far-reaching as that of any other institution of learning in the world.

It is therefore representative of what is deemed in other lands the chief glory of this nation, for whatever may be thought in other countries of American art and literature, or of American institutions generally, the science of America is everywhere accepted as sound,

vigorous, and progressive.

In the scientific journals of Great Britain and other European countries the reader finds most appreciative reviews of the scientific publications of the Smithsonian, the Museum, the Bureau of Ethnology, the Geological Survey, the Department of Agriculture, and the Fish Commission, and they are constantly holding up the Government of the United States as an example of what governments should do for the support of their scientific institutions.

It is surely a legitimate source of pride to Americans that their work in science should be so thoroughly appreciated by other nations, and it is important that the reputation should be maintained. Nothing can be more in consonance with the spirit of our Government, or more in accord with the injunction of Washington in his Farewell Address, admiringly quoted by Sir Lyon Playfair in his address as president of the British Association for the Advancement of Science:

Promote, then, as an object of primary importance, institutions for the general diffusion of knowledge.

In proportion as the structure of a government gives force to public opinion, it should be enlightened.

No one has yet explained, except by conjecture, why James Smithson selected the United States as the seat of his foundation. He had no acquaintances in America, nor does he appear to have had any books relating to America, except two. Rhees quotes from one of these ("Travels through North America," by Isaac Weld, secretary of the Royal Society) a paragraph concerning Washington, then a small town of 5,000 inhabitants, in which it is predicted that "the Federal city, as soon as navigation is perfected, will increase most rapidly," and that, at a future day, if the affairs of the United States go on as prosperously as they have done, it will become the grand emporium of the West and rival in magnitude and splendor the cities of the Old World.

Inspired by a belief in the future greatness of the new nation, realizing that while the needs of England were well met by existing organizations, such as would not be likely to spring up for many years in a new, poor, and growing country, he founded in the new England an institution of learning, the civilizing power of which has been of incalculable value. Who can attempt to say what the condition of the United States would have been to-day without this bequest?

Well did President John Quincy Adams say:

Of all the foundations of establishments for pious or charitable uses

which ever signalized the spirit of the age or the comprehensive beneficence of the founder, none can be named more deserving the approbation of mankind.

The most important service by far which the Smithsonian Institution has rendered to the nation has been that extended from year to year since 1846—intangible but none the less appreciable—by its constant cooperation with the Government, public institutions, and individuals in every enterprise, scientific or educational, which needed advice, support, or aid from manifold resources.

There have been, however, material results of its activities, the extent of which can not fail to impress anyone who will look at them. The most important of these are the library and the Museum, which have grown up under its fostering care.

#### THE LIBRARY.

The library has been accumulated without aid from the Treasury of the United States. It has, in fact, been the result of an extensive system of exchanges, the publications of the Institution having been used to obtain similar publications from institutions of learning in all parts of the world.

The value of the books distributed since the Institution was opened, must have been nearly \$1,000,000, or nearly twice the original bequest of Smithson.<sup>1</sup> Many of these publications are now out of print.

In return for these, and by purchase, it has received the great collection of books which forms its library and which is one of the richest in the world in the publications of learned societies, and therefore of inestimable value, containing, as it does, the record of actual progress in all that pertains to the mental and physical development of the human family, and affording the means of tracing the history of every branch of positive science since the days of the revival of letters until the present time. This library was, in 1865, deposited at the Capitol, as a portion of the Congressional Library.

The Smithsonian Collection, which includes more than three hundred thousand volumes and parts of volumes, constituting perhaps one-fourth of the National Library, is to be installed in a special hall of its own upon the main floor of the new library building. The rapidity with which it is increasing is indicated by the fact that more than 32,000 titles were added during the past fiscal year.<sup>2</sup>

The Institution has probably done more toward building up a great library in Washington than would have been possible had all its income been devoted strictly to library work, as was at one time seriously proposed.

<sup>&</sup>lt;sup>1</sup>This estimate is based upon the prices which are charged for the books by second-hand dealers, as shown in their catalogues.

The working libraries of the National Museum and the Bureau of Ethnology are distinct from the general Smithsonian library and are separately administered. All of these are placed at the service of advanced students and specialists.

The books are still deposited chiefly in the Capitol, but though their number has been so largely increased year by year, now forming one of the most valuable collections of the kind in existence, they not only remain unbound, but in a far more crowded and inaccessible condition than they were before the transfer, a condition of affairs which, it is hoped, will soon be remedied.

The purchasing power of the publications of the Institution, when offered in exchange, is far greater than that of money, and its benefit is exerted chiefly in behalf of the National Library, and also to a con-

siderable extent in behalf of the National Museum.

The amount expended during the past forty years from the private fund of the Institution, in the publication of books for gratuitous distribution, has been fully half as much as the original Smithson bequest.

These publications have had their influence for good in many ways; but, in addition to this, a library much more than equal in value to the outlay has, through their buying power, come into the possession of the nation.

In addition to all this, a large amount of material has been acquired for the Museum by direct expenditure from the private fund of the Smithsonian Institution. The value of the collections thus acquired is estimated to be more than equal to the whole amount of the Smithson bequest.

The early history of the Museum was much like that of the library. It was not until 1858 that it became the authorized depository of the scientific collections of the Government, and it was not until after 1876 that it was officially recognized as the National Museum of the United States.

But for the provident forethought of the Smithsonian Institution, the United States would probably still be without a reputable nucleus for a national museum.

The relations of the Museum to the system of popular lectures, for many years established in Washington, which replaces the old Smithsonian courses, once so influential, and the assistance which it affords each year to students of science, are referred to elsewhere in this report.

The Institution publishes many circulars giving information on scientific subjects, which are distributed gratuitously to those who write to make inquiries, and this system is being continually extended. In addition to this, a large correspondence is carried on with people in search of information on scientific topics. Probably not less than 7,500 letters a year go out to people who write seeking to know the name of some object or other scientific fact. Inquiries of this kind are always answered promptly and fully; and frequently, to intelligent inquirers, books are sent which will enable them to find out such names for themselves in future. This work has not only an educational value, but often a great economic importance as well, as, for instance, when some common min-

eral has been mistaken for one of value, some useless plant has been wrongly identified and supposed to be of service in medicine, or some harmless animal feared as noxious.

The publications of the Institution and its dependencies reach every State and almost every county in the United States. A careful study of the subject, recently made by the president of one of the scientific societies in Washington, seems to indicate that there are several States which are reached by no scientific publications whatever except those distributed gratuitously by the Government.

Speaking of the Smithsonian Institution proper, and not of the Museum or any other trust which it administers, it may be positively stated that in the execution of the trust of Smithson more has been given to the Government than has been received. The machinery of the Institution's action has been such that it has incidentally, in connection with its legitimate work for the increase and diffusion of knowledge, paid over to the Government the equivalent of much more than the whole original fund.

Can the United States fail to recognize its obligation to supplement liberally this private contribution for public good, especially if it be borne in mind that, as Secretary Langley has shown, the Institution has left in perpetual charge of the nation, in the Museum alone, property acquired out of its private fund which is now more than equal in value to the whole amount of the Smithson bequest?

Every museum has its special characteristics growing out of its form of organization, its location, scope, and financial and other resources. The character of the National Museum is fundamentally affected by its connection with the Smithsonian Institution, its dependence upon Congress for appropriations annually, and the necessity, under existing laws, of its earing for all collections belonging to the Government.

Of the connection of the Museum with the Smithsonian Institution, it should be said that it is in the highest degree advantageous. It should be borne in mind that it is essentially a Smithsonian museum, since, especially in its earlier history, the Institution expended large sums of money in aiding explorations, with the distinct purpose of increasing the collections in certain directions, while of late years it has deposited all the valuable gifts and bequests of specimens it has received. It has had in addition, for nearly half a century, the use of the larger portion of the Smithsonian building, and, what is of paramount importance, the guidance and influence of the officers of the Institution, and the very valuable assistance of its numerous correspondents.

## C .- THE WORK OF THE MUSEUM IN PUBLIC EDUCATION.

The work of the Museum, if it only performed the functions of an institution for scientific investigation, would be of sufficient value to justify its maintenance and extension. The Museum, however, not

only performs these functions, but also does a very great deal to render the resources of science available to the public at large.

The National Museum is a treasure-house filled with materials for the use of investigators, and it is also an agency for the instruction of the people of the whole country.

In a recent address before the American Historical Association, I

attempted to explain the idea of our work as follows:

(1) That public institutions of learning are not intended for the few, but for the enlightenment and education of the masses.

(2) That the public has a right to full participation in the results of the work of the scientific establishments which they are helping to

maintain.

(3) That one of the chief duties of the officers of these institutions is to provide means by which such results may be presented in an attractive as well as an intelligible form.

No scientific institution is more thoroughly committed to the work of the diffusion of knowledge than is the Smithsonian Institution, and no department of its activity has greater possibilities in this respect than the National Museum.

The benefits of the Museum are extended not only to the specialists in its laboratories and to the hundreds of thousands of visitors from all parts of the United States who pass its doors each year, but to local institutions and their visitors throughout the country, through the distribution of the duplicate specimens in the Museum, which are made up into sets, accurately named, and distributed to schools and museums. Every museum in the United States has profited in this way, and by its system of exchange the Museum has, while enriching itself, contributed largely to the stores of every important scientific museum in the world.

Not only are specimens thus sent out, but aid is rendered in other ways. Within the last year many local museums in the United States were supplied with working plans of cases in use in the Museum, and similar sets of plans have been supplied within the past few years to national museums in other countries,

Not only do the people of the country at large profit by the work of the Smithsonian, as made available to local institutions, but also to a very considerable extent directly and personally.

The curator of each department in the Museum is expected to be an authority in his own line of work, and the knowledge of the whole staff of experts is thus placed, without cost, at the service of every citizen.

It is much to be regretted that many specialists, intent chiefly upon the study of certain scientific problems in which they individually are absorbed, are disposed to neglect the claims of the educated public to the enjoyment and instruction which museums afford. They do not hesitate to say that scientific museums should be administered for the benefit solely of persons engaged in research. Such men would find no welcome among us.

The experience of Europe, with its magnificent public museums, and the history of the several expositions in the United States should be quite sufficient to satisfy anyone who has studied the matter, that the museum is an educational power even more influential than the public library.

The venerable director of the South Kensington Museum, the late Sir Philip Cunliffe Owen, speaking from an experience of thirty-five years, not only in his own establishment, but in the work of building up the score of affiliated museums in the various provincial towns of Great Britain, remarked to the writer:

We educate our working people in the public schools, give them a love for refined and beautiful objects, and stimulate in them a desire for information. They leave school, go into the pursuits of town life, and have no means provided for the gratification of the tastes which they have been forced to acquire. It is as much the duty of the Government to provide them with museums and libraries for their higher education as it is to establish schools for their primary instruction.

In the same conversation Sir Philip insisted very strongly that a museum not actually engaged in educational work of some kind could not long survive, pointing to the great system of lectures and examinations connected with the Science and Art Department of the Council of Education, of which the South Kensington Museum was one of the chief agencies.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>No new general statement relating to the history, organization, and activities of the National Museum having been prepared by Dr. Goode prior to his death, the foregoing paragraphs are repeated from the Report of 1895, with a few minor changes, bringing the subject down to date.—Editor.

## II.—SPECIAL TOPICS OF THE YEAR.

#### THE MUSEUM STAFF.

There has been no change during the year in the number of scientific departments and sections in the Museum or in the number of administrative divisions.

Prof. C. V. Riley, honorary curator of the department of insects in the National Museum, and for many years entomologist of the Department of Agriculture, died on September 14, 1895. Mr. L. O. Howard, who was recently appointed entomologist of the Department of Agriculture, has also accepted the position held by Professor Riley in the Museum.

Mr. D. W. Coquillett has been appointed custodian of the collection of Diptera, Mr. W. H. Ashmead of the Hymenoptera, Mr. O. F. Cook of the Myriapoda, and Mr. E. A. Schwarz of the Coleopterous larva.

All of the appointments above mentioned were made under date of October 8, 1895.

Mr. George C. Maynard, of this city, was appointed custodian of the electrical collections in March, 1896, and Dr. C. Hart Merriam, of the Department of Agriculture, has been made an Associate in Zoology.

Mr. R. E. Earll, editor of Proceedings and Bulletins, died on March 19, 1896. Dr. Marcus Benjamin was appointed on April 1 to fill the vacancy thus made.

A complete list of the officers of the Museum will be found in Appendix r.

#### ACCESSIONS TO THE COLLECTIONS.

There have been 1,299 accessions during the year, an increase of 76 over the record for preceding fiscal year, and of 138 over the record for the year ending June 30, 1894. These accessions embrace 73,104 specimens, and were included between accession numbers 29535 and 30833. The appended tables show, respectively, the number of specimens received by the various departments of the Museum during the year, and the total number of specimens in those departments on June 30, 1896. It will be seen that the number of specimens now in the Museum is estimated at more than 3,500,000.

## Number of specimens received in 1895-96.

Arts and industries:	
Materia medica	3
Animal products	11
Graphic arts	59
Transportation and engineering	112
Naval architecture	12
Historical collections	1,053
Musical instruments.	43
Modern pottery, porcelain, bronzes, etc	268
Domestic animals	14
Ethnology	2,828
Pueblo collection	1, 553
Oriental antiquities and religious ceremonials	300
Prehistoric anthropology	5, 826
Mammals (skins and alcoholics)	1,048
Birds	8,488
Birds' eggs and nests	1,883
Reptiles and batrachians	329
Fishes.	3, 000
Mollusks	3, 173
Insects	7, 000
Marine invertebrates	4,831
Helminthological collection	11,444
Comparative anatomy:	
Mammals	
Birds.	
Reptiles and batrachians.	207
Fishes	
Paleontology:	
Vertebrate fossils	81
Invertebrate fossils—	
Paleozoic	832
Mesozoic	2, 574
Cenezoic	3, 663
Fossil plants	2, 616
Recent plants	17, 118
Minerals	1,073
Geology	1, 662
Total	73, 104

<sup>&</sup>lt;sup>1</sup> Number of catalogue entries during the year.

## Number of specimens in the departments of the Museum on June 30, 1896.

Department.	Specimens.
Arts and industries:	
Materia medica	6, 325
Foods	1, 114
Textiles	4, 942
Fisheries	10,080
Animal products	3,039
Graphic arts	5, 620

Number of specimens in the departments of the Museum on June 30, 1896-Continued.

Department.	Specimens.
Arts and industries—Continued.	<b>8</b> 40
Forestry	749
Transportation and engineering	1, 911
Naval architecture	1, 331
Historical collections	31, 349
Musical instruments	1, 343
Modern pottery, porcelain, bronzes, etc	3, 865
Paints and dyes	197
Physical apparatus	366
Oils and gums	} 1,112
Chemical products	5 1,112
Domestic animals	217
Ethnology	428, 470
American aboriginal pottery	133, 368
Pueblo collection	21, 553
Oriental antiquities and religious ceremonials.	33, 020
Prehistoric anthropology	209, 346
Mammals (skins and alcoholics)	15, 215
Birds	100,000
Birds' eggs and nests.	61, 947
Reptiles and batrachians	35, 619
Fishes	
Mollnsks	600,000
Insects	630,000
Marine invertebrates.	
Helminthological collection	41,550
Comparative anatomy:	
Osteology	} 15, 285
Anatomy	,
Paleontology:	
Vertebrate fossils	
Invertebrate fossils—	014 010
Paleozoic	316, 812
Mesozoic	
Fossil plants	1
Recent plants	
Minerals	
Geology	72, 249
Total	3, 588, 886

The aboriginal pottery, with the exception of the Pueblo series, has been transferred to the department of prehistoric anthropology. Since the figures showing the number of specimens so transferred have not yet been made up, the record for the previous year will be allowed to stand for the present.

<sup>&</sup>lt;sup>2</sup>These tigures represent the additions to the Pueblo collections during the year.

<sup>&</sup>lt;sup>3</sup>These tigures are based upon an actual count.

<sup>&</sup>lt;sup>4</sup>Number of catalogue entries to June 30, 1896.

The following statement shows the number of accessions annually since 1881:

Year.	Accession numbers (inclusive).	Number of accessions during the year.	
1881	9890-11000	1, 111	
1882	11001-12500	1, 500	
1883	12501-13900	1,400	
1884	13901-15550	1, 650	
1885 (January to June)	15551-16208	658	
1886.	16209-17704	1, 496	
1887	17705-19350	1,646	
1888	19351-20831	1, 481	
1889	20832-22178	1, 347	
	22179-23340	1, 162	
1890	22341-24527	1	
1891		1, 187	
1892	24528-25884	1, 357	
1893	25885-27150	1,266	
1894	27151-28311	1, 161	
1895	28312-29534	1, 223	
1896	29535-30833	1, 299	

In Appendix II will be found a detailed list of the accessions during the year, arranged alphabetically by names of contributors.

#### CATALOGUE ENTRIES.

The number of catalogue entries during the year is shown in the following table:

Department.	Entries
Arts and industries:	
Materia medica	
Animal products	1
Musical instruments	4
Transportation and engineering.	1
Navalarchitecture	1
Modern pottery, porcelain, bronzes, etc	23
Graphic arts.	5
Domestic animals	1
Ethnology	1, 55
Pneblo collection	96
Oriental antiquities and religious ceremonials	13
Prehistoric anthropology	74
Mammals	7, 64
Birds	8,48
Birds' eggs and nests	48
Reptiles and batrachiaus	32
Fishes	18
Mollusks	5, 44
Insects	20
Marine invertebrates	1,05
Helminthological collection	1, 44

Department.	Entries.
Comparative anatomy:	
Mammals	
Birds	78
Reptiles and batrachians	
Fishes	,
Paleontology:	
Vertebrate fossils	73
* Invertebrate fossils—	{
Paleozoic	324
Mesozoic	328
Cenozoic	1, 222
Fossil plants	1,074
Recent plants	236
Minerals	148
Geology	688
	00.010
Total	33, 243

#### APPROPRIATIONS FOR 1896-97.

For the fiscal year ending June 30, 1897, the amount appropriated for the maintenance of the Museum is \$207,725, an increase of \$21,600 over the appropriation for the year covered by this report. The items are given below:

Preservation of collections	\$153, 225
Furniture and fixtures	15,000
Printing (labels, Proceedings, Bulletins, and binding)	12,000
Heating and lighting	13,000
Repair of buildings, shops, and sheds	4,000
Erection of galleries	8,000
Rent of workshops	2,000
Postage	500
Total .	907 795

# EXCHANGES OF SPECIMENS WITH INSTITUTIONS AND INDIVIDUALS ABROAD.

Numerous exchanges with foreign museums and individuals have been effected during the year. The sendings from the U.S. National Museum have been unusually large, including several carefully selected duplicate sets of fishes. These have been presented to some of the most prominent museums in different parts of the world. A condensed statement of these exchanges is here presented:

Mammals.—A mounted specimen of Didelphys virginiana and a rough skeleton of the same species have been sent to the Australian Museum, Sydney, New South Wales, Mr. R. Etheridge, jr., curator, in continuation of exchanges.

A collection of mammals, including skins and skulls of Neürotrichus, has been sent to the Museum of Natural History, Genoa, Italy, Mar-

quis Giacoma Doria, director, in return for material already received by the Museum.

From the Horniman Museum, London, England, Mr. Richard Quick, curator, have been received mammal bones, in return for a set of casts of prehistoric implements.

Birds.—Three birds' skins have been sent to Mr. Stefan Chernel von Chernelháza, Köszeg, Hungary, in return for similar material.

Two birds' skins have been sent to Mr. Ernst Hartert, Tring Museum, Tring, England, for which material has been received in return.

A collection of ores, birds, and other natural history specimens has been received from the La Plata Museum, La Plata, Argentina, for which an equivalent has been sent.

Reptiles and batrachians.—Mr. Edgar J. Bradley, Happy Valley Waterworks, South Australia, transmitted specimens of lizards, for which foraminiferous material has been sent in return.

Specimens of reptiles from Argentina have been received from the La Plata Museum, for which an equivalent has been sent.

Fishes.—Collections of fishes from the North Pacific Ocean and Bering Sea, and also from the Atlantic and Pacific oceans, principally deep-sea forms, selected from the duplicate collections in the Museum, have been sent to the British Museum, London, England, Sir William Flower, director; Imperial Zoological Museum, Vienna, Austria, Dr. Franz Steindachner, keeper; La Plata Museum, La Plata, Argentina, Dr. Francisco P. Moreno, director; Museum of Natural History, Paris, France, Prof. A. Milne Edwards, director; Royal Zoological Museum, Berlin, Germany, Prof. Karl Möbius, director; Royal Zoological Museum, Copenhagen, Denmark, Dr. Christopher Lütken, director; and Zoological Museum, Christiania, Norway, Prof. Robert Collett, director.

A collection of ninety-three species of American fishes was sent to Prof. Sebastiano Richiardi, Ministero dell' Istruzione Publica, Rome, Italy, for which desirable material is expected in return.

Mollusks.—Shells have been received from Mr. Edgar J. Bradley, Happy Valley Waterworks, South Australia, for which foraminiferous material has been sent in return.

Specimens of *Odostomia lactea*, Jeff., have been received from Mr. G. W. Chaster, Southport, England, for which specimens of Pyramidellidæ have been sent in return.

A specimen of *Mytilus californicus* has been sent to the Royal Zoo logical Museum, Florence, Italy, Prof. Henry H. Giglioli, director, in continuation of exchanges.

Dr. H. von Ihering, director of the Paulista Museum, São Paulo, Brazil, has sent specimens of South American and Mexican land, freshwater, and marine shells, for which an equivalent in shells and other material has been forwarded.

Insects.—Mr. Edgar J. Bradley, Happy Valley Waterworks, South

Australia, has transmitted a specimen of Myrmecia formicata, Fab., for which an equivalent in foraminiferous material has been sent.

Mr. E. Brunetti, London, England, has sent, through the Department

of Agriculture, specimens of British Diptera.

A collection of South American butterflies has been received from Mr. J. G. Foetterle, Petropolis, Brazil, in partial return for which publications have been sent.

Three species of termites from Borneo and Natal have been received from Mr. G. D. Haviland, Museum of Zoology, Cambridge, England, for which similar material has already been sent in exchange.

Material from Mammoth Cave, Kentucky, has been sent to Mr. George

E. Mason, London, England.

Marine invertebrates.—Crabs, a hermit-crab, and two crayfishes, also eleven specimens of Chasmagnathus haswellianus, Whitelegge, have been received from Mr. Edgar J. Bradley, Happy Valley Waterworks, South Australia, for which foraminiferous material has been sent in return. Mr. Bradley has also forwarded other marine invertebrates, including specimens of Branchiopus, for which specimens of Rhabdammina abyssorum have been sent in exchange.

A specimen of *Typhlomolye rathbuni* has been sent to the British Museum of Natural History, London, England, Sir William Flower, director, in continuation of exchanges.

Fourteen species of echinoderms, dredged by H. M. S. *Pola* in the eastern Mediterranean during 1890-1894, have been received from the Imperial Zoological Museum, Vienna, Austria, Dr. Franz Steindachner, keeper, in return for material already sent and in continuation of exchanges.

A specimen of *Uhlias limbatus*, Stimpson, and other crabs have been received from Mr. P. W. Jarvis, Kingston, Jamaica, for which similar material has been sent in exchange.

Two specimens of *Pentacrinus decorus* and one specimen of *Pentacrinus mülleri*, have been sent to the University of Stockholm, Stockholm, Sweden, Dr. William Leche, in exchange for material to be received.

A box of crabs has been sent to the Rev. A. M. Norman, Burnmoor Rectory, Fence House, Durham, England, in exchange.

A specimen of *Pentucrinus devorus* has been sent to Prof. Sebastiano Richiardi, Ministero dell'Istruzione Publica, Rome, Italy, for which an equivalent has been promised in return.

Five specimens of amphipods have been sent to Rev. T. R. Stebbing, Ephraim Lodge, Tunbridge Wells, England, for which material has been promised in return.

Twenty-five specimens of crustaceans have been sent to Prof. Joseph Nobili, Zoological Museum, Turin, Italy, for which material will be transmitted in exchange.

Helminthology.—Prof. Raphael Blanchard, Paris, France, has forwarded alcoholic specimens of worms, in exchange for microscopic slides of worms already sent by the Museum.

Dr. Gustav Brandes, Zoological Institute, Halle, Germany, has forwarded specimens of *Ctenotænia leuckarti* (=cotype of *Dipylidium leuckarti*); *Ctenotænia gorzei* (=cotype of *Dipylidium latissimum*), and *Ctenotænia pectinata* (=*Dipylidium pectinatum*, Riehm).

Geheimrath Rudolf Leuckart, Zoological Institute, Thalstrasse, Leipsic, Germany, has sent a specimen of Bertia mucronata, a specimen of Twnia rhopaliocephala, and a specimen of Twnia rhopalocephala.

A collection of parasites determined by Prof. M. Stossich, Trieste, Austria, has been received from him, in continuation of exchanges.

Dr. O. von Linstow, Gottingen, Germany, has sent specimens of Bothriocephalus quadratus, von Linstow, in continuation of exchanges.

Comparative anatomy.—Skeletons of turtles, Chelydra serpentina and Macrocelys lacertina, have been sent to the Australian Museum, in continuation of exchanges.

Birds and mammal skeletons have been received from the La Plata Museum, La Plata, Argentina, Dr. Francisco P. Moreno, director, for which an equivalent has been sent.

Paleontology.—Specimens of fossils, representing ninety-three species, have been sent to Mr. Walter R. Billings, Ottawa, Canada, in exchange for Trenton brachiopods.

Fourteen specimens of Branchiosaurus amblystomus from the Middle Permian of Germany have been received from Dr. Herman Credner, Leipsic, Germany, for which material will be sent in return.

Specimens of Hamilton group fossils have been received from Rev. Hector Currie, Thedford, Ontario, Canada, and fossils representing twelve species have been forwarded in exchange from the Museum.

A large collection of Clinton and Niagara group fossils from the vicinity of Hamilton, Ontario, have been received from Col. Charles Coote Grant, of Hamilton. Similar material has been transmitted to him by the Museum.

Two specimens of Calymene platys and a specimen of Phillipsastrea sp. have been received from Mr. S. W. Howard, Hagersville, Ontario, Canada. Specimens of fossils have been sent in return.

Mr. George Kernahan, Thedford, Ontario, Canada, has transmitted a collection of fossils, for which an equivalent has been sent.

Mr. N. J. Kearney, Thedford, Ontario, Canada, has sent fossil material. Specimens have been sent in return.

Specimens of Paleozoic, Mesozoic, and Tertiary fossils have been received from the La Plata Museum, La Plata, Argentina, Dr. Francisco P. Moreno, director, for which an equivalent has been sent.

A large collection of fossils has been received from R. Macintosh, Esq., Thedford, Ontario, Canada, for which an equivalent will be sent by the Museum.

One hundred and sixty-five English graptolites, representing twenty-two genera and fifty-four species, have been received from Dr. Prof. H. Alleyne Nicholson, Aberdeen, Scotland, for which an equivalent has been sent.

Prof. A. Pavlow, Moscow, Russia, has transmitted specimens of Russian Cretaceous fossils, for which an equivalent has been forwarded by the Museum.

A collection of graptolites has been sent to Dr. S. L. Tornquist, Lund,

Sweden, in return for material already received by the Museum.

A collection of Miocene fossils has been received from Mr. L. Vignal, Paris, France, for which Tertiary fossils have been sent in return.

Botany.—Five hundred and eleven herbarium specimens have been received from the Calcutta Botanical Garden, Calcutta, India, Lieut.

Col. G. King, superintendent, in continuation of exchanges.

Ten species of North American diurnals, new to the Museum collection, have been transmitted by Mr. H. J. Elwes, Colesborne, Andoversford, Gloucestershire, England, in exchange for material sent by the Museum.

Four hundred specimens of dried plants have been sent to Dr. G. von Beck, Imperial Royal Natural History Museum, Vienna, Austria, in exchange for specimens of cryptogams.

Two hundred and fifty specimens of Umbelliferæ from the Royal Botanic Garden, Kew, England, Dr. W. T. Thiselton-Dyer, director, have been received in continuation of exchanges.

One hundred and twenty herbarium plants have been sent to St. John's College, Shanghai, China, Mr. F. L. Hawks Pott, manager, for which material has been promised in return.

Prehistoric anthropology.—A collection of archæological objects has been received from Prof. Giuseppe Bellucci, Perugia, Italy.

Archæological objects from Europe, Asia, Africa, and Australia have been received from the Royal Zoological Museum, Florence, Italy, Prof. Henry H. Giglioli, director. A specimen of *Mytilus* has been sent by the Museum in continuation of exchanges.

Fragments of pottery have been received from the Horniman Museum, London, England, Mr. Richard Quick, curator, for which an equivalent has been sent.

Casts of prehistoric implements have been sent to the La Plata Museum, La Plata, Argentina, Dr. Francisco P. Moreno, director, in return for specimens already sent to the Museum.

A collection of tinted easts of prehistoric implements has been sent to the Museum of the Natural History Society of New Brunswick, St. John, New Brunswick, in exchange for archæological objects from Charlotte and Queen counties, New Brunswick, and Homosassa, Fla.

Ethnology.—Specimens of Pueblo pottery have been sent to the Canterbury Museum, Christchurch, New Zealand, Mr. F. W. Hutton, curator, in continuation of exchanges.

Ethnological objects have been received from Mr. Wohlgemuth Carl, Bozen, Austria, for which an equivalent had been previously sent by the Museum.

Prof. Henry H. Giglioli, director of the Royal Zoological Museum,

Florence, Italy, has transmitted a collection of ethnological objects from Europe, Asia, Africa, and Australia. A specimen of *Mytilus* has been sent by the Museum.

A complete set of the annual reports of the Museum and a small collection of ethnological objects have been forwarded by the Museum to Dr. H. von Ihering, director, Paulista Museum, São Paulo, Brazil, in continuation of exchanges.

Ethnological objects from New Guinea, have been received from Dr. Alfred C. Haddon, Cambridge, England, for which electrotypes of illustrations in the annual reports of the Bureau of Ethnology have been sent in exchange.

Ethnological objects have been received from the Horniman Museum, London, England, Mr. Richard Quick, curator, for which an equivalent has been sent.

Six ethnological objects have been received from Mr. Edward Lovett, Croydon, England, in continuation of exchanges.

Ethnological objects have been transmitted by the Lubny Museum, Government of Poltava, Little Russia, in return for material already sent by the Museum.

Geology.—Petroleum, rocks, and sands have been sent to Mr. Joseph E. Carne, Sydney, New South Wales, in exchange for material already received.

A specimen of peat has been received from the Horniman Museum, London, England, Mr. Richard Quick, curator, for which an equivalent has been sent.

Ores have been received from the La Plata Museum, La Plata, Argentina, Dr. Francisco P. Moreno, director, for which an equivalent has been sent.

# COOPERATION OF THE EXECUTIVE DEPARTMENTS OF THE GOVERNMENT.

The increase in the collections during the year, resulting directly or indirectly from assistance rendered by the Executive Departments and Bureaus of the Government, or by officials whose duties have enabled them to collect for the Museum or to influence and encourage others in so doing, has been very satisfactory.

The active support which the Museum has always enjoyed at the hands of American ministers and consuls stationed abroad has been most gratifying. During the year covered by this report a series of photographs and etchings were transmitted by Mr. R. M. Bartleman, United States consul, Antigua, West Indies. Mr. Alfred Krauss, United States consular agent, Zittau, Germany, has forwarded geological material. Hon. W. W. Rockhill, Assistant Secretary of State, whose generous gifts have been so often alluded to in the reports, has continued to aid the Museum. Mr. Henry C. Smith, United States consul, Santos, Brazil, transmitted a sloth, in behalf of Mr. Gustave G. Beyer.

The prompt compliance of the Treasury Department with requests for the free entry of material from abroad, and the continued courtesies extended by the collector of customs in connection with its transportation to Washington, have resulted in saving much time and money to the Museum, and the assistance thus rendered is very highly appreciated.

The Museum is indebted to Capt. J. H. Long, keeper of the life-saving station at Fenwicks Island, Delaware, for the skeleton of a

Finback Whale.

Lieut. J. H. Scott, of the United States revenue-marine cutter Forward, has transmitted a specimen of Hawk Moth, Enyo lugubris.

The War Department has continued to grant the usual facilities of the Quartermaster's Department for the transmission of bulky material from regions where ordinary means of transportation could not be util-

ized, except at great expense to the Museum.

Several officers of the United States Army have interested themselves in obtaining material for the Museum from various parts of the United States, South America, and the West Indies. Prominent among them are Dr. Edgar A. Mearns, Maj. Charles Bendire, Capt. W. C. Brown, Capt. Henry Romeyn, Lieut. Wirt Robinson, Dr. E. R. Hodge. Dr. W. M. Brewer, Dr. D. S. Lamb, Dr. Washington Matthews, and Dr. J. C. Merrill. Mr. Isaac C. Noyes, of the Army Medical Museum, transmitted an archæological object from Virginia.

The Museum is indebted to officers of the Navy for several interesting contributions to the Museum collections. Through the aid of Lieut, Commander S. M. Schley valuable additions to the collections have been obtained. Dr. James M. Flint continues to act as honorary curator of the section of materia medica in the Museum.

Under the Department of the Interior, the United States Geological Survey has transmitted a large number of collections made by members of its staff while engaged in field duty. Among these should be especially mentioned Prof. F. W. Clarke, Dr. David T. Day, Dr. T. M. Chatard, Dr. W. H. Dall, and Mr. T. W. Stanton. Hon. Charles D. Walcott, Director of the Survey, has transmitted specimens illustrating the Lower Cambrian formation from the White Mountain Range, Inyo County, Cal., and Carboniferous limestone fossils from Berne, Albany County, N. Y. The collections received from the Survey are enumerated in the List of Accessions (Appendix II).

Dr. Z. T. Daniel, of the Indian Office, who for many years has contributed information concerning Indian ceremonies, as well as numerous specimens, has continued to manifest active interest in the ethnological department of the Museum.

Mr. Charles E. Davis, Indian agent, Colorado River Agency, Parker, Ariz., presented a model of a raft constructed by the chief of the Mojave Indians.

From the Bureau of Education was received a photograph of twin Eskimo children at Port Clarence, Alaska.

Perhaps no bureau of the Government has been in closer affiliation with the National Museum in past years than the United States Fish Commission. Since its organization in 1871 the Museum has been constantly enriched by the acquisition of large collections, especially of fishes and marine invertebrate objects. These departments in the Museum have hitherto been cared for by officers of the Fish Commission, and their honorary position as curators in the Museum, it is thought, has been a source of much mutual benefit to the Commission and the Museum. The collections of special interest from the Commission during the present year were gathered principally by, or through the cooperation of, Prof. B. W. Evermann, Dr. Hugh M. Smith, and Mr. Charles H. Townsend.

The collections received during the year from the different bureaus of the Department of Agriculture have been large and varied. The botanical collections, under the care of Mr. F. V. Coville, Botanist of that Department, have been greatly enriched. Large quantities of interesting botanical material have been obtained from different sections of the country, through the agency of collectors connected with the Department of Agriculture. In the classification of plants, etc., as well as in obtaining material, Prof. F. L. Lamson-Scribner, Dr. J. N. Rose, and Mr. J. B. Leiberg have been conspicuous in their efforts.

The services of Mr. L. O. Howard, entomologist of the Department, who succeeded Prof. C. V. Riley as honorary curator of the department of insects in the National Museum, have resulted in the addition of numerous specimens to the Museum collection. In the classification and identification of the collections of Hymenoptera, Coleoptera, and Diptera he has been ably assisted by Messrs. Ashmead, Linell, and Coquillett. The Museum is also indebted to Mr. E. A. Schwarz for large collections of different orders of insects collected by him.

Through Dr. C. Hart Merriam, Chief of the Biological Survey, types and other specimens of fishes collected by the Death Valley Expedition and described by Prof. C. H. Gilbert, have been transferred to the Museum. Fishes, crabs and shrimps, land and fresh-water shells, collected by Messrs. Nelson and Goldman in Mexico and in the western part of the United States, have been received, as well as large quantities of other material obtained by collectors attached to the Department of Agriculture.

The Bureau of Animal Industry, under the direction of Dr. D. E. Salmon, has been instrumental in adding to the Museum some very interesting material. Among the most valuable collections of parasites transmitted by the Bureau are those made by Dr. C. W. Stiles, the honorary custodian of the helminthological collections of the National Museum.

The collections which have been received from the Bureau of Eth-

nology have been not only large in numbers, but of great importance. Particular mention is here made of the material obtained by Dr. J. Walter Fewkes in connection with his explorations in Arizona and New Mexico, under the direction of the Smithsonian Institution.

### EXPLORATIONS.

Dr. William L. Abbott has continued his explorations in Africa and India, and the collections which he has forwarded to the Museum during the year have been of unusual interest and importance. The value of the ethnological objects included in his collections has been very greatly enhanced by the full and accurate descriptions accompanying them. A series of skins of lemurs and of the insectivores peculiar to Madagascar is of special interest. The material is carefully prepared and unusually well preserved.

An interesting collection of antiquities was obtained by Dr. J. Walter Fewkes during the summer of 1895 from the cliff dwellings and ancient

pueblos near Tusayan, Ariz.

During the travels of Lieut. Wirt Robinson, United States Army, in the West Indies and South America, he obtained some desirable natural-history material for the Museum.

For several years Dr. Edgar A. Mearns, United States Army, has been an enthusiastic co-operator in the work of the National Museum. In connection with the Boundary Commission between the United States and Mexico he made very extensive and valuable collections for the Museum, and has later been instrumental in various ways in adding natural-history material to its collections. During 1896 he collected for the Museum mammals, birds, and other natural-history specimens in Virginia, Pennsylvania, and along the Gulf of California.

A large collection of human bones was obtained by Gen. A. L. Pridemore, Jonesville, Va., while engaged in mound explorations in Scott County. This collection has been generously presented by him to the National Museum.

Dr. R. Ellsworth Call, Cincinnati, Ohio, has explored the Mammoth Cave and other caves in Kentucky. In the former he obtained several interesting specimens of bats, which he has presented to the Museum.

## COLLECTORS' OUTFITS.

Outfits to be used in collecting specimens for the National Museum have been furnished to the following persons during the year: Dr. Edgar A. Mearns, United States Army, Gettysburg, Pa.; Mr. C. W. Richmond, United States National Museum, for collecting in Virginia; Prof. C. H. Gilbert, care of United States consul, Panama, Colombia, South America; Rev. P. H. Sörensen, Jakobshavu, North Greenland; Prof. R. Ellsworth Call, 317 Walnut street, Cincinnati, Ohio; Mr. Robert Ridgway, United States National Museum, for collecting in

Florida; Mr. E. W. Vickers, Ellsworth, Ohio; Dr. Frank Furlong, eare of the steamship *Galilee*, Brooklyn, N. Y.; Mr. Frank Burns, Suffolk, Va.; Dr. J. Walter Fewkes, for collecting in Arizona, and Mr. A. W. Anthony, San Diego, Cal.

DEVELOPMENT AND ARRANGEMENT OF THE EXHIBITION SERIES.

In the department of mammals the exhibition series is practically unchanged. A few specimens were withdrawn for a time for exhibition at Atlanta. The type of Chanler's Reed Buck was put on a new stand and added to the exhibition series, and a young lion and young tiger were also placed upon exhibition.

In the department of mollusks the exhibition series is in good condition, and has been beautified by the addition of a series of mounted specimens illustrating the chief families of mollusks exhibited at the Cotton States and International Exposition at Atlanta. A portion of the exhibition series in the department of insects is now displayed in the small room adjoining the hall occupied by the department of comparative anatomy. The work of renovating the mounted collection in the department of birds, which was begun during the last fiscal year, has been continued. The exhibition series of birds' eggs and nests is in good condition, and it would be very desirable to increase it, were this course now practicable.

The synoptic series of invertebrates has been transferred from the department of marine invertebrates to the department of comparative anatomy, and the space which it formerly occupied will be devoted to an exhibit of deep sea fishes. Some slight changes have been made in the cases in the west hall of the Smithsonian building, and a number of deep-sea sponges and corals, together with some holothurians in alcohol and a few starfishes, have been placed upon exhibition. Labels have been printed for the holothurians, and labels for the starfishes are in preparation. All of the named sponges on exhibition have also been provided with printed labels. The table cases in this department have been provided with casters, so that they may be readily moved without danger of injuring the specimens. In the department of fishes, there are five eases of plaster casts on exhibition, one case containing stuffed fishes, a large number of casts on the tops of cases, and a small group of land Gobies.

The mounting of the exhibition series of Mesozoic and Tertiary plants is now practically finished. In order to test the advantages of mounting fossils upon tiles, the historical collection of fossils in the department of geology was mounted in this manner. The results are considered to be quite satisfactory. Although the tiles are necessarily somewhat heavy, they are found to possess decided advantages over paper, wood, slate, or ground-glass tablets. The study series of invertebrate fossils has received attention, but much remains to be done before an intelligent selection can be made for the final exhibition series.

A considerable amount of vertebrate material is nearly ready for installation in the exhibition series, and additional space for this purpose is much needed.

A great deal of detail work has been accomplished in connection with the exhibition series in the department of minerals, and as a result the appearance of the collections is much improved.

In the department of geology the historical series, the volcanie and elementary series, and the collections illustrating rock weathering and glaciation have been entirely rearranged. A large amount of work has also been done in the hall devoted to the economic series. That portion of the geological collections which is on exhibition is, all things considered, in very good condition, although, on account of the overcrowded condition of the hall and of the cases themselves, the appearance of the collections is not all that could be desired.

In the west hall, which is devoted to the department of ethnology, are exhibited the objects connected with (1) Negroid Africa, (2) the Malayo-Polynesian or Indo-Pacific peoples, and (3) various Asiatic peoples. All of the Mexican and part of the Nicaraguan and Costa Rican collections in the department of prehistoric anthropology have been placed upon exhibition. This work necessitated the rearrangement of the cases already devoted to objects from these countries. As many as possible of the unbroken vessels from mounds in the United States were placed upon exhibition.

The collection of boats has been overhauled, the larger ones being suspended from the ceiling. Many models of boats have been repaired.

In the east hall two new eases have been erected for the accommodation of the electrical collections and the series illustrating methods of land transportation.

The condition of the exhibition series in the section of graphic arts remains practically the same as at the close of the preceding fiscal year. Although the collection is not considered complete, it probably illustrates better than any other collection of its kind, either in this country or abroad, the technical development of the reproductive processes.

The collections of oriental antiquities and religious ceremonial objects are exhibited in the east and west halls immediately adjoining the rotunda. In the northeast alcove the Egyptian collection is installed, consisting of casts and busts arranged around the walls, the mosaic from Carthage, the collection of coins and gems, the collection of Assyrian seals, and other objects installed in cases. The southeast alcove contains the Assyro-Babylonian collection, including the temple tower, the serpent column of Delphi, the collection of Bibles and musical instruments, casts arranged upon the walls, statues, etc. Above both of these alcoves, casts of reliefs of the obelisk from Constantinople and a series of Hittite casts are exhibited. The southwest alcove contains objects of Brahmanism, Buddhism, and Shintoism, while the Græco-Roman, Jewish, and Mohammedan collections are installed in the northwest alcove.

#### LABELS.

During the year nearly 150 requisitions for printing labels and blanks were received from the various departments in the Museum.

There were printed on the Museum press 74,831 labels, representing eight hundred and three forms; 49,000 blanks, representing twenty-two forms; 6,047 circulars, representing twelve forms; and 6,090 copies, representing thirty-six forms, of other matter, making a total of 135,968 copies.

At the Government Printing Office there were printed upon requisition by the Museum 52,200 blanks and circulars, representing tenforms, and 31,772 labels, representing one hundred and eighty-one forms, making a total of 83,972 copies.

### LIBRARY.

The librarian, Dr. Cyrus Adler, states that the accessions during the past year have been as follows: Periodicals, 5,542; books, 810; pamphlets, 1,209; total, 7,561. From the accessions to the library of the Smithsonian Institution there have been retained for the use of the Museum 7,596 periodicals, 333 books, and 1,047 pamphlets, making a total of 8,976. A list of the accessions to the Museum library by gift and exchange will be found in Appendix 111.

The number of books borrowed during the year was 7,182, while 5,330 were returned, about 1,800 having been retained in the sectional libraries. Nearly 1,200 books were bound, of which, however, only about 200 belonged to the National Museum. Owing to lack of funds, it was impossible to have any more Museum books bound, although a large number require binding.

The transfer of the periodical record to the standard library record has been continued, the new record containing at the close of the fiscal year 4,300 cards. There are 6,000 cards in the standard catalogue of books other than periodicals.

It is the desire of the librarian to have the catalogue unified, but the pressure of current work has been so great that progress in this direction has necessarily been slow.

There has been no change in the number of sectional libraries since the last report, the list being as follows:

- 1. Administration.
- 2. Birds.
- 3. Botany.
- 4. Comparative anatomy.
- 5. Ethnology.
- 6. Fishes.
- 7. Geology.
- 8. Helminthology.
- 9. Historical collections.
- 10. Insects.
- 11. Mammals.

- 12. Marine invertebrates.
- 13. Materia medica.
- 14. Mesozoic fossils.
- 15. Mineralogy,
- 16. Mollusks.
- 17. Oriental antiquities and religious ceremonials.
- 18. Paleobotany.
- 19. Photography.
- 20. Prehistoric anthropology.
- 21. Reptiles.

## CONTRIBUTIONS OF THE YEAR TO SCIENTIFIC LITERATURE.

A list of the papers based upon Museum material, which have been published during the year by officers of the Museum and other investigators, is printed in Appendix IV. Seventy-nine authors are represented. In the supplements to this bibliography will be found complete lists of the new genera and species described in the papers referred to. The following table shows the subjects to which these papers relate:

Subject.	By Mu- seum officers.	By other investi- gators.	Total.
Administration	3		3
Anthropology	2		2
Archaeology	4	1	5
Biography	1		1
Biology	1		1
Birds	45	21	66
Botany	13	18	31
Chemistry	2		2
Comparative anatomy	1		1
Ethnology	7	2	9
Exploration	3		3
Fishes	19	3	22
Fossils	10	9	12
Geology	4		4
nsects	32	18	50
Mammals	8	3	11
Marine invertebrates	2	4	6
Mineralogy	3	*	3
Mollusks	16	1	_
riental antiquities	10		17
Parasites	-		1
Religious ceremonial objects			10
leptiles and batrachians.	•		1
l'axidermy			7
Miscellaneous	1		1
	4	1	5
Total	200	74	274

#### PUBLICATIONS.

The Report of the Museum for 1893 was published early in the year, and the papers in the appendix have appeared in separate form. The Report for 1894 is nearly all in type and much work has been accomplished in the preparation of the volume for 1895.

Volume XVII of the Proceedings was distributed in July, and active progress has been made in printing and distributing the separate papers in Volume XVIII. Nos. 1033 to 1082, with three exceptions, have appeared, and also paper No. 1032, belonging to Volume XVII, but not received from the press in time for distribution before the close of last year. Volume XVIII, in bound form, will probably be ready for distribution in the autumn. Advance sheets of the following papers have

been published: No. 1087, "Preliminary description of a new genus and two new species of Crustaceans from an artesian well at San Marcos, Tex.," by James E. Benedict: No. 1088, "Description of a new genus and species of Blind Tailed Batrachian from the subterranean waters of Texas," by Leonhard Stejneger; No. 1103, "Preliminary diagnoses of new mammals from the Mexican border of the United States," by Edgar A. Mearns. Manuscripts of fourteen additional papers to be published in the Proceedings were in the hands of the printer at the close of the fiscal year, and nineteen more have been accepted for publication.

The following additional parts of Bulletin 39 have been issued: Part H, "Directions for collecting minerals," by Wirt Tassin; Part I, "Directions for collecting rocks and for the preparation of thin sections," by George P. Merrill; Part J, "Directions for collecting specimens and information illustrating the aboriginal uses of plants," by Frederick V. Coville; Part K, "Directions for collecting and preparing fossils," by Charles Schuchert.

Circular 47, in regard to the identification of mollusks by the National Museum, has been issued.

The titles of all the papers which have appeared in the form of separates during the year are given in Appendix v.

Bulletin No. 47, "The Fishes of North and Middle America: A Descriptive Catalogue of the Species of Fish-like Vertebrates found in the Waters of North America North of the Isthmus of Panama," by David Starr Jordan and Barton Warren Evermann, a volume of 1,240 pages, is entirely in type and will be shortly put to press. The present Bulletin constitutes Part 1 of the work. A second volume of text and an atlas of plates will be published later.

Bulletin No. 49, "A Bibliography of the Published Writings of Philip Lutley Sclater, F. R. S., Secretary of the Zoological Society of London," prepared under the direction of Dr. G. Brown Goode, has been set in type. It contains 135 pages, with a portrait of Dr. Sclater as a frontispiece. Much care has been given to the typography, with a special view to securing compactness and clearness. This work is not included in the series of Bibliographies of American Naturalists, of which five have been published (Bulletins 20, 23, 30, 40, and 41), since the scope of this series is necessarily limited to the work of naturalists living in the United States; but, inasmuch as Dr. Sclater's contributions to the systematic ormthology of the American continent have exceeded in extent those of anyone living in this country, it was deemed proper that the U. S. National Museum should publish his bibliography.

It was hoped that the second and third numbers of the Special Bulletin, the first of which appeared in 1892, would be ready for distribution before the end of the year, but owing to certain unavoidable delays this was impossible. No. 2 of the series, entitled "Oceanic Ichthyology: A Treatise on the Deep-sea and Pelagic Fishes of the World, based

chiefly upon the collections made by the Steamers Blake, Albatross, and Fish Hawk in the Northwestern Atlantic," by George Brown Goode and Tarleton H. Bean, is an elaborate work of 553 pages, in quarto form, with an atlas of 417 figures arranged on 123 plates. The work of composition on Special Bulletin No. 3, which was partly put in type last year, has been completed, and the Bulletin is now ready for the press. This Bulletin constitutes the second volume of "The Life Histories of North American Birds," by Maj. Charles Bendire, and relates only to land birds, extending, in the classification given in the checklist of the American Ornithologists' Union, from the parrots to the grackles. The volume will contain 518 pages, and will be illustrated by seven chromo-lithographic plates of birds' eggs.

#### MATERIAL LENT FOR INVESTIGATION.

A number of specimens of the genus Vespertilio were sent to Mr. G. S. Miller, ir., of the Department of Agriculture, for use in connection with the preparation of a monograph of that genus. Three specimens of Cuniculus were also lent to Mr. Miller for illustration in a forthcoming paper on the voles and their allies. Over two hundred specimens of North American weasels were sent to Mr. Outram Bangs, Boston, Mass., for use in connection with a revision of the eastern weasels. Ten specimens of northern hares of the genus Lepus were transmitted to Mr. S. N. Rhoads, of the Academy of Natural Sciences of Philadelphia, for use in connection with a revision of the Arctic hares; also a number of skins and skulls of Old World hares, for the same purpose. Seven skulls of striped skunks were sent to Dr. E. A. Mearns, U. S. A., Fort Myer, Va.; one specimen of Dendrohyrax was transmitted to Dr. J. L. Wortman, American Museum of Natural History, New York City, for comparison with fossil remains, and eighteen specimens of weasels were sent to Mr. V. Bailey, of the Department of Agriculture, for use in a revision of North American weasels. A large collection of starfishes from the West Indies was sent to Prof. A. E. Verrill, Peabody Museum, New Haven, Conn., for study in connection with the preparation of a report upon the starfishes of that region; a specimen of amplipod (Crangonyx flagellatus, Benediet) was transmitted to the Rev. T. R. R. Stebbing, Tunbridge Wells, England, who desired to make a special study of the genus, and a small collection of crayfishes was sent to Dr. Walter Faxon, Museum of Comparative Zoology, Cambridge, Mass., who is preparing a report on the crayfishes added to the collection in the National Museum during recent years.

From the department of birds material has been sent out as follows: A skin of *Passerella iliaca megarhyncha* to Mr. F. Stephens, Witch Creek. Cal., for use in determining a new subspecies from that State; a skin of young Tern to Mr. George H. Mackay, 25 Congress street, Boston, Mass., for use in connection with the identification of some Terns

found on Muskeget Island, Massachusetts; forty-two specimens of Willow Warblers, from Asia, to Mr. William E. Brooks, Mount Morris, Ontario, for determination; seven skins of Night Hawks to Mr. George K. Cherrie, of the Field Columbian Museum, for use in determining a new form from Central America; three birds' skins to Stefan Chernel von Chernelháza, Köszeg, Hungary; twenty-six skins of Xanthopygia and forty-nine skins of Orioles to Mr. Witmer Stone, of the Academy of Natural Sciences of Philadelphia, for use in his studies of the molting of birds; seven skins of Sheerwaters (Puffinus) to Mr. L. M. Loomis, California Academy of Science; seven skins of Gyrfalcons and fortytwo skins of Sanderlings to Mr. Frank M. Chapman, American Museum of Natural History, New York City, the former for use in the determination of specimens in the American Museum, and the latter to be used in a study of the change of plumage of that species; three skins of Asiatic birds to Mr. W. E. Brooks, Mount Forest, Ontario, and one skin of Caprimulgus aldabrensis to the Tring Museum, Tring, England.

A specimen of *Polistotrema dombeyi* was transmitted to Dr. Max Fürbringer, Jena, Germany, and a specimen of *Larimus breviceps* to Dr. C. H. Gilbert, Leland Stanford Junior University.

Specimens have been sent out from the department of insects for study or identification as follows: Material of the genera Monedula and Gorytes to Mr. William J. Fox, of the Academy of Natural Sciences of Philadelphia, for monographic study: the Japanese collection of Hemiptera to Prof. P. R. Uhler, Baltimore, Md., for identification; the collection of Crambidae to Prof. C. H. Fernald, Amherst, Mass., for use in monographic work; the collection of Typhlocybini to Prof. C. P. Gillette, Fort Collins, Colo.; the collection of Lepidoptera obtained in East Africa by the Chanler-Höhnel expedition, to Dr. W. J. Holland, Allegheny, Pa., for study and report; thirteen species of Acridiida to Prof. J. McNeill, Fayetteville, Ark., for use in monographic work: fifty species of noctuids to Prof. J. B. Smith, New Brunswick, N. J., for study and identification: the collection in the genus Apion to Mr. C. H. Fall, Pomona, Cal.; certain species of Sessida to Mr. William Beutenmüller, American Museum of Natural History, New York City; a number of specimens of the genus Prosopis to Prof. T. D. A. Cockerell, Las Cruces, N. Mex.; a collection of Jassida to Prof. C. F. Baker, Fort Collins, Colo., for special study; a few species of diurnals to Dr. H. Skinner, Philadelphia, Pa., and a collection of Tryphonida to Prof. G. C. Davis, Agricultural College, Mich., for special study.

Specimens of Eocene fossils of the Midway or Clayton horizon were transmitted to Prof. G. D. Harris, of Cornell University.

From the department of botany there were sent to Mr. M. S. Bibb, Rockford, Ill., ninety-one specimens of *Salix*; to Prof. L. H. Bailey, Cornell University, a number of specimens of the genus *Carex*, from Idaho, for determination; to Prof. E. S. Burgess, Normal College, New York City, about two hundred specimens of Asters from the District of

Columbia; to Prof. William R. Dudley, Leland Stanford Junior University, a number of specimens for critical determination; to Prof. A. Engler, Berlin, Germany, three hundred and eighteen African plants for determination; to Prof. C. S. Sargent, Jamaica Plain, Mass., Confere collected by the Mexican Boundary Commission, for determination; to Dr. John K. Small, Columbia University, New York City, material for use in connection with his work on the southern flora, and to Prof. William Trelease, Missouri Botanic Garden, St. Louis, a large number of specimens, including the entire collection of North American Celastracear.

Eocene echinoderms and a specimen of Cidaris were lent to Prof. W. B. Clark, of Johns Hopkins University, who has in preparation a work on American post-Paleozoic Echinoids. Six specimens, representing three species, of Cretaceous Gastropods were sent to M. Cossmann, for use in connection with a general revision of the Gastropods. Prof. Alpheus Hyatt received six species of Ammonites for examination, and about one hundred and fifty specimens of Blastoids were sent to Prof. Otto Jackel, Berlin, Germany, for monographic work. Other paleontological material was sent out as follows: Four specimens of Conchopeltis alternata to Mr. E. O. Ulrich, Newport, Ky., for use in a revision of the Lower Silurian Gastropoda; ten lots of Foraminifera to Dr. Anthony Woodward, New York City, for determination; three species of Paleozoic Echinoids to Dr. Robert T. Jackson; one hundred and forty specimens of Paleozoic Cephalopods to Prof. John M. Clarke. Albany, N. Y., and specimens of fossil corals to Mr. H. S. Gane, Johns Hopkins University, Baltimore, Md.

Ethnological material has been lent to the Bureau of American Ethnology, for the purpose of preparing illustrations. Three stone adzes were transmitted to Mr. H. R. Bishop, New York City, and twelve specimens of aboriginal implements were sent to Miss Alice Fletcher, of this city, for use in illustrating a lecture before the Women's Anthropological Society.

About sixty thin sections of slates were lent to Prof. T. Nelson Dale, Williamstown, Mass.; twenty-five thin sections of Quincy granites to Mr. Theodore G. White, Columbia College, New York City; twenty-one thin sections and thirty-one specimens of Alaskan rocks to Mr. C. W. Purrington, United States Geological Survey, and fifty-five specimens of rocks from the Bear Paw Mountains to Mr. W. H. Weed, United States Geological Survey.

# WORK OF STUDENTS AND INVESTIGATORS AT THE MUSEUM.

A number of students and investigators examined the collections in several departments of the Museum during the year, for the purpose of identifying specimens or of studying the characteristics of certain families or orders. A few of those who have availed themselves of this privilege are here mentioned.

Dr. E. A. Mearns, United States Army, continued his study of the interesting and valuable collection of mammals, obtained by himself and Mr. F. X. Holzner on the Mexican boundary, with a view to publishing an elaborate paper based upon this material. On account of the valuable service which he has rendered to the Museum he was accorded all of the privileges enjoyed by a regular curator in the prosecution of his work. Advance editions of two papers by Dr. Mearns have been published during the year, one of which is entitled "Preliminary diagnoses of new mammals from the Mexican border of the United States," and the other "Preliminary description of a new subgenus and six new species and subspecies of hares from the Mexican boundary of the United States."

In the department of birds Mr. D. G. Elliot, of the Field Columbian Museum, was engaged for a time in certain investigations; Mr. L. M. Loomis, of the California Academy of Sciences, studied various Pacific Coast species of Shearwaters, Gulls, and Horned Owls; Dr. Louis P. Bishop, New Haven, Conn., studied the Western Night Hawks, Bitterns, Horned Larks, Song Sparrows, etc., in connection with specimens which he collected in North Dakota; Mr. G. S. Miller, jr., of this city, made an examination of the Mexican Jays of the genus Aphelosoma; Mr. Witmer Stone, of the Academy of Natural Sciences of Philadelphia, inquired into the status of various Horned Owls; Mr. H. C. Oberholser, of the Department of Agriculture, made an investigation of the Downy Woodpeckers (Dryobates pubescens and subspecies) and arranged several families of neotropical Passeres in the study series; Mr. R. M. Anderson, Forest City, Iowa, spent two or three days in examining species of North American birds, and Mr. J. H. Riley and Mr. C. G. Rorebeck, Falls Church, Va., were occupied for several months in performing volunteer work and in familiarizing themselves with the birds of North America.

Although no one has been engaged in a regular course of study in the department of mollusks, many persons have been permitted to examine specimens in the study collection, and have received verbal information from the curator or his assistants. Dr. R. R. Gurley having been requested by the Hon. C. D. Walcott, Director of the United States Geological Survey, to prepare a monograph of the American Graptolites, all the facilities which the Museum affords in this direction were placed at his disposal. Prof. Alpheus Hyatt, Cambridge, Mass., spent some time at the Museum, in April, looking over the Paleozoic Cephalopoda, and Prof. H. F. Osborn, of the American Museum of Natúral History, studied the skulls of Titanotherium.

Miss Etta Braly and Miss Amanda Braly were engaged for about two months comparing the insects collected by them in Arkansas with species in the Museum collection. The former had in view the preparation of a list of the Colcoptera found in that State, and the latter the preparation of a list of the Hemiptera.

Prof. E. L. Greene, of the Catholic University of America, made frequent visits to the herbarium for the purpose of conducting investigations in certain orders; Prof. C. F. Wheeler, of the Michigan Agricultural College, spent several weeks in the spring of 1896 studying the genus Carex; Dr. N. L. Britton, of Columbia College, New York City, was engaged in the herbarium about the same time in making critical observations on certain eastern species; Mr. C. S. Sargent, Jamaica Plain, Mass., examined the Conifera and Palmaceae, and Mrs. E. G. Britton, of New York City, was engaged for about two weeks in May in the study of mosses, especially those from Alaska.

Dr. Theodore Gill has had access to the collections of fishes while prosecuting his work upon the families and their relationship. Prof B. W. Evermann, of the United States Fish Commission, has examined the collections in the same department in connection with his work upon material recently collected by the Commission, and also in connection with the preparation of Bulletin 47 of the United States National Museum entitled "The Fishes of North and Middle America," by David S. Jordan and B. W. Evermann. This work was nearly all in type at the close of the fiscal year. Prof. A. E. Verrill, New Haven, Conn., who is engaged in the preparation of a report on the West Indian starfishes, spent about a week in the laboratory of the department of marine invertebrates, during which time he identified a large number of specimens, and selected others which he desired to have sent to him for more critical examination.

Dr. W. F. Hillebrand, of the United States Geological Survey, was engaged for a time in an investigation of the fluorescence of wellastonite, and Prof. R. L. Packard has continued to make use of the collections in the department of geology.

Dr. W. J. Hoffman of this city has prepared for publication a paper on the "Graphic Art of the Eskimos," the work being based upon a study of the collections in the Museum. Mr. J. D. McGuire, Ellicott City, Md., who published a paper in the Report for 1894, entitled "Primitive Methods of Drilling," has been engaged during the present fiscal year in the study of the pipes used by the American aborigines, with a view to the preparation of a paper on that subject. Dr. J. Hampden Porter has in course of preparation a paper on the foods of primitive people, and has made use of the Museum collection in this connection. Mr. H. A. Hazen of this city was granted the privilege of examining the collection of kites. Dr. J. Walter Fewkes was engaged during the winter in the preparation of an illustrated catalogue of the material collected by him in Arizona during the previous summer.

#### VISITORS.

The following table shows the number of visitors to the Museum and Smithsonian buildings for each month of the fiscal year ending June 30, 1896:

Year and month.	Museum building.	Smith- sonian building.
1895.		
July	17, 516	9, 336
August	15, 685	8, 053
September	18, 223	10.130
October	14, 066	10, 280
November	12, 320	6, 763
December	13, 150	7, 346
1896.	1	
January	10, 063	6, 407
February	16, 064	8, 519
March	16,771	8, 132
April	21, 457	12, 713
May		10, 070
June		5, 901
Total	180, 505	103, 650
Approximate daily average on a basis of 313 days in the year	577	331

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

Year.	Museum building.	Smith- sonian building.	Total to both build- ings.
1881	150, 000	100, 000	250, 000
1882	167, 455	152, 744	320, 199
1883	202, 188	104, 823	307, 011
1884 (half year)	97, 661	45, 565	143, 226
1884-851	205, 026	105, 993	311, 019
1885-86	174, 225	88, 960	263, 185
1886-87	216, 562	98, 552	315, 114
1887–88	249, 665	102, 863	352, 528
1888-89;	374, 843	149, 618	524, 461
1889-90	274, 324	120,894	395, 218
1890-91	286, 426	111, 669	398, 095
1891-92	269, 825	114, 817	384, 642
1892-931	319, 930	174, 188	494, 118
1893-94	195, 748	103, 910	299,658
1894-95	201, 744	105, 658	307, 402
1895-96	180,505	103, 650	284, 155
Total	3, 566, 127	1, 783, 904	5, 350, 031

<sup>&</sup>lt;sup>1</sup> Years of Presidential inaugurations.

# MATERIAL RECEIVED FOR EXAMINATION AND REPORT.

There have been 542 lots of material of various kinds received during the year for identification. These were included between Nos. 3236 and 3777, and represent an increase of 75 over the receipts of the preceding fiscal year. A detailed list of these sendings, arranged alphabetically by the names of the persons transmitting the material, is printed in Appendix VI.

MEETINGS OF ASSOCIATIONS IN WASHINGTON DURING THE YEAR.

On September 5, 1895, the Society of Agricultural Chemists met in the lecture hall of the Museum. The sessions extended over three days.

The American Ornithologists' Union met on November 12 and held three sessions on that day and the day following.

The eleventh annual meeting of the American Historical Association was held in Washington on December 26 and 27.1

On January 2, 1896, the second annual meeting of the National Science Club opened.<sup>1</sup>

A lecture was delivered in the office of the Assistant Secretary, on March 16, by Rear Admiral S. Makaroff, of the Russian Navy, on "The specific gravity of the waters of the North Pacific Ocean."

The National Academy of Sciences has for some years held its annual meeting in the Museum building. The sessions for the present year lasted from April 21 to 24. The business meetings were held in one of the offices and the lecture hall was used for the public meetings.

A lecture to the pupils of the High School of Washington on "India" was delivered in the lecture hall of the Museum on May 22 by Mr. H. N. Wilson.

The Saturday lectures were continued during the season of 1896 under the auspices of the joint commission of the scientific societies of Washington. The subjects of these lectures are given in Appendix VII. Many of the lectures were illustrated by the stereopticon, and others by maps, diagrams, and specimens. The series delivered during this year was arranged with a view to illustrating the relations of life to environment. Two courses were provided, the first pertaining chiefly to vegetal and animal life, the second to human life in its relations to lower organisms and to the inorganic world. The five lectures constituting the second course were printed in the Appendix to the Report of the Smithsonian Institution for 1895.

<sup>&</sup>lt;sup>1</sup>A list of the papers submitted is printed in Appendix VII.

The following table indicates the number and dates of Saturday lectures since 1882:

Year.	Date of first and last lecture.	Number of lectures.
1882	March 11, April 29	. 8
1883	January 13, March 31	. 12
1884	January 5, April 26	. 17
1885	February 7, May 2	. 12
1886	March 6, May 8	. 10
1887		
1888		
1889		
1890		
1891		1
1893	March 25, May 13	. 8
1894		
1895		
1896		
Total		

#### CIVIL SERVICE.

Under an order issued by the President on May 6, 1896, the National Museum was made subject to the law regulating appointments and promotions in the civil service of the United States.

# NEW MUSEUM BUILDING.

On December 10, 1895, Senator Morrill introduced a bill for the erection of an additional building for the use of the National Museum. This bill was referred to the Committee on Public Buildings and Grounds, and favorably reported on February 27, 1896. An amendment embodying the substance of the bill was afterwards made to the Sundry Civil bill, but was not retained.

# COTTON STATES AND INTERNATIONAL EXPOSITION.

The Cotton States and International Exposition at Atlanta, Ga., opened on September 18 and closed on December 31, 1895. The Assistant Secretary represented the Smithsonian Institution and the National Museum on the Government board of management. Mr. R. E. Earll was appointed special agent in charge of the exhibit.

The following departments and sections in the Museum prepared exhibits for this Expostion: Mammals, birds, reptiles, fishes, comparative anatomy, marine invertebrates, mollusks, insects, paleontology, geology, minerals, botany, ethnology, prehistoric anthropology, materia medica, technology, oriental antiquities, and religious ceremonials Collections of musical instruments and of ceramics were also exhibited.

The official report upon the participation of the Smithsonian Institution and the National Museum in the Exposition will be found in the Report of the Smithsonian Institution for 1896.

#### NECROLOGY.

Prof. Charles Valentine Riley, honorary curator of the department of insects in the United States National Museum, died September 14, 1895.

The following is an extract from a biographical sketch by the Assistant Secretary, read at the annual meeting of the Joint Commission of the Scientific Societies of Washington, January 18, 1896, and afterwards published in Science:

Professor Riley was born in Chelsea, London, September 18, 1843. His schoolboy days were passed in France and Germany, and he was but 17 when his restless spirit led him to America.

"He went West and settled with Mr. G. H. Edwards, whom he had met in London and who had made arrangements to open a stock farm in Kankakee County, Ill. Here, during three years, he acquired that experience of Western agriculture that can be gained only by farm work. Fond of all life as manifested on the farm, young Riley devoted himself enthusiastically to the calling he had chosen. Of an inquiring and experimental turn of mind, he aimed to improve on the methods in vogue, and soon won the esteem of all who knew him; and, though so young, was sought for in counsel and honored at public gatherings, at which he became intimate with Emory Cobb and other prominent farmers of Illinois. Under these circumstances, and with a deep love of nature in all her manifestations, it was no wonder that Professor Riley, as we have heard him avow, looked back to the farming days in Illinois as the happiest of his life.

"The experience gained on the farm enabled him, more than anything else, to understand the position and needs of the farmer. In writing of Professor Riley's farm life and the reasons why he abandoned it, a Kankakee friend who knew him well remarks: 'Young Riley was simply too enthusiastic and too bent on excelling in everything. He took no rest. Often he would be up, actually getting breakfast ready, to relieve the women folk, and milk half a dozen cows, before the others were about. When others were resting at noon in the shade, he would be working at his flowers under a July sun. There was not a sick animal of the three hundred on the place that he did not understand and help. He kept a lot of bees, got hold of the best bred colts, and some of the best heifers in the county, secured a good quarter-section, and spent his Sundays reading, sketching, and studying insects. Three years of this unceasing effort under the trying climatic extremes of central Illinois broke the young fellow's health, for it was a great contrast to his previous life, and with every one telling him that he was wasting his talents, he finally concluded to give up the idea of farming. But had his health not failed him, my opinion is that he would be a farmer to-day, and a successful one too, for he has intense love of rural life,'

"He went to Chicago in his twentieth year, with no definite trade or profession and with little experience of city life. Money was scarce among farmers in those days, and his little property was so invested that it was not available. The trials of his first few months in Chicago are familiar to only a few of his intimate friends, but the manner in which he overcame them while yet in poor health was characteristic. Pride prevented him from asking help from his Kankakee friends, but did not prevent him from donning blue overalls and doing manual labor in a porkpacking establishment, or from adding to his slender income by making portraits of fellow boarders, or sketches which he himself disposed of at evening in the abodes of wealth on Michigan avenue. After a while he obtained an engagement as a reporter on the Evening Journal, but finally became connected with the Prairie

Farmer, then the leading agricultural paper of the West. Besides a close application to the duties of his position as reporter, delineator, and editor of the entomological department of this paper, he devoted his time and energies to the study of botany and entomology. His industry and versatility soon made him not only popular with his associates upon the paper, but gave him a widespread reputation as a writer upon natural history, especially on his specialty of economic entomology, the importance of which he soon made apparent."

His adventurious temperament led him to enlist as a private in the One hundred and thirty-fourth Illinois Volunteers, in which he served for several months during the civil war, in Kentucky and Tennessee.

Before entering the army he had made the acquaintance of the man whom he joined in 1868 in establishing the American Entomologist. This friend, who was senior editor until his death, was Dr. Benjamin D. Walsh, State Entomologist of Illinois, and it was Walsh to whom Riley always alluded as his master and the man to whom he was most indebted for his early training and inspiration. Mr. Walsh was a graduate of the University of Cambridge, in the class with Darwin, a man of weight and scholarly attainments and a most careful and painstaking investigator. During the few years of his residence in Illinois he had done much to develop the interest in economic entomology, which resulted in the establishment of the position of State Entomologist of Missouri in 1868, which was the beginning of Riley's public labors.

An important outgrowth of Riley's personal activity in connection with his official work was the formation of the Riley collection of insects, upon which he began immediately after he left the army in 1864, and which at the end of twenty-five years included over 20,000 species and over 115,000 mounted specimens, besides much other material. The collection is in many respects unique, especially so because of the complete manner in which the life-history of numerous individual species is represented. It is the legitimate outgrowth and complement of Riley's investigations, and is a voucher for the accuracy and fullness of his personal work in entomology. This collection he gave in 1882, without condition, to the National Museum, at that time without a collection of insects. His purpose in doing this was to place in the Museum a worthy nucleus, and to be instrumental in the formation of a collection which would be worthy of the nation. He was appointed at once honorary curator of the department of insects in the Museum, and gave much attention to the department, which thereafter made rapid advances.

It was as an economic entomologist that Riley was most widely famed. In this tield he was eminent in two respects—in administration as well as in his direct contributions to the science of practical entomology, and to the art which is its outgrowth.

As an administrator, he was associated with three prominent undertakings: The entomological work of the State of Missouri, the United States Entomological Commission, and the establishment of the Division of Entomology of the Department of Agriculture.

He held the position of entomologist to the State of Missouri for nearly ten years, entering upon this work at the age of 23.

The United States Entomological Commission was in existence for five years, Riley having been its chief from the beginning.

"We all remember," said the Pacific Rural Press in 1887, "the sad experiences which our Western States and Territories passed through from 1873 to 1877, from locust or grasshopper ravages, which resulted in destitution and precipitated a financial crisis. These ravages seriously affected the western portion of his own State, and Professor Riley took hold of the problem with that originality and vigor which have characterized all of his work. His last three reports to the State contain the first positive and accurate knowledge on the subject that has been published.

<sup>&</sup>lt;sup>4</sup> Colman's Rural World, St. Louis, May 12, 1892.

But he early saw that the subject was one of national importance and could not be fully dealt with by work in any one State. To feel a necessity was sufficient for him to act, and consequently we find him, in public lectures, in leading articles, through resolutions offered at societies' meetings, memorials to Congress, and in every other way urging the creation of a National Entomological Commission. After various bills had been introduced and discussed, Congress finally created the Entomological Commission, with a special view to investigating the Rocky Mountain Locust, or so-called grasshopper, and Professor Riley was tendered the position as chief of the Commission, a distinction which his investigations into this insect had justly earned, for he had already not only made most important discoveries as to its habits and the best means of subduing it, but had ascertained sundry laws that govern it, so as to be able to predict the time of its coming and going and the limits of its spread. Consulted by Secretary Schurz as to the other appointments, it is no wonder that the members chosen were Dr. A. S. Packard, jr., a naturalist of eminence, one of the finest entomologists of the world, and a prominent author and editor, and Prof. Cyrus Thomas, who had likewise labored for the creation of the Commission, and who was the authority on the family of insects to which the locusts belonged. Both of these gentlemen, like Professor Riley, had been chosen by their respective States as official entomologists, and had a large personal experience in the West. Accepting charge of the ('ommission thus constituted in March, 1877, we find Riley traveling that year over most of the western country, from the Gulf to the South Saskatchawan, in British America, now in company with the governor of the State, and again with other special officials, but everywhere exhorting the farmers to action, making careful observations and experiments, and inspiring confidence."

He was the first to demonstrate the practicability of checking the ravages of an important species of insect by enlisting the aid of the insect enemies which had kept it in check in its native habitat. This was effected by the introduction from Australia in 1888, at his instance and by two agents sent out from his office, of the Australian Vedalia, a species of lady-bird, which is the natural enemy of the "Finted Scale," an insect which had found its way from southern Australia to California, and was fast destroying the orange and lemon groves.

His studies in connection with *Phylloxera*, the French vinepest, although not more important than many others more purely American in interest, may well be referred to on account of the attention which they attracted in France, and the honors conferred upon him as a result. To him is generally attributed the idea of reviving etiolated French vineyards by using certain American Phylloxera-proof stocks to graft upon.

As long ago as 1873 the vine growers of France presented him with a gold medal, struck in recognition of his investigations into the history of the *Phylloxera*. In 1889, as a further proof of their appreciation of his services, they presented to him a beautiful statue in bronze, while the French Government conferred upon him the cross of the Legion of Honor.

Associated prominently with his name are certain practical methods for the destruction of insects: the use of kerosene emulsions to protect plants and trees from the attacks of suctorial insects, and the invention and perfection, aided by Mr. W. S. Barnard, of a very ingenious series of mechanical devices for spraying insecticides and fungicides in a liquid form—often called the Riley system.

The vast amount of work which Professor Riley accomplished is shown by the catalogue of his published papers, of which there are more than 1,600, many of them of very considerable extent, and the whole equivalent to at least 20,000 octavo pages.

Professor Riley bequeathed to the United States National Museum, through a trustee, all entomological and other natural history specimens which had come into his possession during recent years. A large collection of his pamphlets, relating to the subject of entomology, has been deposited in the Museum by Mrs. Riley.

Mr. R. S. Matthews, aid in the department of mammals, died on on November 13, 1895, in Atlanta, Ga., where he had been detailed for duty in connection with the Cotton States and International Exposition. Although Mr. Matthews had been connected with the Museum only a short time, he had shown marked ability, and would have undoubtedly become a naturalist of prominence.

Mr. R. Edward Earll, editor of the Proceedings and Bulletins, died on March 19, 1896. The following brief account of his life, prepared by the Assistant Secretary, is reprinted from Science:

Mr. Robert Edward Earll, who died on March 19, at Chevy Chase, near Washington, was one of the oldest and most trusted members of the staff of the Smithsonian Institution, with which he had been connected in various capacities since 1877. He was born at Waukegan, Ill., August 24, 1853, educated in the Waukegan public schools, the University of Chicago, and at the Northwestern University, where he was graduated in 1877 with the degree of B. S. He entered the service of the Fish Commission, under Professor Baird, as a fish culturist; in 1878 was transferred to the scientific staff, and from 1879 to 1882 was engaged in the fisheries division of the Tenth Census.

From 1885 to 1888 he was chief of the division of statistics in the Fish Gommission. He was sent in 1883 to the International Fisheries Exhibition in London, as a member of the staff of the United States Commissioner, and rendered very efficient service as executive officer and deputy representative. His aptitude for exposition work was so fully demonstrated on this occasion that he has been designated chief executive officer at all the expositions which have since been held, for the exhibits of the Smithsonian Institution and the National Museum—at Lonisville and New Orleans in 1884 and 1885, Cincinnati in 1888, Chicago, in 1893, and Atlanta in 1895. At the time of his death he had just completed the unpacking of the exhibits returned from the South.

Since 1888 he had been connected with the National Museum, with the grade of curator, and for three years had been editor of the Proceedings and Bulletins of the Museum.

He was recognized by his associates as a man of fine administrative ability, which, combined with great force of character, had brought him into the position of one of the most efficient exposition experts living. His unselfish devotion to his work and his absolute trustworthiness were appreciated by all who knew him, and he was exceedingly popular among his associates.

Notwithstanding his constant occupation in executive work, he produced and published a considerable number of important papers in regard to the methods of the fisheries and the habits of fishes. He was one of the best authorities upon the natural history of the shad and herring, and made exhaustive studies of the fishery statistics of the Atlantic and Gulf coasts and of the Great Lakes. Several new fishes were discovered by him, one of which, an important food species of the southern coast, obtained by him at Charleston in 1881, is called in his honor Earll's hake, *Phycis carlii*. He was also a skillful fish culturist, and had much experience in the early experimental work in the propagation of the shad and in the establishment of the cod hatching station at Gloucester.

He was a man of the purest personal character. His loss will be deeply felt by many in Washington. By reason of his peculiar abilities and his great experience, his death creates a void which it will be practically impossible to fill.

# III.—REVIEW OF WORK IN THE SCIENTIFIC DEPARTMENTS.

During the early part of the fiscal year the curators of many of the departments were engaged in completing the preparation of their exhibits for the Cotton States and International Exposition at Atlanta, Ga. This Exposition opened on September 18 and continued until the close of the year 1895. Another month or more was required for the return of the exhibits and their installation in the Museum, so that for at least one-half of the period covered by the present report the curators were occupied more or less with Exposition matters. This is usually the case, however, during those years in which Expositions occur, and as the resulting disadvantages have been dwelt upon in previous reports, no extended reference to them need be made at this time. Nevertheless, it is gratifying to state that satisfactory progress has been made in all the departments, notwithstanding the difficulties encountered. The record of the present year compares favorably with that of other years in which similar conditions existed.

## DEPARTMENT OF MAMMALS.

As stated in the last Annual Report, the curator, Mr. F. W. True, was detailed in May, 1895, to accompany an expedition to Alaska and the adjacent islands for the purpose of studying the seal rookeries. While thus engaged he was attached to the staff of the United States Fish Commission.

The most interesting accessions to the collections of this department have been received from Dr. W. L. Abbott, who for several years has forwarded very large and valuable collections of mammals, birds, etc., from various parts of Africa and Asia. His contributions in the present year consisted of valuable skins of lemurs and other small mammals from Madagascar, and a collection from Kashmir, including a stag and a musk. In all, ninety-two specimens were received from him.

About forty skins of the very rare mole Neirotrichus gibbsii, from British Columbia, were purchased by the Museum. Eighty-eight mammals from the Pribilof Islands, including fifteen fur-seals, were collected by the curator (while in the service of the Fish Commission) and Mr. D. W. Prentiss, jr. A mounted skin of the Chile deer, Cariacus chilensis, was presented by the La Plata Museum. Lieut. Wirt Robinson. U. S. A. collected fourteen small mammals in Margarita Island and La Guayra, Venezuela. These he kindly presented to the National

Museum. About fifty mammals, which died from the effects of confinement in the National Zoological Park, have been received. They were chiefly representatives of North American species. From Dr. E. A. Mearns, U. S. A., were received several small mammals from Fort Clark, Tex., and Fort Myer, Va., and Prof. R. E. Call donated between three and four hundred bats, which he obtained from the Mammoth Cave in Kentucky.

Mr. True states that, while the accumulations of the year included some very valuable specimens, so far as scientific value is concerned, the general average is probably below that of the last three or four years. The number of specimens received is also less. There were fifty different contributors, four of which were Government Bureaus. The total number of specimens received and entered was 1,048, including 365 bats of one or two species only.

Very little work was accomplished in the exhibition hall, owing to the absence of the curator. A considerable number of specimens were withdrawn for exhibition at the Cotton States and International Exposition at Atlanta, but these were returned before the expiration of the fiscal year.

Regarding the study collections the curator says:

The study series has not degenerated, so far as I am aware. A large number of skins have been taken from the vats and made up dry, and many old but valuable skins have been made over. From the want of an assistant, little has been done towards classifying and putting away the larger skins.

There are still many skins of the larger species which are in very bad form for study purposes and ought to be made over, so that they can be handled. At present they are stored in boxes.

New cases were provided in the third-story laboratory, but little has yet been put into them.

Some progress was made in transferring the valuable study series of small skulls from trays to boxes, but more remains to be done.

The alcoholics have been looked after and roughly classified in the alcohol room, but the lack of an assistant made it impossible to do much in that direction.

A paper entitled "Revision of the American Moles," by the curator, was completed and sent to press during the year. He has also continued his work on the "Antlers of the Deer Family," although this has been constantly interrupted by special assignment to executive duties.

The curator calls attention in his report to several explorations which have resulted in the acquisition of some very desirable material. Thus, Mr. D. W. Prentiss, jr., was detailed to accompany the curator to the Pribilof Islands, Alaska, in the summer of 1895, and in the three months spent there they collected eighty-eight mammals, a large number of plants, some anatomical specimens, insects, birds, and other natural-history objects. Among the mammals are fifteen fur-seals of varying ages, including a very fine old bull. Dr. W. L. Abbott, who has continued his travels in Kashmir, sent some very interesting mammals to the Museum from that country. He also made a collecting trip in southeastern Madagascar, and as a result a splendid series of skins of

lemurs and of the insectivores peculiar to that island were added to the Museum collections. Prof. R. E. Call explored the caves of Kentucky and obtained in the Mammoth Cave a large number of bats for the Museum. Mr. William Palmer made an expedition to the Dismal Swamp, Virginia, and collected a few mammals.

It is pleasant to refer here to the enthusiastic cooperation of Dr. E. A. Mearns, U. S. A. Both in the field and in the laboratory his energies and intelligent aid have been of very great value to the Museum.

Three papers based upon collections made by Dr. Mearns and Mr. F. X. Holzner have been published by the Museum. These contain descriptions of eighteen new species and subspecies.

The curator thus outlines the general course which it seems desirable to follow in the future in connection with the development of this department:

The collections of mammals made by the Department of Agriculture in the last few years being cited in the publications of that Department as belonging to the National Museum, it is taken for granted that they do now and always will form a part of the Government collections of the Museum. Such being the case, it seems inadvisable to spend money in procuring North American mammals at this time, except of such species as are not collected by the Department of Agriculture or of which specimens are needed for exhibition purposes.

On the other hand, all kinds of foreign mammals are greatly to be desired. The tendency of work in America at present is to follow broader lines than hitherto, and the foreign species are needed for comparison with our own.

We ought to be on the lookout, furthermore, to secure specimens of large foreign species which are threatened with extinction. Some which were obtainable twenty-five years ago are no longer to be had.

Additions to the groups of North American mammals are in view, but there is great discouragement in this direction, it being impossible at the present time to find exhibition space for five groups already prepared. A fur-seal group is now being provided for.

Mr. True, in addition to his duties as curator of mammals, has served during the year as chairman of the Committee on Publications, and has frequently been called upon to act as Executive Curator in matters affecting the general administration of the Museum.

The department suffered a severe loss in the death of Mr. R. S. Matthews, which occurred on November 13, 1895.

The appended statement shows the number of specimens in the collection and the number of catalogue entries made during the year:

# Specimens.

Total number of specimens in the collection June 30, 1895.  Received during the fiscal year 1895-96	3
Increase, fiscal year 1895-96	783

#### Catalogue entries.

Skins, alcoholics, and skulls:	
Last entry, June 26, 1895	62479
Last entry, June 17, 1896	63475
New volume	
First entry, April 27, 1896	82301
Last entry, June 27, 1896.	82674
Department of Agriculture deposit:	
Last entry, June 27, 1895	72200
Last entry, June 29, 1896	78473

#### DEPARTMENT OF BIRDS.

During the year just closed a large proportion of the time of the curator, Mr. Robert Ridgway, has been devoted to the prosecution of his work on the "Birds of North and Middle America." In a special report regarding the progress of this work he makes the following statement:

There have been completed during the year the synonymy, family diagnoses, and concomitant matter pertaining to 54 families, 335 genera, and 1,661 species. During the preceding period since the work was commenced 15 families, 165 genera, and 747 species were covered.

This statement does not by any means show the proportion of the work which has actually been completed, since a large number of genera and individual species, thoroughly "worked up" in other connections, are in shape for the printer. How many and what proportion of the whole these would represent, it is, however, impossible to estimate.

At the present rate of progress the synonymatic portion of the work will be completed by December, 1896—possibly sooner. Much of the most difficult portion of the task will then be out of the way. In the meantime a determined effort will be made to thoroughly rearrange the collection, so as to facilitate access to the specimens, and then the finishing touches will be given the work without unnecessary delay.

Other investigations carried on by the curator included a study of the genera of the Tringillidæ; a study of the affinities of *Procnias viridis*; a partial compilation of a list of type specimens in the department of birds; determinations of some Galapagos species, of a species of *Peucedramus* from Guatemala, and of a species of *Geothlypis* from Mexico. He also prepared a paper on the birds collected by Dr. W. L. Abbott in the Seychelles and other islands near Madagascar. The curator was detailed for two months in southern Florida, for the purpose of studying the bird life of that region.

The routine work has devolved very largely on Mr. Charles W. Richmond, assistant curator. The latter has determined collections of birds made by Dr. W. L. Abbott in Kashmir, in eastern Turkestan, and in Madagasear. He has also commenced the study of a collection of birds from East Africa, a collection of birds from Margarita Island, Venezuela, made by Lieut. Wirt Robinson, and a series from castern Mexico.

The number of specimens received during the year was about 3,000

in excess of the receipts for the preceding year, the number of accessions or "lots" of material having been eighty-six. The scientific value of the accessions for the year just closed exceeded that for the year 1894-95, including, as they did, a rare and extinct parrot (Nestor productus), presented by Dr. W. L. Ralph; one species doubtfully extinct, many types of new species, and a number of rare specimens. Specimens or collections of unusual importance have been received from more than forty individuals and establishments during the year. The list of important contributors for the preceding year was headed by Mr. A. Boucard, Isle of Wight, England. He has been a very generous contributor, having presented during this year more than 2,800 specimens from various parts of the world. His liberality toward the Museum is very highly appreciated.

Among other important accessions the following may be mentioned: From Dr. W. L. Abbott, 217 specimens, representing 83 species, from Madagascar, and 67 specimens, mainly eagles and hawks, from Kashmir (gift): Lieut. Wirt Robinson, United States Army, 167 specimens from Margarita Island, Venezuela, and Bogota, Colombia, including types of 11 species (gift); Rev. H. T. Heyde, 1404 Erato street, New Orleans, La., 183 bird skins from Central America (purchase); H. P. Attwater, San Antonio, Tex., 367 specimens from Texas (purchase); Dr. A. Fényes, Hélouan, Egypt, 79 specimens from Egypt (gift); 190 birds collected by Robert Ridgway, in Florida and other States, for the U.S. National Museum; S. Dannefaerd, New Zealand, 9 specimens from Chatham and Snares Islands (purchase); F. Stephens, Witch Creek, Cal., type of Speotyto cunicularia obscura (gift); William Brewster, Cambridge, Mass., 141 specimens from Mexico and Lower California (gift); Charles E. Kern, Washington, D. C., 85 specimens from Costa Rica and Nicaragua (gift); F. W. True, U. S. National Museum, and D. W. Prentiss, jr., Washington, D. C., 142 specimens collected in Alaska; Richard C. McGregor, Palo Alto, Cal., 119 birds from California and Colorado.

The material received during the year has been catalogued and distributed in the various series of the collection, and a considerable number of unidentified species have been determined. Mr. J. H. Riley, of Falls Church, Va., gave his services gratuitously for about six months, during which time valuable assistance was rendered in the matter of cataloguing. Mr. H. C. Oberholser, of the Department of Agriculture, has been engaged for a year or more in rearranging the neotropical series, and several families of Passeres have received attention. This work is also done gratuitously, and has been performed outside of office hours.

Mr. Ridgway states that a large amount of incidental work has been performed, such as furnishing information of a technical character in response to requests received through the mail; the preparation of a card catalogue of the sectional library; the preparation of data relating to the type material in the department, and the reading of proof

and the verification of references in the Bibliography of Dr. P. L. Sclater, which will shortly be published by the Museum as No. 49 of the Bulletin.

A number of additional cases for the storage of specimens have been provided. Several of these cases will be placed in the west basement, and the remainder in the gallery. The extensive additions to the collections during the last two or three years have rendered an entire rearrangement necessary. Such a readjustment is made the more urgent by the fact that the collections in the west basement are more or less inaccessible, and to some extent exposed to the ravages of insects. That portion of the study series which is installed in the bird gallery is in good condition.

The material exhibited at the Cotton States and International Exposition at Atlanta was returned and placed in position during the year.

Mr. Richmond made a collecting trip to Smiths Island, Va., and Mr. William Palmer, chief taxidermist, collected birds in Florida. Explorations resulting in additions to the collections have also been undertaken by twenty-four other persons, the names of some of them having already been mentioned in this review. The names of the others will be found in the accession list (Appendix II).

Material for investigation has been sent to thirteen different individuals and establishments, and eight persons not connected with the Museum have visited the building and made use of the collections.

Thirty-six papers based upon material in this department have been published during the year by the curator, assistant curator, and other collaborators. In these papers one new family, four new genera, and thirty-four new species and subspecies are described.

The number of specimens received, including those added to the Department of Agriculture collection, was 8,488. This is the first year in which any large number of specimens from the Department of Agriculture have been entered. Although the material is the property of the Museum, it is, as a matter of convenience, installed and catalogued separately for the present. The total number of specimens in the collection is now over 86,000. The addition of the duplicates would bring the figures up to about 100,000.

The catalogue entries for the year were as follows:

	Last entry June, 1895.	Last entry June, 1896.
Regular catalogue	150721	152825
Department of Agriculture catalogue	136130	139687
Catalogue of the Boucard collection		149593

#### DEPARTMENT OF BIRDS' EGGS.

The honorary curator of this department, Maj. Charles Bendire, states that the number of accessions was slightly less than during the preceding year, but that the scientific value of the material received

during both years was about equal. The largest accession was from Dr. W. L. Ralph, Utica, N. Y., who has long been regarded as one of the most valued contributors to the Museum. This collection consisted of 88 nests and 911 eggs, representing 206 species. Other important contributions were received from the following: Dr. James C. Merrill, United States Army, Fort Sherman, Idaho, 6 nests and 99 eggs, representing 12 species; Lieut. Wirt Robinson, United States Army, Cambridge, Mass., 5 nests and 65 eggs, representing 14 species; United States Fish Commission steamer Albatross, through Mr. F. W. True and D. W. Prentiss, jr., 35 specimens, representing 10 species; Elmer J. Judd, Cando, N. Dak., 25 eggs, representing 3 species; United States Department of Agriculture, 32 specimens, representing 8 species. Twenty-eight eggs and 6 nests were purchased from Mr. H. P. Attwater, San Antonio, Tex.

All of the material received has been properly catalogued and labeled, and the exhibition and study series are in excellent condition. It would be very desirable to increase the former if the necessary space were available.

The honorary curator mentions the names of thirty-five persons whose cooperation has resulted in enriching the collections. The Department of Agriculture and the United States Fish Commission have also made valuable contributions to the collections of this department.

The number of eggs received during the year was 1,729, and of nests 154. The last catalogue entry in June, 1895, was 27655, and in June, 1896, 28138.

#### DEPARTMENT OF REPTILES AND BATRACHIANS.

As stated in the last annual report, the curator of this department, Dr. Leonhard Stejneger, was detailed in the spring of 1895 to accompany a Government expedition to Alaska and the adjacent islands for the purpose of studying the seal rookeries. Dr. Stejneger was absent for a considerable portion of the fiscal year covered by the present report, and in June, 1896, he again left for the north, having been appointed by the President a member of a special commission, authorized by joint resolution of Congress, to investigate the condition of the seal herds. For these reasons the regular operations of the department of reptiles and batrachians have been considerably interfered with.

The number of specimens received and entered on the catalogue has been smaller than during the preceding fiscal year, although this is partially accounted for by the fact that the year last referred to was one of unusual activity. The scientific value of the material is no less in proportion than that attaching to the accessions of the previous year, some very interesting collections having been received from South America and Madagascar, as well as from various parts of the United States. Eight specimens of a blind batrachian from an artesian well

at San Marcos, Tex., were received from the United States Fish Commission. They represent a new genus and species, described by Dr. Stejneger as *Typhlomolge rathbuni*. This is regarded as one of the most remarkable herpetological discoveries of recent years. Other accessions by gift included one from Dr. W. L. Abbott, consisting of a series of reptiles collected by him in Madagascar, and one from Lieut. Wirt Robinson, United States Army, consisting of a collection of reptiles and batrachians from La Guayra and Margarita Island. A series of reptiles and batrachians from Argentina was received from the Museo de la Plata, in exchange.

The curator's visit to the islands in Bering Sea yielded very little in the way of collections for this department, owing to the absence of batrachians and reptiles in the localities visited. A specimen of a rare salamander (Salamandrella wossessenskii) was, however, obtained in Kamchatka. It is the only species occurring there, and had not been previously represented in the Museum collection. Mr. F. W. True secured some specimens of snakes and toads on Vancouver Island, and an interesting collection of snakes from the Dismal Swamp, Virginia, was obtained by Mr. William Palmer of the National Museum.

Regarding the condition of the various series in the department, the curator says:

The collection was gone over systematically several times, and the alcohol strengthened and replenished as required. The exhibition series still consists only of the separate casts, the yellow-boa group and the group of North American turtles and poisonous snakes. The study series is divided into the North American series, the exotic series and the duplicates. The former are all in separate jars and bottles; a portion of the exotic series is still in storage jars, while most of the duplicates are kept in tanks.

Owing to the prolonged absence of the curator, and the fact that after his return he has been engaged principally in bringing the routine work up to date, but little has been done in the way of conducting special investigations upon the material under his care, beyond the description of the new genus and species of batrachian already referred to.

Specimens have been sent to a number of individuals for study, as indicated in the chapter devoted to transactions of that character, and special facilities were accorded to Prof. E. D. Cope for studying material in the department in connection with his forthcoming monograph.

Among those whose cooperation has been of value to this department mention should be made of Mr. Julius Hurter, St. Louis Mo., and Mr. W. L. Sherwood, New York City.

Four papers based upon Museum material have been published by the curator during the year.

There were 329 specimens received and entered, the last number in the catalogue on June 30, 1895, being 22482, and on June 30, 1896, 22811. The total number of specimens in the collection is estimated at over 35,000.

# DEPARTMENT OF FISHES.

The number of accessions to the department of fishes during the year was not so great as during the preceding year. Their scientific value was also somewhat less. A collection of fishes from Nebraska, Wyoming, and South Dakota was received from the United States Fish Commission; also from the same source a collection of types of fishes from the Albatross collections in the North Pacific, as well as some material obtained by the same vessel in that locality and in Bering Sea in 1890 and 1891. A collection made by Dr. Leonhard Stejneger in Bering Sea and the vicinity of Kamchatka deserves special notice. A few specimens obtained from the Island of Yesso by Mr. Grebnitzki were also received.

The honorary curator of the department, Dr. Tarleton H. Bean, is still in New York City, as superintendent of the New York Aquarium.

Mr. Barton A. Bean, the assistant curator, states that during the year the collections have been carefully attended to, the bottled specimens having been kept covered with alcohol, and the old labels replaced by new ones where necessary. The collections on the shelves in the fish hall have been condensed by placing several specimens of the same species in one jar. Considerable additional shelf space was thus secured. Some large and valuable collections resulting from explorations in the North Pacific by the steamer Albatross were installed during the year. An unusually large number of specimens were distributed, including several sets of deep-sea fishes, which were sent to some of the principal museums in Europe.

The honorary curator and assistant curator have prepared reports upon the fishes collected in the vicinity of the Commander Islands by Dr. Leonhard Stejneger and Mr. N. Grebnitzki; also upon the fishes collected by the latter in Kamchatka and Japan. At the close of the fiscal year Dr. Bean had in course of preparation a report upon the fishes collected in 1887–88 by the *Albatross*, in South American waters. Mr. Barton Bean is assisting in this work.

In January, 1896, Messrs. B. W. Evermann and W. A. Wilcox, of the United States Fish Commission, and Mr. Barton Bean, made an investigation of the fish and fisheries of Indian River, Florida. A report upon these investigations was made to the United States Senate.

Among the explorations which have resulted in enriching the collections, those already referred to indirectly were probably of the most importance, namely, those of the steamer *Albatross*, in the North Pacific, of field parties sent out by the Fish Commission to the western portion of the United States, and the expedition to Florida. A small collection was also made by Rev. P. H. Sörensen, in Greenland.

Material has been sent out for study on a number of occasions, and several ichthyologists have examined the collections in the Museum laboratory.

Dr. Theodore Gill, Associate in Zoology, has published a number of papers on fishes during the year. These are based upon Museum material, some of them containing descriptions of new species. Descriptive papers, based on the collections, have also been published by other collaborators.

Strenuous efforts will be made to improve the condition of the collections by setting aside surplus or duplicate material. The preparation of an exhibit of deep-sea fishes, from 1,000 feet and lower, is contemplated. This exhibit, it is expected, will prove of great interest.

About 3,000 specimens were received during the year, the catalogue entries embracing Nos. 47505 to 47687, inclusive. The total number of specimens in the collection is estimated at 150,000.

## DEPARTMENT OF MOLLUSKS.

The honorary curator, Dr. W. H. Dall, states that there was a slight increase in the number of accessions during the year, the total having been 118, while the total for 1894-95 was 111. On the whole, the year has not been marked by anything unusual in the growth of the collections, although many valuable specimens were added. An excellent local collection of shells from Texas, made by Mr. J. A. Singley, was purchased with funds supplied by Dr. L. T. Chamberlain, of New York City. Many very valuable foreign Unios, and other specimens new to the collection, were derived from the same source. In addition, some works have been purchased for the sectional library during the year through Dr. Chamberlain's generosity. Others who have steadily contributed to the collections in this department, and who are thereby entitled to be regarded as regular contributors, are Hon. J. D. Mitchell, Victoria, Tex., who presented a number of species of Unios and other specimens from his locality; Mr. and Mrs. T. S. Oldroyd, Los Angeles, Cal.; Mr. F. F. Crevecœur, Onaga, Kans., who sent in a number of species of land and fresh-water shells; Mr. Henry Hemphill, San Diego, Cal., from whom between thirty and forty species of marine mollusks from San Diego, and other material, was received; Mr. P. B. Randolph. Seattle, Wash., who sent many specimens from his locality; Dr. C. F. Newcombe, Victoria, B. C., from whom marine shells were received; and Dr. W. L. Abbott, who sent material from eastern Madagascar. The addition of greatest importance was the Fish Commission material transferred from the Peabody Museum, New Haven, Conn. material has been in the hands of Prof. A. E. Verrill for some years for study, and is now being gradually transmitted to the National Museum.

As stated elsewhere, the exhibition series is in good condition, and much has been done in connection with the study series. The excellent system adopted in the installation and registration of these collections will be fully appreciated only when the entire work has been completed.

This matter is thus referred to by Dr. Dall:

The entry of additions to the collection in the register of the department has been carried on as usual. The principal item of work accomplished during the year has been the thorough revision of the basement storage room, in which alcoholics and duplicates are kept. All the bottles have been cleaned and filled up, when necessary, with additional alcohol, the contents catalogued, and each bottle given a number referring to the catalogue, which has been made on eards arranged alphabetically, so that by reference to the cards it can at once be seen whether any particular species is on hand in spirits. If so, the bottle can be reached in a moment, the jars being arranged in numerical order on the shelves. In cases where there was an excessive amount of material in alcohol, the excess has been removed, dried, and cleaned, and placed in the series of dry duplicates, of which a similar card catalogue has been made, the specimens being placed in numbered covered boxes, so that by reference to the cards any species can be reached in a few moments.

The number of jars of alcoholic specimens catalogued so far is 2,002.

The number of dry duplicates in boxes, catalogued, is 4,174 species or lots. All are in perfect order, and with a view to preserving the jars better from dust, which soils them and obscures the labels, the shelves have been provided with covers of enameled cloth.

There is also a considerable number of jars of alcoholics in the north tower, which it is hoped to catalogue and label in a similar manner during the coming year. When these are completed, the entire collection of alcoholics and duplicate recent shells will have been put into excellent order.

Various installments of specimens have been received from Prof. A. E. Verrill during the year. These, as they were received, have been cheeked off on the lists, the species segregated, and transferred to the standard sizes of tubes and paper trays. I have deferred incorporating them with the reserve collection until the whole series shall be received, so as to make one job of the transfer, which even then will involve a great amount of work.

The series of mounted specimens, illustrating the chief families of mollusks, which was prepared by Mr. Marshall and Mr. Simpson for exhibition as part of the Museum material at the Atlanta Exposition, has been placed in one of the exhibition cases in the main hall.

We have still a large amount of unregistered material, especially in the Jeffreys collection, which will be handled from time to time, as opportunity serves, until all arrearages are made up; but in the absence of expert assistance the progress in this direction will necessarily be slow.

In order to make sure that each specimen in the collection is correctly identified, and to unify the nomenclature, a large amount of work will eventually be required. Work of this character must be performed by a specialist in each group.

Dr. Dall states that he has completed a report upon the collections of land shells made during the progress of the Mexican Boundary Survey, by Dr. E. A. Mearns, United States Army. This collection contains the largest additions to our fauna of this region for many years. A number of additions to the fauna of the coast of Texas, collected by Hon. J. D. Mitchell, have been described or elucidated; also collections made at San Pedro, Cal., by Mr. and Mrs. T. S. Oldroyd, and in Puget Sound and vicinity, by Messrs. P. B. Randolph, of Seattle, and Dr. C. F. Newcombe, of Victoria, British Columbia.

A discussion of the land shell faunas of volcanic oceanic islands, forming a report on the collections made at the Galapagos Islands, by

Dr. G. Baur, of the Chicago University, has been completed. The type specimens upon which it is based are in the National Museum.

Mr. Robert John Lechmere Guppy, Port of Spain, Trinidad, whose collection of Antillean fossils was purchased by the Museum some years ago, forwarded descriptions of some supposed new species, to be printed in the Proceedings, the types being part of the National Museum collection. The new forms have been figured, and a joint paper by Dr. Dall and Mr. Guppy, on Antillean Tertiary fossils, has been completed, and is now in the hands of the printer.

Work on the Neocene fauna of Florida has been carried on as opportunity served, and will be continued until the study is completed. Mr. Charles T. Simpson has continued his studies on the Naiades. The superficial anatomy of a considerable number of species has been examined, and notes and descriptions prepared. Much time has been spent in searching the literature and preparing eards of synonymy for use in a synopsis of the Naiades.

A number of persons have been engaged in making collections with a view to working out the fauna of their respective localities, submitting all puzzling or doubtful forms to the department for examination. These correspondents in most cases donate types of new or interesting material to the national collection. Explorations carried on by Hon. J. D. Mitchell, Victoria, Tex.; Dr. C. F. Newcombe, Victoria, British Columbia; Mr. P. B. Randolph, Seattle, Wash., and Mrs. T. S. Oldroyd, Los Angeles, Cal., were especially productive of good results. Collections were also made by F. F. Crevecœur, Onaga, Kans.; Dr. Charles L. Gwyn, Galveston, Tex.; J. A. Singley, Giddings, Tex., and the Young Naturalists' Society, Los Angeles, Cal. Reference has already been made to the material obtained.

Dr. Dall states that during the year one hundred and forty applications for the identification of specimens, for advice as to conchological literature, etc., were received from more than one hundred different individuals. The furnishing of this information involved the identification of over three thousand species, and the writing of over one thousand pages of correspondence by the honorary curator and Mr. Simpson. It has always been the practice to grant requests for the identification of material, but the number of applications in recent years has been so great that it has become necessary to formulate a set of rules by which individuals sending specimens for this purpose should be governed. In these regulations it is stipulated that the material must be sent free of expense to the Museum, unless otherwise agreed upon, and that the localities from which the specimens were obtained, must be given. The Museum reserves the right to retain, except under special arrangement, specimens needed to complete the national collection.

No one, other than those connected with the staff, has been engaged in a regular course of study in the department. Probably as many as a hundred have, however, received verbal information or have been accorded the privilege of examining specimens in the study series.

Twenty-one papers, based upon material in the department, have been published by Dr. Dall, and five by Mr. Charles T. Simpson. One paper has also been published by Mr. G. D. Harris. The titles of these papers appear in the Bibliography (Appendix IV), and in the supplements to the latter will be found the names of a large number of species described, as well as of one family and several new genera.

It is proposed to continue the work on the collections now in progress until the arrears have been registered and catalogued, the Jeffreys and Verrill collections administered upon, and the duplicates eliminated from the reserve series. This will require a considerable amount of time, owing to the extreme pressure of current work.

The total number of specimens received during the year, exclusive of fossils, was 3,173. The number of entries made in the regular catalogues of recent mollusks was 5,449. The following paragraphs contain information as to the other clerical work performed, and also as to the present extent of the collections:

Besides the entries in the register of the reserve collection there have been 175 entries in the register of drawings, 1,628 entries in the register of duplicates, and 3,630 entries on cards for card calalogues, showing a total of 12,103 entries of all kinds during the year ending June 30, 1896.

The additions to the reserves sum up 20,010 specimens, making, when added to last year's figures, a total of 544,398 specimens in the reserve collection. A very low estimate of the number of duplicates will place them at 12,522 specimens. The specimens in alcohol, already catalogued, amount to 20,020, while the unregistered material will add, when catalogued, about 28,000 specimens, making a grand total of about 600,000 specimens in the department of mollusks, exclusive of fossils.

#### DEPARTMENT OF INSECTS.

There have been several changes in the personnel of this department during the year. Prof. C. V. Riley, who had served as honorary curator since 1882, and who rendered very valuable service to the Museum, died on September 14, 1895. A biographical sketch of his life and work will be found under the head of Necrology.

Mr. L. O. Howard, who succeeded Professor Riley as entomologist of the Department of Agriculture, has been appointed honorary curator of the department of insects in the National Museum. Four honorary custodians have also been appointed during the year, each having charge of a special branch of work, as follows: Mr. W. H. Ashmead, the Hymenoptera; Mr. D. W. Coquillett, the Diptera; Prof. O. F. Cook, the Myriapoda, and Mr. E. A. Schwarz, the Coleopterous larvæ. Mr. M. L. Linell continues to act as aid.

The accessions during the year numbered one hundred and thirtyfive, an increase of thirty-six over the preceding year. It is believed that, taking the accessions as a whole, they were five times as valuable as those received in 1894-95. The most important accessions were as follows:

Collection of Arachnida of Dr. George Marx, on deposit from Mrs. Minnie Marx.

Collection of insects of all orders from Texas, made by Messrs. E. A. Schwarz and C. H. T. Townsend, and presented by the Department of Agriculture.

Microhymenoptera from Grenada, West Indies (eighty-three species including fifty-five types), presented by the British committee for zoological exploration of the West Indies.

Types of thirty-eight species of North American Empidee, presented by D. W. Coquillett.

North American Melanopli (twenty-one species, including seventeen types), from Dr. S. H. Scudder, Cambridge, Mass. (Gift.)

North American Noctuidæ (seventeen species including fifteen types), from Prof. J. B. Smith, New Brunswick, N. J. (Gift.)

Collection of parasitic Hymenoptera of Ceylon, from E. Ernest Green, Punduloya, Ceylon. (Gift.)

Collection of Coleoptera from Egypt and Europe, consisting of about three hundred species in three thousand examples, presented by Dr. A. Féneys, Hélouan, Egypt.

Collection of Cynipidæ from Colorado, including types, from Prof. C. P. Gillette, Fort Collins, Colo. (Exchange.)

Types of six species of Crambidæ, from Prof. C. H. Fernald, Amherst, Mass. (Gift.)

Seventy-four species of North American Lepidoptera, from Dr. W. Barnes, Decatur, III. (Exchange.)

Fifty-five species of Brazilian Lepidoptera, from the Department of Agriculture, collected by J. G. Foetterle, Petropolis, Brazil. (Gift.)

Miscellaneous lots of insects from Madagascar and Kashmir, presented by Dr. W. L. Abbott, Bombay, India.

Forty-three species of Coleoptera and Orthoptera, mostly exotics, from Henry G. Klages, Jeannette, Pa. (Exchange.)

North American Diurnals (ten species), from Maj. H. J. Elwes, Colesborne, Gloucestershire, England. (Exchange.)

North American Diurnals (eleven species), from Dr. Henry Skinner, Philadelphia, Pa. (Exchange.)

Collection of insects from the Commander Islands, collected by Dr. L. Stejneger, United States National Museum.

Large series of North American insects, from the Department of Agriculture, collected by correspondents. (Gift.)

Types of early stages of Odonata, from James G. Needham, Knox College, Galesburg, Ill. (Gift.)

New species of Diptera from Mammoth Cave, presented by Dr. R. Ellsworth Call, Cincinnati, Ohio.

Sixty-five species of English Diptera, from E. Brunetti, London, England. (Exchange.)

The biological collections in Lepidoptera have been completely rearranged in cabinet drawers, and the collection of Melanopli, lent by Dr. Scudder, and the African Lepidoptera, lent by Dr. Holland, were installed. A rearrangement of the North American Coleoptera has been commenced, the families Scarabæidæ and Cerambyeidæ having already been finished. The recent accessions of Hymenoptera and Lepidoptera have been incorporated in the collections. A portion of

the exhibition series is displayed in the lower hallway leading to the offices of the department. The systematic series, since its return from the Cotton States and International Exposition at Atlanta, has been placed upon exhibition, while the exotic showy insects prepared for the same Exposition have been distributed in the study collections. The reserve collections for study are, generally speaking, in good condition. In order to properly classify the Lepidoptera, however, much work must still be done. The types have not yet been catalogued except in this order.

A large amount of scientific work has been accomplished by the members of the staff during the year, as will be seen from the following extract from Mr. Howard's report:

The curator has published a revision of the Aphelininæ of North America, and a paper on the "Grass and Grain Joint-worm Flies and their Allies," in Technical Series Nos. 1 and 2, United States Department of Agriculture. These papers are based upon Museum material. He has also completed, but not yet published, a report on the Chalcididæ of the Island of Grenada, and, conjointly with Mr. Ashmead, a brief paper on some reared parasitic Hymenoptera from Ceylon.

Mr. Ashmead has completed and published his report on the parasitic Hymenoptera of the Island of Grenada, comprising the families Cynipidæ, Ichneumonidæ, Braconidæ and the Proctotrypidæ, submitted by Dr. David Sharp on behalf of the committee for investigating the flora and fauna of the West Indian islands. He has also described a new genus and two new species of Proctotrypidæ from Trinidad, submitted by Mr. F. W. Urich; and in a paper published in the Transactions of the American Entomological Society, Philadelphia, June, 1896, he described a large number of new parasitic Hymenoptera. During the year, besides rearranging some of the families of the Aculeate Hymenoptera and Hemiptera, he identified several hundred species of Hemiptera and between two and three thousand species of Hymenoptera for correspondents of the Department of Agriculture. Monographic work is also being done on the families Braconidæ, Cynipidæ, and Chalcididæ.

Mr. Coquillett has published a revision of the North American genera and species of Empida, in which four new genera and sixty-six new species are described. Types of all of these new forms are now in the National Museum. He has also identified the Culicidae in the National Museum, and described three new species in the Canadian Entomologist for February, 1896, and in a paper on the Diptera of Florida, published in the Proceedings of the Academy of Natural Sciences of Philadelphia for 1895, he described a new species of Platyura and one of Drosophila from specimens in the National Museum. He is now engaged in identifying the Tachinidae in the National Museum collection, and has nearly completed a monograph of the same.

Mr. Linell has completed reports on the Japanese Coleoptera (Acc. 27854), on the Coleoptera of the Chanler and Höhnel expeditions, and on the insects collected by Dr. W. L. Abbott on the Indian Islands, north of Madagascar. A restudy of the North American Coleoptera of the families Scarabæidæ and Cerambycidæ has resulted in two descriptive papers, now being published in the Proceedings of the National Museum.

Of the explorations which have resulted in enriching the collections, nearly all were confined to localities outside of the United States. The material obtained is referred to in the list of important accessions given above, and only a brief reference will therefore be made in this place. The British West India Committee for Zoological Exploration conducted

explorations on Grenada Island; Dr. W. L. Abbott collected in Madagascar and Turkestan; the Chanler-Höhnel expedition to Jombéné Range, East Africa, collected insects and other material; the United States Department of Agriculture sent Messrs. E. A. Schwarz and C. H. Tyler Townsend to Brownsville, Tex., to investigate the Cotton Boll-weevil; Dr. Leonhard Stejneger visited the Commander Islands and Kamchatka and incidentally collected a number of insects; Mr. F. W. True, of the United States National Museum, and Mr. D. W. Prentiss, jr., of this city, visited the Pribilof Islands while temporarily in the service of the United States Fish Commission; Prof. C. V. Riley and Mr. H. G. Hubbard went to the West Indies in the spring of 1895; Mr. W J McGee collected during his trip to Tiburan Island, Gulf of California, and Messrs. E. A. Schwarz and H. G. Hubbard collected in the vicinity of Salt Lake, Utah.

Material has been sent from the department to fourteen individuals, including several prominent specialists in various orders. In some cases the specimens were transmitted for identification, and in other instances they were desired for comparison. A few investigators not connected with the Museum have made use of the collections in the department.

The honorary curator mentions the names of eight correspondents who have made contributions and who have received publications in partial exchange. Exchanges of specimens have been arranged with nine other individuals in this country and abroad. The correspondents who have sent material for identification which has been retained in the Museum number fourteen.

Thirty-three papers based upon Museum material have been published during the year by members of the staff, and seventeen by other collaborators. The titles of these papers appear in the Bibliography (Appendix IV). A very large number of new species are described. The names of these are given in the supplements to the Bibliography.

About 7,000 specimens were added during the year, exclusive of the Marx collection, which was received on deposit and embraces about 10,000 specimens. The last catalogue entry on June 30, 1895, was 1584, and the last on June 30, 1896, 1789, giving 205 entries for the year.

#### DEPARTMENT OF MARINE INVERTEBRATES.

This department remains in charge of Mr. Richard Rathbun as honorary curator, with Mr. James E. Benedict and Miss Mary J. Rathbun as assistant curators.

During the year a study of the Annelids of the west coast of tropical America was commenced, and work on a monograph of the American Brachyura and special researches on the genera *Pseudothelphusa* and *Sesarma* have been carried on. Mr. Benedict made a study of some new species of blind Crustacea taken from an artesian well in San Marcos,

Tex., preliminary descriptions of which have already appeared in the Proceedings. Complete descriptions will be published later. Miss Rathbun has prepared an annotated list of the Decapod Crustacea of Jamaica, for publication by the Institute of Jamaica. A paper containing descriptions of the new forms will be published in the Proceedings, and is now in press. Miss Rathbun spent about two weeks in the summer of 1895 examining literature relating to the Crustacea in the libraries of Boston and Cambridge.

There were sixty-nine accessions to this department during the year. Generally speaking, the accessions for the present year were not so large or so important as those of the preceding year, although the material received from the United States Fish Commission exceeded in value that of the accessions obtained from the same source during 1894–95.

The principal additions to the collections during the year are thus described by the curator:

From the United States Fish Commission were received six accessions, comprising a large amount of material collected by the steamer Albatross, chiefly in the Pacific Ocean and Bering Sea; also the following: Crustacea collected during the cruise to the Galapagos Islands in 1891, representing groups Podophthalma, Copepoda, pelagic Schizopoda, Pantopoda and larvæ of Stomatopoda; medusæ and hydroids studied by Prof. J. Walter Fewkes; Crustacea from St. Paul Island, Bering Sea, collected by Messrs. F. W. True and D. W. Prentiss, jr.; invertebrates from Kamchatka and the Commander Islands, collected by Dr. L. Stejneger, and invertebrates from Japan, collected by N. Grebnitzki. (Gift.)

From the Imperial Royal Natural History Museum, Vienna, Austria, through Dr. Franz Ritter von Hauer, fourteen species of echinoderms dredged by H. M. S. *Pola* in the eastern Mediterranean, 1890-1894. (Exchange.)

From the Royal Biological Station, Helgoland, through Dr. Ehrenbaum, forty-six species of Crustacea from the North Sea. (Exchange.)

From Edgar J. Bradley, Happy Valley Waterworks, South Australia, four accessions of Crustacea and other invertebrates from Australia. (Exchange.)

From Glen Island Museum, Glen Island, N. Y., through L. M. McCormick, curator, fourteen species of invertebrates from the Gulf of Aden. (Exchange.)

From Museo Nacional, San José, Costa Rica, through J. Fid. Tristan, many freshwater crabs, including several new species. (Gift.)

From H. Pittier, director, Instituto Fisico-geografico Nacional, San José, Costa Rica, twelve lots of Crustacea from Gulf of Dolce, Costa Rica, several species being rare. (Gift.)

From P. W. Jarvis, Colonial Bank, Kingston, Jamaica, specimens of crabs, including many new and rare forms. (Exchange.)

From Lieut. Wirt Robinson, United States Army, twelve species (one new) of crustaceans and echinoderms from Venezuela (Gift.)

From the Department of Agriculture, through Dr. C. Hart Merriam, Chief of the Biological Survey, fresh-water crabs and shrimps from Mexico (collected by Nelson and Goldman), yielding two new species. (Gift.)

From W. P. Hay, Washington, D. C., thirtoen species of named isopods and amphipods. (Exchange.)

From F. S. Conant, Johns Hopkins University, Baltimore, Md., types of three species of chatognaths. (Gift.)

From Prof. S. E. Meek, Fayetteville, Ark., types of Camburus faxonii, Meck. (Gift.)

From P. H. Sörensen, Jakobshavn, North Greenland, miscellaneous invertebrates. (Gift.)

From H. F. Hughes, Harbor, Oreg., specimens of two undescribed species of hydroids. (Gift.)

From H. A. Lafler, Dewitt, Nebr., three accessions of fresh-water Crustacea. (Gift.) From Museum of Comparative Zoology, Cambridge, Mass., three species of Brazilian crabs (Callinectes). (Exchange.)

From Samuel J. Holmes, Chicago, Ill., three anomuran crustaceans. (Exchange.) From Prof. A. Dngès, Gnanajuato, Mexico, eight specimens of crabs (*Pseudothel-phusa jonyi*, Rathbun). (Gift.)

Material resulting from explorations, as will be noted from the above statement, embraced that received from the United States Fish Commission; from the Imperial Royal Natural History Museum, Vienna; from the Royal Biological Station, Helgoland, and from the United States Department of Agriculture.

A great deal of time is consumed by the scientific force of this department in the selection and preparation of collections sent out in exchange or as gifts. The composition of the sets of the regular series of duplicates has been set forth in previous reports. The last set of Series IV was sent out during the year just closed, and seven sets of Series V were distributed. Twelve special sets were prepared, several of which were for exchange with foreign museums or individuals. In addition, nine collections of unassorted foraminiferous material were distributed.

A fine collection of miscellaneous invertebrates, including a number of commercial sponges, was lent to the United States Fish Commission for exhibition at the Cotton States and International Exposition at Atlanta. For the exhibit of the National Museum at the same Exposition a large and showy collection of invertebrates, consisting chiefly of dried specimens mounted on tablets, was prepared by Mr. Benedict, who was assisted in this work by Prof F. M. Comstock, of the Case School of Applied Science, Cleveland, Ohio. The work of installing this exhibit at the Exposition and of repacking it for shipment to Washington occupied Mr. Benedict's time for one month.

About 4,200 lots of specimens, consisting chiefly of mollusks, have been received from the Peabody Museum, New Haven, where the work of separating and classifying the material collected by the Fish Commission in past years has been continued by Professor Verrill.

The following statement regarding matters incident to the care of the collections is taken from the curator's report:

The former "reptile room" in the west basement was reassigned to this department early in January. New and commodions shelving was erected in the middle of the room, and the extra accommodation afforded for alcoholics permitted a more systematic arrangement of the collections in storage in the basement. The groups are now arranged in the main as follows: The echini, startishes, and holothurians are in the west room; the anthozoa and crinoids in the reptile room; the crustaceans, bryozoans, ascidians, and ophinrans in the main basement room, and the sponges are arranged in exhibition cases.

In transposing the collections the small tower room leading from the gallery was abandoned, and also all the cases in the hall of the west basement.

The northwest tower, opening from the exhibition hall, was fitted with additional shelving, and certain collections of annelids and anomurans which were needed for study, and other material, has been stored there.

During the year the alcoholic collections have been examined, alcohol added to replace that lost by evaporation, and stoppers and rubbers renewed where necessary.

A new card catalogue has been started, with eards of the library bureau size. Labels printed on red paper are now used for jars and bottles containing type specimens, and a white label with the word "type" printed in large red capitals is placed inside the jar.

An exceedingly interesting addition to the exhibition series in this department consists of a type series of Foraminifera mounted for microscopic examination in such a manner as to make it readily accessible to the public. This series was prepared by Dr. J. M. Flint, U. S. N., who has prepared for publication a description of the method of mounting and also of the specimens included in the series.

An article containing instructions for the preservation of specimens, and intended especially for collectors on board ship, was prepared for publication by the Fish Commission.

In addition to the paper already mentioned as having been published by Mr. Benedict, five others, based upon Museum material, have been published by various collaborators. Several new genera and some thirty-five new species are described in these papers.

The work already planned for the future includes the placing upon exhibition of one or more specimens of each species of invertebrates in the Museum collections whose bathymetrical range exceeds 1,000 feet; the preparation of an educational series embracing all of the principal groups of invertebrates, for distribution to high schools and academies, and the preparation of a complete card-catalogue of the types in the department, with reference to the original description, type locality, etc.

The number of specimens received during the year exceeded 4,800. The following statement shows the number of catalogue entries:

. Group.	Entries to June 30, 1895.	Entries to June 30, 1896.	Number of entries dur- ing year.
Crustaceans	18, 811	19, 475	664
Worms	4, 971	4, 972	1
Bryozoans and Ascidians	2,888	2, 888	
Echinoderms and Coclenterates	18, 149	18, 537	388
Sponges and Protozoans	7, 486	7,489	3
Total			1,056

## HELMINTHOLOGICAL COLLECTION.

Several series of specimens have been added to this collection during the year, the most important being the one deposited by the Bureau of Animal Industry of the Department of Agriculture. The accessions include some very valuable specimens.

Owing to lack of space, it has been impossible to make much progress in the work of administering upon the collections, although new labels are being installed throughout. An effort is now being made to collect types and cotypes from Europe and America.

The work of the custodian, Dr. C. W. Stiles, has included a revision of the adult tapeworms of hares and rabbits.

Pending the entry and cataloguing of the specimens received from the Bureau of Animal Industry, no estimate can be given of the number of specimens in the collection. More than 1,400 entries have been made in the catalogue since the last report, making a total of 1,550 entries to June 30, 1896.

Several papers have been published by Dr. Stiles during the year, the titles of which will be found in the Bibliography (Appendix IV).

# DEPARTMENT OF COMPARATIVE ANATOMY.

The accessions have been fewer than during the preceding year, although the material received is reported by the curator, Mr. F. A. Lucas, to possess considerable scientific value. A skeleton of *Pontoporia blainvillei*, for a long time a special desideratum, was received from the La Plata Museum in exchange.

Toward the close of the fiscal year it became necessary to remove all the cases from the exhibition hall, in order to lay a new floor. This effectually prevented, for the time being, any additions to or improvements in the exhibition series.

Regarding the actual work upon the collections, Mr. Lucas says:

Aside from the moving of specimens, necessitated by changes in the workroom, exhibition hall, and basement of stable where alcoholics are stored, little has been done, the greater part of the time of the preparator having been devoted to the preparation of specimens for the department of mammals and the Department of Agriculture, and work connected with the Atlanta Exposition. Copy has been prepared for many labels, and some additions have been made to the synoptic series of invertebrates. A number of additions have also been made to the exhibition series in the way of skeletons and models acquired for the Atlanta Exposition.

The study series is in good condition, except that the specimens are crowded. This is due in part to the fact that it has been necessary to assign considerable space to the Department of Agriculture deposit, necessitating the storage of some of the Museum material, and the transfer of nearly all of the cetaceans to the rooms occupied by the department of mammals.

Mr. Lucas has commenced a study of the changes in the skull of the cormorants, and has continued his studies of the tongues of birds and their modification and adaptation to various kinds of food and the manner of obtaining it. A study of the skull of the extinct Pallas Cormorant has been completed. Other investigations, which are being conducted by Mr. Lucas in connection with his work in vertebrate paleontology, are referred to in the review of the department of paleon-

Ten papers have been published during the year by the curator. He also completed and edited a posthumous paper of Dr. Joseph Leidy on

"Fossil Vertebrates of the Alachua Clays of Florida."

Among those who have cooperated with the department, Lieut. Wirt Robinson, United States Army, and Mr. A. W. Anthony, San Diego, California, should be mentioned, the former having contributed several species of humming-birds in alcohol, and the latter some specimens of petrels.

Referring to the further development of the department, Mr. Lucas

submits the following plans:

It would be very desirable to fill up the gaps in the exhibition series of birds, reptiles, and fishes, to extend the tooth series and that showing the modifications of the dermis and epidermis, and to add to the synoptic series of invertebrates.

A few changes of irons and pedestals are needed among the mammals, and a large number of labels should be supplied where they are now lacking. Finally, the exhibition series needs much rearrangement, as also does the study series.

In regard to scientific work, the curator would like to complete the study of the development of the skull among the cormorants, and, if material can be obtained, to finish work on the osteology of the cormorants in relation to the origin and distribution of the group. It is hoped that the paper on the fossil bisons of North America may be completed and work begun on the Dinosaurs of the Potomac. It is also desirable to continue the study of the swifts and of the modifications of the tongues of birds, while the paper on the Zeuglodon, undertaken in conjunction with Mr. True, should be proceeded with as rapidly as possible.

About the middle of June, 1896, Mr. Lucas started for the Pribilof Islands as a member of a special commission appointed by the President to investigate the present condition of the fur-seal herds on the Pribilof, Commander, and Kurile islands.

The number of specimens added during the year is as follows: Fishes, 51; reptiles, 62; birds, 69; mammals, 17; models, 8; total, 207. There are now over 15,000 specimens in the collections. The last catalogue entries at the end of the year just closed and at the end of the preceding year are shown in the following table:

	June 30, 1895.	June 30, 1896.
	-	
Fishes	. 26, 175	26, 185
Reptiles	29, 382	29, 395
Birds	19, 393	19, 440
Models	53, 512	53, 520

#### DEPARTMENT OF PALEONTOLOGY.

This department remains in charge of Mr. Chas. D. Walcott, Director of the United States Geological Survey, who holds the position of honorary curator.

The scientific value of the material received has been far greater

than that of the accessions in the preceding year. An increase is also noted in the number of accessions. A collection of vertebrates, made under the direction of Prof. O. C. Marsh, which has been on exhibition in the Museum for several years, was formally transferred from the United States Geological Survey. There were also received from the same source one hundred and fifteen boxes of unprepared vertebrate material from Kansas, a valuable collection of Green River fishes, a series of specimens studied by Professor Leidy and Mr. Lucas, a few fossil insects collected by Mr. David White, and an identified collection of Cephalopoda, studied by Prof. Alpheus Hyatt, Cambridge, Mass. Mr. Charles Schuchert, the assistant curator, collected for the Museum an extensive series of Devonian fossils, embracing about sixteen thousand specimens. These were obtained in New York, Ontario, and Michigan. Over two thousand six hundred specimens of Middle Cambrian fossils from Newfoundland and from St. Davids, Wales, were purchased from Mr. E. E. Howell, of this city. Another installment of fossil plants, together with a series of fossil fishes, was received from Mr. R. D. Lacoe, of Pittston, Pa. A large and valuable collection of fossils from various horizons, collected by the late Dr. Daniel Breed, was transmitted through Prof. B. T. Janney, administrator of the estate. This material was received in part as a gift and in part as an exchange. Mr. George Kernahan, Thedford, Ontario, contributed an excellent collection of Middle Devonian fossils, embracing 442 specimens. A collection of teeth and bones of mammals, exhibited at the Cotton States and International Exposition at Atlanta, was given to the Museum by the Peace River Phosphate Company of Florida. From Princeton College there were received in exchange skulls of Ischyromys typus, Leptauchenia major, and Eucrotaphus bullatus. From Dr. Herman Credner, Leipsic, Germany, fourteen specimens of Branchiosaurus amblystomus were obtained in exchange. In the same manner a collection of fossils and easts was secured from the Museo de la Plata, La Plata, Argentina; a large collection of Clinton and Niagara fossils, including many graptolites, from Col. Charles C. Grant, Hamilton, Ontario; thirty-six species of Russian Cretaceous fossils from Prof. A. Paylow, Moscow, Russia; and a collection of characteristic Middle Devonian fossils from Mr. R. Macintosh, Thedford, Ontario. Four fine fossil medusæ, from the Jurassic of Germany, were purchased from Dr. F. Krantz, Bonn, and other material worthy of mention was contributed as follows: Several collections of fossils from Galveston, Tex., from Mr. J. A. Singley; a collection of Lower Carboniferous fossils from Dr. J. H. Lemon, New Albany, Ind.; two collections of interesting fossils from the Choteau formation of Missouri, from Mr. R. A. Blair; and a series of characteristic Middle Devonian fossils from Mr. Malcom McKinnon, Thedford, Ontario.

The transfer of the magnificent Lacoe collection from Pittston, Pa., the residence of the donor, to Washington was completed during the

present fiscal year. The collection was formally offered to the Museum in December, 1891, and its extent and extraordinary scientific value were referred to at length in the report for the fiscal year ending June 30, 1892. A brief statement of its contents may not, however, be out of place. The collection was included in three hundred and fifteen boxes, as follows:

Two hundred and eight boxes, embracing over seventeen thousand specimens of Paleozoic plants. These include (1) types, and (2) specimens showing variation of species and geographic and geologic distribution. The contents of thirty-four of these boxes have not yet been determined.

Two boxes of Paleozoic plants.

Ninety boxes of duplicate Paleozoic plants.

Two boxes of Triassic fishes.

Two boxes of Paleozoic fishes.

One box of Paleozoic Crustacea.

Three boxes of Upper Cretaceous and Tertiary plants.

Seven boxes, including eight hundred and four specimens of plants from the Dakota group, described in Monograph xvn, United States Geological Survey. One hundred and twenty-five of these specimens are types, and fifty-five were figured in the Monograph.

The motive of the donor in presenting this material, as stated by himself, was the belief that this disposition of it would best fulfill his purpose in the formation of the collection, which was to accumulate as complete a series as possible of the older fossil flora for use in paleontological research. No conditions were imposed which would in any way interfere with the proper use of the collection. It was desired, however, by the donor that it should be known as the "Lacoe Collection," and that it should be kept entire, with such additions as might be made to it in the future by further contributions from himself or by the exchange of duplicates. That the material should be made accessible to students generally is in accordance with the established rules of the Museum, and that every effort should be made for the proper preservation of so valuable a collection was a foregone conclusion. This collection represents the results of the scientific labors of Mr. Lacoe for twenty years or more. Not being satisfied, however, with the time which he could devote to the work in person, he employed collectors in various States and in the Canadian Provinces, and also expended large sums of money in the purchase of private collections. About seven hundred and fifty published types are embraced in that portion of the collection which has been described. The series illustrating the morphology of species and their geographical and geological distribution includes over seventeen thousand specimens. While the collection represents more thoroughly than any other in existence the fossil flora of the Pennsylvania anthracite regions, there are, in addition, good series from Illinois, Tennessee, Missouri, and other States, as well as from Nova Scotia, New Brunswick, and Brazil. Besides the plants from the Paleozoic formations, there are examples of the Cretaceous and Tertiary flora of Colorado, a series of Triassic and Paleozoic fishes and Crustacea, and a collection of eight hundred and four plants from the Dakota group. A portion of the latter was, as already mentioned, described by Professor Lesquereux, in Monograph XVII of the United States Geological Survey. Professor Lesquereux also studied the material from the Cretaceous and Tertiary of Colorado referred to above, and the Triassic and Paleozoic fishes and Crustacea have been studied by Cope, Hall, Whitfield, and others.

It is not too much to say that the National Museum has never received a gift of greater scientific value or importance than that acquired through the generosity of Mr. Lacoe.

Interesting data concerning the number of published types of Paleozoic plants in the Lacoe collection, and in the other collections of the National Museum, are presented in the following tabulated statements:

I.—PALEOZOIC PLANT TYPES IN THE LACOE COLLECTION.

Publications.	Number of new species.	Supplemental species.	Originals fig. ured.	Originals not figured but described.	Supplemental species fig. ured.	Supplemental species described.	Author.
Coal Flora, Second Geological Sur-	235	174	325	200	151	175	Lesquereux.
vey of Pennsylvania.							
Proceedings American Philosophical Society, XV1I.	14	1	19	2	1		Do.
Proceedings American Philosophical Society, XVIII.	2		4				Do.
Report Geological Survey of Illinois, IV.	4	1	5		2		Do.
Report Geological Survey of Indiana, VIII.	3		4				Do.
Proceedings U. S. National Museum, XVI.	4	1	4		1		Penhallow.
Canadian Record of Science, IV	2		3	3			Dawson.
Fossil Plants of the Erian (Devonian) and Upper Silurian Formations of Canada, II.		2			2		Do.
Catalogue Pottsville Scientific Association.	1		1				Lesquereux.
Report First Geological Survey of Arkansas, II.	2		2				Do.
Transactions Royal Society of Edinburgh, XXXIII.	1		1				Kidston.
Proceedings Royal Physical Society of Edinburgh, VII.	1		1				Do.
Proceedings Royal, Physical Society of Edinburgh, IX.	1		1				Do.
Total	270	179	370	205	157	175	

II .- PALEOZOIC PLANT TYPES PREVIOUSLY IN THE MUSEUM COLLECTION.

Publications.	Number of new species.	Supplemental species.	Originals fig- ured.	Originals not figured but described.	Supplemental species fig- ured.	Supplemental species de- scribed.	Author.
Wilkes Exploring Expedition, Geology.	3	1	.3	15	1	14	Dana.
Coal Flora, Second Geological Survey of Pennsylvania.	2	1	3				Lesquereux
Bulletin U. S. Geological Survey, No. 98.	4	22	24	6	16		White.
Bulletin Philosophical Society of Washington, 1875.	5		15	6			Meek.
Proceedings U. S. National Museum, X.	1						Lesquereux
Proceedings U. S. National Museum, XI.	3	3	6		14		Do.
Proceedings U.S. National Museum, XIII.	3		10				Do.
Proceedings U. S. National Museum, XVI.	3	2	4		8		Penhallow,
American Journal of Science (3), XXXV11.	1		3	•••••			Knowlton.
Bulletin Geological Society of America, IV.	1		7				White.
Total	26	29	75	27	39	14	
	II1	_SUMM	ARY.				
Lacoe collection	270	179	370	205	157	175	
Already in the Museum collection	26	29	75	27	39	14	
Total	296	208	445	232	196	189	
Number of original types in the Lacoe Number of original types previously i							
Total number of original types of							_

The collections of this department are also to be enriched by Mr. I. H. Harris, of Waynesville, Ohio, who has signified his intention of presenting to the National Museum his magnificent series of fossils. This collection is the result of the labors of Mr. Harris during the past fifty years, and is very rich in rare fossils, such as trilobites, crinoids, and starfishes. It includes also a fine collection of mollusca from the upper portion of the Cincinnati formation. Mr. Harris and Mr. Schuchert are engaged in the preparation of a monograph of American fossil starfishes, based upon this material.

The present condition of the paleontological collections and the progress made in earing for and installing the material are indicated in the following extract from the report of the assistant curator, Mr. Charles Schuchert:

Much of the time during July was devoted to preparing the Zeuglodon material gathered by the assistant curator last year. It was chiefly from this material that the restoration of Zeuglodon was prepared for the Atlanta Exposition. During

July and August a small series illustrating some of the characteristic plants and animals of the various geological horizons was selected, and the specimens mounted upon tiles in an attractive manner for exhibition at the Atlanta Exposition. This collection received honorable mention.

From October 22 to about May 15 attention was given to the exhibit and study collections, but nothing could be done toward the contemplated mounting of the exhibition series in this department, excepting the Mesozoic and Tertiary plant collections, which are now practically finished. The time from May 15 to July 1 was devoted to mounting the "Historical collection of fossils" in the department of geology. It was deemed best, before attempting the mounting on tiles of the general exhibition collection of fossils, to experiment upon a smaller collection. The first trial was that of the fossils exhibited at Atlanta, and a second and far larger test was made with the "Historical collection" in the department of geology. It is now certain that the mounting of fossils upon tiles has decided advantages over paper, wood, slate, or ground-glass tablets. The only disadvantage observed is that tiles, because of the somewhat greater thickness necessary for their stability and flatness, are heavier than the other kind of tablets. This disadvantage, however, is not a fatal one. Considerable time during the year was given by Mr. David White, assisted by Messrs. Williard and Whipple, toward the further arrangement of the study series of the Lacoe collection. This work is not yet completed, and will not be until another case is built in the east room of the south tower. That portion of the Lacoe collection on exhibition remains in the same condition as last year. It is, however, hoped to complete, mount, and label this series during the next fiscal year.

While considerable time has been devoted to the invertebrate study series, much more work will have to be done before any intelligent selection can be made for the final exhibition series. The exhibit collection of vertebrates is in fair order, but more space is required to relieve it of its present congested condition. In the last annual report it was suggested that permanent cases be built along the north wall of the southeast court. Much vertebrate material is nearly ready for installation, and more will soon be at hand, for all of which additional space is necessary.

Eight hundred and eighty boxes of fossils are in storage, awaiting development and installation in the exhibition or study series.

The duplicate fossils are being removed from the study series as fast as possible, and laid aside for future exchange and distribution.

The Director of the United States Geological Survey has recently appointed Mr. H. E. Dickhaut, and the Museum, Mr. T. E. Williard, as preparators under the direction of the assistant curator. Work will progress hereafter far more rapidly with the material in the Museum building, and it is hoped that some of the fossils now in storage will be removed during the year. However, the staff of this department has had in the past all it could do to arrange the collections as they came in from the field or from individuals.

Each summer various Geological Survey parties send in collections, and it is the custom for this department to assist in their preparation for study and in recording the material upon the Museum catalogues.

The Lacoe collection is not yet completely housed. This is due, in part, to the fact that the Museum has no paid officer directly in charge of fossil plants. However, Mr. David White has made considerable progress in this direction, and it is hoped, with the assistance of Mr. Williard, to complete the installation of the collection during 1896-97.

Considerable scientific work, based upon material in this department, has been accomplished during the year. The preparation of a monograph on American fossil starfishes, by the assistant curator, Mr. Charles Schuchert, and Mr. I. H. Harris, has been referred to. Mr.

Schuchert has also completed a study of the American fossi. Apodidæ, the manuscript of which has been turned over to the editor. The "Synopsis of American fossil Brachiopoda," by the same author, referred to in the last Annual Report, was completed during the present year, and is now being revised. A short summary of this work has already appeared in Science. The titles of two or three other papers by Mr. Schuchert are given in the Bibliography (Appendix IV). Mr. F. A. Lucas has begun a study of the character and affinities of the species of Zeuglodon, and a study of the species of the North American bison, with synopses of their salient characters, is well advanced. posthumous paper of Dr. Joseph Leidy, edited by Mr. Lucas, has been published. It is entitled "Fossil Vertebrates from the Alachua Clays of Florida." Mr. David White has made considerable progress with the description of new species in the Lacoe collection, regarding which Professor Lesquereux left some manuscript. Dr. R. R. Gurley has in preparation a revision of American Graptolites. This work will be published by the United States Geological Survey, but is based upon material which will become the property of the Museum. Stanton has published a work entitled "Contributions to the Cretaceous Paleontology of the Pacific Coast." This is an illustrated work, and contains descriptions of about fifty new species and one new genus.

The explorations which have resulted in enriching the collections include those of Mr. Schuehert in New York, Ontario, and Michigan, already referred to indirectly in the statement regarding important accessions, and those made by the United States Geological Survey. Much of the material collected by the Survey during the present year has not yet been transferred to the Museum. It includes, however, a fine collection of Lower Silurian fossils from Valcour Island, Lake Champlain, and a collection of trilobites from Rome, N. Y. Although the Zeuglodon material collected by the assistant curator in 1894 was of great interest and value, no good skull and none of the bones of certain portions of the skeleton were secured. For this reason it is very desirable to continue these explorations with a view to securing the missing parts, if possible.

Material for study has been sent to ten specialists during the year. Dr. R. R. Gurley, Prof. Alpheus Hyatt, Cambridge, Mass., and Prof. H. F. Osborn, American Museum of Natural History, New York City, conducted investigations in the department. These matters are referred to more at length in the chapters entitled "Material Lent for Investigation" and "The Work of Students and Investigators at the Museum."

A preparator of plants and invertebrate fossils has been employed during the year. It has not yet been possible, however, to appoint a preparator of vertebrate fossils, although the need for such an assistant is greatly felt. The necessity for additional cases to relieve the crowded

condition of the collections is also pressing, and is referred to in the report of the department as follows:

It is urgent that cases be provided at an early date to relieve the present congested condition of the vertebrate collections and to provide space for the rapidly accumulating material. There are two hundred and twenty-five boxes of vertebrate material now in storage, awaiting a preparator. The preparation of this material for study and exhibition will occupy all the time of one man no less than three years, and it is to be hoped that means will be available during 1896-97 to secure such a person.

All the rooms now occupied by the various sections in the department of paleontology are crowded, and, while here and there small areas are available for additional cases of standard drawers, more exhibition space is required. This is especially so in the section of vertebrate fossils, since nearly all of the organisms are large and can best be housed in the exhibition series. Space for these collections can be secured if permanent cases are built around the walls of the southeast court and the standard cases now occupying that space be placed upon a gallery. If such a gallery is built in the southeast court, ample exhibition and storage space will be at hand for the natural increase of the collections during the next few years.

Further drawer space is necessary to complete the housing of the Lacoe study collection. More than two-thirds of this collection is now stored in the two upper rooms of the south towers of the National Museum building. The west room is completely occupied with cases provided with standard drawers, while the east room is but half occupied.

It is not possible to give accurate figures for the number of specimens received during the year in the various sections of the department. The figures given below represent the catalogue entries and the additions to the permanent collections.

	Catalogue entries.	Number of specimens added to the collections.
	-	
Paleozoic invertebrates	324	832
Mesozoic invertebrates	328	2, 574
Cenozoic invertebrates	1, 222	3, 663
Vertebrates	73	81
Fossil plants	1,074	2, 616
	3, 209	9,766

## DEPARTMENT OF PLANTS (NATIONAL HERBARIUM).

The number of accessions for the year was two hundred and thirtysix, as against six hundred and seventy for the preceding year. There was, however, no falling off in the number of specimens included, but, on the other hand, a slight increase. The question of scientific value is of greatest importance, however, and when the accumulations of the year are measured by this standard the results are very gratifying.

Among the important accessions were five lots of Mexican plants, purchased from Mr. E. W. Nelson, and aggregating two thousand four hundred specimens; five hundred and eleven specimens presented by the Botanical Gardens, Calcutta, India; fifty-eight specimens presented

by Baron Ferd. von Miller, Melbourne, Australia; one hundred and thirty-five ferns presented by Hugo Fink, Cordova, Mexico; two hundred and thirty-eight specimens from the United States Fish Commission, and thirty specimens from C. F. Sonne, Truckee, Cal. Valuable material was received in exchange from the Royal Gardens, Kew, England, consisting of two hundred and fifty specimens of Umbelliferae, and Dr. Leonhard Stejneger collected eighty specimens for the Museum in the Commander Islands.

Many important accessions were also received through the United States Department of Agriculture, including the following:

C. Copineau, Paris, France, 208 specimens of European and African plants.

(Exchange.) Berlin Botanical Gardens, 80 specimens. (Exchange.) University of Minnesota, Minneapolis, Minn., 36 specimens. (Exchange.) A. C. Recksecker, Oberlin, Ohio, 161 specimens. (Exchange.) Zurich Botanical Gardens, Zurich, Switzerland, 181 specimens. (Exchange.) C. V. Piper, Seattle, Wash., 224 specimens. (Exchange.) Baron Ferd. von Müller, Melbourne, Australia, 97 specimens. B. Fink, Fayette County, Iowa, 226 specimens. (Exchange.) C. L. Pollard, Washington, D. C., 725 specimens. (Gift.) J. M. Macoun, Ottawa, Canada, 100 specimens. (Gift.) C. E. Waters, Baltimore, Md., 20 specimens. (Gift.) W. M. Canby, Wilmington, Del., 107 specimens. (Gift.) W. J. Beal, Agricultural College, Mich., 139 specimens. (Gift.) Thos. C. Porter, Easton, Pa., 500 specimens. (Gift.) W. M. Pollock, Buckhannon, W. Va., 189 specimens. (Gift.) J. Fowler, Kingston, Ontario, Canada, 660 specimens. (Gift.) W. M. Van Sickle, West New York, N. J., 469 specimens. (Gift.) E. E. Gayle, Portland, Me., 145 specimens. (Gift.) Aven Nelson, Laramie, Wyo., 620 specimens. (Gift.) D. Leroy Topping, Washington, D. C., 74 specimens. (Gift.) Thomas Howell, Clackamas, Oreg., 43 specimens. (Gift.) G. V. Nash, New York City, N. Y., 800 specimens. (Purchase.) John Donnell Smith, Baltimore, Md., 500 specimens. (Gift.) Geological Survey, Ottawa, Canada, 55 specimens. (Gift.) N. L. Britton, Columbia College, New York, 23 specimens. (Gift.) A. H. Curtiss, Jacksonville, Fla., 211 specimens. (Purchase.) University of Tennessee, Knoxville, Tenn., 266 specimens. (Gift.) C. S. Crandall, Fort Collins, Colo., 564 specimens. (Gift.) D. E. Palmer, Washington, D. C., 460 specimens. (Purchase.) W. W. Rowlee, Ithaca, N. Y., 225 specimens. (Gift.)

The space which can be devoted to the herbarium in the Museum is much too small for its proper accommodation. Means have been found, however, for providing a limited amount of additional space, and considerable progress has been made in caring for the collection, as will be seen by the following statement made by Mr. F. V. Coville, the honorary curator. It is especially gratifying to be able to report that the collection is in better condition than at any previous time.

C. H. Thompson, St. Louis, Mo., 751 specimens. (Purchase.)
J. Medley Wood, Natal, Africa, 116 specimens. (Gift.)
J. B. Leiberg, Hope, Idaho, 681 specimens. (Purchase.)

One tower room, 12 by 10 feet, has been fitted up with shelves on four sides. This room is for storing unmounted material. One new balcony has been built, adjoining the main balcony on the south and running at right angles, covering a floor space 6 by 48.5 feet. This has been furnished with long shelves for the distribution of specimens; also an herbarium case extending along its entire length. The case contains eight hundred pigeon-holes, and will hold eighty thousand specimens. This has relieved somewhat the congested condition in the main balcony, although we shall soon need additional space if the present growth of the collection continues.

Much work has been done in readjusting, relabeling, and shifting of the packages of plants. While much remains yet to be done, all parts of the collection are readily accessible to the assistants and to visiting botanists. It is not improper to state

here that the collection has never before been in such good condition.

The stamping of the herbarium, which was referred to in last year's report, has extended from the Malvaceæ to the Anacardiaceæ. The number of specimens thus stamped is four thousand. It is very important that the whole collection be stamped as early as possible, but with our present force we are not able to make much progress.

The transportation to the main herbarium of the collection now stored in the south balcony has been continued, although little progress has been made owing to other duties. Six thousand specimens have been transferred. This work ought to be completed during the coming year.

The Department of Agriculture transferred to the Museum in March the collection of algae, lichens, hepatics, mosses, and ferns. The grasses, coniferæ, and parasitie fungi are still in charge of the Department of Agriculture.

The work of selecting and marking the type specimens in the herbarium has been continued. Thus far nine hundred species have been marked with a type label, indexed, placed in special sheets, and returned to the herbarium.

During the year thirty-six thousand specimens have been stamped and added to the permanent collection. This includes twenty-two thousand which have been mounted during the year and fourteen thousand which were not quite ready for distribution at the end of last year.

There is no exhibition series in this department. The need of still more space for the study series will soon become imperative.

Mr. J. N. Rose, one of the assistant curators, has published a report on Mexican Umbelliferæ, mostly from the State of Oaxaca. This paper contains descriptions of four new genera and twenty-seven new species. Mr. Rose has also published a number of shorter papers containing descriptions of new or rare species. During the year he determined the Polypetalæ of Mr. C. G. Pringle's Mexican collection, continued work upon the collections made by Mr. E. W. Nelson and Dr. Edward Palmer in the same locality, and began a monograph on the Commelinaceæ of the United States. In the latter it is intended to include colored drawings of all the species.

Mr. Charles L. Pollard, assisted by other Washington botanists, has continued his revision of Professor Ward's "Guide to the Flora of Washington and Vicinity." It is hoped that the manuscript will be ready for the printer during the coming winter.

Mr. Coville states that no explorations have been made directly under the auspices of the Museum which resulted in additions to the collections in this department, although important material was obtained by Mr. F. W. True and Dr. Leonhard Stejneger while they were in the service of the United States Fish Commission. Mr. W J McGee, of the Bureau of American Ethnology, made a small collection in western Sonora, Mexico, and considerable material collected by Mr. J. B. Leiberg, a field agent of the Department of Agriculture, has been received.

Eleven persons have received material for examination or determination during the year, and six specialists, not members of the staff,

have prosecuted investigations in the herbarium.

Among those who have rendered valuable service to the department, the following are mentioned by the curator:

Mr. E. G. Baker, of the British Museum, London, England, named and compared specimens with types in the British Museum.

Mr. W. Botting Hemsley, of the Royal Botanic Gardens, Kew, England, critically

determined many Umbelliferæ.

Mr. George E. Davenport, of Medford, Mass., critically determined Mexican and Alaskan ferns.

Mr. M. L. Fernald, of Cambridge, Mass., made many critical determinations.

Mr. J. M. Greenman, of Cambridge, Mass., rendered much assistance in determining Mr. Nelson's large collection of Mexican plants.

Mr. George E. Osterhout, of New Windsor, Colo., sent some interesting plants from his State.

Mr. C. G. Pringle, of Charlotte, Vt., furnished many valuable notes and specimens of Mexican Umbellifer:e.

Mr. P. A. Rydberg, of Columbia College, New York City, lent specimens and determined critically a number of large genera, especially *Physalis* and *Potentilla*.

Prof. J. M. Coulter, of the University of Chicago, assisted in the determination of a number of new species of Umbellifera.

Mr. W. N. Suksdorf, of White Salmon, Wash., sent specimens of Umbelliferæ.

The material in the herbarium has served as the basis of thirty-seven papers, which have been published during the year by members of the staff and by other collaborators. The titles of these papers appear in the Bibliography (Appendix IV). They include descriptions of six new genera and sixty-seven new species and subspecies.

More than 17,000 specimens were received during the year, the catalogue entries numbering 236.

TRANSFER OF THE NATIONAL HERBARIUM TO THE MUSEUM BUILDING.

When the herbarium was transferred to the National Museum building in 1894, it was with the understanding that the force engaged in caring for the collection should be continued upon the rolls of the Department of Agriculture so long as the appropriations permitted it. The appropriation for the fiscal year ending June 30, 1897, was largely reduced, however, and the Department of Agriculture was obliged to decline to retain these employees on its rolls any longer. It then became necessary for the Museum to ask for an additional appropriation for the maintenance of the herbarium, and this has been provided for in the appropriations for the coming fiscal year. The matter was presented to the Committee on Appropriations by the Assistant Secretary of Agriculture and the Acting Secretary of the Smithsonian Institution. The letters to the committee urging the necessity of action are here presented:

APRIL 22, 1896.

Hon. W. B. Allison,

Chairman Committee on Appropriations, United States Senate.

DEAR SIR: In response to your desire, communicated through Mr. Coville, for further information as to the purpose and effect of granting to the National Museum an additional sum of \$10,000 for the maintenance of the National Herbarium, I have to reply as follows:

When, nearly two years ago, the Secretary of Agriculture found the Department buildings entirely too small, and it was brought to his attention that a large amount of space was occupied by a collection of plants estimated to be worth \$250,000, and liable at any time to be destroyed by fire, arrangements were made with the Smithsonian Institution to house the collection in the fireproof building of the National Museum. The Department agreed to retain on its rolls, so long as the appropriation permitted it, the force of assistants necessary in earing for the collection, but the unexpected reduction in the botanical appropriation, recently made, has forced the Secretary to ask that he be relieved of this charge.

If the proposed appropriation be made, the force of assistants and mounters now engaged in caring for the herbarium in the National Museum building will be transferred to the rolls of that institution, and the places thus made vacant upon the statutory roll in our division of botany will be filled by the transfer of employees now on the botanical lump sum. No new employees will be appointed as a result of the change, and the statutory position of assistant curator will be left vacant during the coming year, either to be abolished in the next agricultural appropriation bill or to be changed to assistant botanist.

Besides the emergency reasons just cited for the transfer of the herbarium, the Department holds that the care of the collection is properly the function of the Smithsonian Institution, but that it should always be open to the botanists of the Department for reference and consultation in any investigation in which they need it. The object, and the sole object, of the proposed change is to place the herbarium in good hands and in its legitimate place, so as to enable the Department to organize all the botanical work on a directly practical basis.

Respectfully,

CHAS. W. DABNEY, Jr.,

Assistant Secretary.

N. B.—This letter is written in connection with that of the Acting Secretary of the Smithsonian Institution, dated April 22, 1896, addressed to the Hon. W. B. Allison, Chairman Committee on Appropriations, United States Senate, which is our authority for the above statement with regard to the part to be performed by the National Museum and Smithsonian Institution.

April 22, 1896.

Hon. WILLIAM B. ALLISON,

Chairman Committee on Appropriations, United States Senate.

SIR: I deem it my duty to bring to your attention the fact that unless some special provision is made for its maintenance, the National Herbarium, recently transferred from the care of the Department of Agriculture to that of the Smithsonian Institution, will become comparatively useless.

This is one of the largest collections of American plants in the world, and one of the most important, embracing as it does the collections of all the Government surveys from the time of Fremont and Wilkes to the present day. It contains about two hundred and fifty thousand specimens, mostly American, and constitutes for American botany a consultative library of specimens of the very greatest importance. In it there are many types of American plants not to be found elsewhere, and it is constantly consulted, either personally or through correspondence, by all working botanists in America.

Although the Smithsonian Institution has always been responsible for the administration of this herbarium, it was for many years relieved of the care and expense of this work by the Department of Agriculture. In the fall of 1894, however, the present Secretary, finding himself unable to give it proper accommodation, and also thinking it might suffer destruction if kept longer in a building which is not fire-proof, requested the Secretary of this Institution to resume its direct custody; promising, however, that so long as funds should be available for the purpose in the hands of the Department of Agriculture, he would be responsible for its support and maintenance.

The value of the collection was so great that the Sccretary did not feel at liberty to refuse to receive it, and it was at once transferred, although at a very great inconvenience, since our Museum building is so crowded that several of its departments were seriously discommoded by the change.

From that time until now the herbarium has been maintained from the appropriation of the Department of Agriculture; but the appropriation for betanical work has been so much decreased by the present Congress, that, as I am informed, this can no longer be done.

The Secretary of Agriculture has already addressed a letter to you, calling your attention to this fact, and suggesting that the sum of \$10,000, which was withdrawn from his appropriation, be added to our appropriation, "for the preservation and increase of the collections in the National Museum," in order to provide for the utilization of this great collection of plants.

I need scarcely say to you that the collection is of special importance to the Department of Agriculture, and is necessarily in constant use by many of its staff.

Should this addition to our appropriations not be made, I do not see how it is possible to do more for the herbarium than simply to preserve it from destruction. It can not be kept in such shape that it will be conveniently available for reference; it can not be increased in order to keep pace with the growth of botanical knowledge and the necessities of American botanists and of the Department of Agriculture. Nothing can be done with the great amount of material which is already on hand, which requires special treatment for its preservation and utilization. It will also be impossible to carry on the system of exchange, long practiced, by which not only the National Herbarium but all the herbariums of the country are constantly benefited.

Should the sum of \$10,000 be provided, it would be utilized in the first place by the retention of the staff of skilled assistants, clerks, and preparators already engaged upon this work and now on the rolls of the Department of Agriculture. The direct charge of the herbarium would be, as now, in the hands of the Botanist of the Department of Agriculture, who, by permission of the Secretary of Agriculture, serves in this capacity without compensation, with the title of honorary curator in the National Museum. There are also two skilled assistants, one at \$1,800 and one at \$1,200, and it is desired to add another at \$1,500 to take charge of the collection of cryptogamic plants. There is also a typewriter and clerk at \$900, one preparator at \$720 and three at \$600, making in all \$7,920.

Supplies and materials for preservation cost annually about \$1,000, about \$800 of this sum being required for the purchase of paper for mounting and covers.

A certain sum is required each year for the acquisition of new material, the types of new investigations, and the results of explorations of the year. For this a sum of about \$750 is required. This would leave a contingent sum of \$330.

Should the desired sum be granted, it will be possible to maintain this vast collection, which is of much importance to botanical science, in a manner befitting the dignity of the nation.

I am, sir, with great respect,

G. Brown Goode,
Acting Secretary.

#### DEPARTMENT OF MINERALS.

Special attention has been given to the work of securing material illustrating the associations, occurrence, and typical development of minerals of specific localities. This has indirectly been the cause of a great increase in the scientific value of the collections during the year. The report of the honorary curator, Prof. F. W. Clarke, states that all the collections show a steady and highly gratifying growth. Three of the accessions comprised material deposited by the Smithsonian Institution for addition to the Lea collection. These included a collection of gems, semi-precious stones, and minerals from the southern states; a nugget of native silver, weighing 448 ounces, from Pinal County, Ariz., and a specimen of green tourmaline—a cut stone weighing 575 carats and valued at \$1,500. This material was presented by Dr. L. T. Chamberlain to the Smithsonian Institution, and by the latter deposited in the National Museum. It is another evidence of Dr. Chamberlain's unstinted generosity by which the Museum has benefited so largely in the past.

Of the other accessions by gift the following are deemed worthy of special mention: A collection of minerals from the Copper Queen Mine, Bisbee, Ariz., presented by the Copper Queen Consolidated Mining Company, New York City; specimens of lawsonite from F. L. Ransome, through H. W. Turner, United States Geological Survey; a specimen of lorandite, a new species of mineral, from George L. English & Co., New York City; specimens of Georgia bauxite and associated minerals from the Georgia Bauxite and Mining Company, Linwood, Ga.; a specimen of caswellite, a new species of mineral, from Franklin, N. J., presented by Col. G. Cæsar; a collection of minerals from Marion County, Ark., exhibited at the Cotton States and International Exposition at Atlanta; a collection of distorted selenite crystals and other minerals from Hants County, Nova Scotia, presented by Dr. M. C. Smith, Lynn, Mass., and specimens of quartz crystals, distorted and highly modified. from Arkansas, presented by Charles F. Brown, Hot Springs, Ark. large slab of agatized wood from Chalcedony Park, Arizona, was deposited by the Drake Company, St. Paul, Minn., and a specimen of thaumasite from a new American locality was purchased from George L. English & Co.

The time of the honorary curator is occupied to so great an extent in connection with his position as chief chemist of the United States Geological Survey that the care of the collections has devolved very largely upon the assistant curator, Mr. Wirt Tassin. The many minor details of installation, consisting of reblocking, mounting, developing crystals, etc., have been carried on continuously, with the result that a marked improvement in the appearance of the collections is noticeable.

An investigation of the minerals of Italian Peak, Colorado, is now in progress, while earlier in the year a large amount of time was spent in the study of comparative mineralogy.

Under the head of explorations mention is made in the curator's report of the material secured by the field parties of the United States Geological Survey, and also of the collections obtained by the assistant curator in the zine regions of New Jersey. A nearly complete set of the minerals of this region was secured.

Reference to the work of Dr. W. F. Hillebrand, of the United States Geological Survey, who prosecuted certain investigations in the depart-

ment during the year, will be found in another place.

The honorary curator has published three papers during the period covered by this report.

Among the plans proposed for the future, special reference is made by the curator to the establishment of a series illustrating mineral technology.

Nearly 1,100 specimens were added to the collection. The last cata-

logue entry in June, 1895, was 83613, and in June, 1896, 83761.

## DEPARTMENT OF GEOLOGY.

The number of permanent accessions during the year was eighty-eight, as against seventy-nine for the preceding year. There were also one hundred and sixty "temporary" accessions, consisting of material received for examination and report. This is an increase of thirty-eight over the preceding year. The value of the material received during the year covered by this report is considerably greater than of that received in 1894–95, owing to the character of the specimens obtained by purchase for exhibition at the Cotton States and International Exposition at Atlanta.

Among the important accessions, the following are mentioned by the curator, Dr. George P. Merrill:

- (1) Collection of gold and silver minerals, purchased for the Atlanta Exposition. Value, \$600.
- (2) Two slabs of serpentine marble from Westfield, Mass.; septaria nodules from England; alabaster from Tuscany, and obsidian from Lipari.
- (3) A collection of nonmetallic minerals, rocks, etc., and five hundred and six thin sections of iron ores, collected during the work of the Tenth Census, but just turned over to the department by Prof. R. Pumpelly.
  - (4) One stalactite from the Copper Queen Mine, Bisbee, Ariz. (Purchase.)
  - (5) Amphora and other vessels of stalagmite from Egypt. (Purchase.)
- (6) Collection of one hundred and sixteen specimens of gold and silver ores from North and South Carolina, Georgia, and Alabama, received from the United States Geological Survey.
  - (7) Collection of rocks and soils from Bermuda. (Gift of Dr. D. W. Prentiss.)
- (8) Columnar sandstones from Zittau, Germany. (Gift of A. Kraus, United States consular agent.)
- (9) Lithological collections, representing some five hundred specimens, collected in various parts of the United States. (From the United States Geological Survey.)

A portion of the material received during the year was collected by the curator personally.

Regarding the care of the collections, Dr. Merrill says that over six hundred printed labels for the exhibition series have been received from

the printer during the year, and that copy has been prepared for about five hundred more. The card catalogue of the exhibition series has been kept up to date, and a limited number of cubes of building stones have been cut. About two hundred thin sections were prepared, and over three thousand five hundred duplicate specimens identified, labeled, and laid aside for future use. It is proposed to sort out and prepare for distribution all the duplicate material in the storeroom, with a view to utilizing this space for the study series, the latter having outgrown its present accommodations. A large proportion of the exhibition cases in this department are floor uprights, and have no space for storage.

A number of the exhibits require rearranging, but this matter will be deferred until the question of erecting balconies shall have been decided. The exhibition series is fairly well labeled, although many typewritten labels are at present in use.

The investigations of the curator have consisted mainly of studies relating to rock weathering and to the composition, character, and origin of material belonging to the nonmetallic economic series. He has devoted special attention to asbestus, ochres, and soapstones. About fifty analyses have been made in connection with investigations relating to rock weathering and the formation of soils.

A considerable number of specimens, including many thin sections of rocks, have been lent to various persons for study. Reference to these transactions will be found in another place.

Among those whose cooperation has been of value during the present year the name of Mr. F. W. Crosby, of this city, should be mentioned. The department is also indebted to the United States Geological Survey for a large proportion of the most valuable material acquired.

Five papers have been published by Dr. Merrill during the year, three of which appeared in publications of the National Museum.

Regarding the future development of the department, the curator states that the quality of the material in the collections could in many instances be improved by substituting new specimens, but that desirable specimens can, as a rule, be obtained only by purchase or by the employment of a paid collector. Occasionally, however, such specimens are to be secured by exchange.

The present condition of the collections is indicated in the following statement:

The catalogue entries show that one thousand one hundred and sixty-two specimens have been received during the year. This includes both exhibition and study material. It does not, however, include the five hundred and odd microscopic slides, which are never catalogued. Several of the entries are those of collections including from one to several specimens each.

Estimated number of specimens in the collection:

Exhibition series	23, 097
Study series	28, 911
Microscopic slides	4,700
Duplicates of all kinds	15, 541

Total ...... 72, 24

The last entry in the catalogue on June 30, 1895, was 62781, and on June 30, 1896, 63469.

## DEPARTMENT OF ETHNOLOGY.

The value of the accessions during the fiscal year just closed is not so great as during the previous year, owing to the fact that in 1894-95 a considerable quantity of material was obtained especially for exhibition at the Cotton States and International Exposition at Atlanta. Since the return of these exhibits the curator, Prof. Otis T. Mason, has been occupied in installing such as could be placed upon exhibition, the remainder having been put in storage.

The most important accession of the year was from Dr. J. Walter Fewkes, consisting of more than one thousand five hundred specimens of antiquities from the Pueblo region. This is regarded as the most valuable material ever received by the National Museum from the southwest. An important collection of ethnological specimens was also sent in by Dr. W. L. Abbott. This material was obtained in the Vale of Kashmir. Dr. Washington Matthews, United States Army, presented a small but valuable collection of paints and dyes used by the Navajo Indians, and from the Royal Zoological Museum, Florence, Italy, through Prof. H. H. Giglioli, an interesting series of specimens was received in exchange. Among other accessions the following may be noticed: A collection from New Guinea, made by Dr. A. C. Haddon; a collection of objects designed to illustrate the cannibal ceremonies of the Fort Rupert Indians, made by Dr. Franz Boas; a series of two hundred and six specimens from the Lubny Museum, Poltava, Little Russia; and a small collection obtained by the United States Fish Commission in Alaska.

Upon the return of the collections sent to the Atlanta Exposition, a radical change was necessitated both in the exhibition halls and in the storage rooms. In the chapter entitled "The Development and Arrangement of the Exhibition Series" will be found a paragraph relating to the rearrangement of the halls. In the upper story of the north tower on the west side of the building are stored such objects as can not be arranged in cases or drawers, while in the third story the entire collection of Eskimo costumes, snowshoes, and objects conneeted with personal adornment and with travel are packed away. In the small room on the lower floor of this tower a large portion of the Dorsey Mohun African collection is stored, together with the collection of breech-loading firearms, the series of foods and medicines, and a number of other objects. The corresponding room in the south tower is filled with swinging screens and unit boxes. All manuscripts, catalogues, drawings, and photographs relating to the collections have been placed in the rooms in the second story of the south tower. The curator states that the material not on exhibition is in better condition than ever before.

The ancient pottery, not including that from the Pueblo region, having been transferred to the department of prehistoric anthropology, the work of preparing, in the northwest court, an exhibit illustrating the life of the Pueblo tribes, has been continued. In this the curator has had the assistance of Dr. J. Walter Fewkes and Mr. Frank Hamilton Cushing.

A great deal of time has been spent in preparing a catalogue of the material received by the department of ethnology during the last fifty years. The task has now been finished. Not every specimen has been catalogued separately, but, in the words of the curator, "every specimen that would seem to have any value in a comprehensive and comparative study." The work of checking off on this catalogue the material sent out by the department, through exchanges with other museums, still remains to be done. A large number of specimens have also been withdrawn from time to time for the purpose of establishing the various sections included under the department of arts and industries. These should be checked off in a similar manner, but in order to perform this task, additional clerical help is needed.

The preparation of a comprehensive work on the practical arts of the American Indians is at present occupying the attention of the curator. He has in view the work of establishing a series of types characterizing the arts practiced in various culture-regions. In this undertaking he is making use not only of the material in the National Museum, but is also utilizing trustworthy data obtained from other sources. A systematic plan has been laid out, and a large number of illustrations have been already prepared.

Under the head of Explorations, and in addition to the valuable material obtained by Dr. Fewkes in Arizona, which has already been referred to, reference should be made to a collection obtained by Mr. James Mooney, illustrating the various phases of life among the Kiowa Indians.

Only a small quantity of material has been sent out for study during the year. It is the effort of the department to induce investigators to conduct their studies in the building, where the student finds many things which would otherwise escape his observation. The curator also is frequently enabled by this method to obtain information from those who have prosecuted extensive investigations along certain lines. In another chapter reference is made to the researches of some of these students. A study of the Eskimo lamp has occupied the attention of the assistant curator, Dr. Walter Hough, for a considerable length of time.

The department has profited by the generous cooperation of many persons. Through the offices of Hon. W. W. Rockhill, Assistant Secretary of State, a large number of specimens have been secured for the Museum, and among others who have rendered service in various ways Mr. W. S. Hill, secretary of the Academy of Sciences, Tacoma, Wash.;

Prof. F. W. Putnam, Cambridge, Mass.; Rev. H. C. Mabie, Boston, Mass., and Dr. Franz Boas, American Museum of Natural History, New York City, should be mentioned.

Four papers based upon Museum material have been published by the curator during the year, and one by the assistant curator. The titles of these are included in the Bibliography (Appendix IV). Six lectures were delivered by Professor Mason at Columbian University on "Primitive arts in their relation to Sociology as illustrated by the collections in the United States National Museum."

Regarding the plans of the curator for the further development of his department, the following paragraphs are quoted from his report:

The curator would respectfully make the following suggestions with regard to the development of the department of ethnology: First, that hereafter collections from the American continent should be made with especial reference to completing, as far as possible, illustrations in things of the technical life of all the principal tribes and families of America. \* \* \* In order to understand the true life of the aboriginal tribes of the Western Hemisphere, this Museum ought to contain a typical specimen from each of them belonging to every one of the great domestic industries; for instance, there should be a model of every kind of house ever lived in by any large number of people on this continent. There ought to be in every one of these collections, in miniature, in picture, or in description, the prevailing and customary furniture of the kitchen, the dining room, the bed room, the living room, and the social gathering room or its equivalent, indoors or out of doors. There should be in picture, in miniature, or in actual specimens, every kind of costume worn by a large number of individuals in every one of these tribes. Of course, it would be impossible to represent, in such a collection, all the little eccentricities of dress among savage people, where great varieties prevail among individuals of the same family. After all, in every tribe there is a composite dress, a dress which would take in pretty much all the dress of the tribe, and of this typical dress there should be in this Museum one example from each tribe.

There should also be gathered the tools used by all those tribes for all sorts of purposes; for pounding, cutting, boring, smoothing, and various other purposes of common use. The metric appliances of all the tribes should be here, and in sufficient numbers to set forth the characteristics of each tribe. There should be a comprehensive series relating to the great industries of their lives; quarrying, mining, fishing, hunting, planting and gleaning, the intermediary arts by which the substances gathered in the primary arts are transferred to the uses of life, and the final arts and activities by which these products of industry are turned into the channels of consumption or enjoyment. Also the apparatus by which substances are moved from place to place upon the backs of men or beasts, whether on land, on water, or on snow. This, of course, would make an ideal collection, but instead of gathering in a desultory way duplicates of material already in hand, the curator is now in possession of information which enables him to say whether a specimen which it is possible to acquire will fill one of the gaps herein indicated, or will add one more to a collection already containing a superabundance of such material.

There were 1,556 entries made in the catalogues during the year, embracing 2,828 specimens.

## DEPARTMENT OF PREHISTORIC ANTHROPOLOGY.

The curator, Dr. Thomas Wilson, states that the scientific value of the collections received during the past year compares favorably with the genera average of preceding years. He believes that a comparison which takes into account only the *number* of specimens acquired would be of little value, inasmuch as during the preceding year the extensive collection deposited by Dr. Roland Steiner was catalogued, besides several other large lots of material, which resulted altogether in making the year 1894–95 one of the most notable in the history of the department.

The accessions during the year covered by this report embrace another collection of archeological objects from Dr. Roland Steiner; a number of paleolithic implements, fragments of Roman pottery and of Samian ware, fourteen specimens of animal bones, and a skull of a victim of the plague of 1349, from the Horniman Museum, London (exchange); a collection of human skulls and bones from a burial cave near Duffield, Scott County, Va., received from Mr. A. L. Pridemore, Jonesville, Va.; a polished stone implement found near Olympia, Wash., from Mr. R. H. Hannah, of that city; a series of implements obtained from the gravels of the Thames and from the chalk plateau of Kent, England (purchase); a number of specimens from W. P. Damon, West Auburn, Me. (exchange); implements, ornaments, vessels, etc., presented by Mr. Newton H. Chittenden, Mill River, Berkshire County, Mass.; pottery and vessels from mounds in Illinois, Kentucky, and Tennessee, sent by Capt. J. R. Johnson, Pittsburg, Pa., in exchange; large chipped digging implements and other specimens of flint from Kentucky, presented by Mr. Paul Weir, Owensboro, Ky.; three bone whistles from an ancient grave on San Clemente Island, Cal., presented by Mr. J. Neale Plumb.

A collection of more than eight hundred archæological objects from Michigan and Alabama was lent to the department for study and examination by Mr. Perey F. Matthews, Florence, Ala., and Mr. Warren K. Moorehead, Columbus, Ohio, sent a small number of specimens for the same purpose.

The following statement regarding the progress made in caring for the collections is quoted from the report of the curator:

Two additional storerooms have been fitted with shelves during the past year. One, in the south tower, has been utilized for the reception of North American pottery, mostly fragmentary, but still useful for study and exchanges. The other, in the southwest tower, has been filled with pottery from Central and South America, consisting principally of entire vessels.

All the Mexican and part of the Nicaraguan and Costa Rican collections were placed on exhibition, necessitating a rearrangement of the cases already devoted to objects from these countries.

As many as possible of the entire vessels from mound explorations in the United States were also placed on exhibition, and the remainder stored on shelves in the rear of the long wall case at the east end of the hall. All this material was received from the Museum building.

In addition there were packed and sent to storage 71 boxes containing stone implements, fragments of pottery, human bones, etc. These were part of the collections received from the Bureau of Ethnology and were temporarily stored on the floor of the anthropological hall. The aisles and passageways are now entirely clear.

There is no separate study series in this department. The exhibition series is in as good a condition as at any previous time. A series of transparencies, to be placed in the windows of the anthropological hall, is in course of preparation.

A paper on the Swastika sign, by the curator, was published in the Museum Report for 1894. The preparation of several other papers by Dr. Wilson has now been nearly completed. The titles of those published during the year, so far as they are based upon Museum material, are given in the Bibliography (Appendix IV). A number of lectures

have also been delivered by the curator.

Mr. John W. Emmert, of Bristol, Tenn., a former employee of the Bureau of Ethnology, and Gen. A. L. Pridemore, of Jonesville, Va., conducted certain explorations, on a small scale, under the auspices of the Museum, and a considerable quantity of material was secured. The eurator, also, spent a few days in July, 1895, in exploring caverns in Ross and Hocking counties, Ohio. The time devoted to this work was necessarily very limited, but the observations made show that the caves had never been occupied by man, or that all traces of such occupation have been destroyed or effaced.

Material for study and for the purpose of illustrating lectures has been sent to persons outside the Museum on several occasions during the year, and some of the members of the scientific staff of the Museum have also borrowed material for use in their investigations. Mr. J. D. McGuire, Ellicott City, Md., has studied specimens belonging to the department in connection with the preparation of a paper on prehistoric pipes.

In addition to those whose names have already been mentioned, twelve others are referred to as having cooperated with the department during the year.

The views of the curator with regard to the policy which he believes should be followed in the future are here given:

Within the last ten years the collection in this department has increased from 65,000 to 209,346 specimens. This material is all useful, not to say necessary, in aiding to perfect our knowledge of the origin, growth, and culture of prehistoric man. But to use it for this purpose requires not a change, but an enlargement of the plan heretofore pursued. It is proposed by this enlargement to classify the implements and objects as rigidly and in as much detail as possible. This classification or division should deal with the object, its form, material, and function, and extend to localities, narrowing them as much as possible. This scheme applied, for example, to the State of Pennsylvania, would divide the State into the localities of the Valley of the Delaware and Susquehanna on the east, and on the west the Allegheny and Monongahela rivers, following them and their branches to the head waters, if need be, independent of State lines. In this way it would be possible to compare the implements of these valleys in three different sections of the State and see what differences were manifested. It is hoped, also, that it would be possible to determine the differences in the industry or culture of these localities. The classification of material would probably enable us to assign the stones of which the various implements were made, to their respective quarries and localities. A comparison between the implements of the various localities thus divided would show the commerce, if it did not show the migration, between the various peoples who occupied these localities. This scheme should be carried out with all the implements and extended to all localities, and they should be described correctly, fully, and in detail, each different kind having two illustrations, one the large and the other the small size, and one or the other of them should have an edge view as well as a side view. When this is done, we shall have a fairly accurate knowledge of the number and kind, with the various differences of form and material, of every implement in the Museum, from every locality.

This can be done only by personal inspection of each object, wherein the cases must be opened and the objects handled and counted as they are segregated and classified. This being accomplished, many of the specimens now encumbering the cases can be retired, and only the type or representative specimen of each class of implements be retained and displayed; the rest of them may be either boxed and stored, or may be made up into sets for exchange. The effect of this would be to reduce the number of objects on display, but, naturally, the best specimens would be chosen, and therefore the beauty and effectiveness of the display would be increased. The specimens should be properly figured and described, either in a guide-book or label, and each implement exhibited would be the representative of a certain number of other implements not in sight. Thus, they would stand as though the entire number were on display, and the gorging process now going on would be materially relieved.

We have, during the existence of the Museum, been preparing for this classification and enumeration by the acceptance of all kinds of implements in as great a number as was obtainable. No fault is found, or to be found, with the policy by which this great aggregation of the commoner implements was made. It was necessary for the purpose indicated; it is still necessary, and should be continued until the plan herein suggested shall have been carried out.

There were 5,826 specimens received during the year, the total number now in the department being 209,346. The last catalogue entry in June, 1895, was 172315, and in June, 1896, 173061.

## DEPARTMENT OF ARTS AND INDUSTRIES.

Technological collections.—Although the number of accessions was not large, several very interesting series and single specimens were added during the year. A collection of models illustrating the various methods of land transportation, and incidentally the development of the wheel, was prepared for the Atlanta Exposition, and installed in the Museum after its return to Washington. This series embraces thirty-nine models, and includes also a number of lithographs and photographs of foreign and American vehicles. The electrical collection was enriched by the Western Union Telegraph Company, which deposited the original of the first instrument used to record a message transmitted to a distant point by means of electricity. Models illustrating two electrical wheels, made by Benjamin Franklin in 1748 and described in his autobiography, were constructed. Mr. Edward L. Morse deposited various decorations conferred by foreign sovereigns upon his father.

A fine specimen of balsa, used by the Seri Indians, was received from the Bureau of Ethnology, through Mr. W J McGee, who collected it in Socorro, Mexico. This specimen was added to the collection illustrative of naval architecture. Among the models of steamboats

prepared for the Atlanta Exposition and now installed in the Museum halls, is a series showing early experiments in steam navigation, including models of steamboats made by Fitch, Rumsey, Fulton, Stevens, and Ericsson. A complete model of the steamship Savannah was built under the supervision of Capt. J. W. Collins. In the cases containing these models are also exhibited important historical relics relating to the vessels themselves.

A valuable series of tanned skins of animals, collected in Panama by Mr. R. T. Hill, of the United States Geological Survey, was added to the collection of animal products.

Regarding the progress made in caring for the various collections, the following is quoted from the report of the curator, Mr. J. E. Watkins:

The collection of boats has been overhauled, and a number of models repaired. The full-sized boats—kaiaks, dug-onts, etc.—have been rearranged upon the ceiling of the hall to a height great enough to admit an additional amount of light.

Two new cases have been crected in the east hall, and in them the collection illustrating the electrical industries and the collection illustrating methods of land transportation, which was received at the close of the Atlanta Exposition, have been installed.

The textile collection, which has been scattered for a number of years, has been brought together with a view to revising it and reinstalling such portions as may be deemed advisable.

The collection of animal products was not put under the care of the curator until some weeks after the death of Mr. R. Edward Earll, which occurred in March last, and since that time it has not been possible to give very much attention to the collection.

The following statement shows the number of specimens received during the year, the number of catalogue entries made during the same period, and the total number of specimens in the collection:

Name of collection.	Specimens received during 1895-96.	Total number of specimens in collection.	Last catalogue entry June 30, 1895, and June 30, 1896.
Transportation	112	1, 911	181250
Naval architecture	12	1, 331	181362 163090
Animal products	11	3,039	164002 105071 105082
Textiles		4, 942 197	
Foods		1, 114	
Oils and gums.  Chemical products	}	1, 112	

The graphic arts collection.—Owing to the absence of the curator, Mr. S. R. Koehler, during a considerable portion of the preceding fiscal year, and also during the first half of the year covered by this report, comparatively little has been done toward the development of the

collection. The most interesting addition was a "photo-autocopyist" outfit, illustrating a method of printing from gelatinized parchment. Fifty-nine specimens were received during the year, most of these having been obtained by the curator during his recent trip to Europe. Eighteen specimens of half-tone work in black and in colors were presented by Messrs. John Swain & Son, London. Mr. N. S. Amstutz, who during the preceding year presented a number of copies of photographs transmitted by means of electricity, has offered to donate some models of machinery used by himself.

Regarding the condition of the collection the curator says:

The specimens on exhibition speak for themselves. They present the best illustration of the technical development of the reproductive or multiplying arts to be found on exhibition anywhere, whether here or in Europe. It is not intended to imply, however, that the collection is complete. The division illustrating the various methods of drawing and painting is still very incomplete, although full of interest even in its present state. In the division illustrating the application of printing to the industrial arts, only a beginning has been made.

A "study series" hardly exists, the specimens in the storage cases being mostly of a kind similar to those on exhibition. The collection of patents might be made useful to students, or rather to seekers of information of a practical kind, but it has been almost abandoned, for the present at least, and under the prevailing condition of things it is inaccessible to the public.

The collection has now reached such a stage that, according to the curator, it is impossible to make satisfactory progress without the expenditure of considerable money in the purchase of specimens; and even if funds were available for this purpose, lack of room would seriously hamper the efforts of the curator.

Mr. Koehler refers to this matter in the following language:

The section of graphic arts has reached a point where it must rest, unless it is supplied more liberally with money. The ground to be covered is as well covered as the facilities so far furnished will permit. The collections need piecing out in many places, and it is very desirable, also, that some of the specimens now on exhibition should be replaced by better ones. But this can be done only by the aid of money.

The above applies more especially to the illustrations of the reproductive or multiplying arts. The development of the collection illustrating the methods of drawing and painting must be left to the future. To make it what it might be or ought to be, would cost altogether too much money to allow it to be thought of at present.

Whether it is worth while to continue the effort to illustrate the applications of painting in the industrial arts may remain an open question. With a proper expenditure of time and of money, much interesting material could probably be obtained for this department from manufacturers. But as there is no room to exhibit the specimens that might be thus obtained, it would be useless to make further efforts in this direction, even if the money needed were available, until the erection of a new building will permit of an enlargement of the section of graphic arts.

After the reconstruction above outlined, of the division embracing the reproductive or multiplying arts, which is and will probably always remain the main division of the section, the preparation of a handbook will be in order. Several beginnings toward such a handbook have been made, but they had to be abandoned, as the collections were too incomplete and the changes in them too rapid to make it likely that a handbook fitting them would have permanent value.

The number of the last catalogue entry on June 30, 1895, was 5561, and on June 30, 1896, 5620. The total number of specimens now in the collection, not including duplicates, is 5,620.

The collections of oriental antiquities and religious ceremonial objects.—
The collection of oriental antiquities is under the honorary curatorship of Dr. Paul Haupt, while Dr. Cyrus Adler occupies the position of assistant curator and is also custodian of the collection of religious ceremonial objects. There were twenty-eight accessions during the year, this being more than three times the number for the preceding year. A collection of facsimiles of important codices of the Bible, historical editions, and manuscripts was acquired by purchase. Twelve manuscripts and editions of the Bible were deposited by Dr. Adler and three by Dr. Goode. A series of Hittite casts was purchased; also a cast of a human-headed winged bull, and one of a lion.

A collection of musical instruments, coins, and gems referred to in the Bible has been formed from material transferred from other departments in the Museum.

A series of carved ivory plaques was obtained, in exchange, from Prof. H. H. Giglioli, director of the Royal Zoological Museum, Florence, Italy; and specimens of pottery from the Cotton Grotto at Jernsalem were presented by Dr. Adler. The accessions also included twenty-six photographs from Miss E. R. Scidmore, Washington, D. C.; a Bible from Dr. S. M. Burnett; seven marble fragments of Greek mythological figures from Professor Jerichau, Washington, D. C.; and two Bibles from Dr. I. M. Casanowicz, of the United States National Museum. A model of a Babylonian temple tower was made in the Museum.

An exhibit of biblical objects, comprising about two hundred and fifty specimens, was prepared for the Cotton States and International Exposition at Atlanta. This is described more in detail in a paper published in Part II of this volume, in which the results of recent discoveries and researches in the domain of biblical and oriental archeology are also discussed.

The various objects received during the year have been placed upon exhibition, and the present arrangement of the collection is set forth in the chapter on the "Development and Arrangement of the Exhibition Series."

A study of Assyrian and Babylonian seals, based upon the collections in the Museum, has been begun by Dr. Adler, and two papers based upon Museum material have been published by him during the year.

It is proposed to rearrange the Jewish and Mohammedan collections and to rearrange, classify, and complete the installation of the collections illustrating the religions of Eastern Asia.

The total number of specimens now in the collection is 3,020, of which 300 were received during the year just closed. The last catalogue entry in June, 1895, was 154990, and in June, 1896, 155122.

Historical collections, coins, and medals.—Among the most interesting accessions the following are mentioned by Mr. A. Howard Clark, custodian: From W. Du Val Brown, Washington, D. C., a sword, belt, and buckle presented to Maj. Gen. Jacob Brown by the State of New York, a gold snuffbox presented by the corporation of the city of New York, and a gold medal presented by the Congress of the United States for valiant services at the battles of Chippewa, Niagara, and Erie in 1814 (deposit); from Mrs. Abner Doubleday, Washington, D. C., the garrison flag of Fort Moultrie (loan); from Lieut. Frank E. Brownell, a revolver, cap ornament, and scarf pin owned by the late Col. E. E. Ellsworth, a gold medal presented to Lieutenant Brownell by the citizens of Troy, a medal of honor presented by Congress, a medal containing a piece of the Marshall House flag, a badge of the Society of the Army of the Potomac, a dagger presented by the citizens of Boston, and a revolver presented by the New York Board of Brokers (deposit): from Dr. A. Fényes, Hélouan, Egypt, Grecian and Roman silver and copper coins; from N. L. Griswold, Peoria, Ill., United States land patent signed by President James Monroe in the year 1817 (gift); from J. W. Hiatt, New Harmony, Ind., photographs of Robert Owen, David Owen, William McClure, Thomas Say, and the building of the Workingmen's Institute (gift); from George F. Kunz, New York City, a brass badge of the Eighteenth Hussars (gift); from Miss S. W. Turner, Washington, D. C., two ancient Greek coins and an icon (gift); and from the Treasury Department a collection of national medals struck at the United States Mint, Philadelphia, forming a portion of the exhibit of the Treasury Department at the Atlanta Exposition (deposit).

There were also received from the city council of Philadelphia a liberty-bell medal and council badge, used on the occasion of the journey of the bell to the Atlanta Exposition (gift); from the Natural History Society of New Brunswick, St. John, New Brunswick, photographs of Abraham Gesner and Moses H. Perley (gift); from John Laun, Petersburg, Va., a silver watch (gift); from Dr. Cyrus Adler, Smithsonian Institution, a Bulgarian coin (gift); from the National Society of the Daughters of the American Revolution, a silver ink tray brought to America in 1676 by J. Frye and supposed to be of early Saxon make, a leather wallet used by Maj. Ebenezer Frye, a Washington badge, three Lafayette medals in bronze, a silver spoon made from knee buckles worn by Byt. Col. Ephraim Sawyer, of Lancaster, Mass., and a badge and souvenir gold spoon of the Daughters of the American Revolution (deposit).

Musical instruments.—The accessions for the year include six musical instruments obtained in exchange from the Lubny Museum, Poltava, Little Russia; instruments from Borneo and other localities, acquired through exchange with Mrs. J. Crosby Brown; a virginal from Italy, secured by purchase; five musical instruments presented by Dr. William L. Abbott, Bombay, India; a single-headed drum from the island

of Gilolo, and a three-jointed trombone from Sumatra, obtained in exchange from Mr. M. F. Savage, New York City; a small bird-shaped earthenware whistle, presented by Hon. W. W. Rockhill, Assistant Secretary of State; and a musical instrument transmitted by Mr. E. O. Schuyler, New York City, in exchange.

There were 43 entries made in the catalogue during the year, embracing the same number of specimens. The entire number of instruments in the collection is now more than 1,300.

Materia medica.—Owing to the rearrangement of the collections in some of the exhibition halls and the temporary removal of the cases containing these exhibits, the materia medica collection was rendered unavailable for exhibition purposes during the greater part of the year. No special effort to increase the collection was made, therefore, by the honorary curator, Dr. J. M. Flint, U. S. N., and his efforts therefore have been largely directed to the care and preservation of the specimens already on hand, and the routine work of the office incident thereto.

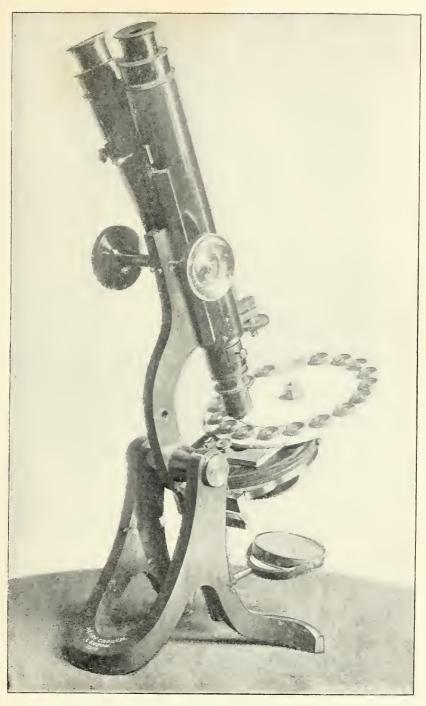
This temporary diminution of active work in this section allowed the curator to devote some time to microscopic work, in which he has for many years been interested, and in this connection he paid special attention to identifying, mounting, and arranging for exhibition a series of Foraminifera for the department of marine invertebrates. A paper, by the curator, describing a large number of species of Foraminifera, is being prepared by Dr. Flint for publication by the Museum.

Coincident with his microscopical studies the curator has devised a plan for exhibiting microscopical objects not requiring the use of very high magnifying powers. The instruments used are shown in plates 1-4, and they are best described in Dr. Flint's own words:

The following description and illustrations of apparatus for public exhibition of microscopic objects are presented as being pertinent to the subject of the installation of museum exhibits. The apparatus described is believed to be the first practically successful attempt to make a series of such objects available for examination by the public, without extravagant expense or extreme watchfulness.

The first appliance for this purpose, devised by the writer, was an accessory to the ordinary microscope stand. It consisted of a circular plate of pasteboard made to revolve upon a pivot attached to the stage, the plate carrying a series of objects mounted upon small disks or small squares of glass (Plate 1). This accessory was made in 1885, and described in the American Monthly Microscopical Journal for November of that year.

This arrangement was only suitable for class use under the immediate supervision of the instructor. For public use the principle of the rotary stage has been developed by enlarging the circular plate, inclosing it securely in a box with a glass top upon which the microscope is fastened, giving a rotary motion to the stage by means of a friction roller operated by a milled head on the outside of the box, and a to-and-fro movement effected by a rack and pinion controlled by another milled head in close proximity to the former. By a combination of the two movements any portion of the plate may be brought under the microscope, and any number of objects arranged thereon he brought into the field in succession. The objects being inclosed in the box are secure from injury; the movement of the microscope for focal adjustment is limited by stops so that the object can not be entirely lost to view; the eyepieces are screwed in so that they can not be stolen, and the instrument is practi-



CLASS MICROSCOPE.

FOR EXPLANATION OF PLATE SEE PAGE 96.







CLASS MICROSCOPE.

FOR EXPLANATION OF PLATE SEE PAGE 97.





CLASS MICROSCOPE.

FOR EXPLANATION OF PLATE SEE PAGE 97.





CLASS MICROSCOPE.'
For explanation of plate see page 97.

cally safe from everything but malicious mischief. Special mounts are required in order to increase the carrying capacity of the stage, and for transparent objects the stage must be perforated in order that the light may pass upward from the reflector below. The instrument now in use in the Museum (Plate 2) was made in the year 1890, has been modified in a few details since, and has successfully endured manipulation by thousands of inexpert hands—of children as well as adults—without injury, and this without attendant supervision of any kind.

For the purpose of exhibiting a series of preparations mounted in the usual way upon glass slips or "slides," an entirely different form of apparatus has been devised (Plates 3 and 4). An indefinite number of slides—from 10 to 100—are attached to an endless band of linen by means of thin brass holders which allow the slides to be changed when desired. This linen band passes over two rollers mounted upon a light brass frame which occupies the place of the "stage" of an ordinary microscope. The loops of the band hang free. One of the rollers has a projecting pivot with a milled head by means of which it may be rotated, and the two rollers are connected by a narrow belt at each end. As the rollers are made to revolve, the band earrying the slides passes horizontally under the microscope, resting meanwhile upon the two narrow belts and being kept at a definite distance from the objective of the microscope by two guides, which press upon the slides from above. The brass frame rests upon a grooved bed-plate which permits a lateral movement of the frame. This lateral motion is controlled by a screw operated by means of a second milled head in convenient proximity to the one giving the to-and-fro motion. As in the other instrument, the specimens and nearly all parts of the mechanism are inclosed in a box secured by a lock, the only exposed parts being the microscope and the two milled heads controlling the motion of the slides. The advantages of this form of apparatus are that the usual glass slide, 3 inches long by 1 inch wide, upon which microscopic objects are usually mounted, may be used, and especially that the focal distance is not disturbed by differences in thickness of the glass slides. The only disadvantage is that the mechanism is somewhat more delicate and complicated than in the other instrument and requires some little protection from the thoughtless violence of curious children. Microscopes copied from the original here described have been in use for several years, and no irremediable difficulties have been found in the way of their perfectly successful operation.

It is safe to say, from present experience, that these methods of installation of microscopic exhibits promise to open a new and interesting field of observation and study to museum visitors.

Physical apparatus.—Mr. W. C. Winlock remains in charge of this section as honorary curator. During the year there were deposited in the Museum by the Smithsonian Institution twelve pieces of electrical apparatus supposed to have been used by Professor Henry in his laboratory work at the Institution; also sixteen photographs of early electrical apparatus. These photographs were made under the direction of Miss Henry and were exhibited at the World's Columbian Exposition in 1893. A number of pieces of apparatus were purchased by the Smithsonian Institution and deposited in the Museum, including a pocket dial with compass, five sand-glasses, a Japanese clock, an iron clock dial, a hexagonal clock with three dials, and an hourglass.

NAT MUS 96-7

# IV.—REVIEW OF WORK IN THE ADMINISTRATIVE DEPARTMENTS.

FINANCE, PROPERTY, SUPPLIES, AND ACCOUNTS.

In Appendix VIII will be found a statement showing the amount of the appropriations for the fiscal year ending June 30, 1896, the disbursements under said appropriations, and the disposition of the unexpended balances remaining on hand from the appropriations of previous years. These statements are taken from the report of the chief clerk, Mr. W. V. Cox.

The routine work of the office, consisting of the preparation of financial statements, of orders for the purchase of supplies and for the performance of services, the approval and registration of requisitions for supplies, the examination of vouchers, etc., has been carried on. More than 1,500 letters were prepared.

The preparation of a suitable subject index to the letters sent from this office since 1885 was also taken up during the year. Seventeen thousand pages have been indexed on slips and are now being arranged for revision, after which they will be transcribed on cards for permanent reference. A complete record, on index cards, of all legislative matters of interest to the Institution has also been kept.

The building at the corner of Third and B streets, S. W., used for workshops and storage for the Museum, did not prove satisfactory for the purpose required, and a large warehouse on Ninth street, about three squares south of the Museum, was leased instead.

Congress having made an appropriation of \$800 for the better protection of the Smithsonian and Museum buildings from fire, four new hydrants were placed in position during the year and a quantity of new hose purchased. The hydrants were put in under the supervision of the engineer department of the District of Columbia. As an additional safeguard, a number of fire extinguishers has been procured, and the watch force is drilled regularly in fire duty.

A granito floor was laid in the exhibition hall of the department of comparative anatomy, and a mosaic floor in the vestibule at the north entrance of the Museum building.

In connection with the Cotton States and International Exposition at Atlanta, Ga., there were issued a large number of orders for the purchase of material and for services. Nearly three hundred accounts were audited for payment, involving expenditures amounting to \$24,246.73, and more than three hundred letters were written. All claims on account of the Museum exhibit have been settled, with a

balance of \$3.27 remaining from the allotment of \$24,250 for the preparation, installation, maintenance, and return of the exhibit.

Mr. Cox assumed charge of the exhibit at Atlanta from November 9 to December 10, 1895, during the absence of Mr. R. E. Earll.

## CORRESPONDENCE AND REPORTS.

This division remains under the charge of Mr. R. I. Geare. The office force includes two stenographers, one accession clerk, four index and record clerks, one file clerk, one compiler and proof reader, two typewriters, and one messenger. The technical correspondence of the Museum has steadily increased each year, and in 1895-96 more than 12,000 letters and other official papers were prepared in this office. The formal acknowledgment of, and official correspondence connected with, accessions to the Museum collections forms a special feature. This division is also charged with the preparation and proof reading of the administrative portion of the Annual Report of the Museum and the proof reading and general editorial supervision of the papers in the Appendix. For several years also the distribution of all Museum publications has formed part of the work of this office. This entails a large amount of routine work, such as the preparation of labels, the revision of the mailing lists, etc. As a rule, about 15,000 volumes and 40,000 separates are distributed each year to libraries and individuals on the regular mailing lists. In addition, 3,000 to 4,000 applications for special papers and volumes are received annually.

During the year were distributed the Report of the Museum for 1893, Volume XVII of Proceedings of the National Museum, the separate papers in Volume XVIII (No. 1033 to 1082, excepting three papers which were delayed), and the last paper (No. 1032) in Volume XVII. Advance sheets of two papers containing descriptions of remarkable new genera and species of batrachians and crustaceans obtained by the United States Fish Commission from an artesian well at San Marcos, Tex., and a third, containing preliminary diagnoses of new mammals from the Mexican border of the United States, collected by Dr. E. A. Mearns, United States Army, of the International Boundary Commission, have been printed and distributed. These papers will appear in Volume XVIII of Proceedings.

A supplemental edition of Part "F" of Bulletin No. 39, "Directions for Collecting and Preserving Insects," by the late Prof. C. V. Riley, was received from the printer in September, and hardly a day passes in which several requests for it are not received; nearly 4,000 copies have been already distributed.

Circular No. 47 was issued during the year. The purpose of this pamphlet is to specify the conditions upon which the Museum will undertake the examination of mollusks sent for identification. The sending of material of this kind to the Museum has increased very greatly during recent years, and as in almost every instance its return

was expected, the curator of the department of mollusks found it very desirable to at least impose certain conditions upon persons desiring to obtain expert determinations from the Museum in this direction.

Special effort is now being directed to the work of revising the mailing lists.

The list of libraries is being carefully scrutinized with a view to utilizing the small editions to the best advantage. It is proposed to include libraries which have attained to the number of 10,000 volumes since the list was first prepared, as well as to insure the representation on the list of all towns which contain more than 10,000 inhabitants.

#### REGISTRATION AND DISTRIBUTION.

The registrar, Mr. S. C. Brown, states that there were received during the year 25,249 packages of all kinds, including material for addition to the collections, publications, and supplies.

There were 3,195 packages sent out, of which 637 contained specimens transmitted to educational institutions as gifts, or sent to individuals or institutions in exchange or for study. A few specimens returned to owners are also included in this number. The entries made on the incoming transportation record numbered 2,910 and on the outgoing transportation record 1,487, there being an increase of about 250 entries in the case of the former record and of more than 700 in the latter.

The number of accessions or "lots" of material received was 1,299, an increase of 76 over the record for the preceding year. There was also an increase of 75 in the "temporary" accessions, consisting of material received for identification, the total for the present year having been 542. About 27,000 specimens of all kinds have been sent out as gifts or in exchange, and about 3,000 specimens have been lent for study.

Of the entire number of objects donated to educational establishments perhaps two-thirds consisted of fishes and marine invertebrates. The remainder was composed largely of geological specimens and casts of prehistoric implements.

Several special collections of fishes were prepared in the fall of 1895 from material received from the United States Fish Commission. These were transmitted to the following institutions: Oberlin College, Oberlin, Ohio; State Normal School, Mankato, Minn.; High School, Duluth, Minn.; Arkansas Industrial University, Fayetteville, Ark.; University of Nebraska, Lincoln, Nebr.; Iowa State University, Iowa City, Iowa; Indiana University, Bloomington, Ind.; Museum of Comparative Zoology, Cambridge, Mass.; Leland Stanford Junior University, Stanford University, Cal.

A few months later eight special collections of fishes, prepared from specimens obtained by the United States Fish Commission in the North Pacific Ocean and Bering Sea, were sent to the following establish-

ments: Royal Zoological Museum, Berlin, Germany; Museum of Natural History, Paris, France; British Museum (Natural History), London, England; Zoological Museum, Christiania, Norway; Imperial Zoological Museum, Vienna, Austria; University of Indiana, Bloomington, Ind.; Museum of Comparative Zoology, Cambridge, Mass.; University of Washington, Seattle, Wash.

The storage record shows that 305 packages were placed in storage, while 143 were withdrawn.

In Appendix IX will be found a statement, arranged geographically, showing in detail to what individuals and institutions specimens have been sent during the year, either in exchange, as gifts, or for study.

The number of lots of specimens sent out is here shown:

United States:		United States—Continued.
Alabama	1	South Carolina
Arkansas	3	Texas 2
California	10	Virginia 2
Colorado	5	Washington 6
Connecticut	1	Wisconsin 4
Dakota	1	Foreign countries:
District of Columbia	12	Argentina 1
Georgia	5	Asia 1
Idaho	2	Australia 7
Illinois	6	Austria
Indiana	4	Belgium 1
Iowa	9	Brazil 2
Kansas	4	Canada 9
Kentucky	1	Chile 1
Louisiana	1	Denmark
Maine	4	England
Maryland	5	France 5
Massachusetts	15	Germany 5
Michigan	4	Hungary 1
Minnesota	5	Italy 6
Missouri	1	Jamaica 1
Montana	2	New Brunswick 1
Nebraska	2	Norway 2
New Jersey	2	Nova Scotia 1
New Mexico	1	Russia 1
New York	33	Scotland 1
Ohio	8	Sweden 2
Oregon	2	
Pennsylvania	19	Total
Rhode Island	3	

The following table shows the number of specimens distributed by the various departments during the year covered by this report, either as gifts or in exchange:

Department.	
Historical relics, coins, and medals	17
Musical instruments	8
Ethnology	176
Prehistoric anthropology	1,408
Mammals	264
Birds	380
Birds' eggs	21
Fishes	14, 630
Mollusks	599
Insects	407
Marine invertebrates	4, 702
Comparative anatomy	3
Fossils	1,559
Botany	805
Minerals	348
Geology	2, 373
Total	27, 700

### BUILDINGS AND LABOR.

In Appendix x a condensed statement is presented, showing in a general way the character of the work performed during the year by the mechanics and laborers, under the supervision of Mr. Henry Horan. The report of the latter also contains statements showing the amount of fuel, gas, and ice consumed, the cost of supplies purchased for the department of buildings and labor, and the many items of work performed in addition to those mentioned in the appendix.

# WORK OF THE MUSEUM PREPARATORS.

### TAXIDERMISTS.

Mr. William Palmer continues to fill the position of chief taxidermist. He reports that five mammals were mounted during the year, three of them being intended for exhibition at the Cotton States and International Exposition at Atlanta. Thirty-seven mammals were cleaned for this exhibit, and several were placed upon new stands. The groups of Rocky Mountain sheep and goats were dismounted and packed for shipment to Atlanta.

In addition to the exposition work above mentioned, ten specimens were cleaned, poisoned, and placed upon new stands.

During the year ninety mammals were received and skinned. Of this number more than one-half came from the National Zoological Park, as will be seen from the following table:

Mammals received in the flesh.

	From the Zoological Park.	From other sources.
Primates	12	1
Caruivora	18	3
Ungulata	12	1
Chiroptera		16
Rodentia	8	13
Insectivora		4
Marsupialia	2	
Total	52	38

In addition, thirty-seven specimens of mammals, birds, reptiles, etc., were received from the Zoological Park and transferred immediately to other departments in the Museum.

Many of the bodies of the mammals skinned were turned over to the Bureau of Animal Industry, Department of Agriculture, for examination as to the cause of death, and for the purpose of ascertaining if they contained parasites. A few were sent to the Army Medical Museum, and others were retained by the department of comparative anatomy in the National Museum.

A large number of skins were received to be remade, mounted, etc. Some of these were dry, while others were fresh or salted.

Number of skins received.

	Museum collection.	Department of Agricul- ture collec- tion.
Primates	22	13
Carnivora	19	29
Ungulata	39	24
Rodentia	7	2
Insectivora	1	
Edentata	1	3
Marsupialia		16
Total	89	87

Fifty-five skins were prepared for the collection of the Department of Agriculture and 172 were prepared for the study series of the Museum, as shown in the following table:

Skins made up for the study series.

	Museum collection.	Department of Agricul- ture collec- tion.
Primates.	43	
Ungulata	27	5
Carnivora	42	29
Chiroptera	13	
Rodentia	30	2
Edentata	5	3
Insectivora	6	16
Total	172	55

The number of skins remaining on hand June 30, 1896, was 453, as shown below:

	Museum collection.	Department of Agricul- ture collec- tion.
Primates	21	13
Carnivora	216	
Ungulata	125	19
Rodentia	38	
Chiroptera	6	
Sirenia	1	
Marsupialia.	14	
Total	421	32

Of the large amount of miscellaneous work performed during the year the following items may be mentioned: Sixteen seal skins and a number of other large skins were cleaned preparatory to mounting; an antelope and several smaller mammals were mounted, although not entirely finished; a large sea lion was skinned; more than one hundred mounted mammals were crated, with a view to placing them in storage, and a large model of the National Zoological Park was made.

Casts were made of the following objects: Nine Egyptian inscriptions, two gold ornaments for the new Congressional Library building, two lizards, and a stone tablet.

Mr. Joseph Palmer was engaged for nearly the entire year on work for other departments in the Museum and for the Atlanta Exposition.

Mr. Henry Marshall, taxidermist of the department of birds, cleaned and renovated about 700 specimens in the exhibition series. Although this is a much smaller number than was attended to last year, the

decrease is readily explained by the fact that the birds now being cleaned are larger and require a greater amount of care and labor. Four birds were mounted, and several poorly mounted specimens were reduced to skins. Twenty-seven birds, received in the flesh, including two young ostriches, were skinned for the study series.

#### OSTEOLOGIST.

There were cleaned for the department of mammals during the year 607 skulls, and for the Department of Agriculture 539 skulls (many of them being of the larger mammals), making a total of 1,146. Thirty-two other specimens were also cleaned, 29 of them having been received in the flesh. Eighteen specimens were mounted, exclusive of the work done for the exhibit at the Cotton States and International Exposition at Atlanta. Reference was made last year to the preparation of a skeleton of Zeuglodon for this exhibit. This work was completed, and several other skeletons were prepared for the same purpose.

The synoptic series of invertebrates and the series of wax models showing the development, from the embryo, of the trout, frog, chicken, etc., were packed up and sent to Atlanta. This work required exceptional care, owing to the nature of the specimens. Considerable time was necessarily spent in repacking the material for return to Washington at the close of the Exposition, and in installing it in the Museum.

A summary of the osteological work is given in the following table:

	Mammals.	Birds.	Reptiles.	Fishes.	Total.
Specimens received in the flesh	9	13	7		29
Cleaned:					
Skeletons	3	6	1		10
Bodies		6			€
Skulls	1, 146	1			1, 14
Skeletons cleaned and disarticulated	3	13			16
Bodies disarticulated		1			
Mounted:					
Skeletons	4	5	1	1	13
Skulls	1	1			2
Total	1, 166	46	9	1	1, 225

The workshops of the osteologist were transferred during the year to the new quarters on Ninth street, S.W., which have been leased by the Museum for storage and other purposes.

#### PHOTOGRAPHER.

The photographer, Mr. T. W. Smillie, reports that 1,638 negatives have been made during the year. Many of these were for the departments of ethnology, mammals, geology, anthropology, oriental antiquities and religious ceremonials, botany, and technology. In addition,

1,022 platinum prints, 316 silver prints, 321 cyanotypes, and 5 lantern slides were made. Considerable miscellaneous work was also done, such as numbering and filing negatives, testing inks, restoring large pictures for exhibition, and developing negatives brought in by collectors.

### COLORIST.

Mr. A. Zeno Shindler has continued the work of cleaning and restoring such of the paintings in the Catlin Indian gallery as required attention. He has also continued work upon the series of paintings representing the races of men, nine pictures having now been completed. In addition, two life-size casts of Indians have been painted, and other incidental work attended to.

## APPENDIX I.

## THE SCIENTIFIC AND ADMINISTRATIVE STAFF.

[This list is simply a reprint of the list published in the Museum Report for 1895, which was brought down to the actual date of sending the book to press, August 1, 1896.]

#### KEEPER, EX OFFICIO,

S. P. Langley, Secretary of the Smithsonian Institution.

#### EXECUTIVE OFFICERS.

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

Frederick W. True, Executive Curator.

W. V. Cox, Chief Clerk.

#### SCIENTIFIC STAFF.

ARTS AND INDUSTRIES: G. Brown Goode, Curator.

Historical Collections: A. Howard Clark, Custodian.

Religious Ceremonial Objects: Cyrus Adler, 1 Custodian.

Technological Collections: J. E. Watkins, Curator.

Electrical Collections: George C. Maynard, Custodian.

Graphic Arts: S. R. Koehler, Curator.

Materia Medica: J. M. Flint, United States Navy, Curator.

Forestry: B. E. Fernow, Curator.

Physical Apparatus: W. C. Winlock, Curator.

ETHNOLOGY: O. T. Mason, Curator; Walter Hough, Assisant Curator.

Aboriginal Pottery: William H. Holmes, Curator.

Pueblo Collections: F. H. Cushing, Custodian.

ORIENTAL ANTIQUITIES: Paul Haupt, 1 Curator; Cyrus Adler, 1 Assistant Curator.

PREHISTORIC ANTHROPOLOGY: Thomas Wilson, Curator.

Mammals: Frederick W. True, Curator.

BIRDS: Robert Ridgway, Curator; C. W. Richmond, Assistant Curator.

Birds' Eggs: Charles Bendire, Major, U.S.A. (retired), Curator.

REPTILES AND BATRACHIANS: Leonhard Steineger, Curator.

FISHES: Tarleton H. Bean, Curator; Barton A. Bean, Assistant Curator.

Mollusks: William H. Dall, Curator; C. T. Simpson, Aid; W. B. Marshall, Aid.

INSECTS: L. O. Howard, Curator; W. H. Ashmead, Custodian of the Collection

of Hymenoptera; D. W. Coquillett, 1 Custodian of the Collection of Diptera; O. F. Cook, 1 Custodian of the Collection of Myriapoda; E. A. Schwarz, 1 Custodian of the Collection of Myriapoda; E. A. Schwarz, 1 Custodian of the Collection of Myriapoda; E. A. Schwarz, 1 Custodian of the Collection of Myriapoda; E. A. Schwarz, 1 Custodian of the Collection of Myriapoda; E. A. Schwarz, 1 Custodian of the Collection of Diptera; O. F. Cook, 1 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of the Collection of Diptera; O. F. Cook, 2 Custodian of Diptera; O. F. Cook, 2 Custo

todian of the Collection of Coleopterous Larvæ; M. L. Linell, Aid.

MARINE INVERTEBRATES: Richard Rathbun, Curator; J. E. Benedict and Miss M. J. Rathbun, Assistant Curators.

Helminthological Collections: C. W. Stiles, Custodian.

COMPARATIVE ANATOMY: Frederic A. Lucas, Curator; Frank Baker, Associate Curator.

PLANTS (NATIONAL HERBARIUM): F. V. Coville, Curator; J. N. Rose, C. L. Pollard, and O. F. Cook, Assistant Curators; Miss Carrie Harrison, Aid.

PALEONTOLOGY: C. D. Walcott, 1 Curator; Charles Schuchert, Assistant Curator.

Vertebrate Fossils: O. C. Marsh, Curator; F. A. Lucas, Acting Assistant Curator. Invertebrate Fossils:

Paleozoic: Charles Schuchert, Custodian. Mesozoic: T. W. Stanton, 1 Custodian. Cenozoic: W. H. Dall, 1 Associate Curator.

Fossil Plants: Lester F. Ward, Associate Curator; F. H. Knowlton, Custodian of Mesozoic Plants; David White, Custodian of Paleozoic Plants.

MINERALS: F. W. Clarke, Curator; Wirt Tassin, Assistant Curator.

GEOLOGY: George P. Merrill, Curator; W. H. Newhall, Aid.

LIBRARY: Cyrus Adler, Librarian; Newton P. Scudder, Assistant Librarian.

#### ASSOCIATES.

Theodore Gill, Associate in Zoology.

R. E. C. Stearns, 1 Associate in Zoology.

R. W. Shufeldt, Associate in Comparative Anatomy.

C. A. White, 1 Associate in Paleontology.

C. Hart Merriam, 1 Associate in Zoology.

### ADMINISTRATIVE STAFF.

CHIEF CLERK: W. V. Cox.

CHIEFS OF DIVISION:

Correspondence and Reports: R. I. Geare. Registration and Storage: S. C. Brown.

Editor of Proceedings and Bulletins: Marcus Benjamin.

Disbursing Clerk: W. W. Karr. Property Clerk: J. S. Goldsmith. Photographer: T. W. Smillie.

Superintendent of Buildings: Henry Horan.

#### PREPARATORS.

Joseph Palmer, Chief Modeler. William Palmer, Chief Taxidermist.

A. Z. Shindler, Colorist.

J. W. Scollick, Osteologist.

Henry Marshall, Taxidermist.

N. R. Wood, Taxidermist.

A. H. Forney, Taxidermist.

<sup>1</sup> Honorary, and serving without salary.

### APPENDIX II.

LIST OF ACCESSIONS DURING THE FISCAL YEAR ENDING JUNE 30, 1896.

[All accessions which are marked (A) consist of material obtained primarily for exhibition at the Atlanta Exposition.]

ABBOTT, Dr. WILLIAM L. (Philadelphia, Pennsylvania): Pen drawing of a primitive still in actual use by the natives of the eastern coast of Madagascar (28960); a large and interesting collection from Madagascar, consisting of ethnological objects, mammal skins and skulls, birds' skins, birds' nests, insects from Madagascar and Kashmir, shells, alcoholic reptiles and a snake skin, specimen of eel, 5 musical instruments, and a model of a dug-out "lakana," illustrating primitive boatbuilding in the region where it was obtained (29967); a valuable collection of ethnological objects and natural-history specimens, comprising mammals, shells, eagles, hawks, and other birds and a snake skin, from Kashmir (30743);

ABEL, J. C. (Lancaster, Pa.): Arrow and spear heads, drilled ceremonial objects, and fragments of pottery (29543); 283 stone implements, arrowheads, fragments of pottery, etc., from Harford County, Md. (29684); hammer stones, rude chipped implements, and other objects (29875); grooved hammer stones and 2 grooved axes (29965); hammer stones, grooved axes, arrowheads, and other objects from the banks of the Susquehanna River (30129).

ACHESON, E. G. (See under The Carborundum ('ompany.)

Ackley, S. M., Lieut. Commander, U. S. N. (Navy Department): Specimens of American Sole or Hogchoker, Achirus lineatus, and Sole or Tonguefish, Aphoristia plagiusa (?), from the Rio de la Plata. 30634.

ADLER, Dr. CYRUS (Smithsonian Institution): Facsimile of the Leicester codex of the New Testament, the first American edition of the Hebrew Bible, and ADLER, Dr. CYRUS-Continued.

two photographs of papyrus of the Septuagint (deposit) (29796); plaster model of the Temple Tower of Babylon (gift) (29805); 2 fragments of manuscript of a Hebrew Bible, the book of Joshua Haupt's polychrome edition, Syriac New Testament, Sbadius Arabic version of the Pentateuch, Syriac Old Testament, 2 manuscript Arabic Bibles, and a manuscript Coptic Bible (29813) (4); piece of pottery found in the year 1891 in an ancient quarry near Jerusalem (gift) (30144); Bulgarian coin (gift) (30319); costume of a Moorish child from Tangier (gift) (30567).

Adler, Dr. Felix (New York City): Ethnological objects and 50 fragments of pottery from a cave, "Dos Caminos," near Acapulco, Mexico. Exchange. 30206.

ADAMS, H. Q. (Grahamville, S. C.), through Miss Eva L. Kirk: Specimens of ancient cord-marked pottery fragments, obtained from creeks. 29547.

AGASSIZ, Prof. ALEXANDER. (See under Fish Commission, U. S., and Exploring Expedition, U. S.)

AGRICULTURE, DEPARTMENT OF, Hon. J. Sterling Morton, Secretary: Specimens of Ctenotania variabilis, Stiles, 1895, from Long Island, Virginia, and Ames, Iowa (29663); 7 specimens of land and fresh-water shells, representing 4 species, from the Dismal Swamp, Virginia. (29680); 7 type specimens of Andrya americanaleporis, Stiles, 1895; Davainca retractilis, Stiles, 1895; Davainca salmoni, Stiles, 1895; and Moniezia oblongiceps, S. & H., 1893 (29936); 7 type specimen of Baryssinus leguminicola, Linell (30047); 7 specimens of Zopherus costa-

AGRICULTURE, DEPARTMENT OF-Cont'd. 1 ricensis, Champ, and 30 specimens of Apanteles, collected by Señor J. Fid Tristán, National Museum, San José, Costa Rica (30091); Tarantula, Eurypelma sp., from San Domingo, West Indies, collected by Edgar G. Gedney, New York City (30198); miscellaneous insects, representing 38 species, collected in Kansas by F. F. Creveccur, Onaga (30213); 25 species of Coleoptera, collected by Rev. J. L. Zabriskie, Brooklyn, N. Y. (30247); 30 specimens of Diptera, representing 4 species, collected by William Brodie, Toronto, Canada (30248); 56 specimens of Diptera, representing 7 species, also collected by Mr. Brodie (30274); land and freshwater shells from Mexico and the western United States, obtained through Dr. C. Hart Merriam (30310); 68 species of Coleoptera, collected by Ralph Hopping, Redstone Park, Kaweah, Cal. (30320); fresh-water crabs and shrimps from Mexico, collected by Messrs. Nelson and Goldman (30327); types of Ecyrus fasciatus, Amphionycha amana, and Aporataxia lineata, Hamilton, collected in Texas by C. H. Tyler Townsend (30353); 20 specimens of Aphodii, representing 7 species, collected by E. A. Schwarz at San Diego and Sharpsburg, Tex. (30357); 80 specimens of Brazilian butterflies, comprising 55 species, collected by J. G. Foetterle, Petropolis, Brazil (30397); 3 species of shells from Acapulco, Mexico (30400); 100 specimens of Diptera and Hemiptera, representing 90 species, collected by William Metcalfe, Port Hope, Ontario, Canada (30478); 20 specimens of Hymenoptera, representing 20 species; 10 specimens of Coleoptera, representing 9 species, and 8 specimens of Lepidoptera, representing 7 species, collected by J. G. Barlow, Cadet, Mo. (30502); 36 species of Hymenoptera and 30 species of Diptera, collected by William Brodie, Toronto, Ontario, Canada (30566); specimens of wild oats, Avena fatua, from Cornwallis, Oreg. (30583); 77 specimens of Hymenoptera and 26 specimens of Diptera, representing 8 species, collected by

AGRICULTURE, DEPARTMENT OF-Cont'd. Prof. T. D. A. Cockerell, Las Cruces, N. Mex. (30623); insects collected at San Diego, Tex., by E. A. Schwarz, consisting of 1,500 specimens of Coleoptera, representing about 500 species; 220 specimens of Lepidoptera, representing 35 species; 120 specimens of Hymenoptera, representing 35 species, and 60 specimens of miscellaneous insects, representing 25 species (30661); 100 specimens of Cerambycidie, representing 37 species, collected at Brownsville, Tex., by Prof. C. H Tyler Townsend (30662); 5 specimens of parasitic Hymenoptera, representing 2 species, and 2 specimens of Diptera, representing a single species, collected by Professor Lintner, New York State College, Albany, N. Y. (30663); 300 specimens of Hemiptera, representing 175 species, collected by E. A. Schwarz at San Diego, Tex. (30693); 31 species of miscellaneous insects collected by F. F. Crevecœur, Onaga, Kans. (30694); 1,000 specimens of Coleoptera, representing 357 species, collected at Brownsville, Tex., by Prof. C. H. Tyler Townsend (30695); miscellaneous insects, collected by F. F. Crevecour, Onaga, Kans. (30830, 30213).

DEPOSITED IN THE NATIONAL HER-BARIUM: Specimen of Xerophyllum tenax, Nutt., collected by Vernon Bailey, Summit, Mont. (29542); 13 specimens, collected by W. C. Blasdale in California (29572); herbarium specimen from Mrs. E. J. Van Hasbrouck, Fanwood, N. J. (29599); herbarium specimen from C. A. Black, Winona, Kans. (29600); herbarium specimen of Rhododendron viscosum from Calvin J. Cowles, Wilkesboro, N. C. (29632); 102 herbarium specimens, collected by J. Medley Wood, Natal, Africa (29612); herbarium specimen from W. N. Suksdorf, White Salmon, Wash. (29661); 8 herbarium specimens of Commelina nudiflora from B. F. Bush, Campbell, Mo. (29671); 8 herbarium specimens of Commelina virginica from B. F. Bush (29672); specimen of Juneus from T. H Kearney, of Florida (29673); 5 herbarium specimens of Commelina hirtella

AGRICULTURE, DEPARTMENT OF—Cont'd. B. F. Bush, Campbell, Mo. (29687); herbarium specimen sent by W. L. McGee, Clemson College, S. C. (29695); specimen of Ficus elastica from S. J. Rhoads, Metropolis, Ill. (29703); herbarium specimen from Jackson, Dungannon, Ohio (29704); 2 herbarium specimens from S. S. Boyce, Rolling Fork, Miss. (29709); herbarium specimen from G. K. Gilbert, Pueblo, Col. (29710); 10 herbarium specimens from E. G. Weibel, Fort Huachuca, Ariz. (29721); 50 herbarium specimens collected by Mrs. A. F. Stevens, Amherst, Mass. (29730); 80 herbarium specimens from the Berlin Botanical Gardens (29739); 208 herbarium specimens from C. Copineau, Paris, France (29740); specimen of Calochortus, collected by A. H. Coffern, Sheridan, Wyo. (29744); 2 herbarium specimens, collected by H. C. Oberholser, on Roan Mountain, N. C. (29745): specimen of Sedum from Prof. N. L. Britton, Columbia College, N. Y. (29749); specimen of Phaseolus pauciflorus, Benth., collected by W. E. Blackburne, Anthony, Kans. (29750); herbarium specimen of Corallorhiza from G. H. Grinnell, Holbrook, Mass. (29826); herbarium specimen of Sarracenia from F. E. Boynton, Baltimore, Md. (29827); specimen of Viola sagittata from C. F. Wheeler, Agricultural College, Mich. (29832); 36 herbarium specimens from the University of Minnesota (29833); herbarium specimen of Cyperus dentatus, Torr, from L. H. Plumb, Springfield, Mass. (29834); 3 plants from W. S. Stamper, Vernon Mills, Va. (29835); specimen of Rhamnus from John Duncan, Louisville, Ky. (29836); herbarium specimen of Hieracium canadense, Michx., from G. J. Nelson, China, Me. (29837); herbarium specimen of Prunus rirginiana from D. J. Halsted, Wales Center, N. Y. (29838); herbarium specimen of Salix nigra wardi from W. W. Ashe, Raleigh, N. C. (29839); specimen of Euonymus americanus collected by Mrs. J. S. R. Thomson in Spartanburg, S. C. (29845); 10 herbarium specimens sent by John L. Childs, Floral Park, N. Y. (29864); 3 herbarium specimens from Mrs. J. S. R. AGRICULTURE, DEPARTMENT OF-Cont'd. Thomson, Spartanburg, S. C. (29872); 11 herbarium specimens from H. Wurzlow, Industry, Tex., consisting of Veruonia baldwinii and Gaillardia lanceolata (29879); 12 herbarium specimens belonging to the order Liliaceae, from Mrs. A. F. Eby, Laneaster, Pa. (29880); 6 herbarium specimens from M. J. Elrod, Wesleyan University, Bloomington, III. (29885); herbarium specimen of Verbena renosa, sent by F. W. Mally, Hulen, Tex. (29886); 2 herbarium specimens from James R. Freeman, Washington, D. C. (29902); 31 herbarium specimens from Dr. N. L. Britton, Columbia College, N. Y. (29903); 30 specimens of Pteridophytes from C. E. Waters, Baltimore, Md. (29904); 161 herbarium specimens from A. E. Ricksecker, Oberlin, Ohio (29908); 7 herbarium specimens from T. H. Hillman, State Agricultural College, Nevada (29926); 3 specimens of cultivated plants from L. H. Dewey, Dept. of Agriculture (29956); 181 herbarium specimens from the Zurich Botanical Garden, Zurich, Switzerland (29968); herbarium specimens of Scirpus maritima from F. L. Scribner, Dept. of Agriculture (29969); specimen of Lespedeza from Dr. D. E. Salmon, Dept. of Agriculture (29977); 6 plants collected by J. N. Rose (29988); 224 herbarium specimens from Washington and Idaho, collected by C. V. Piper, Seattle, Wash. (29989); 97 Australian plants from Baron Ferd. von Müller, Melbourne, Australia (29992); 9 plants collected by F. W. Thurow, Harvester, Tex. (29993); specimen of Quercus douglasii collected in California by W. H. Turner (30026); 226 dried plants from B. Fink, Fayette, Iowa (30027); specimen of Eryngium from Miss K. A. Taylor, Baltimore, Md. (29994); specimen of Artemisia frigida from E. D. Stover, Albuquerque, N. Mex. (30032); 2 specimens of Ribes from Samuel Goodell, Blaine, Wash. (30033); 725 plants collected by C. L. Pollard in the District of Columbia and vicinity (30050); 100 herbarium specimens from Canada, sent by James M. Macoun, Ottawa, Canada (30057); 20 specimens of Pteridophyta from C. E. Waters, Baltimore, Md. (30069); 3 herAGRICULTURE, DEPARTMENT OF-Cont'd. barium specimens from Miss Juliet Fontleroy, Va. (30077); 7 specimens collected in Maryland by F. V. Coville (30071); 7 herbarium specimens from H. Wurzlow, Industry, Tex. (30078); 20 plants from California, sent by W. L. Jepson, Berkeley, Cal. (30079); 30 plants collected in Nevada and California by C. F. Sonne, Truckee, Cal. (30080); 139 herbarium specimens from Michigan, sent by Prof. W. J. Beal, Agricultural College, Mich. (30095); 4 herbarium specimens from Florida, sent by F. H. Farrell, Homeland, Fla. (30096); 107 plants sent by W. M. Canby, Wilmington, Del. (30104); specimen of Erigeron leibergi, sent by Thomas C. Porter, Easton, Pa. (30105); 260 specimens collected by the Hayden Survey, and 240 plants from Pennsylvania, sent by Thomas C. Porter (30106); specimen of Tribulus maximus from the District of Columbia, collected by G. H. Hicks, Washington, D. C. (30121); specimen of Anoda pentaschista, sent by G C. Nealley, San Diego, Tex. (30135); 660 plants, sent by Prof. J. Fowler, Kingston, Ontario, Canada (30141); 189 plants from Buckhannon, W. Va., from W. M. Pollock (30142); 2 specimens of Ficus from Mexico, sent by Miss Alice Eastwood, California Academy of Sciences, San Francisco, Cal. (30143); 43 plants from New York, sent by A. K. Harrison, Lebanon Springs, N. Y. (30153); 43 Australian plants from Baron Ferd, von Müller, Melbourne (30154); 620 specimens of plants from Wyoming, sent by Aven Nelson, University of Wyoming, Laramie (30171); 469 plants from W. M. Van Sickle, West New York, N.J. (30172); plant from G. H. Hicks, Washington, D. C. (30180); 2 plants from Miss Alice Eastwood, San Francisco, Cal. (30181); specimen of Pedicularis verticillata from Theodor Holm, Department of Agriculture (30182); 3 specimens of Colorado plants, sent by G. E. Osterhout, New Windsor, Colo. (30183); 74 plants from D. L. Topping, Washington, D. C. (30186); 6 herbarium specimens, obtained from the Kiowa Indian Reservation, Oklahoma Territory, by James Mooney, of the Bureau of American

AGRICULTURE, DEPARTMENT OF-Cont'd. Ethnology (30187); 145 herbarium specimens from E. E. Gayle, Portland, Me. (30196); specimen of Lygodium palmatum, Swm., from C. E. Waters, Baltimore, Md. (30221); specimen of Fimbristylis laxa, collected by F. Lamson-Scribner in New Jersey (30222); 12 herbarium specimens from the western section of the United States, sent by C. S. Sheldon, State Normal School, Oswego, N. Y. (30227); 4 plants from the District of Columbia, sent by Prof. E. L. Greene, Catholic University of America (30228); 4 herbarium specimens from Colorado, sent by G. W. Osterhout, New Windsor, Colo. (30229); 102 Carices, sent by Prof. F. Lamson-Scribner, Department of Agriculture (30267); 4 herbarium specimens of Umbelliferæ from Mrs. Katharine Brandegee, San Diego, Cal. (30268); 6 Alaskan plants from Thomas Howell, Clackamas, Oreg. (30282); specimen of Malrastrum splendens from Dr. A. Davidson, Los Angeles, Cal. (30283); 27 miscellaneous plants from California, sent by Miss Alice Eastwood (30284); part of a type specimen of Pithecolobium acatlense, received through J. N. Rose (30299); specimen of Micromeria douglasii, sent by Gerhard Leff, San Luis Obispo, Cal. (30300); specimen of Botrychium boreale from G. E. Davenport, Medford, Mass. (30325); 16 specimens of Umbelliferæ, collected by Marcus E. Jones, Salt Lake City, Utah (30354); 43 Alaskan plants from Thomas Howell (30361); specimen of Eucalyptus mortoniana, sent by Abbot Kinney, Los Angeles, Cal. (30387); 2 plants from Pennsylvania, sent by C. N. Lochman, Bethlehem, Pa. (30388); 270 plants collected by Frank Tweedy, Washington, D. C. (30389); 17 Mexican plants from Mrs. Katharine Brandegee (30390); 6 Nebraskan plants from G. M. Bates, Long Pine, Nebr. (30391); 800 Florida plants collected by G. V. Nash, Columbia College, New York (30392); 2 specimens of Dryopteris marginalis from C. L. Pollard (30407); 23 herbarium specimens from Dr. N. L. Britton, Columbia College, New York (30416); 55 Canadian phanerogams, sent by the Geological Survey, Ottawa, Canada (30417);

AGRICULTURE, DEPARTMENT OF-Cont'd. 500 plants from Guatemala, sent by J. D. Smith, Baltimore, Md. (30444); 72 plants from New Mexico, collected by Dr. Washington Matthews, U.S.A. (30451); 2 specimens of Rhus michauxii, sent by C. D. Beadle, Biltmore, N. C. (30452); plant from Wyoming, sent by Prof. T. C. Porter, Easton, Pa. (30454); specimen of Cotyledon from Lower California (30461); specimen of Schiza a bifida from E. A. Schwarz, collected in Greymouth, New Zealand (30469); 50 mosses from J. Cardot, Stenay, Meuse, France (30470); 211 herbarium specimens from A. H. Curtiss, Jackson ville, Fla. (30475); 6 specimens of Naiadicew from Prof. William R. Dudley, Palo Alto, Cal. (30480); 266 plants from Tennessee presented to the Museum by the University of Tennessee, Knoxville (30482); 36 herbarium specimens from E. Bethel, Denver, Colo. (30507); 564 Colorado plants from C. S. Crandall, Fort Collins, Colo. (30528); 425 specimens of western plants belonging to Hayden's collection, from T. C. Porter, Easton, Pa. (30530); 7 specimens of Banksia from Baron Ferd, von Müller, Melbourne, Australia (30549); 23 specimens of phanerogams and cryptogams (30550); 33 plants from C. A. Davis, Alma, Mich. (30551); specimen of Phacelia strictiflora from T. V. Munson, Denison, Tex. (30555); 10 plants from Lower California, sent by J. E. McLellan (30560); 10 species of plants raised from seed collected by J. N. Rose from the greenhouses of the Department of Agriculture (30562); 2 herbarium specimens (Arbutus xalapensis texana and Sophora secundiflora) from G. A. Schattenberg, Boerne, Tex. (30563); plant from Florida from Mr. Benton, Department of Agriculture (30593); 8 plants from Alabama collected by Dr. Charles Mohr (30594); 69 species of Coleoptera and ants from Kansas, collected by F. F. Crevecœur, Onaga, Kans. (30595); 53 specimens collected by Vernon Bailey, Washington, D. C. (30617); herbarium specimen of Orthocarpus purpurascens from E. G. Still, Livermore, Cal. (30621); specimen of Medicago minima from J. Reverehon, Dallas, Tex. (30629); 2 her-

AGRICULTURE, DEPARTMENT OF-Cont'd. barium specimens (Syndesmon thalictroides (L) Hoffing, and Allium vineale (L) (30630); specimen of Delphinium tricorne from E. L. Knightly, McCulloughs, O. (30631); 460 plants from southern California collected by Edward Palmer (30669); 3 plants from H. J. Draut, Larned, Kans. (30672); 5 Californian plants from Dr. N. L. Britton, Columbia College, N. Y. (30681); 3 plants from Tennessee sent by S. O. Barnes, Nashville (30684); specimen of Callitriche austini collected by Theo. Holm, Department of Agriculture (30686); 9 plants from Minnesota collected by L. R. Moyer, Montevideo, Minn. (30712); plant from Virginia sent by G. S. Miller, ir., Front Royal, Va. (30713); plants collected in Maryland by H. W. Olds, Woodside (30734); plant sent by Mrs. R. Van Dien, Anandale, N. J. (30735); 222 Alaskan plants sent by M. W. Gorman, Portland, Oreg. (30747); 30 dried plants from Texas, sent by C. L. Marlatt, Department of Agriculture (30748); 48 specimens of Florida algæ sent by A. H. Curtiss, Jacksonville (30759); 118 lichens sent by Bruce Fink, Fayette, Iowa (30760); 30 plants from Sonora collected by W J McGee, Washington, D. C. (30761); 225 plants from New York sent by W. W. Rowles, Ithaca, N. Y. (30773); 751 plants from Kansas sent by C. H. Thompson, St. Louis, Mo. (30778); 75 plants from Massachusetts, sent by Wellesley College (30787); 16 specimens of Junci from S. M. Tracy, Agricultural College, Miss. (30789); 116 African plants sent by J. M. Wood, Durban, Natal, Africa (30794); plant from New York sent by Mrs. Mary W. Coy, Mount Morris, N. Y. (30797); 9 specimens of Umbellifera from Idaho, sent by A. A. Heller Lancaster, Pa. (30804); specimen of Trillium cernuum from Amos L. Griffith, Pell City, Ala. (30818); specimen of Apogon humilis from C. N. Gould, Winfield, Kans. (30819); specimen of Jatropha berlandieri from R. H. Brown, Campbelltown, Tex. (30820); specimen of Asclepias verticillata, L., from J. M. Brown, Eden, Ala. (30821); 3 specimens of plants beAGRICULTURE, DEPARTMENT OF—Cont'd. longing to the family Juncaceæ, collected by Prof. Marshall A. Howe, University of California, Berkeley, Cal. (30822); specimen of Cymopterus corrugatus from J. B. Leiberg, Hope, Idaho (30823); 681 plants from J. B. Leiberg (30828).

ALDRICH, T. H., Hon. (Washington, D. C.): Species of Amphidromus from the Philippine Islands. 30569.

ALEXANDER, A. B. (See under Fish Commission, U.S.)

ALLEN, FRANK (Woodside, Md.): Specimen of Scalops aquaticus. 30788.

ALLEN, Dr. H. N. (See under W. W. Roekhill.)

ALLEN, PARDON (Auburn, Me.): Antique candle-stick, snuffers, and lamp. Exchange. 20738.

ANTHONY, A. W. (San Diego, Cal.): Collection of mamuals from California, consisting of 71 skins and skulls and 20 alcoholic specimens (purchase) (29675); 12 birds' skins, principally from California (deposit) (one skin returned) (29909); 4 Petrels, consisting of 2 specimens of Puffinus tenuirostris and two of Fulmarus columba (gift) (30256); bird skin from Colorado (deposit) (30436); 3 birds' skins from California (deposit) (30554); skeleton of Petrel (Fulmarus rodgeri), and 3 type specimens of birds (gift) (30676); 2 dried, specimens of Occanodroma socorroensis (gift) (30805); skeleton of Puffinus griseus (gift) (30817).

Appleton, J. W. M. (Salt Sulphur Springs, W. Va.): Specimen of impure graphite. 30644.

ARKANSAS COMMISSION TO COTTON STATES AND INTERNATIONAL EXPOSITION (transmitted by L. Vincenheller, Commissioner, Little Rock, Ark.): twenty specimens of minerals. (A.) 30294.

ARNOLD, DELOS (Pasadena, Cal.): Specimen of Scala lineata, Say, from the southeastern coast of the United States. 29807.

ARNOLD, E. (Battle Creek, Mich.): Five eggs (1 set) of Western Grebe, 10 eggs (1 set) of American Goldeneye Duck, 6 eggs (1 set) of Canvasback Duck, and 4 eggs (1 set) of Redhead Duck from North Dakota. Exchange. 30215.

ARUP BROTHERS (exhibit at the Cotton States and International Exposition, Atlanta, Ga.): Six pieces of Royal Copenhagen porcelain, 2 pieces of 1psen's faiënce and 3 specimens of iridescent glass. (A.) Purchase. 30324.

Ashe, W. W. (See under Department of Agriculture.)

ASHMEAD, W. H. (Department of Agriculture): Specimens of Aphodii, consisting of Aphodius agrotus, Horn., and Atanius lecontei, Harold, from Florida (new to the Museum collection). 30366.

ATTWATER, H. P. (San Antonio, Tex.):
Seventeen birds' eggs, representing 4
species, also 2 nests (gift) (30090); 3
specimens of Woodpecker, Melanerpes
formicirorus aculcatus from Texas (gift)
(30162); 300 birds' skins from Texas
(purchase) (30639); 2 skins of Aphelocoma cyanotis, and 4 skins of Dendroica
chrysoparia, 20 eggs of Aphelocoma cyanotis, and 8 eggs of Dendroica chrysoparia
(purchase) (30697).

AUDENREID, Mrs. M. C. (Washington, D. C.): Japanese armor. Deposit. 30001. AUTOCOPYIST COMPANY (London, England): Photo-autocopyist outfit and

specimens of work. Purchase. 30638. AVERY, W. C. (Corinth, Vt.): Insects. 29921.

AZEEZ, Miss A. A. (Brooklyn, N. Y.):
Four ancient Egyptian vessels of stalagmite marble, 6 ancient terra-cotta lamps, an oil vessel, and a Persian pierced lamp (30209); Egyptian amulets and carvings, Tyrian terra-cotta head and holy oil jug, and a brass holywater vessel (the Holy Grail of the Imam) (30210). Purchase.

Babbitt, J. O. (Dighton, Mass.): Thirty-five arrowheads. 29723.

Barbitt Brothers (Flagstaff, Ariz.): Volcanic sublimation products from near Flagstaff. 30408.

Bachman, George W. (Freemansburg, Pa.): Arrowhead from Wasnington County, Pa. 30110.

BAILEY, VERNON. (See under Department of Agriculture.)

BAKER, FRANK C. (See under Chicago Academy of Sciences.)

Baker, Dr. Frank. (See under Smithsonian Institution, National Zoological Park).

- BALDASANO, SEÑOR ARTURO. (See under Soria y Mata, Señor Arturo.)
- Ball, E. P. (Palmer, Mass.): Photograph representing three views of a birdshaped object. 29983.
- Bangs, Outram (Boston, Mass.): Five eggs and two nests of Olive-sided Flycatcher, *Contopus borealis*, from Mass. (29942); specimen of *Menippe mercenaria* from St. Marys, Ga. (30584).
- Barber, Dr. E. A. (West Chester, Pa.):
  Mouth portion of a tubular pipe from
  the southwestern section of Colorado.
  30240.
- BARDROFF, JOSEPH & SON (Washington, D. C.): Imported English Blue Pouter Pigeon. 30611.
- Barlow, Chester (Santa Clara, Cal.): Two eggs of California Pigmy Owl, Glaucidium gnomo californica. 29915.
- Barlow, J. G. (See under Department of Agriculture.)
- Barnes, S. O. (See under Agriculture, Department of.)
- Barnes, Dr. William (Decatur, Ill.): Seventy-five specimens of North American Lepidoptera (new to, or poorly represented in the Museum collection) (30004); 60 specimens, representing 35 species of North American Lepidoptera (30111). Exchange.
- Barnum & Bailey (Bridgeport, Conn.): Specimen of Ocis tragelaphus. 30657.
- Bartleman, R.M. (United States consul, Antigua, West Indies): Four photographs of caribs and rock etchings. 30729.
- Bartsch, Paul (U. S. N. M.): Nest and 2 eggs of Ruby-throated Humming bird, Trochilus colubris, from Four Mile Run, Va. 30793.
- Bates, G. M. (See under Department of Agriculture.)
- Baulch, William (Fort Monroe, Va.):
  An abnormal orange. 29667.
- BEADLE, C. D. (See under Department of Agriculture.)
- BEAL, Prof. W. J. (See under Department of Agriculture.)
- BEALE, C. F. T. (Georgetown, D. C.): Autograph of James Ruusey, constituting a receipt to a bill for making two bellows, £5 10s., rendered against the "Potomack Company" February 11, 1786, bill approved by George Wash-

- Beale, C. F. T.—Continued, ington with his autograph signature. 29636.
- Bean, Dr. T. H. (New York Aquarium, Battery Park, N. Y.): Two specimens of Nereis limbata, Ehlers, from near Absecon Beach, N. J., obtained by Alfred Hand, Philadelphia. 29997.
- Beck, R. H. (Berryessa, Cal.): Two birds' skins, representing 5 species, from Santa Cruz Island and Sonoma County, Cal. 29603.
- Bellucci, Prof. Guiseppe (Perugia, Italy), through Thomas Wilson: A collection of archæological objects, consisting of cores, flakes, scrapers, and arrowheads of flint, polished hatchets, glass beads and discs, and clay spindlewhorls. Deposit. 30806.
- Bendire, Maj. Charles, U. S. A.: Infusorial earth from White Head Lake, Herkimer County, N. Y. (29747); 4 eggs of Mountain Chickadee, Parus gambeli, from Arizona, and 5 eggs of Pine Grosbeak, Pinicola enucleator, from Maine (29941). (See under D. B. Burrows, W. B. Judson, and Dr. W. L. Ralph.)
- BENJAMIN, WILLIAM EVARTS (New York City): Hebrew ceremonial manuscript, first and second edition of American-Greek Testament. (A.) Purchase. 29660.
- Benton, Mr. (See under Department of Agriculture.)
- BERGER, G. G., (Santos, Brazil, transmitted by H. C. Smith, United States consul): Skin of a Brazilian Sloth, Bradypus. 29842.
- Bergmann, C. F.W. (Washington, D. C.): Specimen of Regal Walnut-moth, *Citheronia regalis*. 29639.
- BERLIN BOTANICAL GARDENS. (See under Department of Agriculture.)
- BETHEL, E. (See under Department of Agriculture.)
- BETTESWORTH, G. W. (Omaha, Nebr.): Specimens of soil, sand, rock, bones, ashes, shells, pottery, flints, etc., from ash layers in ancient burying grounds at Smiths Canyon and Bellevue, Nebr. 30242.
- Bicknell, J. Y. (Buffalo, N. Y.): Pair of Black Minorea Fowls. 30752,

- Billings, W. R. (Ottawa, Canada): One hundred and thirteen specimens of Trenton brachiopods from the vicinity of Ottawa. Exchange. 30645.
- BINKLEY, S. II. (Alexandersville, Ohio): Arrowhead with an accretion of limestone. 29727.
- Bisnor, H. R. (New York): Specimen of Silesian jade. 30037.
- BLACK, C. A. (See under Department of Agriculture.)
- BLACKBURN, Dr. J. W. (Washington, D. C.): Snake from the grounds of St-Elizabeth's asylum. 30315.
- BLACKBURNE, W. E. (See under Department of Agriculture.)
- BLACKFORD, J. W. (Berkeley Springs, W. Va.): Bullet found in St. Johns Run, near Berkeley Springs, supposed to have been one of the bullets fired by the British troops under General Braddock. 29781.
- BLACKMAR, Gen. W. W. (Boston, Mass.): Two photographs of the "Grant chair." 30668.
- BLAIR, R. A. (Sedalia, Mo.): Twenty-seven specimens of Lower Carboniferous (Choteau) fossils (29697); 18 specimens of Lower Carboniferous (Choteau) fossils (29765).
- BLAISDEL, Dr. F. E. (Mohel Hill, Cal.): Type specimen of *Helops stenotrichoides*, Blaisdel. 30430.
- BLAKE, W. P. (director Arizona School of Mines, Tucson, Ariz.): Two specimens of volcanic tufa. 30382.
- BLANCHARD, G. (Junction, Ohio): Arrow and spearheads, grooved axes, and other objects from Paulding County. 30273.
- Blanchard, Prof. Raphael, (Paris, France): Alcoholic parasitic worms. Exchange. 29624.
- Blasdale, W. C. (See under Agriculture, Department of.)
- BLODGETT, FREDERICK (New Brunswick, N. J.): Specimens of Lygodium palmatum. 30113.
- Blunck, A. E. (Johnstown, N. Y.): Prize Red Pyle Game fowl. 30722.
- Boas, Dr. Franz (New York): Series of cedar-bark ornaments and masks from Fort Rupert, British Columbia. Purchase. 30192.

- BEOEPPLE, J. F. (Muscatine, Iowa): Curiously formed pearl taken from a Unio. 30714.
- BOFILL, Señor ARTURO (Museo Martorell, Barcelona, Spain): Three specimens of Cretaceous gastropods. 30367.
- BOND, G. J. (Washington, D. C.): Arrow obtained from the Sioux Indians. 30340.
- BONNET, ANDRÉ (Paris, France): Collection of Tertiary fossil shells from the Paris Basin. Exchange. 29607.
- BOOTH, JOHN (Coalville, Utah): Minerals. 30149.
- BOUCARD, A. (Oak Hill, Spring Vale, near Ryde, Isle of Wight, England): One thousand three hundred and forty-six birds from various parts of the world (29707); 1,580 birds' skins from different regions, containing many species and several genera new to the Museum collection (30421).
- Bowers, M. A. (Little Rock, Ark.): Galls of Pemphigus populicaulis. 30068.
- Bowles, C. W. (Ponkapog, Mass.): Nest and 4 eggs of Swamp Sparrow, Melospiza georgiana, from York County, Me. (29734); nest and 5 eggs of Swamp Sparrow (30720).
- BOYCE, S. S. (See under Department of Agriculture.)
- BOYNTON, F. E. (See under Department of Agriculture.)
- BOYNTON, Mrs. H. V. (Washington, D. C.): Nest of California Bushtit from Pasadena. 30537.
- Bradley, Edgar J. (Happy Valley Waterworks, South Australia): Three erabs, a hermit crab, and two crayfishes (29831); shells, crabs, specimen of Myrmecia forficata, Fab., and two Geckos (29895); 11 specimens of Chasmagnathus haswellianus, Whitelegge (30107); starfish, crabs, and specimens of Branchiopus (30575). Exchange.
- Braida, S. C. (Washington, D. C.): Pair of iron stirrups from San José, Costa Rica, supposed to have belonged to the Cortez period. 30128.
- Braley, Miss Etta, (Washington, D. C.): Specimen of *Lachnosterua diffinis*, Blanch, from Arkansas. 30603.
- Brandagee, Mrs. Katharine. (See under Agriculture, Department of.)

- Brandes, Dr. Gustav (Zoologisches Institut, Halle, a/s, Germany): Specimens of Ctenotania lenckarti (= co-type of Dipylidium lenckarti; Ctenotania goezei (= co-type of Dipylidium latissimum; and Ctenotania pectinata (= Dipylidium pectinatum, Richm. Exchange. 29946.
- Bray, P. H. (Washington, D. C.): Twelve birds from Madagascar. Purchase. 29645.
- Breed, Estate of Dr. Daniel (Washington, D. C.), transmitted by Prof. B. T. Janney, administrator: Species of coral, 7 species of mollusks, 100 species of Paleozoic fossils, 36 species of Mesozoic fossils. 30076.
- Bretherton, B. J. (Newport, Oreg.): Two specimens of Townsend's Sparrow, Passerella iliaca unalaschensis, from Kadiak Island, Alaska (exchange) (29641); 2 skins of Microtus montanus? (gift) (30217); 7 species of Lepidoptera (gift) (30468).
- Brett, Walter (Lakeport, Cal.): Specimen of *Balbiania falcatula*, Stiles, 1893. 29933.
- Brewer, Dr. M. M. (See under Dr. D. S. Lamb.)
- Brewster, William (Cambridge, Mass.):
  One hundred and forty-one birds' skins,
  representing 51 species, from various
  portions of Mexico and the United
  States. 30252.
- Brian, Capt. H. T. (Washington, D. C.): Specimen of Atalapha noveboracensis. 29552.
- BRICE, Capt. J. J., U. S. N. (See under Fish Commission, U. S.)
- British West India Committee (transmitted by Dr. David Sharp, Cambridge, England): One hundred and sixty-five specimens of insects, representing 83 species of parasitic Hymenoptera, from Grenada, West Indies. 29922.
- Britton, Dr. N. L. (See under Agriculture, Department of.)
- Brockett, Paul, U. S. N. M.: Two skius with skulls of Brown Bat, Adelonycterus fuseus. 29773.
- BBODIE, WILLIAM. (See under Agriculture, Department of.)
- Brodnax, Dr. B. H. (Brodnax, La.): Specimens of Bee (Colletes thoracica)

- BRODNAX, Dr. B. II.—Continued.
  - (30557); 2 eggs of Turkey Brzzard, Cathartes aura (30718).
- Brokaw, L. W. (Carmel, Ind.): Twelve eggs of Snowy Plover, Egialites nirosa; 11 eggs of Least Tern, Sterna anbillarum, and 9 eggs of Pigmy Nnthatch, Sitta pygmea, from California. Exchange. 29768.
- Brooks, W. E. (Mount Forest, Ontario, Canada): Three skins of *Hippolais caligata*, and 3 skins of *Aerocephalus agricola*. 30458.
- Brooks, Dr. W. K., Johns Hopkins University (Baltimore, Md.), transmitted by Charles P. Sigerfoos: Skin of Sea Lion, *Zalophus californicus*, from Druid Hill Park. 30102.
- Brown, C. F. (Hot Springs, Ark.): Five specimens of quartz (crystals distorted and modified). 30296.
- Brown, Edward J. (Washington, D. C.):
  Paroquet (Palwornis torquata), in the
  flesh (29637); egg of Audubon's Shearwater, Puffinus auduboni, from Ragged
  Island, Bahamas (30779).
- Brown, Mrs. J. Crosby (Orange, N.J.): Virginal from Italy (purchase) (29593); musical instruments from Borneo (exchange) (29793); 7 musical instruments from France, China, New Caledonia, England, Spain, and New Guinea (exchange) (30167); Melodeon (30431).
- Brown, James M. (See under Agriculture, Department of.)
- Brown, Mrs. N. M. (Ashtabula, Ohio): Eight hundred and six plants, collected by E. W. Nelson in New Mexico. Purchase. 30122.
- Brown, R. H. (See under Agriculture, Department of.)
- Brown, Capt. W. C., U. S. A.: Apache carrying basket, and a basket in process of construction, with tools and materials used. 30140.
- Brown, William Du Val (Washington, D. C.): Sword, belt, and buckle presented to Maj. Gen. Jacob Brown by the State of New York; gold snuffbox presented by the city of New York, and a gold medal presented by Congress for services at the Battle of Chippewa, Niagara, and Erie, in 1814. Deposit. 30137.
- Brown, William Findlay. (See under City Council of Philadelphia.)

- Brownell, Bequest of Lieut. Frank E. Transmitted by Washington Loan and Trust Company, executor of estate: Revolver, cap ornament, and scarf pin owned by the late Col. E. E. Ellsworth; gold medal presented to Lieutenant Brownell by the citizens of Troy; medal of honor presented by Congress; medal containing a piece of the Marshall House flag; badge of the Society of the Army of the Potomac; dagger presented by the citizens of Boston; rope watch-chain made from a Marshall House flaghalyard, and a revolver presented by the New York Board of Brokers. 30411.
- Bruce, M. W. (Washington, D. C.): Photograph of Eskimo children from Port Clarence, Alaska. 30513.
- Brunetti, E. (London, England): Ninetysix specimens of British Diptera. Exchange. 29558.
- Brunner, F. J., (Washington, D. C.): Coleoptera from Kansas. 30308.
- Bryant, H. G. (Philadelphia, Pa.): Model of a stone lamp and cooking pot from North Greenland. 30514.
- BUERBAUM, T. (Salisbury, N. C.): Casts of two gold nuggets. 30548.
- Burden, C. E. (Washington, D. C.): Specimen of Cymindis neglecta, Hald. 29887.
- Burger, Peter (U. S. N. M.): Specimen of Atalapha noveboracensis, in the flesh. 29748.
- Burnett, Dr. S. M. (Cosmos Club, Washington, D. C.): Miniature Bible. (A.) Deposit. 29798.
- Burns, Frank (U. S. Geological Survey): Shells from Northern Texas. 29817.
- Burns, W. R. (Concord, Ky.): Archæological objects from Kentucky. (29649, 30671.)
- Burrows, D. B. (Lacon, Ill.), through Major Bendive: Four specimens of Cassin's Sparrow, *Penewa cassini*, from Texas. 29743.
- Burtch, Verdi (Penn Yan, N. Y.): Unionidæ from New York. (30462, 30520.)
- Busching, Henry (U. S. N. M.): Specimen of Telea polyphemus. 29721.
- Bush, B. F. (See under Agriculture, Department of.)
- Bush, S. S. (Louisville, Ky.): Cast of terra-cotta image. 30352.

- C.ESAR, Col. G. (Franklin Furnace, N. J.): Specimen of fowlerite in calcite, and a specimen of caswellite with willemite. (30558, 30598.)
- C'ALCUTTA BOTANICAL GARDEN (Calcutta, India): 511 herbarium specimens. Exchange. 29883.
- Call, R. Ellsworth (Cincinnati, Ohio): Eighty-three bats, 250 alcoholic bats, Diptera and larvæ from Mammoth Cave, Ky. (30251, 30396, 30531, 30642.)
- Call, Dr. S. J. (Ungar Island, Alaska): Eggs of Golden-crowned Sparrow, Zonotrichia coronata, Dwarf Hermit Thrush, Turdus unalaschkw, Sandwich Sparrow, Ammodramus sandwichensis (29762); collections of birds' eggs from Shumagin and Atka islands, Alaska, representing one new species, and several species but poorly represented in the Museum collection. (30063.)
- Campbell, J. Macnaught (Kelvingrove Museum, Glasgow, Scotland): Forty disks and parts of 2 rings of cannel coal from the old section of Portpatrick church-yard, Wigtonshire. Exchange. 29881.
- CAMPBELL, Mrs. J. E. (Pasadena, Cal.): Shells from California. (30008, 30370, 30495.)
- CAMPBELL, W. P. (Bethany, W. Va.): Maori robe made of New Zealand flax. (A.) Purchase. 29561.
- CANBY, W. N. (See under Agriculture, Department of.)
- CARDOT, J. (See under Agriculture, Department of.)
- Carl, Wohlgemuth (Bozen, South Tyrol, Austria): Beer mug, 2 copper wine pots, quillwork belt and a fur cap from the Tyrol. Exchange. 30402.
- CARROLL, B. F. (Blooming Grove, Tex.): Thigh bone of a mammoth. 30609.
- CARTER, JAMES C. (New York City): Specimen of Gadwall, Anas strepera, from Currituck Sound. 30195.
- CARTER, JOHN F. (Sistersville, W. Va.): Oil sand from Tyler County. 29647.
- Cartwright, O. E. (Detroit, Mich.): Piece of bedticking filled with feather down. 30616.
- Case, H. B. (Londonville, Ohio): Fossils. Exchange. 30385.

- Castor, T. H., & Co. (Boston, Mass.):
  "The Process Year Book," London,
  1896. 30798.
- Cawood, W. H. II. (Weedonsville, Va.):
  Wrought-iron frame, made to fit the
  body of a man, in which was found a
  human skull. Deposit. (Returned.)
  29598.
- CHAMBERLAIN, Dr. L. T. (The Chelsea, New York City): Thirty specimens of fresh-water shells. Unios, and other material from New Zealand (gift) (29962); collection of southern gems, gem minerals, and other specimens (presented to the Smithsonian Institution, and deposited in the National Museum with the Isaac Lea collection) (30317); specimen of green tourmaline, weighing 571 earats, from Mount Mica, Me. (presented to the Smithsonian Institution and deposited in the National Museum with the Isaac Lea collection) (30362); 22 species of shells principally from Borneo (presented to the Smithsonian Institution and deposited in the National Museum) (30374): 14 species of Unios from Arkansas and Texas (presented to the Smithsonian Institution and deposited in the National Museum) (30427); 1,716 shells, representing 209 species from various localities in Texas (presented to the Smithsonian Institution and deposited in the National Museum) (30648); nugget of native silver. weighing 448 onnees, from near Globe, Pinal County, Ariz. (gift) (30664).
- Chapman, N. A. (Twinsburg, Ohio): Plaster casts of stone implements and other archaeological objects. Presented to the Smithsonian Institution and deposited in the National Museum. 30675.
- CHAPMAN, R. H. (See under Interior Department, U. S. G. S.)
- Chaster, George W. (Southport, England): Specimens of Odostomia lactea, Jeff., from the coast of Teignmouth (exchange) (29615); 10 species of small Mediterraneau shells (gift) (30214).
- CHATARD, Dr. T. M. (U. S. Geological Survey): Specimen of margarite on emery from Chester, Mass. 30679.
- CHICAGO ACADEMY OF SCIENCES, (Chicago, Ill.), transmitted by Frank C. Baker: Unionidæ from Illinois and Indiana. (30132, 30433, 30829.)

- Childs, J. L. (See under Agriculture, Department of.)
- Chittenden, F. H. (See under Agriculture, Department of.)
- CHITTENDEN, NEWTON H. (Mill River, Mass.): Archaeological objects from Massachusetts, Arizona, British Columbia, and Mexico. 30486.
- Christy, Thomas & Co. (London, England): Bitter Kola nuts. 30457.
- CINCINNATI SOCIETY OF NATURAL HISTORY (Cincinnati, Ohio): Casts of horn cores of a fossil bison. 30753.
- Clapp, G. H. (Pittsburg, Pa.): Land and fresh-water shells, and 4 specimens of eretaeeous oysters from Canada and Texas. (29652, 29843, 29851.)
- C'LARK, Miss EDITH M. (Burlington, Vt.): Salamander. 29726.
- CLARKE, Lieut. F. L., U. S. A. (See under Smithsonian Institution, Bureau of Ethnology.)
- CLARKE, Prof. F. W. (U. S. Geological Survey): Specimen of pectolite, 30678. (See under Interior Department, U. S. Geological Survey.)
- CLARKE, R. L. B. (Washington, D. C.): Luna Moth, Actias luna. 29620.
- CLÉRET, J. (Philadelphia, Pa.): Indo-Pacific pearl oyster. 30426.
- CLEVELAND, Miss Sallie (Clear Spring, Tenn.): Fossils from the Ordovician rocks of eastern Tennessee. 30270.
- Cobleigh, W. S. (Los Angeles, Cal.): Nest of Prothonotary Warbler, Protonotaria citrea, from Illinois. 29822.
- COBOLINI, LOUIS (Rockport, Tex.): Two specimens of Thread-fin (*Polynemus*), from the Gulf of Mexico. 30701.
- COCKERELL, Prof. T. D. A. (Las Cruces, N.Mex.): Specimen of Strongylus contortus (29928); 12 specimens of Diptera (30003); 7 specimens of Porcellio (30081). (See under Agriculture, Department of.)
- ('OFFERN, A. H. (See under Agriculture, Department of.)
- COLEMAN, A. P. (Toronto, Canada): Fourteen species of recent and freshwater shells from Niagara Falls and vicinity. 29947.
- COLLINGE, W. E. (Mason College, Birmingham, England): Six species of British algæ. 30506.

- Combs, K. B. (Washington, D. C.): Specimen of Sciurus carolineusis. 29972.
- CONANT, F. S. (Johns Hopkins University, Baltimore, Md.): Three species of chetognaths. 30534.
- СООКЕ, Miss J. M. (San Diego, Cal.): Shells from San Diego and Lower ('alifornia, 30740.
- COPINEAU, C. (See under Agriculture, Department of.)
- Copp. John Brenton (New Haven, Conn.): Collection of household goods, wearing apparel, pottery, glass, pewter, jewelry, and other objects. 1 30249.
- COPPEE, H. St. L. (See under Andrew Tracy.)
- COPPER QUEEN CONSOLIDATED MINING COMPANY (New York City), transmitted by James Douglas: Minerals from Copper Queen Mine, Bisbee, Ariz. 30576.
- Coquillett, D. W. (Department of Agriculture): Types of 28 new species of Empidæ. 29640. (See under A. Davidson.)
- COSTA RICA, NATIONAL MUSEUM OF (San José, Costa Rica), transmitted by Señor J. Fid Tristán: Crabs. (30099, 30777.)
- COUPER, W. P. (Department of the Interior, Washington, D. C.): Specimen of massive pyrite from near Hot Springs, Ark. 30118.
- COVERT, A. B. (Ann Arbor, Mich.): Skin of Rio Grande Yellow-throat and skin of Bronzed Grackle, *Callothrus* robustus, with malformed bill. 30365.
- COVILLE, F. V. (U. S. Department of Agriculture): Two herbarium specimens of *Peucedanum graveolens* (L.). 29937. (See under Agriculture, Department of.)
- Cowles, C. J. (See under Agriculture, Department of.)
- Cox, Emery (Brightwood, D. C.): Specimen of Scalops aquaticus (30158); Indigo Bunting, Passerina cyanea (30786).
- Cox, Philip (St. John, New Brunswick): Three frogs. 30254.
- Cox, W. V. (chief clerk, U.S.N.M.): Snake. 30304.

- Coy, Mrs. Mary Wineger. (See under Agriculture, Department of.)
- Cranch, Mrs. C. D. (Urbana, Ohio): Collection of engravings (29855); prints of antique vases and urns (30518).
- CRANDALL, C. S. (See under Agriculture, Department of.)
- Crawford, J. J. (San Francisco, Cal.): Limestone underlying oil strata at Santa Paula, Cal. 29557.
- Credner, Dr. Herman (Leipsic, Germany): 14 specimens of *Branchiosaurus amblystomus* from the Middle Permian Group of Germany. 30536.
- Crenshaw, Mrs. W. H. (Sumterville, Fla.): Pieces of punk used by the Indians for lighting fires. 30769.
- CREVECGUR, F. F. (Onaga, Kans.): Insects; land and fresh-water shells (30287, 30369, 30438, 30463, 30523, 30757, 30811). (See under Agriculture, Department of.)
- CROCKER, Rev. HENRY (Fairfax, Vt.): Four plaster casts of trilobites. 29764.
- CROSBY, F. W. (Washington, D. C.): Geological specimens (29719); green antique porphyry from Greece (30010). Purchase.
- CROSBY, F. W. and W. O. (Boston, Mass.): Geological material from England, Italy, Canada, and the United States. Exchange. 30556.
- CROSS, F. J. (Keystone, S. Dak.): Pellets of marcasite, from Foster Gulch, S. Dak. 30159.
- CROWFOOT, JESSIE (San Miguel, Cal.):
  Worm-shells (gift), and fossil skull and
  toe-hone of a fossil horse (exchange).
  29537.
- Culin, Stewart (University of Pennsylvania, Philadelphia, Pa.): Three musical toys. 29698. (See under Pennsylvania, University of.)
- CURRIE, Rev. HECTOR (Thedford, Ontario, Canada): Ten specimens of Hamilton group fossils. Exchange. 30014.
- Curtis, W. T. S. (Washington, D. C.): Herbarium specimen of *Pwonia albiflora*, Pall. 29564.
- CURTISS, A. H. (See under Agriculture, Department of.)

<sup>&</sup>lt;sup>1</sup>Presented to the Smithsonian Institution and deposited in the National Museum. Accessions 28273 and 27084 received from Mr. Copp in previous years have been referred to in the Accession Lists in previous reports.

- DAGGETT, ALBERT (Washington, D. C.):
  Maltese Angora cat, in the flesh.
  30373.
- Dall, W. H. (U. S. Geological Survey):
  Human arm-bone from a prehistoric
  Eskimo grave, and a chipped implement of slate from a prehistoric village
  site on Table Island, Alaska (29964);
  grip of a harpoon from the same locality (30046).
- Damon, Robert F. (Weymouth, England): Plaster cast of Bothriolepis canadensis and one of Cephalaspis lyelli (purchase) (30085); geological material, 2 specimens of minerals, 12 Indian implements, and 2 antique lanterns (exchange) (30208).
- Daniel, J. H., Jr. (Lynchburg, Va.): Eggs of Whippoorwill, Antroxtomus vociferus; Crested Fly-catcher, Myiarchus crivitus (29733); Prairie Warbler, Dendroica discolor, and Yellow-breasted Chat, Ieteria virens (30698).
- Daniel, Dr. Z. T. (Pine Ridge Agency, S. Dak.): Salamander (39544); arrowhead and a worked flake of flint (29669); iron arrowhead made by the Sioux Indians (29683); fossil shell of a land snail (29731); Owl Moths, Catocala luciana, H. Edwards (29763, 29783); sling used by a Sioux Indian boy (30114).
- Dannefaerd, S. (Auckland, New Zealand): Nine birds' skins from New Zealand and adjacent islands. Purchase, 20830.
- DANNHAUSER, MAX (Brooklyn, N. Y.): German bearded pigeon. 30377.
- DAVENPORT, G. E. (See under Agriculture, Department of.)
- Davidson, A. (Los Angeles, Cal.), transmitted by D. W. Coquillett: Specimen of *Xysticus limbatus*, Keys. 30602. (See under Agriculture, Department of.)
- DAVIS, CHARLES E. (Parker, Ariz.): Model of Tule raft made by Hooker-ow, chief of the Mojave Indians. 30405.
- Davis, C. A. (See under Agriculture, Department of.)
- Dawson, Sir William (McGill College, Montreal, Canada): Two gutta-pereha casts of Palwaster parriusculus and Palwaster granti. 30450.

- DAY, CHARLES (Takoma Park, D. C.): Specimen of Accipiter atricapillus, 30175.
- DAY, Dr. DAVID T. (U. S. Geological Survey): Crude and refined ozocerite from Soldiers Summit, Utah (30234); specimen of zaratite on chromite (30234); metallic manganese (30460); specimen of wavellite from Mount Holly Springs, Pa. (30640.) (See under The Carborundum Company.)
- Deane, Walter. (See under J. N. Rose.)
- Deeble, Dr. Horace M. (Georgetown, D. C.): Scalp lock and leggings of Sitting Bull. 30802.
- Dennison, G. H. (San Juan Island, Wash.): Birds' eggs from Puget Sound, Washington, comprising Rusty Song Sparrow, Melospiza fasciata guttata, and Townsend's Sparrow, Melospiza iliaca unalaschensis. 30065.
- DE TURK, M. L. (Oley, Pa.): Arrow and spear heads, stone pipe and fragments of pottery. Exchange. 30264.
- DEVINS, G. W. (See under Jacob Sedore.)
- Dewey, L. H. (See under Agriculture, Department of.)
- Dexter, Newton (Providence, R. I.):
  Abnormal specimen of Stilt, Himentopus mexicanus. 30665.
- DIEUDONNÉ, JULES A. (Bladensburg, Md.): Cocoon of a Cecropia Silk Moth. 29736.
- DIEFFENBACH, J. G. (Northumberland, Pa.): Arrowheads and a caltrop from the vicinity of Fort Augusta, Northumberland. Exchange. 30488.
- Dodge, Byron E. (Richfield, Mich.): Ornament of banded slate, and a ringshaped natural formation. Deposit. 30169.
- Dorsey, G. A. (Peabody Museum, Cambridge, Mass.): Three photographs of ancient and modern Peruvian looms, basketry, and burial deposits. 29913.
- Dorsey, Dr. H. W. (Hyattsville, Md.): Brown Leghorn hen. 30255.
- Doubleday, Mrs. Abner (Washington, D. C.): Garrison flag of Fort Moultrie. Lent by Mrs. Doubleday to the Smithsonian Institution, and at her death to be presented to the Institution. Deposited in the National Museum. 30406.

DOUGLAS, JAMES. (See under Copper Queen Consolidated Mining Company.)

Drake, Mrs. Maria (Tacoma, Wash.):
Marine shells from Puget Sound and
other localities. 29545.

Draut, H. J. (See under Agriculture, Department of.)

Drowne, F. H. (Providence, R. I.): Insects, crustaceans, and worms. 30647.

DRURY, Dr. G. A. (Washington, D. C.): Gray Squirrel (Albino), Sciurus carolinensis. 29860.

Du Bose, Mrs. J. W. (Huguenot, Ga.): Slate dial plate. Deposit. 29643.

DUDLEY, Prof. W. R. (See under Agriculture, Department of.)

DUERDEN, J. E. (See under Jamaica, Institute of.)

Dugès, Dr. A. (Guanajuato, Mexico):
Shells, starfish, and three Gorgonians,
specimen of Chlorophonia occipitalis, and
a specimen of Merula migratoria propinqua (29568); miscellaneous insects
(29685); plants and bulbs (29706);
bronze medal of Charles Lucien Jules
Lawrence Bonaparte, and marine and
fresh-water shells (29751); insects
(29801); collection of insects from
Texcoco Lake and specimen of Vireo
bellii (30501); 8 specimens of Pseudothpelphusa jouyi (30542).

Dumbell, Mrs. Prentice (Hamlet, Ill.):
Paper Nautilus containing animal.
Purchase. 30218.

DUNCAN, JOHN. (See under Agriculture, Department of.)

Duncan, W. J. (Barnwell, S. C.): Partial Albino Turtle Dove, Zenaidura macroura, in the flesh. 30116.

DURDEN, HENRY S. (San Francisco, Cal.): Specimens of crude sulphur, soft sandstone, and clay shale from the petroleum region of Ventura County (29785); hydrocarbon on lagging and diamond drill core (29852); travertine from Tolenas Springs, Solano County (29914); specimen of onyx from near Healdsburg (30190); specimens illustrating the occurrences of petroleum, from Santa Barbara County (29955).

DWIGHT, Dr. J., jr. (New York City): Skin, nest, and eggs of Ipswich Swallow, Ammodramus princeps, from Sable Island. 29732.

DYAR, H. G. (New York City). 100 species of parasitic Hymenoptera. 30660.

EARLE, J. S. & SONS (Philadelphia, Pa.): Engraving entitled "Hector and Andromache." Purchase. 29678.

EARLL, R. EDWARD (U.S.N.M.): Two medals relating to the Atlanta Exposition, souvenir button of the Exposition, and also of the Baltimore Exposition (30292); two whistles and a rattle (30293).

EARSEMAN, W. A. (Pittsburg, Pa.): Oilbearing sands from Pennsylvania, West Virginia, and Kentucky. 29601.

Eastwood, Miss Alice. (See under Agriculture, Department of.)

EBY, Mrs. A. F. (See under Agriculture, Department of.)

EDGEMONT STONE COMPANY (Omaha, Nebr.): Grindstone. 30726.

EDWARDS, S. M. (Argusville, N. Dak.), transmitted by T. S. Palmer: Specimen of *Unio rectus*, Lamarck. 29597.

EHINGER, WILLIAM, Jr., Philadelphia, Pa.: Two Satinette pigeons (30174); Black-laced Blondinette pigeon (30721).

EHRENBAUM, Dr. (See under Royal Biological Station, Helgoland.)

EHRENSBERGER, FRITZ, Eichstatt, Germany: Fossil medusa. Purchase. 30812.

ELECTRIC STORAGE BATTERY COMPANY (Philadelphia, Pa), transmitted by Herbert Lloyd, general manager: Two chloride plates in cells (whitish blocks); 2 reduced chloride plates (blue metallic), and 2 completed positive plates (brown or peroxide). 29654.

ELLIOTT, R. I. (Fordham Heights, N. Y.):
Blue prints of "Freezing Figures."
30572.

ELLIOTT, T. N. (Forreston, Tex.): Giant Water Bug, Belostoma americanum. 29555.

ELROD, M. J. (See under Agriculture, Department of.)

Elwes, H. J. (Gloucestershire, England):
North American diurnal moths. Exchange. 29786.

EMMERT, J. W. (Bristol, Tenn.): Archaeological objects from Hawkins County. Purchase. 30774.

English, G. L., & Co. (New York City): Zircon from Ceylon (A) (29755); geological specimens (A) (29715); section of stalactite from Copper Queen mine Bisbee, Ariz., and a specimen of thaumasite from West Paterson, N. J. (30435.) Purchase.

- Ennis, Mrs. J. E. (Washington, D. C.): Specimen of Adelonycterus fuscus, in the flesh. 29696.
- Evans, Alfred B. (Philadelphia, Pa.), Two "Napoleon jngs." 30348.
- EVERETT, L. M. (Clark, Fla.): Teeth of a shark, 1 vertebra, a crab, and specimen of *Echinus*. 30535.
- EVERMANN, B. W., (U. S. Fish Commission), through L. O. Howard: 21 butterflies from Idaho (29996); 5 birds' skins from Idaho (30049); 2 snakes from Canada (30311).
- EXPLORING EXPEDITION, UNITED STATES, transmitted by Prof Alexander Agassiz (Cambridge, Mass.): Drawings of radiates collected by the U. S. Exploring Expedition in 1838–1842. 30176.
- FARGUSSON, M. (Southport, N. C.): Plant. 30650.
- FARMER, Miss SARAII J. (Eliot, Me.): Models of electrical apparatus, drawings, etc. Deposit. 30574.
- FARRELL, F. H. (See under Agriculture, Department of.)
- FARRINGTON, Dr. O. C. (See under Field Columbia Museum.)
- FAXON, Dr. WALTER. (See under Museum of Comparative Zoology.)
- FÉNYES, Dr. A. (Hélonan, Egypt): Three botanical specimens, fossils, 36 ancient and modern Grecian and Roman silver and copper coins, shells, antiquities, 79 birds' skius from Egypt and Transvaal, and about 3,000 specimens of Coleoptera from Egypt. 30800.
- FERNALD, Prof. C. H. (Amherst, Mass.): Six species of Crambidæ. 30335.
- Fernald, M. L. (See under J. N. Rose.) Fernandez, Enrique (San José, Costa Rica): 20 specimens of Coleopters, representing 12 species. 30591.
- Ferriss, J. H. (Joliet, Ill.): Land and fresh-water shells from Lake Superior. 30359.
- FETCH, Rev. J. W. (Winchester, Ky.): Back part of cranium of a specimen of Bootherium cavifrons. 30313.
- Fewkes, Dr. J. Walter (U. S. N. M.):
  Ancient Navajo war bonnet from
  Keams Canyon, Ariz. (30432); pair of
  mocassins used in the snake dance by
  the Moki Indians of Arizona. (30606);
  war shirt used by the Indians of the
  pueblo of St. Domingo or Isleta (30781).

- Fewkes, Dr. J. Walter—Continued. (See under Smithsonian Institution, Bureau of Ethnology.)
- Field, Mrs. (Secunder National Society of the Daughters of the American Revolution.)
- FIELD COLUMBIAN MUSEUM (Chicago, Ill.) Transmitted by Dr. O. C. Farrington: Limestone containing bitumen. 29602.
- FIGGINS, J. D. (Kensington, Md.): Mammals and a snake. (29570, 29823, 29829, 30807.)
- FINCK, HUGO (Cordova, Mexico): Collection of ferns from Cordova County. Presented to the Smithsonian Institution and transferred to the National Museum. 39646.
- FINK, BRUCE. (See under Agriculture, Department of.)
- Fish Commission, U. S., Col. Marshall McDonald, Commissioner of Fish and Fisheries: Collection of drawings of sail and builders' plans for fishing vessels, mounted on card board, also photographs of hooks, sinkers, and apparatus used in the cod fishery (deposit) (29551); set of fishes collected by agents of the Commission (deposit) (30000); 80 birds' skins from the Pribilof Islands and other points on the western coast of the United States. 3 birds' nests from St. Paul Island and a bird egg, 28 Spermophiles from Unalaska, 2 Spermophiles from Portage Bay, Alaska, 2 squirrels from Vancouver Island, owl pellets from Popoff Island, Alaska, and a seal pup; 238 dried plants from the Pribilof Islands and Unalaska, collected by Messrs. True and Prentiss (30055); 9 birds from Alaska, collected by Mr. C. H. Townsend (30123); crustaceans belonging to the collections made by the Steamer Albatross in the North Pacific Ocean and Bering Sea (30126); fossil plants and a shell from Portage Bay, insects from Pribilof Island, skeleton of a fox and the body of a porpoise from St. Paul Island, 56 birds' skins from St. Paul Island and other localities, crustaceans from St. Paul Island, mollusks from the same locality, 5 birds' nests and birds' eggs from St. Paul Island and other localities, 11 skulls of fur seals and other mammals,

FISH COMMISSION, U. S.—Continued. skull of a walrus without tusks, from St. Paul Island; shrews, mice, and lemmings and 16 skins of fur seals from Pribilof Island, 5 pairs of deer antlers from Sitka, and a porcupine from Portage Bay, parasitic worms taken from a fur seal at St. Paul Island and geological material from various localities in Alaska, collected by Messrs, F. W. True and D. W. Prentiss (30147); Medusæ and hydroids from the dredgings of the steamer Albatross (30193); 300 specimens of dried mosses collected in Alaska by C. H. Townsend, of the steamer Albatross, during the summer of 1894-95, from the Pribilof Islands and several other islands of the Aleutian group and from Sitka (30224); natural history specimens and ethnological objects from Kamchatka and the Commander Islands, collected by Dr. Leonhard Stejneger (30232); specimen of wheat ear, plants, alcoholic specimens of birds' eggs, miscellaneous specimens from Honolulu and 30 specimens of Dytiscus dauricus from Unalaska, reptiles, marine invertebrates, mineral from Panama, mollusks from the North Pacific Ocean, specimen of Thomomys botter, 4 species of deep-water fishes from the Pacific Ocean (30244); skull of Ursus from Portage Bay, Alaskan Peninsula, collected in September, 1896, by C. H. Townsend (30250); carcasses of 8 unborn fur-seal pups, obtained by Mr. A. B. Alexander, fishery expert of the steamer Albatross, while detailed as paturalist to the revenue cutter Corwin (30388); 8 birds' skins from the coast of Nova Scotia, collected by W. C. Kendall (30289); 12 new species of fishes collected by the steamer Albatross in the Pacific Ocean and forwarded by Dr. D. S. Jordan, President of the Leland Stanford Junior University (30301); small collection of mollusks, made principally by W. C. Kendall (30321); collections of crustaceans, made by the steamer Albatross on the western coast of America from January to March, 1891, under the direction of Prof. Alex. Agassiz (30395); fishes comprising part of the collection made by the steamer Albatross in the North Pacific Ocean and Bering Sea in FISH COMMISSION, U. S.—Continued. 1890-91 (30477); fishes from the upper part of the Columbia River basin, Idaho, 1894-95 (30615). (See under The Brusstar Ship Building Company.)

Fisher, John H. (Brookville, Md.): Star-nose Mole, Condylura cristata. 30533.

FLEMING, WILLIAM (Oil City, Pa.): Limestone oil-producing rock, from Montpelier, Ind. 29633.

FLOWERS, J. J., Jr. (Bolling, Ala.): Phyllopod crustaceans. 29609.

FOETTERLE, J. G. (See under Agriculture, Department of.)

FONTLEROY, Miss JULIET. (See under Agriculture, Department of.)

FOOTE, Dr. A. E. (Philadelphia, Pa.): Geological specimens. (A.) Purchase. 29714.

FOOTE, Mrs. (See under National Society of the Daughters of the American Revolution.)

FORNEY, A. H. (See under E. L. Howard.)

FOSTER, GEORGE (Chicago, Ills.): Calcareous argillite and hones made from the same. 30612.

FOWLER, Prof. J. (See under Agriculture, Department of.)

Fox, W. J. (Academy of Natural Sciences, Philadelphia, Pa.): Two specimens of Gorytes tricolor, Cress. 29982.

Frans, Dr. E. (Royal Natural History Cabinet, Stuttgart, Germany): Large photograph of an *Ichthyosaurus*, showing the flesh outline. 29629.

Franklin, T. W. (New York City): Monkey skins. Exchange. 30582.

Frazar, George B. (West Medford, Mass.):
Grooved axe of diabase from Arlington, and pieces of the same material found in situ, from Brighton and Somerville, Mass. 30360. (See under S. C. Lummins.)

FREEMAN, JAMES R. (See under Agriculture, Department of.)

FRIERSON, LORRAINE S. (Friersons Mill, La.): Specimen of *Peromyseus aureolus* (30146); fossil fruit (30201); 2 species of Unio (30655).

FUKUSTIMA, KIMMA (Japanese legation, Washington, D. C.): Japanese God of War, carved in sandalwood and lacquered. Purchase. 30496.

FULLER, W. H. (Deerfield, Mass.): Realgar and chrome iron ore (29614); realgar and asbestus from Washington (30253), Exchange.

FUNK & WAGNALLS COMPANY (New York City): Plate illustrating gems in a high priest's breastplate. 30708.

GARDNER, A. L. (Vermilion, N. Y.): White, silky Japanese chicken. 29539. GARNER, R. L. (New York City): Kola

nuts. 30455.

GARRATT, CHARLES (Hot Springs, Ark.): Forty-one specimens of distorted and modified quartz crystals (30075); specimens of quartz and magnetite (30298).

GARVIN, W. D. (Boyce Va.): Specimen of Mutilla occidentalis. 29688.

GAYLE, E. E. (See under Agriculture, Department of.)

GEDNEY, E. G. (See under Agriculture, Department of.)

Geiger, W. M. (Catawissa, Pa.): Fragments of pottery from near Beaver Valley. 30058.

GEISMAN, JACOB (Philadelphia, Pa.): Three casts of parts of Hyracotherium renticolum; 2 casts of young and old Protohippus brachiops, and 1 cast of Protohippus mirabilis. 30028.

GEOLOGICAL SURVEY, OTTAWA, CANADA. (See under Agriculture, Department of.)

GEORGE, IRA R. (Ashton, Ill.): Ear of eorn, showing a curious growth. 30732.

GERMANSKY, A. L. (New York City): Two Hebrew Bibles. (4.) Purchase. 29658.

GERRARD, EDWARD (Camden Town, London, England): Three specimens of Paradise Birds, Parotia lawsei and Paradisea raggiana. Purchase. 29910.

GIBBONS, J. R. (Linwood, Ga.): Four hundred pounds of bauxite. 30386.

GIGLIOLI, Prof. HENRY H. (Director, Royal Zoological Museum, Florence, Italy): Ethnological and archaeological objects from Europe, Asia, Africa, and Australia. Exchange. 30742.

GILBERT, Mr. (See under Interior Department, United States Geological Survey.)

GILBERT, G. K. (See under Agriculture, Department of.)

GILDER, R. W. (New York City): Poem on the life mask of Abraham Lincoln. 30023.

GILLETTE, Prof. C. P. (Fort Collins, Colo.): Collection of Cynipida, including type specimens. 30043.

GLEN ISLAND MUSEUM (Glen Island, N. Y.), transmitted by L. M. McCormick: Two pairs of sandals from Aden (39752); skin of a buffalo calf, Bison americanus (30005); collection of ethnological objects, basketry, carving, matting, etc., from New Zealand (30021); specimen of macaw, in the flesh (30334); turtle, hedgehog, fishes from the Red Sea, shells and mollusks from the Red Sea and Gulf of Aden, marine invertebrates from the Red Sea, specimens of crabs and Echini (30413). Exchange. GLOVER, Rev. A. K. (Appleton, Wis.):

Metal coins and paper money. 29581.

Godbey, Rev. S. M. (Morrisville, Mo.): Specimen of Unio spatulatus, Lea. 30007.

GOLDMAN, Mr. (See under Agriculture, Department of.)

GOODE, Dr. G. BROWN, Assistant Secretary U. S. National Museum: Two musical instruments (purchased for the Museum) (29592); Testament of Bishop Asbury, the New Testament by Tischendorf, Parallel Revised and Authorized Versions of the New Testament. Hieroglyphie Bible. (A.) Deposit. 29795. (See under Mrs. Eva Scott Muse and Smithsonian Institution. U.S.N.M.)

GOODELL, SAMUEL. (See under Agriculture, Department of.)

GOODRICH, Rev. J. B. (Claremont, N. H.): Specimen of Orthalicus. 30278.

GORMAN, M. W. (See under Agriculture, Department of.)

GOULD, C. N. (Maple City, Kans.): Two species of Permo-Carboniferous fossils (30272); specimen of Griffithides scitula, an upper Carboniferous trilobite (30504).(See under Agriculture, Department of.)

GRANT, Col. CHARLES COOTE (Hamilton, Ontario, Canada): Large collection of Clinton and Niagara group fossils. Exchange. 30020.

GREEN, E. E. (Punduloya, Ceylon): Collection of Hymenoptera. 30608.

GREENE, Prof. E. L. (Catholic University, Washington, D. C.): Five plants. 30035. (See under Agriculture, Department of.)

- GREGER, D. K. (Fulton, Mo.): One hundred and twenty specimens of Hamilton formation fossils, principally Brachiopods, representing 25 species (exchange) (30082); Devonian shale containing brachiopods (gift) (30610).
- GRIFFITH, A. L. (See under Agriculture, Department of.)
- GRIM, W. M. (Brookfield, Wash.): Specimen of Shrew, Sorex trowbridgei. 30826.
- GRINNELL, G. H. (See under Agriculture, Department of.)
- GRISWOLD, N. L. (Peoria, III.): United States land patent, signed by President James Monroe in the year 1817. 30728.
- GROVER, W. E. (Galveston, Tex.): Eggs of Black Skimmer, Rynchops nigra (29778); eggs of Catharista atrata (30474).
- Guesde, L. (Pointe-à-Pître, Guadeloupe): Drawings of stone implements. 29775.
- Guilfoyle, W. R. (See under Melbourne Botanical Gardens.)
- GUTHRIE, OSSIAN (Chicago, Ill.): Board sawed from a log found in a glacial drift. 30307.
- GUYE, Mr. and Mrs. F. M. (Seattle, Wash.): Two fossil palms from the Cascade Mountains. 30199.
- Gwyn, Dr. C. L. (Galveston, Tex.): Tertiary bivalve shells (29939); 8 species of Unionidæ from Texas, and one specimen of *Ampullaria* from Honduras (29976).
- HAAS, B. F. (Brightwood, D. C.): Specimen of *Phacops rana*, Green. 30168.
- HADDON, Dr. A. C. (Inisfail Hills Road, Cambridge, England): Papuan ethnological objects from New Guinea. Exchange. 30002.
- HAGGATT, E. A. (Fort Bayard, N. Mex.): Specimen of *Dynastes granti*, Horn. 30494.
- HAGUE, ARNOLD (U. S. Geological Survey): Geological material from Arizona and the Black Hills, S. Dak. 30515.
- Hall, Mrs. C. C. (Westport Point, Mass.): Specimens of Botrychium ternatum (Thunb.) Swartz, representing a single polymorphous species. 29828.
- HALL, W. C. (Creston, Iowa): Mounted slide showing specimen of *Distorum* felineum. 29957.
- HALSTED, D. J. (See under Agriculture, Department of.)

- Hammar, J. W. (Washington, D. C.): Collection of marine shells from Santa Rosa Sound, Fla. 29844.
- HAND, ALFRED. (See under Dr. T. H. Bean.)
- Hannah, R. H. (Olympia, Wash.): Stone implement. 29940.
- HANNIBAL WATER COMPANY (Hannibal, Mo.), transmitted by C. J. Lewis, superintendent: Shells taken from the city water mains. 29553.
- Hanselman, J. J., (Brooklyn, N. Y.): Montaubon Pigeon. 30120.
- HAPPER, Mrs. F. A. (Washington, D.C.): Skin and skull of an Armadillo (*Tatu-sia 9-cincta*). 29894.
- HARDEMAN, THOMAS (Birmingham, Ala.): Four specimens of Melanophila notata. 30702.
- HARE, Mrs. W. B. (Tacoma, Wash.): Shells and marine invertebrates from Puget Sound. 30356.
- HARRISON, A. K. (Lebanon Springs, N. Y.): Marine shells from the coast of New England. 29754. (See under Agriculture, Department of.)
- HARRISON, B. (Ightham, Kent, England): Twenty-four rude chipped-flint implements. Purchase. 30109.
- Hartland, O. H. (Wilkesbarre, Pa.): Fossil teeth of mammals. 30379. (Returned.)
- Harvey, F. L. (Orono, Me.): Skeleton of a hooded seal. (purchase.) (30607); 3 specimens of Shrew (*Blarina brevicanda*), and 2 specimens of *Sorex personatus* (?) (gift). (30280.) (Two returned.)
- HASKELL, G. W. (Washington, D. C.):
  Collection of pipes, beadwork, bow and
  arrows, parts of costumes, etc., obtained from the Ojibwa Indians. Purchase. 29809.
- HATCHER, J. B. (See under Interior Department, U. S. Geological Survey, and Princeton College.)
- HAUER, Dr. FRANZ RITTER VON. (See under Imperial Royal Natural History Museum.)
- HAVILAND, G. D., Museum of Zoology. (Cambridge, England): Three specimens of termites from Borneo and Natal. Exchange. 29920.
- HAY, W. P. (Washington, D. C.): Amphipods and Isopods. Exchange. 30541.

- HAWLEY, F. S. (Broadalbin, N. Y.): Wheel head of a spinning wheel, in which the spindle revolves in cornhusk bearings. 30825.
- HAYDEN SURVEY. (See under Agriculture, Department of.)
- HEADE, M. J. (St. Augustine, Fla.): Eggmass of Mantis. 30670.
- HECKMAN, J. C. (Allegheny, Pa.): Iron ochre from England. 30447.
- Heighway, A. E. (Mnrphy, N. C.): Tale from North Carolina (29712); specimens of staurolite crystals from Georgia (30297); tale from Kinsey mine, N. C. (30738).
- Held, C. F. (Washington, D. C.): Snake. 30725.
- Heller, A. A. (See under Agriculture, Department of.)
- Helton, O. P. (Shelbyville, III.): Rude stone implements from bowlder clay. 30466.
- HEMPHILL, HENRY (San Diego, Cal.): Fossils (30239); marine mollusks (30241); marine shells and specimens of *Cerithium* from Florida (30418).
- HERMAN, THEO. & Co. (San Francisco, Cal.): Two specimens of Murex nigritus, Phil., from Lower California (30061); marine bivalves from La Paz, Mexico, (30145).
- Hester, L. G. (Houston, Tex.): Rude chipped implements and arrowheads of flint. 30302.
- HETHERINGTON, J. P. (Logansport, Ind.): Minerals. (29481, 29887.)
- HEYDE, Rev. H. T. (New Orleans, La.):
  One hundred and eighty-four birds'
  skins from Panama, Costa Rica, and
  Central America. Purchase. 29554.
- HEYMANN, S. (Fayetteville, Tenn.): Specimen of phosphate. 29540.
- HIATT, J. W. (New Harmony, Ind.): Photographs of Robert Owen, David Owen, William McClnre, Thomas Say, and the building of the Workingmen's Institute (30652); photograph of Dr. David Dale Owen (30696).
- HICKS, G. H. (See under Agriculture, Department of.)
- High School Museum (Saginaw, Mich.), transmitted by Miss Helena E. Oakes, curator: Moccasin obtained from the Ojibwa Indians. 30083.

- HILL, W. W. (Jamesburg, N. J.): Rude chipped implements, arrowheads and scrapers, fragments of pottery, and other objects. 30246.
- HILLMAN, F. H. (See under Agriculture, Department of.)
- HINDSHAW, H. H. (See under Young Naturalists' Society, Seattle, Wash.)
- HINE, T. W. (Phonix, Ariz.): Lithographic stone, 29686.
- Hodge, F. W. (See under Smithsonian Institution, Bureau of Ethnology.)
- HOLM, THEODOR. (See under Agriculture, Department of.)
- Holmes, I. S. (Bowmans Bluff, N. C.): Larva of Noctuid Moth, *Homoptera* calycanthata. 30776.
- Holmes, Samuel J. (Chicago, Ill.): Three anomourans. 30072.
- HOLZNER, FRANK X. (San Diego, Cal.): Skin and skull of a Shrew (Notiosorex crawfordi) (29674); 21 skins of small mammals (30682). Purchase.
- Hoopes, B. A. (Organ, N. Mex.): Two specimens of Scaled Quail, *Callipepla* squamata. 30620.
- HOPPING, RALPH. (See under Agriculture, Department of.)
- Horniman Museum (London, England, transmitted by Richard Quick, curator): Ethnological objects, fragments of pottery, 3 stone implements, human skull, and mammal bones; also specimen of peat. Exchange. 29853.
- HORNSTEIN, L. (Exhibit at the Cotton States and International Exposition, Atlanta, Ga.): Five pieces of Hiawatha ware from Bohemia, and 15 pieces of Bohemian glassware. Purchased by Dr. Goode for the National Museum. 30322.
- HORNUNG, Dr. J. (Washington, D. C.): Twenty-five species of birds from various localities. Exchange. 29811.
- Hough, Miss Clara (Morgantown, W. Va.): Cream pitcher and 2 decorated flowerpots made of old salt-glaze stoneware from the Morgantown Pottery, manufactured about 1873 by Greenland Thompson. 30088.
- Hough, F. C. (Morgantown, W. Va.): Skull of a swan (29998); punched iron lantern (30261).
- Hough, Walter (U. S. National Museum): Chinese block for divining Kan piri (29816); brass pulpit lamp

HOUGH, WALTER-Continued.

used in 1849, 24-tubed candle molds, coiled straw bread-raising basket, Inminous match safe, and a "walkingstick" (toy) (30062); 2 fragments of pottery from a ruined pueblo near Winslow, Ariz. (Collected for the Museum) (30813).

Howard, Ernert L. (Herndon, Va., through A. II. Forney): Three Wild Turkey chickens. 30785.

HOWARD, L. O. (See under Evermann, B. W.)

Howard, S. W. (Hagersville, Ontario. Canada): Two specimens of *Calymene platys* and a specimen of *Phillipsastrea*. 30019.

Howe, Marshall A. (See under Agrieulture, Department of.)

Howell, E. E. (Washington, D. C.):
Specimens of minerals (purchase)
(29625); 2,650 specimens of Middle
Cambrian fossils from Newfoundland
and St. David's, Wales (purchase)
(29691); geological specimens (exchange) (29718); geological material
(A) (purchase) (29779).

HOWELL, THOMAS. (See under Agriculture, Department of.)

Hubbard, H. G., (Department of Agriculture): Parasitic worms from a mocassin snake and a rattlesnake (29930); two ticks from an opossum (29975); Tree Toad and Buzzards from the West Indies (30326); type specimens of Epizeuxis gopheris, Smith, from Fla. (30383.)

HUGHES, H. F. (Harbor, Oreg.): Two hydroids, and a specimen of borate of lime. 30339.

HUNTER, THOMAS G. (Los Angeles, Cal.): Pair of sandals from San Gabriel Mission; also archaeological objects, 30066.

HUNTER, W. D. (University of Nebraska, Lincoln, Nebr.): Three type specimens of Tropidia nigricornis, Hunter. 30711.

Hurter, Julius (St. Louis, Mo.): Four reptiles and batrachians. Exchange. 30342.

Hutchinson, Miss II. D. (Mattapan, Mass.): Specimen of *Solen* from Revere, Mass. 30749.

HUTCHINSON, Dr. W. F. (Winchester, Va.):
Specimen of Black-capped Petrel, Estrelata hastata, from Virginia. Exchange. 30692.

HUTTON, W. McG. (Buffalo City, N. C.): Stag Beetle, Lucanus elaphus. 29890.

HYATT, Prof. ALPHEUS. (See under Interior Department, U. S. Geological Survey.)

IHERING, VON, DR. H. (Director of the Museo Paulista, São Paulo, Brazil): Fresh-water, land, and marine shells, from Mexico and South America. 30815.

IMPERIAL ROYAL NATURAL HISTORY MUSEUM (Vienna, Austria), transmitted by Dr. Franz Ritter von Hauer: Fourteen species of echinoderms dredged by H. M. S. *Pola* in the eastern Mediterranean Sca during 1890–1894. Exchange. 30212.

INTERIOR DEPARTMENT, Hon. Hoke Smith, Secretary.

U. S. GEOLOGICAL SURVEY, Mr. Chas. D. Walcott, Director: A series of 22 photographs illustrating the mechanics of Appalachian structure (29559); specimens of goslarite from Gagñon Mine, Butte, Mont., collected by R. H. Chapman (30136); tooth of a mastodon found in Oregon (30155); 12 specimens of carboniferous insects and 5 specimens of carboniferous fish scales obtained by Mr. David White (30219); geological material obtained by Prof. G. R. Gilbert (30281); 11 species, represented by 77 specimens, of Calciferous and Chazy Cephalopoda studied by Prof. Alpheus Hyatt, Boston, Mass. (30286); Pliocene fossils from near Long Island, Kans., collected through Prof. O. C. Marsh (30316); large transparency-relief map of the United States, showing oil fields, from the exhibit of the Interior Department at the Atlanta Exposition (30332); collection of vertebrate fossils collected through Prof. O. C. Marsh (30338); free gold in calcareous quartzite, from Kings Mountain, N. C., transmitted by Dr. David T. Day (30346); 28 Green River (Eocene) fossil fishes, purchased by the Survey for their exhibit at Atlanta (30350); specimens of sandstone showing wind carvings, from Colorado (30491); vertebrate fossils, collected by J. B. Hatcher near Dayton, Kans. (30587); a collection of rocks from the Castle Mountain district of Montana, collected by Walter H. Weed (30600); geological material from Cripple Creek, Colo., collected by

U. S. GEOLOGICAL SURVEY-Continued. Whitman Cross and R. A. F. Penrose, ir. (30601); 76 specimens of fossils from the Ocoee formation of Tennessee, and 13 microscopic sections, collected by Mr. C. D. Walcott (30706); 8 specimens of rock from Big Belt Mountains, Montana, collected by Mr. C. D. Walcott (30707); a series of Algonkian rocks from the Grand Canyon of Arizona and from New York and Texas, collected by Mr. C. D. Walcott (30749); 85 specimens of rock from the Cambrian system of New York, Vermont, and Texas, collected by Mr. C. D. Walcott (30750); 11 specimens of intraformational conglomerates collected by Mr. C. D. Walcott (30751); fresh limetsone and residual clay from Virginia (30792).1 (See under E. J. Kennedy.)

U. S. PATENT OFFICE: Franklin Printing Press, Deposit. 30157.

Jackson, David. (See under Agriculture, Department of.)

Jamaica, Institute of (Kingston, Jamaica), transmitted by J. E. Duerden, Acting Secretary: Specimen of Dynastid Beetle, Megasoma elephas, Fab., from Boca del Toro, Colombia (deposit) (29923); specimen of Atya scabra, Leach (gift) (30276).

James, Dr. J. F. (Mount Pleasant, D. C.): Specimen of *Limax maximus*, Linn. 29566.

JANNEY, Prof. B. T. (See under Breed, Estate of Dr. Daniel.)

Japanese Fan Company (New York City): Bronze and ivory figures and vases. Purchase. 29810.

JARVIS, P. W. (Kingston, Jamaica):Specimens of crustaceans. (29856, 29986, 30112, 30337, 30564, 30744). Exchange.

Jensen, Lawrence (East Gloncester, Mass.): Hull of the first screw propeller steamboat built by Col. John Stevens in 1804 (A). Purchase. 29635.

JEPSON, W. L. (See under Agriculture, Department of.)

Jerichau, Professor (Washington, D.C.):
Torso of Eros; torso of Dionysius; head
of Poseidon; jaw of a faun; head, foot,
and torso. Deposit, 30622.

Jewett, Mrs. (Washington, D.C.): Musical instrument. Deposit. 30719.

Johnson, J. E. (Richmond, Va.): Arrow reeds from Isle of Wight County, Va. 30505.

Johnson, J. F. (Toledo, Oreg.): Campsonite (?), from sec. 29, T. 9 S., R. S. W., Willamette meridian. 29556.

Johnson, W. G. (Urbana, Ill.): Parasitic Hymenoptera, consisting of 6 specimens of *Hadronotus carinatifrons*, Ashm., and 4 specimens of *Tetrastichus johnsoni*, Ashm. 36755.

Johnston, Capt. J. R. (Pittsburg, Pa.): Eight pottery vessels from Tennessee, Kentucky, and Illinois. Exchange. 30588.

JOHNSTON, Lient. W. B. (Golden Pond, Ky.): Specimen of Plectrodera scalator, Fab. 29621.

JONES, John D. (Rileyville, Va.): Specimen of jasper. 30641.

Jones, Marcus E. (See under Agriculture, Department of.)

Jorgensen, S. M. (Copenhagen, Denmark): Bronze medal struck in commemoration of M. Julius Thomson's seventieth birthday. Presented to the Smithsonian Institution, and transferred to the National Museum. 30689.

Judd, Elmer T. (Cando, N. Dak.): Skin and set of eggs of Baird's Sparrow, Ammodramus bairdi, and two sets (eight eggs) of McCown's Longspur, Rhynchopanes mecownii (29888); eggs of Baird's Sparrow, Chestunt-collared Longspur, with 2 eggs of a cowbird in one of the nests (30295).

JUDSON, W. B. (Los Angeles, Cal.) throughMajor Bendire: Two specimens ofWren Tit (Chamwa). 29971.

Kahn, David (Washington, D. C.): Ear bone of a drumfish, used as a charm, from Put in Bay, Ohio. 30780.

KALDING, H. B. (Drytown, Cal.), transmitted by Dr. R.W. Shufeldt: Skeleton and viscera of an abnormal chicken. 30211.

KAN Ko Ba (New York City): Chinese and Japanese pottery. Purchase.29610.

<sup>&</sup>lt;sup>1</sup>A collection of vertebrate fossils deposited in 1892 (Acc. 25345), and referred to under the Interior Department in the Museum Report for 1892, has now been formally presented to the Museum.

- Karlsive, Dr. W. J. (Washington, D. C.): Specimen of Lucanus elaphus from Hot Springs, Ark., (exchange) (30500); male and female type specimens of Lachnosterna karlsivei, Linell, from the same locality (gift) (30680).
- Kearney, N. J. (Thedford, Ontario, Canada): Slab of tentaculites, specimen of pentremitidea, 2 specimens of Arthracantha, an undetermined crinoid, and a specimen of Stropheodonta demissa with crania. Exchange. 30016.
- KEARNEY, T. H. (See under Agriculture, Department of.)
- Kelly, A. E. (Port Clinton, Ohio): Specimen of Stercorarius parasiticus, in the flesh. 30053.
- Kelsey, F. D. (See under J. N. Rose.) Kemeys, Edward (Chicago, Ill.): Collection of sculptures. Presented to the Smithsonian Institution and deposited in the National Museum. 29898.
- Kemp, J. F. (New York City): Geological material. Exchange. 30597.
- KENDALL, W. C. (See under Fish Commission, U. S.)
- Kennedy, Clarence (Rockport, Ind.): Thirty-three flint arrowheads, scrapers, and fragments of pottery. 29725.
- KENNEDY, E. J. (Troy, Pa.), through U. S. Geological Survey: Fossil fishbones, and 10 specimens of Devonian fish plates. Exchange. (30446, 30705.)
- KENT, A. J. (Bonners Ferry, Idaho): Stone implement from Kootenai County. Exchange. 30108.
- KERN, C. E, (Washington, D. C.): Eightyfive birds' skins from Nicaragua and Costa Rica, and a nest of a hummingbird. 30056.
- Kernauan, George (Thedford, Ontairo, Canada): Large collection of invertebrate fossils. Exchange. 30015.
- KING, Dr. C. (Monroe, La.): Specimen of Emesa longipes, Say. 29970.
- KINNEY, ABBOT. (See under Agriculture, Department of.)
- KIRK, Miss Eva L. (See under H. Q. Adams.)
- Kirsch, Dr. P. H. (Columbia City, Ind.): Twenty-four species of Unionidæ from northern Indiana. 30138.
- KLAGES, HENRY G. (Jeannette, Pa.):Collection of native and exotic insects.Exchange. 30415.

- KNIGHT, ORA W. (Bangor, Me.): Eggs of Cormorant. 30170.
- KNIGHT, Prof. W. C. (University of Wyoming, Laramie, Wyo.): Two specimens of Crassatella from the Cretaceous sandstones of Oil Mountain, Natrona County, Wyo. 30015.
- KNIGHTLEY, E. L. (See under Agriculture, Department of.)
- KNOWLES, W. A. (U.S.N.M.): Drilled ceremonial object from Rock Creek, Md. 30372.
- KNOX, M. V. B. (Wahpeton, N. Dak.): Fragments of pottery from North Dakota. 30565.
- KNY, RICHARD & Co. (New York City): Anatomical models (A.) (purchase). (29604, 29876, 29949). Purchase.
- KOCHER, Dr. J. F. (South Whitehall, Pa.):
  Old style apple-parer (gift) (30059); an
  old-fashioned loom (deposit) (30060);
  model of a tape-loom (gift) (30351).
- Krantz, Dr. F. (Bonn-a-Rhein, Germany): Four fossil medusæ from the Jura formation of Solenhofen, Germany, Purchase. 30627.
- Krauss, Alfred, U. S. consular agent, (Zittau, Germany): Tertiary columnar sandstone and samples of the material surrounding it (29958); Cretaceous fossils and specimens of Tertiary lignite (36465).
- Kreko, Gabriel de (Concord, N. H.): Armenian purse, watch-case, necklace, and stockings. 30519.
- Kremer, Rev. E. N. (Harrisburg, Pa.): Fourteen stone implements. Deposit. 29984.
- Kulzhinski, S. (See under Lubny Museum.)
- Kunz, George F. (New York City):
  Brass badge of the 18th Hussars and
  2 pieces of load-stone from Magnet
  Cove, Ark. 29792. (See under Charles
  L. Tiffany.)
- La Plata Museum (La Plata, Argentina, transmitted by Dr. F. P. Moreno, director): Reptiles, ores, birds' and mammal skeletons, Paleozoic, Mesozoic, and Tertiary fossils, birds' skins, and skin, with skull, of Cervus chilensis. Exchange. 30571.
- LACOE, R. D. (Pittston, Pa.): Specimens of fossils from the Dakota Group, Paleozoic vertebrate fossils, fossil fishes,

- LACOE, R. D.—Continued. and specimens from a Sigillarian stump, constituting a portion of the "Lacoe collection." (30266, 30581.)
- LAFLER, H. A. (De Witt, Nebr.): Seven specimens of Apus lucasanus, Packard (gift) (29608); specimens of Apus lucasanus (exchange) (29846); 3 species of fresh-water crustaceans (gift) (30737).
- Lagar, Dr. G. (New York City): Young Hawk's-bill Turtle. 29782.
- Lamb, Dr. D. S., U. S. A., Army Medical Museum: Parasitic worms, collected by Dr. M. M. Brewer. 29929.
- LAMB, T. H. P. (Saskatchewan, Canada): Skin and set of eggs of Arctic Horned Owl. 30730.
- LAMSON-SCRIBNER, Mr. F. (See under Agriculture, Department of).
- LANGLEY, Mr. S. P., Secretary, Smithsonian Institution: Three specimens of rock salt from Baden-Baden. 29995. (See under Schweinburg, Fraulein Victoria.)
- LATCHFORD, F. R., (Ottawa, Canada): Three species of land and fresh-water shells. 30443.
- LATTIN, FRANK H. (Albion, N. Y.): Hen's egg of abnormal shape. 30743.
- LAUN, JOHN (Petersburg, Va.); transmitted by Quartermaster-General's Office: Silver watch. 30459.
- LEACH, Dr. C. V. (East Joplin, Mo.): Specimen of *Diapheromera*, sp. 29950.
- LEE, HENRY E. (Bryant, S. Dak.).
  Eggs of Prairie Hen, Tympanuchus
  americanus, Bartramian Sandpiper,
  Bavtramia longicauda, and Mourning
  Dove, Zenaidura macroura. 30538.
- LEE, THOMAS (transmitted by C.H. Townsend): Skin of Black Skimmer, Rhynchopsnigra, from South Carolina. 30589.
- LEFF, GERHARD. (See under Agriculture, Department of.)
- LEGGAT BROTHERS (New York City): Facsimile copy of the Bible used by Cromwell's soldiers. (A.) Purchase. 29797.
- LEHMAN, W. V. (Fremont, 1'a.): Five species of Unios from Florida and Tennessee. 30810.
- LEIBERG, JOHN B. (See under Agriculture, Department of.)

- Lemke, Miss Elizhbeth (Berlin, Germany): Loom, shuttle and toy, 2 geological specimens, and a collection of plants. 30343.
  - LEMON, Dr. JOHN H. (New Albany, Ind.): Specimens of St. Louis group fossils from Edwardsville and Moorsville, Ind. (29574); 27 specimens of Keokuk group of Spirifer (29650); 18 specimens of Keokuk fossils from Betting's quarry, Ind. (29692); 76 specimens of Keokuk group fossils from Bettinger's quarry, 16 specimens from Neafus quarry, and 2 specimens of Derbya keokuk from Spikert's roadcut, Ind. (29980.)
  - LEUCKART, Prof. RUDOLPH (Zoological Institute, Leipzic, Germany): Specimen of Bertia mucronata, Lk., and 2 specimens of Tania rhopalicephala, Riehm. (exchange) (30024); through Mr. C. D Walcott, 4 plaster casts of medusæ in the collection of the K. Mineralogisch-geologischen Museum, Dresden (gift) (30633).
  - Lewars, Rev. W. H. (Annville, Pa.): Grooved ax. 30259. (See under Dr. E. H. Marshall.
  - Lewis, C. H. (Broadhead, Wis.): Human skull from a mound in Wisconsin. Exchange. 30331.
  - Lewis, Charles J. (See under Hannibal Water Company.)
  - Lewis, G. A. (Wickford, E. I.): Four specimens of Black Rudder-fish, *Leirus* perciformis. 29774.
  - LINDSAY, Mrs. (See under National Society of the Daughters of the American Revolution.)
  - LINTNER, Professor. (See under Agriculture, Department of.)
- LLOYD, HERBERT. (See under Electric Storage Battery Company.)
- Lochman, C. N. (See under Agriculture, Department of.
- Long, Capt. J. H. (See under Treasury Department, U.S. Life-Saving Service.)
- Long, S., & Son (Hancock, Pa.): Manufactured ochre. 29588.
- Love, Mrs. E. G. (New York City): Specimen of *Phygadeuon mucronatum*, 2 specimens of *Cryptus extrematus*, and 3 specimens of *Olibrus semistriatus*. 30375.

- LOVETT, EDWARD (Croydon, England): Ethnological objects. Exebange. 30100.
- Lowe, H. N. (Pasadena, Cal.): Shells from San Pedro Bay. Exchange. 30441.
- Lowe, Dr. J. H. (Holum, La.): Geological material. 30011.
- LUBNY MUSEUM (Madam N. N. Skarjinski, Poltava, Little Russia): Transmitted by S. Kulzhinski, secretary: 6 musical instruments, ethnological objects, photographs, and drawings. Exchange. 30688.
- LÜDERS, Dr. C. W. (Ethnographic Museum, Hamburg, Germany): Six photographs showing stone figures, implements, and pottery from Mexico and Central America. 30191.
- LUGENBEIL, H. G. (U. S. N. M.): Catbird, Galcoscoptes carolinensis, in the flesh. 29694.
- LUMMINS, S. C. (Buffalo Gap, S. Dak.), through G. B. Frazar: Grooved club or hammer. 30399.
- LUNDBOHM, H. (Stockholm, Sweden): Gadolinite and cerite from Sweden, Purchase. 29622.
- Lycett, Edward (Atlanta, Ga.): Two frames containing 6 specimens of "Persian Iuster" tiles (30323); Dresden china tray or card-receiver (30422); 6 pieces of pottery (30736). (See under William Lycett.)
- LYCETT, WILLIAM (Atlanta, Ga.), transmitted by Edward Lycett: Two cups and saucers of Japanese egg-shell porcelain, and 2 vases of the same material decorated by Edward Lycett, and taken from the William Lycett collection. 30423.
- Lyman, Don (Perry, Oreg.): Specimen of Cuterebra americana, Fab. 29916.
- McCaffree, R. 1. (Columbia, Ky.): Specimen of Rhinoceros Beetle, *Dynastes tityus*. 29536.
- McChesney, John D. (See under Frederick A. Vogt.)
- McCormick, L. M. (See under Glen Island Museum.)
- McDonald, Col. Marshall. (See under Fish Commission, U. S.)
- McElroy, Mrs. K. T. P. (Washington, D. C.): Reptiles and insects from the vicinity of Gualau, Guatemala. 30508.

- McGee, W J (Bureau of Ethnology, Washington, D. C.): Porcupine-fish and two tails of Raia from the Gulf of California (30403); specimen of Hadrurus hirsutus, Wood, from Tiburon Island, Gulf of California (30489). (See under Agriculture, Department of, and Smithsonian Institution, Bureau of Ethnology.)
- McGee, W. L. (See under Agriculture, Department of.)
- McGregor, R. C. (Palo Alto, Cal.): Skins of Agelaius gubernator and Xanthocephalus xanthocephalus, (albino) (30614); 119 birds' skins from California, Colorado, and Massachusetts (30745).
- McGuire, J. D. (U. S. N. M.): Pipe of chlorite from Norfolk, Va., and a pipehead of clay from the mouth of South River, Maryland. 30220.
- McGuirl, J. II. (Ottawa, Canada): Fossil fish. 30358.
- McIlhenny, E. A. (Avery, La.): Eighteen birds' skins (39548); 15 birds' skins (30623); 9 specimens of Red-winged Blackbird, Agclaius phaniceus (29742); 4 specimens of King Rail, Ballus elegans (29812).
- McKinley, C. (Charleston, S. C.): Ant, Myrmica sp. 30559.
- McKinnon, Malcolm (Thedford, Ontario, Canada): One hundred and eighteen specimens of fossils. 30017.
- McLellan, J. E. (See under Agriculture, Department of.)
- McLemore, Tipton (South Greenfield, Mo.): Fifty-three arrowheads. Exchange. 30434.
- McMillan, P. A. (Banyan, Fla.): Redheaded woodpecker, and a clay vessel (29824, 30130).
- McNeill, Jerome (Fayetteville, Ark.):
  Dermal horns. 30291.
- Macintosii, R. (Thedford, Ontario, Canada): Specimens of fossils. Exchange. 30013.
- MACKAY, G. H. (Boston, Mass.): Specimen of Dowitcher, Macrorhamphus griseus, from Nantucket (29985); 7 specimens of shore birds (30074).
- Macmillan & Co. (New York City): Copy of "Atlas of Karyokinesis and Fertilization of the Egg." By Edmund Wilson, Purchase, 29973.

- MACOUN, J. M. (See under Agriculture, Department of.)
- Magruder, Julian (Cherrydale, Va.): Flying Squirrel, Sciuropterus volucella, in the flesh. 30150.
- Mally, F. W. (See under Agriculture, Department of.)
- MARLATT, C. L. (See under Agriculture, Department of.)
- MARASHLIAN, S. S. (New York City): Turkish coin (Chairak) dated 1293 of the Hegira. 30516.
- MAREAN, J. B. (Washington, D. C.): Broad-winged Hawk, *Buteo latissimus*, in the flesh, from Maryland. 29911.
- Marsh, Prof. O. C. (New Haven, Conn.): Two charts showing restorations of extinct animals. 30119. (See under Interior Department, U. S. Geological Survey.)
- Marshall, Dr. E. B. (Annville, Pa.), transmitted by Rev. W. H. Lewars: Grooved ax. 30260.
- Marshall, George (Laurel, Md.): Herbarium specimens of Habenaria lacera, Limodorum tuberosum; Sarracenia purporea, L.; specimens of Adelonyeterus fuscus, and Atalapha noveboracensis (29573, 29577, 29689, 29770, 29850).
- Marshall, Henry (Smithsonian Institution): King Eider Duck. 30161.
- MARN, Mrs. Minnie (Washington, D. C.): Collection of Arachnida belonging to the late Dr. Marx. Deposit. 30653.
- Mason, Prof. O. T. (U. S. National Museum): Nineteen sheets containing portraits of prominent men and women. 30683.
- Mathers, Wallace (Cambria, Cal.); Eggs of Turkey Buzzard, Cathartes aura, and American Crow, Corvus americanus. 30803.
- MATTHEWS, Miss M. R. (Chatham, N. J.): Hellgramite-fly, Corydalus cornutus, and Owl Moth, Catocala concumbens. 29589.
- MATTHEWS, P. F. (Florence, Ala.): Boxtortoise from near Florence (gift) (29580); archæological objects from the bottom lands of the Tennessee River and Cypress Creek, Ala. (deposit), (29655); 817 archæological objects from Michigan and Alabama (deposit) (returned) (29907).

- MATTHEWS, R. S. (U. S. National Museum): Specimens of Leptoglossus oppositus with eggs, and Peliduota punctata, mammals, reptiles, batrachians, and land shells (29567); small collection of skins and skulls of mammals from the District of Columbia (29766).
- Matthews, Dr. Washington, U. S. A. (Army Medical Maseum, Washington, D. C.): Collection of paints obtained from the Moki and Navajo Indians, and 3 fragments of pottery pipes from Fort Wingate (gift) (30086); a soek and sandal from the cave-dwellings (exchange) (30151). (See under Agriculture, Department of.)
- Matthews, Mrs. Washington (Washington, D. C.): Clay fetish from a Cañon near Zuñi. 30674.
- Mayer, Robert & Co. (New York City): Chromolithographic show-card, "Bouquet of Roses," after Paul de Longpré. 30635.
- MAYNARD, GEORGE C. (See under Henry A. Reed, and The Telegraphic Historical Society of North America.)
- MAZYCK, WILLIAM G. (Charleston, S. C.): Five specimens of Bulimus ventricosus, Drap., from Sullivan's Island, Charleston Harbor (gift) (30041); 10 species of shells from the same locality (exchange) (30553).
- MEANS, THOMAS H. (Department of Agriculture): Limestone and residual soil from Clarksville, Tenn. 30796.
- MEARNS, Dr. EDGAR A., U. S. A. (Fort Myer, Va.): Small collection of mammals from Fort Myer, Va., and Gettysburg, Pa., (29772); Box-turtles from Virginia (30285); specimen of Scalops aquaticus (30425); 2 specimens of Kangaroo Rat, Dipodomys merriami, and a specimen of Peromyseus eremicus from Tiburon Island, Gulf of California (30445).
- MEARNS, Master L. Z. (Fort Myer, Va.): Set of eggs of Ovenbird, Sciurus aurocapillus, from Virginia. 30659.
- MEEK, Prof. S. E. (Fayetteville, Ark.): Crayfishes (30200); skull of *Equus ca-ballus* (30243).
- Melbourne Botanical Gardens (Melbourne, Australia), through William R. Guilfoyle: Thirty specimens of seeds and a pamphlet. 30009.

MELLICHAMP, J. A. (Bluffton, S. C.): Two specimens of androgynous clusters of *Pinus heterophylla*. 29611.

MERRIAM, Dr. C. HART (Department of Agriculture): "Medicine necklace" belonging to Bull Shield, a Blackfeet medicine man (30472); 7 specimens and a larva of *Proculus goryi*, Melly, from Gnatemala (30592). (See under Agriculture, Department of.)

MERRILL, GEORGE P. (U. S. National Mnseum): Specimen of granite showing faulting, from Ellicott City, Md., (collected for the Museum) (29538); hackle, paring machine, and a masticator (gift) (29737); specimens of feldspar and kaolin (collected for the Museum) (30765).

MERRILL, H. C. (Auburn, Me.): Frame for weaving belts. 30025.

MERRILL, Dr. J. C., U. S. A. (Fort Sherman, Idaho): Collection of birds' eggs and nests, and skin of Hammond's Flycatcher, Empidonax hammondi. 29746.

MERWIN, Mrs. CHARLES (Washington, D. C.): Herbarium specimen of Antirrhinum majus, L. 29563.

METCALFE, WILLIAM. (See under Agriculture, Department of.)

MILLER, CHARLES, Jr. (Grand Rapids, Mich.): Arrowheads and potsherds. 30330.

MILLER, G. S., Jr. (Department of Agriculture): Four frogs from Maryland and a salamander from Rock Creek Park, District of Columbia. 30626. (See under Agriculture, Department of.)

Mills, Robert A. (Chuluota, Fla.):
Alcoholic specimens of miscellaneous insects, 2 alcoholic reptiles, a mammal, and 2 specimens of parasitic worms consisting of Fasciola magna, and a tapeworm (30185); centipedes and insects, newly hatched alligator, contents of an alligator's stomach, and a snake (30493).

MINNESOTA, UNIVERSITY OF. (See un der Agriculture, Department of.)

MITCHELL, Hon. J. D. (Victoria, Tex.):
Three species of land shells (29549);
8 specimens of unios (29656); 2 species
of unios from Texas (29848); 3 specimens of Callinectes hastatus (29884); 3
specimens of Purpura and 1 of Scala
mitchellii, Dall, from Matagorda Island,

MITCHELL, Hon. J. D.—Continued. coast of Texas (30204); land and marine shells (30471); 3 species of Succinea and 1 species of Cypris (30649); 3 species of fresh-water shells (30809).

MOHR, Dr. CHARLES. (See under Agriculture, Department of.)

MONCLAR, M. le Marquis de (French legation, Caracas, Venezuela), through Prof. O. T. Mason: Nine photographs illustrating stone and terra cotta antiquities from Mexico and Venezuela. 30189.

MONTGOMERY, ROBERT (Warrior, Ala.): Specimen of selenite in coal. 30236.

MOONEY, JAMES. (See under Agriculture, Department of.)

Moore, Miss Annie (Louisville, Ky.): Specimens of Stuartia pentagyua, L'Her., Silene stellata, Ait, Chelone lyoni, Pursh., Chelone glabra, L., Viola pedata, L., and Polygala fastigiata, Nutt. 29893.

MOORE, Mrs. A. T. (National Museum): Herbarium specimen of Zamia integrifolia from Florida. 29575.

Moore, Miss Hettie A. (Pasadena, Cal.): Specimen of Sewele rupium, Sowb. 30666.

MOORE, P. A. (New Castle, Colo.): Fourteen arrow-points and 6 worked flakes of flint and obsidian. 30166.

MOOREHEAD, WARREN K. (Columbus, Ohio): Archeological objects. Deposit. 30487.

Moreno, Dr. F. P. (See under La Plata Museum.)

MORLOCK, HENRY (Fostoria, Ohio): Turtle shell and 2 fossils from northern Ohio. 30347.

Morse, Prof. A. T. (Wellesley College, Wellesley, Mass.): Three specimens of Spharagemon saxatile, Morse. 29799.

Morse, Edward L<sub>∞</sub> (Duxbury, Mass.): Eight decorations and a gold snuffbox. 30763.

Morse, Rev. P. H. (Goshen, Ind.): Two pairs of wooden sandals or clogs and 2 pairs of leather sandals worn in the rice fields by the natives of Assam, India. 30544.

Moss, William (Ashton-under-Lyne, England): Thirteen micro-photographs of radulæ of mollusks. 30727.

MOYER, L. R. (See under Agriculture, Department of.)

- Munson, T. V. (See under Agriculture, Department of.)
- Muse, Mrs. Eva Scott (Hélouan, Egypt), through Dr. G. Brown Goode: Specimens of Heliocopris giyas, Scarabæus sacer, Belostomaniloticum, and Deilephila lineata. 30333.
- MUSEUM OF COMPARATIVE ZOOLOGY (Cambridge, Mass.), transmitted by Dr. Walter Faxon: Three specimens of Callinectes done from Rio, 1 specimen of Callinectes tumidus from Victoria, and 1 specimen of Callinectes sapidus acutidens from Santa Cruz, Brazil. Exchange. 30723.
- Nasil, G. V. (See under Agriculture, Department of.)
- NATIONAL SOCIETY OF THE DAUGHTERS OF THE AMERICAN REVOLUTION, transmitted by Mesdames Field, Lindsay, and Foote, Revolutionary Relics Committee: Silver ink-tray brought to America in 1676 by J. Frye and supposed to be of early Saxon make; leather wallet of Maj. Ebenezer Frye; Presidential campaign badge of General Washington; 3 Lafayette medals in bronze, silver spoon made from kneebuckles worn by Bvt. Col. Ephraim Sawyer, of Lancaster, Mass.; badge of the Daughters of the American Revolution; souvenir gold spoon of the Daughters of the American Revolution, and publications of the society. 30799.

Nealley, G. C. (Corpus Christi, Tex.):
Herbarium specimens. 29705. (See nnder Agriculture, Department of.)

- NEEDHAM, JAMES G. (Galesburg, 111.): Specimens illustrating an article on "Studies in Life Histories of Common Dragon flies." 30265.
- NEEFE, A. M. (Sweden, Pa.): Specimen of Magnolia acuminata, L. 29871.
- Nelson, Aven. (See under Agriculture, Department of.)
- Nelson, E.W. (Chiapas, Tonala, Mexico):
  Four hundred specimens of Mexican
  plants (29670); 300 Mexican plants
  (29877); 600 Mexican plants (30532).
  Purchase. (See under Agriculture, Department of, and Mrs. N. M. Brown.)
- Nelson, S. J. (See under Agriculture, Department of.)
- Newberry, C. E. (Puget Sound Academy, Coupeville, Wash.): Specimen of Chiora a leonina, Gould. 30790.

- NEW BRUNSWICK, NATURAL HISTORY SOCIETY OF (St. John, New Brunswick): Photographs of Abraham Gesner and Moses H. Perley (gift) (30511); archæological objects from Charlotte and Queen counties, New Brunswick, and Homosassa, Fla. (30651).
- Newcombe, Dr. C. F. (Provincial Museum, Victoria, British Columbia): Three species of marine shells from Queen Charlotte Islands (30440); 8 specimens of marine shells from British Columbia. (30568).
- Newlon, Dr. W. S. (Oswego, Kans.): Skull of a bear. 30156.
- New York State Museum (Albany, N. Y.): A. A. Gould's type specimens of Unionidae. Loan. 29753.
- NIBLACK, Lieut. A. P., U. S. N. (Navy Department): Helmet, iron sleeves, and 4 halberds mounted on a tablet. Deposit. 30685.
- Nicholson, Prof. II. Alleyne (Aberdeen, Scotland): One hundred and sixty-five English graptolites, representing 22 genera and 54 species. Exchange. 30097.
- NICKLIN, J. B. (Chattanooga, Tenn.): Pieces of brass from a mound near Chattanooga. 30087.
- NOAH, G. V. (See under Agriculture, Department of.)
- NORTHROP, G. J. (Marquette, Mich.): Specimen of moth, Deilephila lineata, Fab. 29897.
- Norton, Arthur H. (Westbrook, Me.): Five birds' skins. Exchange. 29866.
- Noyes, Isaac P. (Army Medical Museum, Washington, D. C.): Hammer-stone from Fairfax County, Va. 30716.
- Oakes, Miss Helena E. (See under High School Museum, Saginaw.)
- OBERHOLSER, H. C. (Department of Agriculture): Herbarium specimen of *Lilium grayi*. 29780. (See under Agriculture, Department of.)
- OFFUTT, HENRY T. (Washington, D. C.): Specimen of Scalops aquaticus, 29951.
- OLDROYD, Mrs. T. S. (Los Angeles, Cal.):
  Marine shells from San Pedro Bay.
  30483.
- OLDS, HENRY W. (Woodside, Md.): Herbarium specimens. (29729, 29878.) (See under Agriculture, Department of.)
- ORCUTT, CHARLES R. (Orcutt, Cal.): Reptiles; specimen of Pocket Rat, Thomo-

- ORCUTT, CHARLES R.—Continued.

  mys bottae, specimens of Gelasimus gracilis; 41 species of insects, and a specimen of German Carp, Cyprinus carpio.

  30052.
- OSTERHOUT, GEORGE E. (New Windsor, Colo.): Specimen of Cypripedium fasciculatum, (29901); specimen of Carex magellanica (30791). (See under Agriculture, Department of, and J. N. Rose.)
- Owen, Miss Mary A. (St. Joseph, Mo.): Two archaeological objects from a mound near Maysville, De Kalb County, Mo. Deposit. 29899.
- Palestine Exploration Fund (London, England): Thirty-seven photographs, illustrating biblical antiquities. (A.) Purchase. 29586.
- Palmer, Edward (Department of Agriculture): Two species of marine shells from Acapulco, Mexico. 29925.
- Palmer, Joseph (U. S. National Museum): Specimen of Field Mouse, Arvicola riparius. 29666.
- PALMER, Dr. T. S. (See under F. F. Creveccur and S. M. Edwards.)
- PALMER, WILLIAM (U. S. National Museum): Specimen of Vesperugo carolinensis (29665); 13 birds' skins from Florida (29693); specimen of Bat (Vespertilio) (29861); 26 mammal skins and 2 birds' skins from Florida (29854); crabs, coral, shells, bird, fishes, mammals, from Smiths Island, Virginia, collected for the National Museum (29873); 2 specimens of Wood Rabbit, Lepus sylvaticus, and a Gray Squirrel, Sciurus carolinensis (30177); one snake from Smiths Island, Virginia (30257); specimen of Mus musculus (30656); small collection of fishes from Lake Drummond, Dismal Swamp, Virginia; miocene fossils from near Suffolk; 5 toads, 2 bullfrogs, lizards, snakes, terrapins and a salamander, crayfish, land and fresh-water mollusks; and miscellaneous insects, mammal skins and skulls, and birds' skins from Dismal Swamp; 2 specimens of Protonotaria citrea, 1 specimen of Sylvania mitrata, embryos of Lepus palustris, 2 specimens of Swainson's Warbler, a tongue of a Turkey Buzzard, tongues of Sitta carolinensis, Protonotaria citrea. and Sylvania mitrata (30814),

- Parsons, Dr. W. B. (Missoula, Mont.): Specimen of Charina plumbea. 30394.
- Pascoe, A. H. (Pass Christian, Miss.): Skull of Porpoise, *Tursiops tursio*. 30539.
- Patton, Dr. W. (Ammie, Ky.): Coal. 30152.
- Pavlow, Prof. A. (Moscow, Russia): Eighty-five specimens of Russian Cretaceous fossils, representing 36 species. Exchange. 29690.
- Peace River Phosphate Company, transmitted by George W. Scott (Florida): Collection of fossil teeth and bones of mammals exhibited at the Atlanta Exposition. 30336.
- Pearce, Richard (Argo, Colo.): Uraninite. Purchase. 29959.
- Pearse, A. S. (Dewitt, Nebr.): Arrowhead from Maryland and a stone implement from Nebraska (29802); specimens of Ostracoda (29948).
- Pennsylvania Salt Manufacturing Company (Natrona, Pa.): Specimens of cryolite. 29735.
- Pennsylvania, University of (Philadelphia, Pa.), transmitted by Mr. Stewart Culin: A large series of games and puzzles (29701); 6 mancala boards (29702). Deposit.
- Penrose, R. A. F., jr. (See under Interior Department, U. S. Geological Survey.)
- Pettigrew, F. W. (Sioux Falls, S. Dak.): Stone knife from Rosebud Reservation. 30233.
- Pettit, Dr. J. (Grimsby, Ontario, Canada): Specimen of Lecanocrinus maropetalus. 30018.
- PHELPS, GEORGE R. (Washington, D. C.):
  Archæological objects from Prince
  George County, Md. 30717.
- Philadelphia, City Council of, transmitted by William Findlay Brown: Liberty bell medal and Council badge used on the occasion of the journey of the bell to the Atlanta Exposition. 29918.
- Phillips, Barnet (Brooklyn, N. Y.): Heavy dark-brown wool coat from Afghanistan. Exchange, 30449.
- PHILLIPS, B. F. (Fremont, Pa.): Luna Silk moth. 30831.

- Phytologic Museum (Melbourne, Australia), transmitted by Baron Ferd. von Müller: Two packages containing specimens of Eucalyptus kino. 30398.
- Piper, C. V. (See under Agriculture, Department of.)
- PITTIER, H., Director, Instituto Fisicogeografico Nacional (San José de Costa Rica, Central America): Crnstaceans from Golfo Dulce, Costa Rica. 30687.
- Plumb, J. Neale (New York City): Three bone whistles from San Clemente Island, Cal. 30512.
- PLUMB, L. H. (See under Agriculture, Department of.)
- Pollard, C. L., Department of Agriculture: Specimen of Commelina satira (1.) Crantz (29576); 10 herbarium specimens (30184); 2 specimens of Carex from New Jersey (30355). (See under Agriculture, Department of.)
- Pollard, Norval (McKeesport, Pa.):
  Archæological objects from the Monongahela River gravel (exchange) (30345);
  105 stone implements (gift) (30766);
  125 rude chipped implements and other archæological objects found on the shores of the Monongahela River (gift) (30827).
- Pollock, W. N. (See under Agriculture, Department of.)
- PORTER, THOMAS C. (See under Agriculture, Department of.)
- Prentiss, Dr. D. W. (Washington, D. C.): Geological material from the Bermindas. 30782.
- PRENTISS, D. W., jr. (See under Fish Commission, U. S.)
- Prestel, F. A. C. (Frankfort-on-the-Main, Germany): Three engravings. Purchase. 30637.
- PRIDEMORE, Gen. A. L. (Jonesville, Va.):
  Collection of human bones found in a cave near Duffield, Va. 29857.
- PRILL, Dr. A. G. (Dosaville, Oreg.): Two skins of Cedar Waxwing, and 23 eggs of American Herring Gull from Isle Royal, Lake Superior. 30364.
- Princeton College (Princeton, N. J.), transmitted by J. B. Hatcher: Three fossil skulls, representing *Ischyromys typus*, *Leptauchenia major*, and *Eucrotophus bullatus*. 30404.

- Princle, C. G. (Charlotte, Vt.): Four hundred and twenty-five herbarinm plants from Mexico (purchase) (30529); 6 specimens of Umbelliferæ collected in Mexico (gift) (30667); 220 Mexican plants (purchase) (30690).
- Pumpelly, R. (Newport R. I.), transmitted by J. E. Wolfe, University Museum, Cambridge, Mass.: Collection of thin sections of iron ores (30051); geological material collected during investigations relating to the Tenth Census (30329).
- Purcell, William (Greenville, Miss.): Specimen of Limenitis ursula. 29776.
- PURDY, JAMES B. (Plymonth, Mich.): Specimen of Henslow's Bunting, Ammodramus henslowi. 30409.
- QUICK, RICHARD. (See under Horniman Museum.)
- RACY, S. M. (See under Agriculture, Department of.)
- RAIDER AND SHRIVER (('umberland, Md.): Specimen of Nautilus magister from the Hamilton formation. 30073.
- Ralston Brothers (Chicago, Ill.): Two specimens of Tarantula, Mygalehentzii. Presented to the National Zoological Park and transferred to the National Museum. 29789.
- RALPH, Dr. WILLIAM L. (Utica, N. Y.): Skins of Dendroica occidentalis and Vireo solitarius cassini from California (30161); through Major Bendire, specimen of Philip Island Parrot, Nestor productus (30381); 3 specimens of Golden-cheeked Warbler from Texas (30741); an interesting and valuable collection of birds' eggs and nests, consisting of 911 eggs, representing 206 species and 222 sets, also 88 nests (30746); 4 birds' skins from Florida (30758). Presented to the Smithsonian Institution and deposited in the National Museum.
- Rambo, M. Elmer (Philadelphia, Pa.): Specimen of Summer Warbler, Dendroica astira, specimen of Lazuli Bunting, Passerina amana, and a pair of specimens of Bullock's Oriole, Icterus bullocki, from California. 29819.
- RAMIREZ, Señor José (Instituto Medico Nacional, Mexico, Mexico): Thirty-four herbarium specimens. 30658.

<sup>&</sup>lt;sup>1</sup>An extinct and very rare bird.

<sup>&</sup>lt;sup>2</sup> A very valuable collection.

RANDALL, F. A. (Warren, Pa.): Chemung and Waverly formation fossils. Exchange. 30490.

RANDOLPH, P. B. (Seattle, Wash.): Shells and insects (29541, 29720, 29966, 30580, 30654).

RANSOME, F. L., transmitted by H. W. Turner, United States Geological Survey: Two specimens of lawsonite, 30092.

REED, HENRY A. (New York City), through George C. Maynard: Galvanometer used in testing telegraph lines in 1855, brought from London by Prof. S. F. B. Morse. Lent. 29700.

Remick, A. B. (Taylorsville, Cal.): Specimen of epidote. 29594.

REVERCHON, J. (See under Agriculture, Department of.)

RHOADS, S. J. (See under Agriculture, Department of.)

RICE, B. W. (Oasis, Utah): Three specimens of *Ptychoparia kingi*. 30599.

RICHARDSON, FRED. (Jamestown, Colo.): Specimen of Silk moth, Attacus columbiu, Sm. and Abb. 29535.

Richmond, C. W., U. S. National Mnseum: Reptiles, plants, 3 skeletons of a Black Skimmer, birds' eggs, specimens of Trachynotus carolinus, Menidia, Cyprinodon variegatus, and Fundulus heteroclitus, mammals, marine invertebrates, specimen of Rhinoceros Beetle, Dynastes tityus, and a small collection of birds' skins, from Smiths Island, Va. (29648); 25 birds' skins, representing 5 species, from Nicaragua (29788); snake (30306); reptiles and batrachians from Smiths Island (30312).

RICKSECKER, A. E. (See under Agriculture, Department of.)

RIDGWAY, ROBERT, U. S. National Museum: Alcoholic mammals, reptiles, mammals (30481); 148 birds' skins from Florida (30509); 42 birds' skins from various localities (30510); reptiles and a specimen of Gar Pike, Lepidosteus osseus, from Vincennes, Ind. (30526).

RILEY, J. II. (Falls Church, Va.): Nest and 3 eggs of Grasshopper Sparrow, Ammodramus savannarum passeriuus. 30731.

ROBERTS, Mrs. Percy (New Orleans, La.): Specimen of Cyathus striatus. 29820. ROBERTSON, E. LORING (Fillmore, Utah):
Horn spoon found in an ancient cliff
dwelling in the Grand Canyon of the
Colorado River, Arizona. (Presented
to the Smithsonian Institution and
transferred to the National Museum.)
29595.

ROBINETTE, G. W. (Flag Pond, Va.): Shells from Virginia (30715, 30772). ROBINSON, H. T. (See under Smithson-

ian Institution, Bureau of Ethnology.) ROBINSON, Lieut. WIRT, U. S. A. (Hubbard Park, Cambridge, Mass.): Crustaceans, ophiurans and echinoderms, insects, birds, mollusks, mammals, reptiles (29679); 7 species of land shells from the West Indies (29758); 25 birds' eggs, representing 7 species, also 3 nests from Venezuela, South America, and a bird's nest from the West Indies (new to the Museum collection), 2 specimens of insects from Venezuela (29803); collection of birds' eggs from Virginia (29913); 139 birds' skins, including types of 11 new species from . Margarita Island and the adjacent mainland of Venezuela, also 21 birds' skins from Bogota (30148); 16 birds' skins, principally ducks, from various localities (30194); 11 mammal skins (30203).

ROCKHILL, Hon. W. W., Assistant Secretary of State (Washington, D. C.): A small bird-shaped earthenware whistle (29808); letter written in the Tibetan language (29892); Korean tobaccopouch (30022); letter written in the Tibetan language (30613); ethnological objects from Korea, collected by Dr. H. N. Allen (30677).<sup>2</sup>

ROOKWOOD POTTERY COMPANY (Cincinnati, Ohio), transmitted by W. W. Taylor, president: Five specimens of pottery and 5 glass jars containing raw material used in making pottery. Deposit. 30586.

ROMEYN, Captain HENRY, U. S. A. (Fort McPherson, Ga.): Two specimens of Allorhina nitida. 29562.

ROPER, E. W. (Dublin, N. H.): Three hundred and fifty-five specimens of land and fresh-water shells from Jamaica (29668); 2 species of land and marine shells (29896).

Rose, J. N. (Department of Agriculture):
Seven herbarium specimeus from New Windsor, Cal. (29590); 5 specimens of plants from Colorado collected by G. E. Osterhout (29662); herbarium specimen of Aeroclinium roseum from Mr. Walter Deane, Cambridge, Mass. (29869); herbarium specimen of Tridax dubia from Mexico, sent by M. L. Fernald, Gray Herbarium, Cambridge, Mass. (29870); herbarium specimen of Meutha aquatica from F. D. Kelsey, Oberlin, Ohio (29895); 5 specimens of Sanicula from the eastern section of the U. S. (30070). (Secunder Agriculture, Department of.)

Rowles, W. W. (See under Agriculture, Department of.)

ROYAL BIOLOGICAL STATION (Helgoland, Germany), transmitted by Dr. Ehrenbaum: Crustaceans representing 46 species. 29938.

ROYAL BOTANIC GARDENS (Kew, England), transmitted by Dr. W. T. Thiselton-Dyer, Director: Two hundred and fifty specimens of Umbelliferae. Exchange. 30384.

ROYAL MUSEUM (Berlin, Germany), transmitted by Dr. Schöne, Director-General: Thirty-eight plaster casts of Hittite antiquities. (A.) Purchase. 29644.

RUBIN, CHARLES A. (Washington, D. C.):
Collection of miscellaneous insects.
29761.

SAGE, J. N. (Portland, Conn.): Nest and 4 eggs of Brewster's Warbler, Helminthophila leucobronchialis. 30064.

Salmon, Dr. D. E. (See under Agriculture, Department of.)

Samson, A. A. (West Medford, Mass.), transmitted by Miss Clara W. Samson: Four old-style pit-saws. Exchange. 30393.

Samson, Miss Clara W. (West Medford, Mass.): Three photographs of a winnowing fan used during colonial times. 30625. (See under A. A. Samson.)

Savage, M. F. (New York City): Roman and Phonician lamps, and Japanese fire-syringe (purchase) (29821); delft grease-lamp (exchange) (30545); tinder pistol used during colonial times (exchange) (30546); Ceylonese jingle used as a ceremonial spear, single-head drum from the Island of Gilolo; Ho-pe, a Sumatran three-joint trombone (exchange) (30547).

Sawyer, Mrs. Sarah (Wilmore, Ky.): Stalk of black Gorgonian coral from Palm Beach, Fla. 30429.

SCHATTENBERG, G. A. (See under Agriculture, Department of.)

Schaeffler, John B. (Chicago, Ill.): Two fossil meduse from Eichstatt, Germany. Purchase. 30117.

Schlüter, Dr. Wilhelm (Halle, Germany): Specimen of Cynomycterus agyptiaca, specimen of Hyrax syriacus, and a specimen of Capra beden sinaitica.

(A.) Purchase. 29605.

SCHMID, E. S. (Washington, D. C.): Pekin Duck, in the flesh. 30376.

Schneck, Dr. J. (Mount Carmel, III.): Great Horned Owl, *Bubo virginianus*, in the flesh. 30349.

Schöne, Mr. (See under Royal Museum, Berlin, Germany.)

Schott, Mrs. Augusta (Washington, D. C.): Autograph letters of George Engelman, John Torrey, and Herbert G. Torrey. 30525.

SCHUCHERT, CHARLES (U. S. National Museum): Three thousand and eighty-six specimens of Corniferous fossils (30030); 12,084 specimens of Hamilton fossils (30038); 469 specimens of Oriskany fossils (30039); 456 specimens of Clinton and Niagara fossils (30040). Collected for the Museum.

SCHUYLER, E. O. (New York City): Three wood carvings obtained from the Alaskan Indians (gift) (3049?); 2 baskets from Perak (exchange) (30624); ethnological objects, Mexican textiles, and a musical instrument (exchange) (30801).

Schwarz, E. A. (Department of Agriculture): Turtle shell from San Diego, Tex. (30328); 10 specimens of Odonata from Salt Lake, Utah (30527). (See under Agriculture, Department of).

Schweinburg, Fraulein Victoria (Berlin, Germany), transmitted by Mr. S. P. Langley: Two counting-out rhymes. 29891.

SCIDMORE, Miss E. R. (Washington, D. C.): Thirty-five photographs illustrating the manners and customs of Java, also ethnological objects (gift) (30262); 26 photographs illustrating scenes of Buddhism in Java (gift) (30271); collection of pottery, lacquer, jade, and

- SCIDMORE, Miss E. R.—Continued. other objects (deposit) (30540); pencil outline of a foot of a Tamil (gift) (30585).
- SCOLLICK, J. W. (U. S. National Museum): Lizard. 30305.
- SCOTT, G. W. (See under Peace River Phosphate Company.)
- Scott, Lieut. J. H., U. S. Revenue-Marine entter Forward (Mobile, Ala.): Specimen of Hawk Moth, Enyo lugubris. 29924.
- SCRIBNER, Prof. F. Lamson. (See under Agriculture, Department of.)
- SCUDDER, Dr. S. H. (Cambridge, Mass.): Forty-four specimens of *Melanopli*, representing 21 species, and including types of 17 species. Exchange. 30303.
- SEDORE, JACOB (Eldon, Iowa,) transmitted by G. W. Devins: Jaw of a mammoth. 30604.
- SEFTON, IRA H. (Gold Rnn, Cal.): Specimen of Cucnjus puniceus, Mannerheim. 30401.
- SHARP, Dr. DAVID. (See under British West India Committee.)
- Shaw, Lieut. H. P., U. S. N. (retired) (Alberene, Va.): Specimens of a plant supposed to be an antidote for the bite of a snake, called "The Master Poison." 29800.
- Sheldon, Prof. C. S. (Oswego Normal School, Oswego, N. Y.): Miscellaneous insects. 30098. (See under Agriculture, Department of.)
- Shelley, D. H. (Moscow, Ohio): Archæological objects from Ohio and Kentucky. 29682.
- Sheppard, Lientenant, U.S. N., and Hon. H.S. Wise: Star-dial compass in a gilt case, ornamented and inscribed with astrological characters. 29863.
- Sherwood, W. L. (New York City): Two specimens of *Protens* from Europe. 30724.
- SHIPLEY, E. E. (Cincinnati, Ohio): Ten photographs. 29961.
- Shove, D. P. (Fall River, Mass.): Buff Wyandotte fowl (30378); Houdan fowl (30485).
- SHUFELDT, Dr. R. W. (Takoma, D. C.): Specimen of spider (Dolomedes tenebrosus, Hentz), with eocoon (29653); 3

- SHUFELDT, Dr. R. W .- Continued.
- specimens of birds' skins from California (29867). (See under II. B. Kalding.)
- Sigerfoos, C. P. (See under Dr. W. K. Brooks.)
- Sims, E. B. (Gainesville, Tex.): Fossil bone and quartz crystal. 29651.
- SIMMS, WILLIS (Buck Hill, Ga.): Spur of a game chicken. (Presented to the Smithsonian Institution and transferred to the National Museum.) 30573.
- SIMPSON, Dr. J. C. (Washington, D. C.): Specimen of Walking-stick, *Diapheromera femorata*, Say. 29804.
- SINGLEY, Prof. J. A. (Giddings. Tex.): Ten species of shells from Guaymas, Mexico (29681); Miocene and other fossils from the Galveston deep well (30165, 30202); 10 species of mollusks (30484).
- SKINNER, Dr. HENRY (Aeademy of Natural Sciences, Philadelphia, Pa.): Four species of Diurnal moths (30205); transmitted by L. O. Howard, 14 specimens of Diurnal moths, representing 11 species (30632). Exchange.
- SMITH, E. (Hoboken, N. J.): Reptiles from Europe. 30231.
- SMITH, Hon. HENRY C. (See under G. G. Berger.)
- SMITH, Dr. HUGH M. (U. S. Fish Commission): Two toads from Lemon City, Fla. 30521.
- Smith, Prof. J. B. (New Brunswick, N. J.: Twenty-three specimens of Noctuide, representing 17 species, including types of 15 species (30410); specimen of Spharularia bombi, Dufour, 1836 (29932).
- SMITH, J. D. (See under Agriculture, Department of.)
- SMITH, Dr. M. C. (Lynn, Mass.): Minerals (30235); Upper Carboniferous fossils from Windsor, Nova Scotia (30277); minerals from Wentworth Quarry, Hants County, Nova Scotia (30368).
- SMITH, THOMAS B. (Rose Creek, Minn.): Archæological objects. Deposit. 30042.
- SMITHSONIAN INSTITUTION, Mr. S. P. Langley, Secretary. Hexagonal clock with 3 dials (29616); iron clock dial (29617); Japanese clock (29618); hourglass (29619); 3 sand-glasses (29634);

<sup>&</sup>lt;sup>1</sup>Other accessions received by the Smithsonian Institution and deposited in the National Museum are referred to under the names of the senders.

SMITHSONIAN INSTITUTION—Continued. pocket dial with compass (29794); 2 sand-glasses, modern three-minute eggglasses in black walnut frames (29862); 12 pieces of electrical apparatus supposed to have been used by Professor Henry in his laboratory work at the Smithsonian Institution, and 16 photographs of Professor Henry's early electrical apparatus, prepared under the direction of Miss Henry and exhibited at the World's Columbian Exposition, Chicago, 1893 (29868). Deposited in the National Museum.

Transmitted from the Bureau of Ethnology, Major J. W. Powell, Director:

Ethnological objects obtained from the Alaskan Indians, Chilkat River (29664); collection of antiquities obtained from the cliff dwellings and from ancient pueblos, near Tusayan, Ariz., collected by Dr. J. Walter Fewkes (29889); small collection of potsherds, collected by F. W. Hodge from the Zuñi ruins of Kechipauan, Hawikuk, and K'iakima, and from the prehistoric ruin of Katzimo, in western New Mexico (29990); specimen of Scorpion, Vejovis punctipalpis, Wood, from Seriland, western Sonora, collected by Mr W J McGee (30225); arrowheads and potsherds from near Grand Rapids, Mich., sent by Charles Miller, jr. (30330); ethnological objects obtained from the Kiowa Indians (30341); Indian compass constructed after the manner of those in use among the aborigines in Florida (30497); necklace of human teeth, presented by King Timbenuku, ruler of six of the atolls of the Gilbert Island group, to Lieut. F. L. Clarke, U. S. A. (30498); clay pipe and a jaw bone found in a supposed Indian grave, in Deerfield Township, Lenawee County, Mich. (30517); ethnological objects obtained from the Seri Indians, Sonoro, Mexico (30579); model of a ghost-shirt belonging to a Dakota Indian, obtained by H. T. Robinson, Leslie, S. Dak. (30646).

TRANSMITTED FROM THE NATIONAL ZOOLOGICAL PARK, Dr. Frank Baker, superintendent:

Golden Eagle, Aquila chrysatos, and Western Porcupine, Erethizon d. epix-

SMITHSONIAN INSTITUTION—Continued.
TRANSMITTED FROM THE NATIONAL

ZOOLOGICAL PARK—Continued. authus, in the flesh (29583); 2 Virginia Deer, Cariacus virginianus, young Virginia Deer, Caviacus virginianus x macrotis, Raccoon, Procyon lotor, and a Canada Porcupine, Erethizou dorsatus, in the flesh (29584); Macaw, Ara araconya, in the flesh (29585); Wolverine, Gulo luscus, and a Red Fox, Fulpes fulrus, in the flesh (29626); specimen of Golden Eagle, Aquila chrysatos and Bald Eagle, Haliaetus leucocephalus (29627); 2 specimens of Wart Hog, Phacocharus athiopicus, and an Armadillo, Tatusia novemeineta, in the flesh (29676); Diamond-backed Rattlesnake. Crotalus adamanteus (29777); Elk, Cervus canadensis (29874); Lion, Felis leo, in the flesh (29905); Fox, Tulpes fulrus, in the flesh (29906); Porcupine, Erethizon dorsatus, in the flesh (29952); Beaver, Castor fiber, in the flesh (29953); Squirrel, Sciurus sp., in the flesh (29954); Kangaroo(29974); Porcupine, Erethizon dorsatus, in the flesh (29978); Sea Lion and Elk (29991); Porcupine, Erethizon dorsatus, in the flesh (29999); alcoholie specimen of Armadillo, Tatusia novemcineta (30034); Sea Lion, Zalaphus californicus, in the flesh (30036); Porcupine, Erethizon dorsatus, from New Hampshire, in the flesh (30048); Golden Eagle, Aquila chrysatos, in the flesh (30163); Elk, Cerrus canadensis, in the flesh (30178); 3 specimens of Monkeys, comprising Cercopithecus diana, Macacus cynomolgus, and Cebus (30179); Felis leo, Nasua narica, and specimen of Gazella dorcas (30223); Alligator, Rattlesnake, and 3 Magpies (30245); Polar Bear and Beaver (30314); Monkey, Macacus rhesus, and Kangaroo, Macropus (30414); Rattlesnake (Crotalus), King Snake (Ophibolus), Bull Snake (Pityophis), and a Magpie, Pica pica hudsonia, in the flesh (30419); Macaw, Ara Macaw, Ara chloroptera, macao. Clarke's Crow, Nucifraga columbiana. young Ostrich, Struthio camellus (30437); 2 specimens of Peccary, Dicotyles tajacu, and a Beaver, Castor canadensis, in the flesh (30439); Swan, in the flesh (30442); Monkeys, MacaSMITHSONIAN INSTITUTION—Continued.
TRANSMITTED FROM THE NATIONAL
ZOOLOGICAL PARK—Continued.

cus rhesus, and Lynx, Lynx rufus maculatus, in the flesh (30448); Lion, Felis leo, Buffalo, Bison americanus, and still-born Buffalo (30524); Puma, Felis concolor, and Sooty Mangabey, Cercocebus fuliginosus, in the flesh (30543); 2 specimens of Puma, Felis concolor, 2 specimens of Macacus rhesus, 2 specimens of Canis lupus grisco-albus, and a Black Bear, Ursus americanus (30596); 2 specimens of Macacus rhesus in the flesh (30673); specimen of Clark's Nutcracker, Nucifraga columbiana, in the flesh (30691); specimen of Ateles ater (30768); young Ostrich, in the flesh (30771).

- SMOLINSKI, JOSEPH (Washington, D. C.): Polish coin and a Confederate note of the issue of 1864. 30770.
- SNYDER, Dr. JOHN J. (New Oxford, Pa.): Twelve arrowheads from Two Taverns. 30012.
- Sonne, C. F. (See under Agriculture, Department of.)
- Sörensen, Rev. P. H. (Jakobshavn, North Greenland): Collection of natural history specimens. 30044.
- Soria y Mata, Señor Arturo (Madrid, Spain.) Transmitted by Señor Arturo Baldasano: Cardboard model of geometrical figure giving a practical idea of the shape of the polyhedrical origin, as represented in a work on "Polyhedrical Origin of the Species." Presented to the Smithsonian Institution and transferred to the National Museum. 29981. (See under Smithsonian Institution.)
- Sounami, A. R. (New York City): Hanging lamp of Damascus manufacture. Purchase. 30084.
- Soulé, Lieut. H. B., U. S. N. (London, England): Skin of Secretary Bird, Gypogeranus serpentarius, from the Transvaal, South Africa. 30127.
- Spanogle, Samuel (Aurora, Nebr.): Mica from Wyoming and 4 arrow points from Nebraska. 30590.
- Squier, John N. (Spokane, Wash.): Specimen of steatite. 30067.
- SQUYER, HOMER, (Wibaux, Mont.): Cretaceous fossils. 30499.

- STAMPER, W. S. (See under Agriculture, Department of.)
- STANDINGER and BANG HAAS (Blaseurts, Dresden, Germany): Thirty-eight specimens of insects mentioned in the Bible. (A.) Purchase. 29587.
- STANDISH, B. H. (Minneapolis, Minn.): Specimens of Camponotus pennsylvanicus and Lasius latipes. 30733.
- STANTON, T. W. (U. S. Geological Survey): Specimens of Unios, land and fresh-water shells from Texas. (29677, 29849.)
- STARGARDTER, L. (Washington, D. C.): Spider (Argioperiparia, Hentz.). 29722.
- STEARNS, Dr. FREDERICK (Detroit, Mich.): Thirteen Oriental seals. 30029.
- STEERE, J. B. (Ann Arbor, Mich.): Two specimens of Trogon, *Pyrotrogon ardens*, from the Philippine Islands. Purchase. 29760.
- STEINER, Dr. ROLAND (Grovetown, Ga.): Collection of archeological objects from Georgia. (29546, 29912, 30420.) Deposit.
- STEJNEGER, Dr. LEONHARD (U.S.N.M.): Two specimens of Crab (*Telmessus* cheiragonus) from Kamehatka. 30089.
- STEPHENS, F. (Witch Creek, Cal.): Type specimen of Burrowing Owl, Spectyto cunicularia obscura. 29741.
- STEVENS, Mrs. A. F. (See under Agriculture, Department of.)
- Stewart, Dr. T. B. (Lock Haven, Pa.): Rudely chipped stone implement and a photograph of a collection of Indian relics. (29865, 29963.)
- STILES, CHARLES WARDELL (Department of Agriculture): Parasitic worms from the collection of Leidy and Stiles (deposit) (29934); original specimens of Moniezia expansa (type of Tania expansa, R., 1810) and Monostoma renicapite, Leidy (gift) (29935); specimens of Ctenotania (?) rariabilis, Stiles, 1895; and Darainca salmoni, Stiles, 1895 (exchange) (29945).
- STILL, E. G. (See under Agriculture, Department of.)
- STILLWELL, L. W. (Deadwood, S. Dak.): Worked flint from Tennessee. 29818.
- STORRS, JAMES (Tehama, Cal.): Skin and skull of Mole, Scapanus townsendi. Purchase. 29571.
- STOSE, G. W. (Washington, D. C.), transmitted by T. W. Stanton: Thirty

- Stose, G. W.—Continued.

  specimens of Upper Carboniferous fossils from Wolfville, Nova Scotia. Exchange. 29979.
- Stossich, Prof. M. (Trieste, Austria): Parasites collected at Trieste and determined by Professor Stossich. Exchange. 29944.
- STOVER, E. D. (See under Agriculture, Department of.)
- Strait, Hon. T. J. (Member House of Representatives.) Transmitted by Mr. C. D. Walcott: Triassic sandstone from near Raleigh, N. C. 30710.
- STÜRTZ, B. (Bonn-a-Rhein, Germany): Eight fossil starfishes from Bundenbach, Germany. 30628.
- SUKSDORF, W. N. (See under Agriculture, Department of.)
- Sulzberger, D. (Philadelphia, Pa.): First Jewish prayer book published in America. Deposit. (Returned.) 29591.
- SWAIN, JOHN & SON (London, England): Eighteen specimens of half-tone work, in black and in colors. 30636.
- Sweeny, Thomas (U. S. National Museum): Cream pitcher of wedgewood ware. 30258.
- Sword, J. F. (Jonesville, Va.): Fifteen species of Unios from Clinch River, Va. 30808.
- TATE, W. B. (U. S. National Museum): Katydid, Microcentrum retinerve. 29825.
- Taylor, Miss K. A. (Baltimore, Md.): Specimen of Commelina communis. 30197. (See under Agriculture, Department of.)
- TAYLOR, W. W. (See under Rookwood Pottery Company.)
- TENNESSEE, UNIVERSITY OF. (See under Agriculture, Department of.)
- Tenney, Miss Hattle (Washington, D. C.): Mexican pottery from Argentine Republic. Deposit. 29900.
- Test, Dr. F. C. (Department of Agriculture): Snake and frog from Dismal Swamp, Virginia. 29560.
- TEUTE, FERD. (Rochester, N. Y.): Fifty species of Lepidoptera. 30173.
- THE BRUSSTAR SHIP BUILDING COMPANY (Baltimore, Md.), transmitted from the U.S. Fish Commission: Four models of boats. 29919.

- THE CARBORUNDUM COMPANY: Carborundum, transmitted by E. G. Acheson, president, and Dr. David D. T. Day, of the U. S. Geological Survey. 30290.
- The Drake Company (Sioux City, S. Dak.): Two slabs of agatized wood. Deposit. 30207.
- THE TELEGRAPHIC HISTORICAL SOCIETY OF NORTH AMERICA: Oil portrait of S. F. B. Morse; set of photographs of S. F. B. Morse; photograph of J. H. Wade; photo-lithographic copy of a painting of the founders of the Baltimore & Ohio Railroad, transmitted by G. C. Maynard, secretary, Washington, D. C. (30578); framed specimen of Morse telegraph writing, recorded in the Baltimore office, of the first telegraph line in 1884 (30784). Deposit.
- THISELTON-DYER, Dr. W. T. (See under Royal Botanic Garden, Kew, England.)
- THOMPSON, C. H. (See under Agriculture, Department of.)
- THOMPSON, GREELAND. (See under Miss Clara Hough.)
- Thompson, Mrs. J. M. (Ocala, Fla.): Rude plaster casts of an old Spanish coin. 30552.
- Thomson, Mrs. J. S. R. (See under Agriculture, Department of.)
- Thomson, M. Julius. (See under S.M. Jorgensen.)
- THORPE, Dr. H. H. (Liberty Hill, Tex.): Femur of mastodon. 30764.
- THURBER, E. C. (Alhambra, Cal.): Three lizards. 30703.
- THUROW, F. W. (See under Agriculture, Department of.)
- Tiffany, Charles L. (New York City), transmitted by George F. Kunz: Forty pieces of Tiffany favrile glass, made under the personal supervision of Mr. Louis C. Tiffany; also 2 metal stands. Deposit. 30543.
- TIFFANY & Co. (New York City): Geological specimens (A.) (purchase) (29717); cut emerald from Muso mine, United States of Colombia (A.) (purchase) (29759); 6 pieces of Japanese cloisonné, enameled brass vase, 2 pipestems from Tunis, 2 samples of Russian lacquer, 37 pieces of iridescent glass, 25 miscellaneous specimens from Syria, 24 pieces of porcelain, faiënce, and earthenware, an antique Greek earthenware dish, glass pitcher, and an an-

- TIFFANY & Co.—Continued.
  - tique enameled bronze buckle (purchase) (29790); 2 Tartar knives and other ethnological objects (purchase) (29791).
- Todd, Baxter (Los Angeles, Cal.): Specimen of igneons rock, probably a basalt. (Returned.) 30412.
- Tollin, Oscar (Miakka, Fla.): Three specimens of Everglade Kite and 2 Warblers (gift) (29756); 7 specimens, representing 4 species of young birds from Florida (purchase) (29757).
- Toms, C. F. (Hendersonville, N. C.):
  Manganese ore from Green River
  (29708); specimen of rock underlying
  the Zircon mine on Green River
  (29713); gold ore from Boilston gold
  mines in Henderson County (29728);
  Auerlite (29757); ore from Reasonover
  Creek, N. C. (30125).
- Toomer, Isaac (Westlake, La.): Specimen of Dynastes tityus. 30783.
- TOPPING, D. LEROY. (See under Agriculture, Department of.)
- Torrey, Mrs. M. C. C. (Baird, Miss.): Specimen of lignified banana and 4 fragments of pottery from near Lake Dawson. 30709.
- TOWNSEND, CHARLES II. (See under Fish Commission, U. S., and Thomas Lee.)
- Townsend, C. H. Tyler. (See under Agriculture, Department of.)
- Tracy, Andrew (Greenville, Miss.), through H. St. L. Coppee: Carved stone pipe from Arkansas. 30643.
- TRACY, S. M. (See under Agriculture, Department of.)
- TRELEASE, WILLIAM (Missouri Botanical Garden, St. Louis, Mo.): Two specimens of Aleyonarian from Corvo, Azores. 29882.
- Trembly, Roy (U. S. National Museum): Skin and skull of Brown Bat, Adelonycterus fuscus. 29771.
- TREASURY DEPARTMENT, through Secretary of the Treasury and the Director of the Mint: Collection of National medals struck at the U. S. Mint, Philadelphia, forming a portion of the exhibit of the Treasury Department at the Atlanta Exposition (deposit) (30363).

- TREASURY DEPARTMENT—Continued.
  - U. S. LIFE-SAVING SERVICE, transmitted by ('apt. J. H. Long (Fenwicks Island, Del.): Skeleton of Finback Whale (30795).
- Tristán, Señor J. Fid. (See under Agriculture, Department of, and Costa Rica, National Museum of.)
- TRUE, F. W. (U. S. National Museum): Five photographs of Laplanders (30115); specimen of Hickory-borer, Chion zinctus, Drury (30561). (See under Fish Commission, U. S.)
- Tubb, Charles L. (Amory, Mass.), transmitted by the Bureau of Ethnology: Large skin jug. 30318.
- Turner, H. W. (U. S. Geological Survey): Geological specimens from Mexico (30103); native gold with secondary albite in veins in porphyry (30424). (See under F. L. Ransome.)
- TURNER, Miss S. W. (Washington, D. C.):
  Two ancient Greek coins and an icon.
  30380.
- TURNER, W. H. (See under Agriculture, Department of.)
- Turner, Mrs. W. W. (no address given): Series of reductions of Assyrian reliefs. 30570.
- Tweed, J. W. (Ripley, Ohio): Collection of stone implements. Exchange. 30133.
- TWEEDY, FRANK. (See under Agriculture, Department of.)
- Udden, Prof. J. A. (Augustine College, Rock Island, Ill.): Specimens of Stoneflies, Nemoura albidipennis, Walk. 29659.
- Van Denburgh, J. (Stanford University, Cal.): Set of eggs of Arkansas Goldfinch, Spinus psaltria. 30699.
- VAN DEUSEN, ROBERT T. (Stuyvesant, N. Y.): Stamped pitcher, and a pitcher decorated with a transfer pattern. Deposit. 30309.
- VAN DIEN, Mrs. R. (See under Agriculture, Department of.)
- VAN HASBROUCK, Mrs. E. J. (See under Agriculture, Department of.)
- VAN MATER, J. A. (Franklin Furnace, N. J.): Seventy specimens of pink calcite, 29569.
- VAN SICKLE, W. M. (See under Agriculture, Department of.)
- Von Linstow, Dr. O. (Gottengen, Germany): Specimens of Bothriocephalus quadratus, von Linstow, 1892; Tenia

- Von Linstow, Dr. O.—Continued. puncta, von Linstow, 1872, and Tania friedbergeri, von Linstow, 1878. Exchange. 29931.
- Von Müller, Baron Ferd. (Melbourne, Australia): Specimens of algre (exchange) (30006); 102 specimens of acacia (gift) (30269); specimen of Banksia grandiflora (30456). (See under Agriculture, Department of, and Phytologic Museum.)
- VON SCHMIDT, JARO (Tustin City, Cal.): Winter buds of Potamogeton pectinatus. 30275.
- Vasey, Miss F. N. (Department of Agriculture): Two specimens of Quercus stellata (gift) (30188); 2 specimens of Quercus macrocarpa (deposit) (30230).
  Very, C. F. (New Albany, Ind.): Hybrid
- VERY, C. F. (New Albany, Ind.): Hybrid mullein. 30739.
- Vickers, E. W. (Ellsworth, Ohio): Specmens of Moles (30160); Shrew, Blarina parva (30216).
- VIGNAL, L. (Paris, France): Collection of Miocone fossils from France. Exchange. 30101.
- VINCENHELLER, L. (See under Arkansas Commission to Atlanta Exposition.)
- VOGT, Dr. F. A. (Buffalo, N. Y.): Transmitted by John D. McChesney, U. S. Geological Survey: Three specimens of Eurypterus. 30704.
- VORHIS, H. G. (Mt. Vernon, Mo.): Piece of a petrified tree. 30124.
- Wagner Free Institute (Philadelphia, Pa.): Eight Mesozoic fishes from Europe. Exchange. 29699.
- Waby, J. F. (Botanic Gardens, British Guiana): Seventy-six plants from the Island of Barbados. Presented to the Smithsonian Institution and deposited in the National Museum. 30263.
- WALCOTT, Mr. CHARLES D. (Director, U. S. Geological Survey): Ten specimens illustrating the Lower Cambrian formation, collected by him in the White Mountain Range, Inyo County, Cal. (29578); 15 specimens of Corniferous limestone fossils from Berne, Albany County, N. Y. (30754). (See under Interior Department, U. S. Geological Survey; Prof. Rudolph Leuckart and Hon. T. J. Strait.)
- WALCOTT, CHARLES D., Jr. (Washington, D. C.): Specimen of Lower Cambrian quartzite, containing Scolithus linearis,

- WALCOTT, CHARLES D., Jr.—Continued. from the excavation for the Cairo building, Washington, D. C. 29579.
- Walker, B. L. (Washington, D. C.): Skin of a snake from Alabama. 29631.
- Walker, Bryant (Detroit, Mich.): Six species of Unionidae from Michigan. 30139.
- WAPLE, J. E. (See under R. Pumpelly.) WAR DEPARTMENT, Quartermaster-General's Office. (See under John Laun.)
- Ward's Natural Science Establishment (Rochester, N. Y.): Skeleton of a man, showing muscular areas (A.) (purchase) (29550); specimen of Roe Deer(A.) (purchase) (29596); geological specimens (A.) (purchase) (29716); three mounted mammals (purchase) (29784); onyx from Pueblo, Mexico (purchase) (30094); specimen of Nautilus macromphalus, specimen of Nautilus umbilicatus, and specimen of Turrilites (purchase) (30131); two plaster casts of medusar from the Solenhofen Slates, Germany (exchange) (30605).
- Washington Loan and Trust Company. (See under Brownell, Frank. Bequest of.)
- Waters, C. E. (See under Agriculture, Department of.)
- Way, N. S. (Yorklyn, Del.): Scraper of yellow jasper with a rounded end. 30371.
- WAYMAN, G. TURNER (Valencia, Veneznela): Collection of insects (exchange) (30344); specimen of *Lachesis mutus* (gift) (30700).
- WAYNE, ARTHUR T. (Mount Pleasant, S. C.): Two birds. Exchange. 30832.
- Weeks, Richard (Washington, D. C.): Old style English coffee urn made of copper; 17th century. Purchase. 29657.
- Weir, Paul (Owensboro, Ky.): Archæological objects. 30619.
- Weibel, E. G. (Fort Huachuca, Ariz.): (Seeunder Agriculture, Department of.) Webb, J. G. (Osprey, Fla.): Hawk moth.
- Webb, J. G. (Osprey, Fla.): Hawk moth Amphonyx antwus, Drury. 29847.
- Weber, G. E. (Opelika, Ala.): Specimen of *Misumena vatia*, Clark. 29858. Weed, Walter H. (See under Interior
- Department, U. S. Geological Survey.)
  WEIBER, E. G. (See under Agriculture,
  Department of.)
- Wellesley College. (See under Agriculture, Department of.)

- Wesley, William, & Son (London, England): Ethiopic charm-roll, 17th century (purchase) (29606); the Gothic and Anglo-Saxon Gospels with the versions of Wyckliffe and Tyndale; Codex Vaticanus; King James Version 1613, Genoa Bible 1547; Codex Sinciticus (A.) (purchase) (29814); facsimiles of Coverdale's Bible and Tyndale's Bible (purchase) (29815).
- WHARTON, JOSEPH (Philadelphia, Pa.): Sperrylite from Vermillion Mine, near Sudbury, Ontario. 30237.
- Wheeler, C. F. (See under Agriculture, Department of.)
- WHEELOCK, L. P. (Pittsburg, Pa.): Cranium of a fish from the Carboniferous limestone formation of Kelly's Island, Ohio. 30762.
- White, David (U. S. Geological Survey): Specimen of fungus collected on Whitman Knob, Webster County, W. Va. (29840); ferns from Tennessee and West Virginia (29927); cone-in-cone from near Belva, W. Va. (30226). (See under Interior Department, U. S. Geological Survey.)
- WHITEHORN, WORTH (Rochester, Nebr.): Fossil tooth of horse. 30824.
- WIDMANN, O. (Old Orchard, Mo.): Nests of Short-billed Marsh Wren and Song Sparrow from St. Charles County, Md. 29769.
- WILDER, Dr. HARRIS H. (Smith College, Northampton, Mass.): Three salamanders from New England. 30522.
- WILKINSON, E. C. (Penn Yan, N. Y.): Oil painting of Shah-Coo-Pee, the orator of the Sioux Indians. Lent. 29638.
- WILLIAMS, Rev. JOHN B. (Georgetown, S. C.): Cells of Leaf-cutting Bee (Megachile sp.). 30054.
- WILLIAMSBURG SCIENTIFIC SOCIETY (Brooklyn, N. Y.): Ten specimens of miscellaneous shells, representing five species. Exchange. 30476.
- WILSON, DAVIES (Washington, D. C.):
  Porphyritic gneiss from Winchendon,
  Mass. 30031.
- Wilson, J. Ormond (Washington, D. C.): Scorpion from Liberia. 30467.
- WILSON, Miss Sadie Ray (Forest Glen, Md.): Two arrowheads of white quartz (30775); grooved ax (30816).

- WILSON, THOMAS (U. S. National Museum): Archæological objects from Ohio (29612, 29630); archæological objects from Brittany, France (30134); skeleton of a cave bear from southern France (30618). (See under Guiseppe Bellucci.)
- Wing, E. T. (Pleasantdale, Me.): Devonian slab containing mollusks. 30577.
- WISE, Hon. H. S., and Lieutenant SHEP-PARD (U. S. N.): Star dial with compass in an ornamented gilt case, inscribed with astrological characters. 29863.
- WOLTZ, GEORGE (U. S. National Museum): Rabbit in the flesh. 29711.
- WOOD, J. MEDLEY. (See under Agriculture, Department of.)
- WOOLMAN, A. J. (Duluth, Minn.): Small collection of fresh-water fishes from Mexico. 29565.
- WOOSTER, A. F. (Norfolk, Conn.): Pupa of Hawk moth, Protoparce carolina, L. 29806.
- WORTHEN, CHARLES K. (Warsaw, Ill.): Fifty-six skins and skulls of moles and shrews from British Columbia. Purchase. 29628.
- WORTHINGTON, J. (Mannington, W. Va.): Oil sand from Marion County. 29613.
- WRIGHT, BERLIN H. (Penn Yan, N. Y.): Three species of Unios (30279); 5 specimens of Unios from Longwood, Fla. (30464); specimen of Stigmaria ficoides (30503).
- Wurzlow, H. (See under Agriculture, Department of.)
- Yale, Charles, (Louisiana, Mo.): Stylobite from beds of Burlington limestone. Purchase. 29917.
- Young Naturalists' Society (Seattle, Wash.) transmitted by H. H. Hindshaw: Three crabs from Puget Sound (29582); 9 species of shells from Puget Sound and San José de Guatemala (30428); 6 marine shells and other specimens from Puget Sound (30756); specimens of Astarte from Port Orchard, Wash. (30767).
- ZURICH BOTANICAL GARDEN. (See under Agriculture, Department of.)
- ZABRISKIE, Rev. J. L. (See under Agriculture, Department of.)

## INDEXES TO ACCESSION LIST.

### INDEX A .- BY LOCALITIES.

AFR	ICA.
Accession number.  Abbott, Dr. W. L. 29960, 29967  Adler, Cyrus 30567  Agriculture, Department of 29642, 30794  Azeez, Miss A. A 30209  Bray, P. H 29645  Brown, Mrs. M. E 30167  Féneys, Dr. A 30800  Glen Island Museum 30021	Accession number.
AME	RICA.
NORTH A	AMERICA.
British .	America.
Agriculture, Department of. 30057 30141, 30218, 30274, 30417, 30478, 30566 Billings, W. R. 30645 Boas, Dr. Franz 30192 Brooks, W. E. 30458 Chittenden, N. H 30486 Clapp, G. H 29843 Coleman, A. P 29947 Cox, Philip 30254 Crosby, F. W. & W. O 30556 Currie, Rev. Hector 30014 Dawson, Sir William 30450 Dwight, Dr. J., jr 29732 Evermann, Prof. B. W 30311 Fish Commission, U. S 30286 Grant, Col. C. C 30020 Howard, S. W 30019	Kearney, N. J       30016         Kernahan, George       30015         Lamb, T. H       30730         Latchford, F. R       30443         McGuirl, J. H       30538         McKinnon, Malcolm       30017         Macintosh, R       30013         Mnseum of Comparative Anatomy       30723         Natural History Society of New Brunswick       30511, 30651         Newcombe, Dr. C. F       30440, 30658         Pettit, Dr. J       30018         Smith, Dr. M. C       30235, 30368, 30277         Stose, G. W       29979         Wharton, J       30237         Worthen, C. K       29628
Me	cico.
Adler, Dr. Felix	Monclar, M. le Marquis de       30189         Nelson, E. W       29670, 29877         Palmer, Edward       29925         Pringle, C. G       30529, 30667, 30690         Ramirez, Señor José       30658         Rose, J. N       29870         Schuyler, E. O       30801         Singley, J. A       29681         Smithsonian Institution       29646         Smithsonian Institution (Bureau of Ethnology)       30225, 30579         Ward's Natural Science Establishment,       Rochester, N. Y         30094
United	States.
ALABAMA: Agriculture, Department of	ALABAMA—Continued.  Montgomery, R

Matthews, P. F. ...... 29655, 29907 

Accession number.	Accession number.
ALASKA:	California—Continued.
Agriculture, Department of 30282, 30361	Heniphill, Henry 30239, 30241, 30418
Bretherton, B. J 29641	Holzner, F. X
Bruce, M. W	Hunter, T. G
Call, Dr. S. J	Judson, W. B
Dall, W. H	Kalding, H. B
Fish Commission, U. S 30055, 30123	Lowe, H. N
30147, 30224, 30250	McGregor, R. C 30614, 30745
Smithsonian Institution (Bureau of Eth-	Mathers, Wallace 30803
nology)	Moore, Miss Hettie A 30666
ARIZONA:	Oldroyd, Mrs. T. S
Agriculture, Department of 29724	Orcutt, C. R
Babbitt Brothers	Plumb, J. N
Bendire, Maj. Charles, U. S. Army 29941	Ralph, Dr. W. L
Blake, W. P	Rambo, M. Elmer
Chamberlain, Dr. L. T. 30664	Remick, A. B
Chittenden, N. H	Van Denburg, J
Copper Queen Consolidated Mining Co. 30576	SEFTON, I. H. 30401
Davis, C. E	Shufeldt, Dr. R. W
English, G. L. & Co	Smithsonian Institution
Fewkes, Dr. Walter 30432, 30606, 30781	Smithsonian Institution (Bureau of Eth-
Hague, A	nology)
Hine, T W	Stephens, F. 29741
Hough, Walter	Storrs, James
Interior Department (U. S. Geological	Thurber, E. C
Survey) 30749 Matthews, P. F 29580	Todd, Baxter 30412
·	Turner, H. W
Robertson, E. Loring         29595           Smithsonian Justitution         29595, 30664	Denburgh, J. Van
Smithsonian Institution (Bureau of Eth-	Walcott, C. D
nology)	Colorado:
Arkansas:	Agriculture, Department of
Arkansas Commission to the Cotton	30183, 30229, 30389, 30507, 30528
States and International Exposition. 30294	Anthony, A. W
Bowers, M. A	Barber, Dr. E. A. 30240
Braley, Miss Etta 30603	Gillette, Prof. C. P
Brown, C. F 30296	Interior Department (U. S. Geological
Chamberlain, Dr. L. T 30427	Survey)
Couper, W. P 30118	McGregor, R. C 30745
Garrett, Charles 30075, 30298	Moore, P. A
Karlsive, Dr. W. J 30500, 30680	Osterhout, G. E 29901, 30791
McNeil, J	Pearce, Richard
Meek, Prof. S. E 30200, 30243	Roper, E. W
Smithsonian Institution 30427	Rose, J. N
Tracey, Andrew 30643	Richardson, Fred
CALIFORNIA:	Smithsonian Institution (National Zoo-
Agriculture, Department of 29572, 30026	logical Park)
30079, 30080, 30181, 30268, 30283	CONNECTICUT:
30284, 30300, 30310, 30320, 30387	Barnum & Bailey 30657
30461, 30480, 30621, 30669, 30822	Copp, John B 30249
Anthony, A. W	Marsh, Prof. O. C 30119
30256, 30554, 30676, 30805, 30817	Sage, J. H 30064
Arnold, Delos 29807	Wooster, A. F
Barlow, Chester 29074	DELAWARE:
Beek, R. H	Merrill, George P 30765
Blaisdel, Dr. F. E 30430	Treasury Department (Life-Saving
Boynton, Mrs. H. V 30537	Service)
Brett, Walter 29933	Way, N. S
Brokaw, L. W	DISTRICT OF COLUMBIA:
Campbell, Mrs. J. E 30008, 30370, 30495	Adler, Dr. Cyrus29796, 29805, 29813, 30319
Crawford, J. J	Agriculture, Department of 29663, 29902
Crowfoot, Jessie	29936, 29956, 29969, 29977, 29988, 30050
Davidson, A 30602	30077, 30104, 30121, 30135, 30180, 30182
Durden, H. S 29785, 29852, 29914, 29955, 30190	30186, 30228, 30267, 30325, 30407, 30451

LIST OF ACCESSIONS. Accession number. DISTRICT OF COLUMBIA-Continued. Bardroff, J., & Son ...... 30611 Blackburn, Dr. J. W ...... 30315 Bond, G. J..... 30340 Brockett, Paul ...... 28773 Brown, E. J ...... 29537 Brown, Capt. W. C., U. S. Army ....... 30140 Brown, W. D..... 30137 Brownell, estate of Lieut. Frank E..... 30411 Brunner, F. J ...... 30308 Burden, C. E ...... 23987 Busching, Henry...... 29721 Cox, W. V..... 30304 Daggett, Albert..... 30373 Day, Charles ...... 30175 Day, Dr. David T...... 30234, 30460 Deeble, Dr. H. M ...... 30802 Doubleday, Mrs. Abner..... 30406 Drury, Dr. G. A...... 29860 Earll, R. Edward...... 30292 30126, 30193, 30288, 30321, 30395, 30477 Goode, Dr. G. Brown ...... 29592, 29795 Greene, Prof. E. L..... 30035 Happer, Mrs. F. A...... 29894 Held, C. F...... 30725 FLORIDA: Hornung, Dr. J...... 29811 Hough, Walter..... 30062 Howell, E. E. ...... 29625, 29718, 29779 Hubbard, Mr ...... 29930 Interior Department (U. S. Geological Survey), 29559, 30219, 30281, 30332, 30338, 30751 Interior Department (Patent Office) .... 30157 Jerichau, Professor...... 30622 Jewett, Mrs..... 30719 Marshall, George...... 29770, 29850

Marshall, Henry ...... 30164

Matthews, Dr. Washington ...... 30151

Merwin, Mrs. Charles ..... 29563

the American Revolution ...... 30799

Niblack, Lieut. A. P., U. S. Navy...... 29780

National Society of the Daughters of

Accession number. DISTRICT OF COLUMBIA—Continued. Palmer, Joseph ...... 29666 Palmer, William . . . . 29665, 29861, 30177, 30656 Ransome, F. L...... 30092 Richmond, C. W...... 30306 Ridgway, Robert...... 30510 Rubin, C. A ...... 29761 Schuid, E. S..... 30376 Schott, Mrs. Augusta ...... 30525 Schuchert, Charles... 30030, 30038, 30039, 30040 Sheppard, Lieutenant, U. S. Navy..... 29863 Smithsonian Institution... 29634, 29868, 30406 Smithsonian Institution (National Zoological Park) . 29583,29584, 29585, 29626,29627 29676, 29874, 29905, 29906, 29952, 29954 29974, 29991, 29999, 30178, 30179, 30245 30314, 30414, 30419, 30437, 30439, 30442 30448, 30524, 30543, 30596, 30673, 30768 Smolinski, Joseph...... 30770 Stiles, Charles Wardell.... 29924, 29935, 29945 Sweeny, T. W ...... 30258 Tenney, Miss Hattie...... 29900 The Telegraph Historical Society of North America ...... 30578, 30784 Trembly, Roy..... 29771 True, F. W...... 30115, 30561 Vasey, Miss F. N. M . . . . . . . . . 30188, 30230 Weeks, R..... 29657 Woltz, George W ...... 29711 Agriculture, Department of ...... 29673 30096, 30475, 30593, 30759 Crenshaw, Mrs. W. H ...... 30769 Dumbell, Mrs. Prentice ...... 30218 Hemphill, Henry...... 30418 Lehman, W. V ...... 30810 Mills, R. A..... 30185, 30493 New Brunswick, Natural History, Society of...... 30561 Palmer, William ...... 29693, 29854 Peace River Phosphate Company..... 30336 Prentiss, Dr. D W ...... 30782 Ralph, Dr. William L ..... 30758 Ridgway, Robert..... 30509 Smith, Dr. H. M ...... 30521 Smithsonian Institution..... 30758

Accession number.	Accession number
FLORIDA—Continued.	Iowa:
Smithsonian Institution (Bureau of	Agriculture, Department of 30027, 3076
Ethnology)	Boepple, J. F
Smithsonian Institution (National Zoo-	Hall, W. C
logical Park)	Sedore, Jacob
Thompson, Mrs. J. M	KANSAS:
Tollin, Oscar	Agriculture, Department of
Webb, J. G	29750, 30213, 30595, 3067
Wright, B. H 30464	30694, 30778, 30819, 3083 Brunner, F.J
GEORGIA:	Crevecœur, F. F. 3028
Bangs, Outram 30584	30369, 30438, 30463, 30523, 30757, 3081
Du Bose, Mrs. J. W	Gould, C. N
Gibbons, J. R	Interior Department (U. S. Geological
Heighway, A. E	Survey)
Lycett, Edward 30323, 30422, 30736	Newlon, Dr. W. S
Lycett, William	KENTUCKY:
Romyn, Capt. Henry. U. S. Army 29562	Agriculture, Department of 2983
Simms, Willis	Burns, W. R 29649, 3067
Steiner, Dr. Roland 29546, 29912, 30420	Bush, S. S 3035
Stewart, Dr. T. B	Call, R. Ellsworth 30396, 3053
5(0 kart, 151. 1. 15	Earsman, W. A
Idaho:	Fetch, Rev. J. W 3031
Agriculture, Department of 29989	Johnson, J. R
30804, 30828	Johnston, Lieut. William B 2962
Evermann, Prof. B. W	McCaffree, R. I 2953
Fish Commission, U.S	Weir, Paul
Kent, A. J	Louisiana:
Merrill, Dr. J. C., U. S. Army 29746	Brodnax, Dr. B. H
ILLINOIS:	Frierson, L. S
Agriculture, Department of 29703, 29885	Lowe, Dr. J. H
Barnes, Dr. William 30004, 30111	McIlhenny, E. A 19548, 29623, 29742, 2981
Chicago Academy of Sciences 30132	Roberts, Mrs. Percy
30433, 30829	Smithsonian Institution (National Zoo-
Cobleigh, W.S	logical Park)
Ferriss, J. H	Toomer, Isaac
Field Columbian Museum, Chicago 29602	MAINE:
Foster, George	Agriculture, Department of 19837, 3019
George, I. R. 30732 Griswold, N. L. 30728	Allen, Pardon 2973
Guthrie, Ossian	Bendire, Maj. Charles, U. S. Army 2994
Helton, O. P	Bowles, C. W 2973
Holmes, S. J	Chamberlain, Dr. L. T 3036
Johnson, J. R	Damon, R. F
Johnson, W. G 30755	Farmer, Miss S. J 3057
Kemeys, Edward 29898	Harvey, Prof. F. L
Needham, J. G 30285	Knight, O. W
Rallston Brothers 29789	Merrill, H. C
Schneck, Dr. J 30349	Norton, A. H
Smithsonian Institution	Smithsonian Institution
Udden, Prof. J. A	logical Park)
INDIAN TERRITORY:	Wing, E. T
Wright, F. H 30503	MARYLAND:
Indiana:	Abel, J. C
Chicago Academy of Sciences 30132	Agriculture, Department of 2982
Fleming, William	29904, 29994, 30069, 30071, 30221, 3073
Hetherington, J. P 29841, 29887	Allen, Frank
Hiatt, J. W	Brooks, Dr. W. K 3010
Kennedy, Clarence29725	Conant, F. S 3053
Kirsch, Dr. P. H	Dieudonne, J. A 2973
Lemon, Dr. J. H	Dorsey, Dr. H. W
29650, 29692, 29980	Figgins, J. D
Ridgway, Robert	Fisher, J. H
Very, C. F 30739	Johns Honkins University Baltimore 3010

Accession number.	Accession number.
IARYLAND—Continued.	Mississippi:
Knowles, W. A 30372	Agriculture, Department of 29709, 30789
McGuire, J. D 30220	Pascoe, A. II
Marshall, George 29573, 29577, 29689	Purcell, W
Merrill, G. P	Torry, Mrs. M. C. C 30709
Miller, G. S., jr 30626	Tubb, C. L
Olds, H. W 29729, 29878	MISSOURI:
Pearse, A. S 29802	Agriculture, Department of
Phelps, G. R 30717	29672, 29687, 30502
Raider & Shriver 30073	Blair, R. A
Seollick, J. W 30305	Figgins, J. D
The Brusstar Ship Building Company. 29919	Godbey, Rev. S. M
Wilson, Miss Sadie 30775, 30816	Greger, D. K
AASSACHUSETTS:	Hannibal Water Company 29553
Agriculture, Department of 29730, 29826	Hurter, Julius
29834, 29869, 30787, 30789	Leach, Dr. C. V
Babbitt, J. O 29723	McLemore, Tipton 30434
Ball, E. P	Marean, J. B
Bangs, Outram	Owen, Miss Mary A
Blackmar, Gen. W. W	Voorhis, H. G
Bowles, C. W 30720	Widmann, O
Brewster, William 30252	Yale, Charles
Chatard, T. M	Montana:
Chittenden, N. H	Agriculture, Department of 29542
Crosby, F. W. & W. O	Interior Department (United States
Dorsey, G. A	Geological Survey) 30136, 30600, 30707
Exploring Expedition, U.S 30176	Merriam, Dr. C. Hart 30472
Fernald, Prof. C. H	Parsons, Dr. W. B
Frazar, G. B	Smithsonian Institution (National Zoo-
Hall, Mrs. C. C	logical Park)
Hutchinson, Miss H. D	Squyer, Homer 30499
Interior Department (U. S. Geological	Nebraska:
Survey)	Agriculture, Department of 30391
Jensen, Lawrence	Bettesworth, G. B
McGregor, R. C. 30745	Edgement Stone Company 30726
Mackay, G. H	Hunter, W. D
Morse, Dr. A. T	Lafler, H. A
Morse, E. L	Pearse, Dr. A. S
Robinson, Lieut. Wirt, U. S. Army 30194	Spanogle, Samuel
Rose, J. N	Whitehorn, Worth
Samson, A. A	NEVADA:
Samson, Clara W	Agriculture, Department of 29926, 30080
Shove, D. P	NEW HAMPSHIRE:
Scudder, Dr. S. H	Goodrich, Rev. J. B
Wilder, Dr. H. H	Kreka, de Gabriel 30519
Wilson, Davies	Smithsonian Institution (National Zoo-
MICHIGAN:	logical Park)
Agriculture, Department of 29832, 30095	NEW JERSEY:
Cartwright, O.C	Agriculture, Department of
Covert, A. B	30172, 30222, 30735
Dodge, B. E	Blodgett, Frederick 30113
High School Museum, Saginaw 30083	Brown, Mrs. J. Crosby 20593, 29793
Matthews, P. F. 29907	Cæsar, Col. G
Miller, Charles, jr	Clarke, Prof. F. W
Northrop, G.J. 29897	English & Co., G. L
Purdy, J. B	Hill, W. W
Smithsonian Institution, Bureau of Eth-	Matthews, Miss M. R
nology	Pollard, C. L
Stearns, Dr. Frederick 30029	Princeton College 30404
Walker, Bryant 30139	Smith, Dr. J. B
MINNESOTA:	Van Mater, J. A
Agriculture, Department of 29833, 30712	New Mexico:
Smith, T. B	Agriculture, Department of
Standish, B. H 30733	Brown, Mrs. N. M 30122
Wilkinson, E.C	Cockerell, Prof. T. D. A 29928, 30003, 30081

Accession number.	Accession number.
NEW MEXICO-Continued.	NEW YORK—Continued.
Haggatt, E. A 30494	Tiffany, C. L 30453
Hoopes, B. A 30620	Van Deusen, R. T 30309
Matthews, Dr. Washington, U. S, Army. 30086	Vogt, F. A 30704
Matthews, Mrs. Washington 30674	Walcott, C. D 30754
NEW YORK:	Ward's Natural Science Establishment. 29550
Agriculture, Department of. 29749, 29838, 29864	29596, 29716, 29784, 30131
29903, 30032, 30153, 30198, 30227, 30247	Williamsburgh Scientific Society 30476
30392, 30416, 30663, 30681, 30797, 30773	Wright, B. H 30279
Azeez, Miss A. A	NORTH CAROLINA:
Bendire, Major Charles, U.S. Army 29747	Agriculture, Department of
Benjamin, William E 29660	29745, 29839, 30452
Bicknell, J. Y 30752	Fargusson, M 30650
Bishop, H. R 30037	Heighway, A. E 29712, 30738
Blunck, A. E 30722	Holmes, I. S 30776
Breed, estate of Dr. Daniel 30076	Hutton, W. McG 29890
Brown, Mrs. M. E 30431	Interior Department (U. S. Geological
Burtch, Verdi	Survey) 30346
Carter, J. C 30195	Strait, Hon. T.J 30710
Chamberlain, Dr. L. T 30317	Toms, C. F 29708, 29713, 29728, 29767, 3012
Dannhauser, Max 30377	
Dyar, H. G	NORTH DAKOTA:
Elliott, R. I 30572	Edwards, S. M. 2959'
English, G. E	Fish Commission, U.S 3021
Franklin & Co	Judd, E. T
Funk & Wagnall Co 30708	Knox, M. V. B 3056
Gardner, A. L	Оню:
	Agriculture, Department of 2970
Garner, R.L	29908, 3063
Germansky, A. L	Binkley, S. H
Gilder, R.W	Blanchard, G
Glen Island Museum 30005, 30334	Call, R. Ellsworth 30251, 3064
Hanselman, J. J	Case, H. B 3038
Harrison, A. K	Cincinnati Society of Natural History 3075.
Hawley, F. S	Chapman, N. A
Hay, W. P	Kelly, A. E 3005
Hough, Walter 29816	Kahn, David
Interior Department (United States	Moorehead, W. K 3048
Geological Survey)	Morlock, Henry
Japanese Fan Company 29810	Rookwood Pottery Company 3058
Kemp, J. W 30597	Rose, J. N
Kny & Co., R 29876, 29604, 29949	
Kunz, George F 29824	Shelley, D. H. 2968
Lagia, Dr. G	Shipley, E. E
Lattin, F. H 30473	Smithsonian Institution
Leggatt Brothers 29797	Tweed, J. W
Love, Mrs. E. G	Vickers, E. W
Macmillan & Co	Wheelock, L. P
Marashlian, S. S	Wilson, Thomas 29612, 2963
Mayer & Co., Robert 30635	OKLAHOMA TERRITORY:
Moore, Miss Annie 29893	Agriculture, Department of 3018
New York State Museum 29753	30583, 3074
Patton, Dr. W 30152	Bretherton, B. J 30217, 3046
Ralph, Dr. William L 30741, 30746	Hemphill, Henry 3041
Reed, H. A	Hughes, H. F 3033
Savage, M. F	Interior Department (U. S. Geological
Schuyler, E. O	Survey) 3015
Sheldon, Prof. C. S	Johnson, J. F 2955
Smithsonian Institution 30317, 30741, 30746	Lyman, Don 2991
Smithsonian Institution (Bureau of	Prill, Dr. A. G
Ethnology) 29990	Randolph, P. B 2996
Smithsonian Institution (National Zoo-	PENNSYLVANIA:
logical Park) 30048, 30771	Abel, J. C 29543, 29875, 29965, 3012
Souhami, A. R 30084	Agriculture, Department of
Teute, F 30173	30105, 30106, 30388, 3053
Tiffany & Co 29717, 29790, 29791	Bachman, G. W 3011

So

Accession number.	Accession number
Pennsylvania—Continued.	South Dakota—Continued.
Bean, Dr. T. H	Smithsonian Institution (Bureau of
Culin, Stewart	Ethnology)
Day, Dr. D. T	The Drake Company
De Turk, M. L. 30264	TENNESSEE:
Dieffenbach, J. G. 30488	Agriculture, Department of 30482, 3068
Earle, J. S., & Son	Cleveland, Miss Sailie 3027
Earseman, W. A	Emmert, J. W. 3077 Heymaun, S. 2954
Electric Storage Battery Company 29654 Evans, A. B. 30348	Interior Department (V. S. Geological Survey)
Foete, Dr. A. E	Johnsen, J. R
Fox, William J	Lehman, W. V
Geiger, W. M	Means, T. H
Geisman, Jacob	Nicklin, J. B
Hartland, O. H	Stilwell, L. W
Kennedy, E.J 30446, 30705	White, David
Klages, H. G. 30415	TEXAS:
Kocher, Dr. J. F	Agriculture, Department of 29886, 2987
Kremer, Rev. E. N	29993, 30078, 30353, 30357, 30563, 3062
Lacoe, R. D	30661, 30662, 30693, 30695, 30748, 3082
Lewars, W. H	Attwater, H. P 30090, 30162, 30639, 3069
Long, S., & Sen	Burns, Frank 2981
Marshall, Dr. E. B	Burrews, D. B
Mearns, Dr. E. A., U. S. Army 29772	Carroll, B. F
Merrill, G. P 30765	Chamberlain, Dr. L. T 30427, 30643
Neefe, A. M	Clapp, G. H
Philadelphia, City Council of 29918	Cobolini, Louis
Pennsylvania Salt Manufacturing Com-	Elliott, T. N
pany 29735	Grover, W. E
Pennsylvania, University of 29701, 29702	Gwyn, Dr. C. L 2993
Phillips, B. F 30831	Hester, L. G 30303
Pollard, Nerval	Interior Department (U. S. Geological
Randall, F. A	Survey)
Skinner, Dr. Henry 30205, 30632	Mitchell, Hon. J. D 29549, 29656
Snyder, Dr. J. J	29848, 29884, 30204, 30471, 30649, 30809
Stewart, Dr. T. B	Nealley, G. C
Sulzberger, D	Schwarz, E. A 30328
The Carborundum Company 30290	Sims, E. B
Treasury Department, U.S 30363	Singley, Prof. J. A 30093, 30165, 30202, 3048-
RHODE ISLAND:	Smithsenian Institutiou 30649
Dexter, Newton 30665	Smithsonian Institution (National Zoo-
Drowne, F. P	legical Park)
Lewis, G. A 29774	Stanton, T. W
Pumpelly, R 30051, 30329	Thorpe, Dr. H. H
SOUTH CAROLINA:	UTAH:
Adams, H. Q	Agriculture, Department of
Agriculture, Department of	Booth, John
29845, 29872	Day, Dr. David T
Duncan, W.J	Rice, B. W. 30599
Lee, Thomas 30589	Schwarz, E. A
McKinley, C 30559	
Mazyck, W. G 30041	Avery, W. C. 29921 Clark, Miss Edith M. 29726
Mellichamp, J. A	Crocker, Rev. Henry 29764
Wayne, A. T 30832	
Williams, Rev. John B 30054	Interior Department (U. S. Geological Survey)
SOUTH DAKOTA:	Virginia:
Cross, F. J	Ackley, Lieut. Commander S. M., U. S.
Daniel, Dr. Z. T. 29544	Navy 30634
29669, 29683, 29731, 29763, 29783, 30114	Agriculture, Department of
Hague, A 30515	29835, 30713
Lee, H. E	Bartseh, Paul
Lummins, S. C	Baulch, William
Pettigrew, F. W. 30233	Cawood W H H

VIRGINIA—Continued.	Washington—Continued. Accession number.
Daniel, J. W., jr	Grim, William Manning
Garvin, W. D	Guye, Mrs. and Mrs. F. M 30199
Hass, B. F	Hannah, R. H 29940
Howard, E. L	Hare, Mrs. W. B
Hutchinson, Dr. W. F	Newberry, C. E
Survey)	Squier, John M
Jones, J. D	Young Naturalists' Society 29582
Johnson, J. E 30505	30428, 30756, 30787
Lann, John	WEST VIRGINIA:
McGuire, J. D.       30220         Magruder, Julian       30150	Agriculture, Department of
Mearns, Dr. E. A., U. S. Army 29772	Blackford, J. W. 29781
30285, 30425	Carter, John T 29647
Mearns, Master Luis di Zerega 30659	Earseman, W. A
Noyes, Isaac P	Hough, Miss Clara
Palmer, William	Hough, F. C. 29998, 30261 Matthews, R. S. 29567
Richmond, C. W	White, David
Riley, J. H	Worthington, J
Robinette, G. W 30715, 30772	Wisconsin:
Robinson, Lieut. Wirt, U. S. Army 29913	Glover, Rev. A. K. 29581
Shaw, Lieut. H. P., U. S. Navy	Lewis, C. H
logical Park) 30036	Agriculture, Department of
Sword, J. F	30171, 30454
Test, Dr. F. C	Interior Department (U. S. Geological
WASHINGTON:	Survey) 30350
Agriculture, Department of	Knight, Prof. W. C 30045 Smithsonian Institution (Bureau of Eth-
Dennison, G. H	nology)
Drake, Mrs. Maria	Spanagle, Samuel 30590
Fuller, W. H	
West	Indies.
Bartleman, R. M 30729	Jarvis, P. W
Brown, E. J 30779	29986, 30112, 30337, 30564, 30744
Guesde, A	Robinson, Lieut. Wirt, U. S. Army 29679
Jamaica, Institute of	29758, 29803 Roper, E. W
	AMERICA.
Agriculture, Department of	Kern, C. E
Costa Rica, National Museum of 30099, 34496	Luders, Dr. C. E
Fernandez, Enrique 30591	Merriam, Dr. C. Hart. 30592
Gwyn, Dr. C. L	Pittier, H 30687
Heyde, Rev. H. T 29554	Richmond, C. W 29788
SOUTH A	MERICA.
Agriculture, Department of 30397, 30047	Monclar, M. le Marquis de
Berger, G. G	Museum of Comparative Zoology 30723
Fish Commission, U. S	Robinson, Lieut. Wirt, U. S. Army 29679
Heyde, Rev. H. T.       29554         Ihering, Dr. H. von       30815	29803, 30148, 30203 Tiffany & Co
Jamaica, Institute of	Wayman, G. Turner
La Plata Museum 30571	
AS	
	IA.
Abbott, Dr. W. L. 30743 Azeez, Miss A. A. 30209	
Abbott, Dr. W. L	IA.   Cléret, J

LIST OF AC	CEBSIONS. 100
Accession number.	Accession number.
Kan Ko Ba 29610	Royal Zoological Museum, Florence, Italy. 30742
Langley, Hon. S. P	Stejneger, Dr. Leonhard 30089
Morse, Rev. P. H	Smithsonian Institution 30374
Phillips, Barnet	Scidmore, Miss E. R 30585
Rockhill, Hon. W. W 30613, 30677	
	TY3107
ASIA M	
Adler, Dr. Cyrus	30144
EUR	OPE.
[Including G	reat Britain 1
Agriculture, Department of	Krantz, Dr. F
29740, 29968, 30299, 30470	Krauss, Alfred 29958, 30465
Autocopyist Company 30638	Langley, Hon. S. P. 29616, 29617, 29619, 29794, 29995
Arup Brothers	Lemke, Miss Elizabeth
Bellucci, Prof. Guiseppe 30806	Leuckart, Prof. Rudolph 30024, 30633
Blanchard, Prof. Raphael 29624	Lovett, Edward
Bofill, Arturo 30367	Lubuy Museum, Russia
Bonnet, André	Lundbohm, H
Boucard, A	Moss, W
Brandes, Dr. Gustav	Nicholson, Prof. H. A
British West India Committee 29922	Palestine Exploration Fund, London 29586
Brown, Mrs. M. E 30167	Pavlow, Prof. A
Brunetti, E	Prestel, F. A. C
Bryant, H. G 30514	Royal Biological Station, Helgoland 29938
Campbell, J. Macnaught	Royal Botanic Gardens 30364
Carl, Wohlgemuth	Royal Museum, Berliu 29644
Castor, T. H., & Co	Royal Zoological Museum, Florence, Italy 30742
Chaster, G. W	Schaeffer, John B 30117
Collinge, W. E	Schlüter, Dr. Wilhelm
Christy, T., & Co	Schweinburg, Fraulein Victoria 29891
Cranch, Mrs. Charlotte	Sherwood, W. L 30724
Credner, Dr. Herman 30536	Smith, E 30231
Crosby, F. W	Smithsonian Institution 30231, 30263, 30689
Crosby, F. W. & W. O	Smolinski, Joseph 30770
Damon, R. T 30085	Sorënson, P.H
Ehrensberger, Fritz	Soria, Señor D. Arturo
Elwes, H. J	Standinger and Bang Haas 29587
English, G. L., & Co	Stossich, Prof. M
Fraas, Dr. E	Stürtz, B
Gerrard, Edward	Swain, John, & Company 30636
Green, E. E	Trelease, William
Harrison, B 30109	Von Linstow, Dr. O
Heckman, J. C 30447	Vignal, L 30101
Horniman Museum 29853	Waby, J. F 30263
Hornstein, L 30322	Wagner Free Institute, Philadelphia, Pa., 29699
Howell, E. E	Ward's Natural Science Establishment 30605
Imperial Royal Natural History Museum 30212	Wesley, William, & Son 29606, 29814, 29815
Jörgensen, S. M	Wilson, Thomas 30134, 30618
0054	ALLO A
OCEA	NICA.
AUSTRA	ALASIA.
	,
Aust	ralia.
Agriculture, Department of 29992, 30154	Ralph, Dr. William L 30381
Bradley, Edgar J 29831, 29859, 30107, 30575	Royal Zoological Museum, Florence, italy. 30742
Melbourne Botanical Gardens 30009	Smithsonian Institution
Phytologic Museum	Von Müller, Baron Ferd 30006, 30269, 30456
Mala	ıysia.
Aldrich, Hon. T. H. 30569	Schuyler, E. O
Haviland, G. D. 29920	Steere, J. B
Savage, M. F	, 30100
	2030
Polyr	
Fish Commission, U.S	30244

# Islands in the Southern Pacific Ocean.

Accession number.	Accession number.
Agriculture, Department of	Dannefaerd, S
Campbell, W. P	Schuyler, E. O
Chamberlain, Dr. L. T	Scidmore, Miss E. R 30262, 30271
INDEX B.—BY DEPARTMENTS	IN THE NATIONAL MUSEUM.
DEPARTMENT I.	Sörensen, P. H
Mammals.	Storrs, James
Abbott, Dr. W. L	Trembly, Roy 29771
Allen, Frank	Vickers, E. W. 30160, 30216
Anthony, A. W	Ward's Natural Science Establishment 29784
Barnum & Bailey 30657	Woltz, G. W
Berger, G. G	Worthen, C. K
Bretherton, B. J	
Brian, Capt. H. T.       29552         Brockett, Paul       29773	DEPARTMENT II.
Brooks, Dr. W. K	Birds.
Burger, Peter	Abbott, Dr. W. L
Call, R. Ellsworth 30251, 30396	Anthony, A. W
Combs, K. B	Attwater, H. P 30162, 30639, 30697
Cox, Emery 30158	Beck, R. H
Drury, Dr. G. A	Boucard, A
Ennis, Mrs. J. E	Bray, P. H
Figgins, J. D	Bretherton, B.J
Fish Commission, U.S	Brewster, William 30252
30147, 30244, 20250, 30288	Brooks, W. E. 30458
Fisher, J. H. 30533 Franklin, T. W. 30582	Brown, E. J
Frierson, L. S. 30146	Carter, J. C. 30195
Glen Island Museum	Covert, A. B
Grim, William M 30826	Cox, Emery
Happer, Mrs. F. A	Dannefaerd, S
Harvey, Prof. F. L	Day, Charles
Holzner, F. X	Dugès, Dr. A
Johns Hopkins University 30102	Duncan, W. J 30016
Kemeys, Edward	Dwight, Dr. J., jr
La Plata, Museo de	Evermann, Prof. B. W
Marshall, G	Fényes, Dr. A
Magruder, Julian 30150	30123, 30147, 30232, 30244, 30289
Matthews, R. S	Gerrard, Edward
Mearns, Dr. E. A., U. S. Army	Glen Island Museum 30334
30425, 30445	Heyde, Rev. H. T
Meek, Prof. S. E 30243	Hornung, Dr. J 29811
Mills, R. A	Howard, E. L
Newlon, Dr. W. S	Hutchinson, Dr. W. F
Offutt, H. T       29951         Oreutt, C. R       30052	Jndd, E. T
Palmer, Joseph	Judson, W. B.       29971         Kelly, A. E.       30053
Palmer, William	Kern, C. E. 30056
29854, 29861, 29873, 30177, 30656, 30814	Lamb, T. H. P
Pascoe, A. H 30539	La Plata, Museo de
Richmond, C. W	Lee, Thomas
Ridgway, Robert 30481	Lugenbeil, H. G. 29694
Robinson, Lieut. Wirt, U. S. Army 29679, 30203	McElroy, Mrs. K. T
Smithsonian Institution	McGregor, R. C
Smithsonian Institution (National Zoological Park)	McIlhenny, E. A
29626, 29676, 29874, 29905, 29906, 29952	McMillan, P. A. 29824 Mackay, G. H. 29985, 30074
29953, 29954, 29978, 29999, 30034, 30036	Marean, J. B. 29911
30048, 30178, 30179, 30223, 30414, 30439	Marshall, Henry
30448, 30524, 30543, 30596, 30673, 30768	Merrill, Dr. J. C., U. S. Army

Accession number.	1
Miller, G. S., jr	Accession number.
Norton, A. H	Bradley, E. J. 29859
Palmer, William	Clark, Miss E. M. 29726
	Cox, Philip
Prill, Dr. A. G	Cox, W. V
Purdy, J. B	Daniel, Dr. Z. T
Ralph, Dr. W. L 30161, 30381, 30741, 30758	Evermann, Prof. B. W
Rambo, M. Elmer	Figgins, J. D
Richmond, C. W	Fish Commission, U.S
Ridgway, Robert 30509, 30510	Glen Island Museum
Robinson, Lieut. Wirt, U.S. Army 30148, 30194	Held, C. F
Schneck, Dr. J	Hoopes, B. A
Shufeldt, Dr. R. W	Hubbard, H. G. 30326
Smithsonian Institution	Hurter, Julius
30381, 30741, 30758, 30800	To Dieta Marri I
	La Plata, Museo de
Smithsonian Institution (National Zoolog-	Matthews, P. F
ical Park	Matthews, R. S
Sörensen, Rev. P. II	Mearns, Dr. E. A., U. S. Army. 30285
Soulé, Lieut. H. B., U. S. Navy	Mills, R. A 30185, 30493
Steere, J. B	Morlock, Henry 30347
Stephens, F 29741	Orcutt, C. R
Tollin, Oscar	Palmer, William 30257, 30814
Wayne, A. T 30832	Parsons, Dr. W. B
	Richmond, C. W
DEPARTMENT III.	Ridgway, Robert. 30526
Birds' Eggs.	Pohingon Light Wint II C. 4
Abbott, Dr. W. L	Robinson, Lieut. Wirt, U.S. Army. 29679
Arnold, E 30215	Schwarz, E. A
Attwater, H. P	Scollick, J. W
	Sherwood, W. L. 30724
Bangs, Outram	Smith, E 30921
Barlow, Chester	Smith, Dr. H. M
Bartsch, Paul 30793	Test, Dr. F. C
Bendire, Maj. Charles, U. S. Army 29941	Thurber, E. C
Bowles, C. W. 29734, 30720	Walker, B. L
Boynton, Mrs. H. V 30537	Wayman, G. Turner 30700
Brodnax, Dr. B. H 30718	Wilder, Dr. H. H
Brokaw, L. W	30522
Brown, E. J 30779	
Call, Dr. S. J	DEPARTMENT V.
Cobleigh, W. S	
Daniel, J. H., jr	Fishes.
Dennison, G. H	Ackley, Lt. Com. S. M., U. S. Navy 30634
	Coholini Louis
Dwight, Dr. J., jr	Cobolini, Louis
Fish Commission, U. S	Fish Commission, U. S
Grover, W. E	30244, 30301, 30477, 30615
Judd, E. T 29888, 30295	Glen Island Museum
Kern, C. E 30056	Lewis, G. A
Knight, O. W	McGee, W J 30403
Lamb, T. H. P 30730	Oreutt, C. R
Lattin, F. H 30473	Palmer, William 29873 30814
Mathers, Wallace 30803	Richmond, C, W
Merrill, Dr. J. C., U. S. Army	Ridgway, Robert 30596
Prill, Dr. A. G	Sörensen, P. H. 30044
Ralph, Dr. W. L	Woolman, A.J
Richmond, C. W	29303
Riley, J. H	TO THE CONTRACT OF THE CONTRAC
Delineer Line Wint II C 4	DEPARTMENT VI.
Robinson, Lieut. Wirt, U. S. Army. 29803, 29913	34
Sage, J. H	Mollusks.
Smithsonian Institution 30746	Abbott, Dr. W. L
Van Denburgh, J 20699	Agriculture, Department of 29680, 30310, 30400
Widmann, O 29769	Aldrich, Hon. T. H
	Arnold, Delos
DEPARTMENT IV.	Boepple, J. F
REPTILES AND BATRACHIANS.	Roppot André
Abbott, Dr. W. L	Bonnet, André
Blackburn, Dr. J. W	Bradley, E. J
30315	Breed, estate of Dr. Daniel 30076

#### DEPARTMENT VII. Accession number. Burns, Frank ...... 29817 INSECTS. Burtch, Verdi ...... 30462, 30520 Accession number. Campbell, Mrs. J. E ...... 30008, 30370, 30495 ..... 29967 Abbott, Dr. W. L.... Chamberlain, Dr. L. T.... 29962, 3037t, 30427, 30648 Agriculture, Department of ...... 30047 30090, 30213, 30247, 30248, 30274, 30320 Chicago Academy of Seiences. 30132, 30433, 30829 30357, 30478, 30502, 30566, 30595, 30623 Clapp, G. H ...... 29652, 29843 30661, 30662, 30663, 30694, 30695, 30830 Cléret, J ...... 30426 Ashmead, W. H..... 30366 Collinge, W. E ...... 30506 Barnes, Dr. William...... 30044, 30111 Bergmann, Carl F. W ...... 29639 Crevecœur, F. F.... 30369, 30438, 30463, 30523, 30757 Blaisdel, Dr. F. E...... 30430 Bowers, M. A..... 30068 Dexter, Newton...... 30665 Braley, Miss Etta..... 30603 Dugès, Dr. A...... 29568 Bretherton, B. J..... 30468 Dumbell, Mrs. Prentice...... 30218 British West India Committee..... 29922 Brodnax, Dr. B. H...... 30557 Fényes, Dr. A...... 30800 Brunetti, E...... 29558 Burden, C. E...... 29987 Fish Commission, U.S...... 30147, 30244, 30321 Busching, Henry...... 29721 Frierson, L. S ...... 30655 Call, R. Ellsworth...... 30531, 30642 Glen Island Museum ...... 30431 Godbev, Rev. S. M...... 30007 Cockerell, Prof. T. D. A..... 30003 Goodrich, Rev. J. B...... 30278 Hannibal Waterworks ...... 29553 Dolphyn, W. L..... 30213 Hemphill, Henry...... 30241, 30418 Drowne, F. P...... 30647 Hermann & Co., T ...... 30061, 30145 Dyar, H. G...... 30660 Evermann, Prof. B. W...... 29996 Latchford, F. R ...... 30443 Lehman, W. V ...... 30810 Fernald, Prof. C. H...... 30335 Lowe, H. N..... 30441 Fernandez, Enrique...... 30591 Fish Commission, U. S. ...... 30147, 30244 Mazyck, W. G..... 30041 Fox, William J..... 29982 Mearns, Master Louis di Zerega...... 30659 29656, 20848, 30204, 30471, 30649, 30809 Moore, Miss Hettie A...... 30666 Haggatt, E. A...... 30494 Hardeman, Thomas ...... 30702 Moss, W ...... 30727 Newberry, C. E..... 30790 Newcombe, Dr. C. F. ...... 30440, 30568 New York State Museum...... 29753 Hubbard, H. G...... 29975, 30383 Hutton, W. McG...... 29890 Palmer, William ...... 29873, 30814 Jamaica, Institute of ...... 29923 Randolph, P. B..... 29541, 29720, 29966, 30580, 30654 Johnson, W. G ..... 30755 Karlsive, Dr. W.J ...... 30500, 30680 Robinette, G. W...... 30715, 30772 Robinson, Lieut. Wirt, U. S. Army ... 29679, 29758 Klages, H. G ...... 30415 Smithsonian Institution...... 30374 30427, 30648, 30800 Sörensen, Rev. P. H...... 30044 McGee, Prof. W J ...... 30489 McKinley, C ..... 30559 Sword, J. F...... 30808 Walker, Bryant..... 30139 Marx, Mrs. Minnie ...... 30653 Wright, Berlin H..... 30279, 30464 Young Naturalists' Society .... 30428, 30756, 30767 Matthews, R. S. ..... 29567

Accession number.	Accessiou number
Merriam, Dr. C. H	Imperial Royal Natural History Museum 30212
Mills, R. A	Jamaica, Institute of
Morse, Prof. A. T	Jarvis, P.W. 29856, 29986, 30112, 30337, 30564, 30744
Muse, Mrs. E. S	Lafler, H. A
Needham, J. G	Meck, Prof. S. E
Nortbrop, G. J	Mitchell, Hon. J. D. 29884
Orentt, C. R	Museum of Comparative Zoology 30723
Palmer, William 30814	Oreutt, C. R
Phillips, B. F	Palmer, William
Purcell, W	Pearse, A. S
Rallston Brothers	Pittier, H 30687
Randelph, P. B	Richmond, C. W
Richardson. Fred	Robinson, Lieut. Wirt, United States Army. 29679
Richmond, C. W	Royal Biological Station, Helgoland 29938
Robinson, Lieut. Wirt, U. S. Army 29679, 29803	Sawyer, Mrs. S. H
Romeyn, Capt. Henry, U.S. Army 29562	Sörensen, P. H
Rubin, C. A	Stejneger, Dr. L
Schwarz, E. A	Trelease, Prof. William
Scott, Lieut. J. H., U. S. R. M	Young Naturalists' Society
Scudder, Dr. S. H	
Sefton, Ira H	SECTION OF HELMINTHOLOGY.
Sheldon, Prof. C.S	Agriculture, Department of 29663, 29936
Shufeldt, Dr. R. W	Blanchard, Prof. Raphael 29624
Simpson. Dr. J. C	Brandes, Dr.Gustav 29946
Skinner, Dr. Henry 30205, 30632	Brett, Walter 29933
Smith, Prof. J. B	Coekerell, Prof. T. D. A
Smithsonian Institution 30800	Fish Commission, U.S
Smithsonian Institution (Bureau of Eth-	Hall, W. C 29957
nology) 30225	Hubbard, H. G
Standish, B. II	Lamb, Dr. D. S
Stargardter, L	Leuckart, Prof. Rudolph 30024
Tente, F 30173	Mills, R. A 30185
Toomer, Isaac	Smith, Dr. J. B
True, F. W 30561	Stiles, Charles Wardell 29934, 29935, 29945
Udden, Prof. J. A	Stossich, Prof. M
Wayman, G. Turner 30344	Linstow, Dr. O. von
Webb, J. G	DEPARTMENT IX.
Weber, G. E	
Williams, Rev. John B	Comparative Anatomy,
Wilson, J. O 30467	Anthony, A. W
Wooster, A. F	Bardroff, J., & Son
	Bicknell, J. Y 30752
DEPARTMENT VIII.	Blunck, A. E
MARINE INVERTEBRATES.	Dannhanser, Max 30377
	Dorsey, Dr. H. W. 30255
Abbott, Dr. W. L	Ehinger, William, jr 30174, 30721
Agriculture, Department of 30327, 30353	Fish Commission, U.S
Bangs, Outram	Hanselman, J. J 30120
Bean, Dr. T. H	Harvey, F. L
Bradley, Edgar J 29831, 29859, 30107, 30575	Hough, F. C
Breed, estate of Dr. Daniel	Kalding, H. B
Cockerell, Prof. T. D. A	Kny, R., & Co
Conant, F. S	La Plata, Museo de 30571
Costa Rica, National Museum of 30099, 30777	Lagai, Dr. G
Drowne, F. P	Maemillan & Co
Dugès, Dr. A	Palmer, William
Exploring Expedition, U.S	Richmond, C. W. 29648
Fish Commission, U.S. 30126	Robinson, Lieut. Wirt, United States Army. 29679
30147, 30193, 30244, 30395	Schmid, E. S
Glen Island Museum	Shove, D. P
Flowers, J. J., jr	Simms, Willis
Hare, Mrs. W. B. 30356 Hay, W. P. 30541	Smithsoniau Institution
• •	Smithsonian Institution (National Zoologi-
Holmes, S. J.       30072         Hughes, H. F.       30339	cal Park)
50009	29777, 29974, 29991, 30345, 30314, 30419, 30442

Accession number.	Accession number
Treasury Department (Life-Saving Service) 30795	Paviow, Dr. A
Ward's Natural Science Establishment 29550	Peace River Phosphate Company
DEPARTMENT X.	Princeton College
Paleontology.	Raider & Schriver 3007
	Randall, F 3049
VERTEBRATE FOSSILS.	Rice, B. W
Fetch, Rev. J. W	Schaeffer, John B
Hartland, O. H	Schuchert, Charles 30030, 30038, 30039, 3004 Singley, Prof. J. A
Interior Department (U. S. Geological Sur-	Smith, Dr. M. C
vey)	Smithsoniau Institution 3080
Sedore, Jacob       30604         Sims, E. B.       29651	Stose, G. W
Wheelock, L. P	Sturtz, B
W Hectory, 12.1	Thorpe, Dr. II. H
INVERTEBRATE FOSSILS (PALEOZOIC.)	Vogt, Prof. F. A
Billings, W. R	Wagner Free Institute 29699 Walcott, Charles D 3075
Blair, R. A	Walcott, Charles D., jr. 2957
Eofill, Arturo 30367	Ward's Natural Science Establishment 3013
Breed, estate of Dr. Daniel 30076	3060
Carroll, B. F	Whitehorn, Worth 3082
Case, H. B. 30385	Wing, E. T 3057
Cincinnati Society of Natural History 30753 Clapp, G. H 29851	Wright, B. H
Cleveland, Miss Sallie 30270	INVERTEBRATE FOSSILS (CENOZOIC).
Credner, Dr. Herman 30536	
Crocker, Rev. Henry 29764	Frierson, L.S
Crowfoot, Jessie	Singley, J. A
Currie, Rev. Hector 30014	Vignal, L 3010
Damon, R. T 30085	FOSSIL PLANTS.
Daniel, Dr. Z. T	
Dawson, Sir William	Guye, Mr. and Mrs. F. M 3019
Ehrensberger, Fritz	Knight, Prof. W. C. 3004
Fenyés, Dr. A	Lacoe, R. D
Fish Commission, U.S	Squyer, Homer
Fraas, Dr. E	7 001 H/S <sub>1</sub> 11. Q
Geisman, Jacob	DEPARTMENT XI.
Gould, C. N	Botany.
Grant, Col. C. C	Agriculture, Department of 2954:
Greger, D. K	29572, 29599, 29600, 29632, 29642, 29661, 2967
Haas, B. F	29672, 29673, 29687, 29695, 29703, 29704, 2970
Howard, S. W	29710, 29724, 29730, 29739, 29740, 29744, 2974
Howell, E. E	29749, 29750, 29826, 29832, 29833, 29834, 2983
Interior Department (U. S. Geological Sur-	29836, 29837, 29838, 29839, 29845, 29864, 2986
vey)	29872, 29879, 29880, 29885, 29886, 29902, 2990
Kearney, N. J	29904, 29908, 29926, 29956, 29968, 29969, 2997
Kennedy, E. J	29988, 29989, 29992, 29993, 29994, 30026, 3002 30032, 30031, 30050, 30057, 30069, 30071, 3007
King, Dr. C	30078, 30079, 30080, 30095, 30096, 30101, 3010
Krantz, Dr. F	30106, 30135, 30141, 30142, 30143, 30153, 3015
Krauss, Albert	30171, 30172, 30180, 30181, 30182, 30183, 3018
Lemon, Dr. J. H 29574, 29650, 29692, 29980	30187, 30196, 30198, 30221, 30222, 30227, 3022
La Plata, Museo de 30571	30229, 30267, 30268, 30282, 30283, 30284, 3029
Lacoe, R. D	30300, 30325, 30354, 30361, 30387, 30388, 3038
Leuckart, Prof. Rudolph	30390, 30391, 30392, 30407, 30416, 30417, 3044 30451, 30452, 30454, 30461, 30469, 30470, 3047
McGuirl, J. H       30358         McKinnon, Malcom       30017	30480, 30482, 30507, 30528, 30530, 30562, 3056
Macintesh, R	30593, 30594, 30621, 30629, 30617, 30630, 3063
Marsh, Prof. O. C	30669, 30672, 30681, 30684, 30688, 30712, 3071
Morloch, Henry 30347	30734, 30735, 30747, 30748, 30759, 30760, 3076
Nicholson, Prof. H. A	30773, 30778, 30787, 30794, 30797, 30804, 3081
Palmer, William 30814	30819, 30820, 30821, 30822, 30823, 3082

Accession number.	Accession number.
Baulch, William	Garratt, Charles 30075, 30298
Blodgett, Frederick	Gibbons, J. R
Brown, Mrs. N. M	Hetherington, J. P
Calcutta Botanical Garden	Heighway, A. E
Christy, T., & Co	Howell, E. E
Coville, F. V	Interior Department (U. S. Geological Sur-
Curtis, W. T. S	vey) 30136
. Dugès, Dr. A	Jones, J. D
Fargusson, M	Montgomery, R 30236
Fényes, Dr. A	Pearce, Richard
Finck, Hugo	Pennsylvania Salt Manufacturing Co 29735
Fish Commission, U. S 30055, 30224, 30244	Ransome, F. L
Garner, R. L 30455	Remick, A. B
George, J. R 30732	Sims, E. B
Greene, Prof. E. L 30035	Smith, Dr. M. C
Hall, Mrs. C. C	Smithsonian Institution 30317, 30362, 30664
Lemke, Miss Elizabeth 30343	Spanogle, Samuel 30590
Marshall, George 29573, 29566	The Drake Company, Sioux City 30207
Melhourne Botanical Gardens 30009	Tiffany & Company 29759
Mellichamp, J. A	Toms, C. F
Merwin, Mrs. Charles	Van Mater, J. A
Moore, Miss Anna	Wharton, J
Moore, Mrs. A. T	Williamsburg Scientific Society 30479
Neally, G. C	DEPARTMENT XIII.
Neefe, A. N       29871         Nelson, E. W       29670, 29877	
Oberholser, H. C	GEOLOGY.
Olds, H. W	Applegate, J. W. M
Osterhout, G. E	Azeez, Miss A. A
Pollard, C. L	Babbitt Brothers 30408
Pringle, C. G	Bendire, Maj. Charles, U. S. Army 29747
Ramiréz, Señor José	Blake, W. P
Richmond, C. W	Carter, John T
Roberts, Mrs. Percy	Crawford, J. J
Rose, J. N 29590, 29662, 29869, 29870, 29895, 30070	Crosby, F. W
Royal Botanic Gardens, Kew, England 30384	Crosby, F. W. & W. O
Schmidt, J. von	Cross, F. J
Shaw, Lieut. H. P., U. S. Navy (retired) 29800	Damon, R. F
Smithsonian Institution 29646, 30263, 30800	Durden, Henry S. 29785, 29852, 29914, 29955, 30190
Sörensen, Rev. P. H. 30044	Earseman, W. A
Taylor, Miss K. A. 30197	Edgemont Stone Company
Torrey, Mrs. M. C. C. 30709 Vasey, Miss F. N. M 30188, 30230	English, George L., & Company 29715
Very, C. F. 30739	Field Columbian Museum 29602
Von Müller, Baron Ferd 30006, 30269, 30456	Fish Commission, U.S 30147
Waby, J. F. 30263	Fleming, William
White, David	Foote, Dr. A. E
	Foster, George
DEPARTMENT XII.	Fuller, W. H
MINERALS.	Guthrie, Ossian
	Hague, A
Arkansas Commission to the Cotton States and International Exposition	Heckman, J. C. 30447
Booth, John 30149	Heighway, A. E. 29712, 30738 Heymann, S. 29540
Brown, C. F. 30296	Hine, T. W. 29686
Cæsar, Col. G	Horninan Museum
Chamberlain, Dr. L. T 30317, 30362, 30664	Howell, E. E
Chatard, T. M	Hughes, H. F
Clarke, Prof. F. W	Interior Department 30332
Copper Queen Consolidated Mining Co 30576	Interior Department (U.S. Geological Sur-
Couper, W. P	vey) . 29559, 30281, 30346, 30491, 30600, 30601, 30706
Damond, R. F 30208	30707, 30749, 30750, 30751, 30792
Day, Dr. D. T	Johnson, J. F
English, G. L. & Co	Kemp, J. F 30597
Fish Commission, U. S	Krauss, Alfred
NAT MUS 9611	

Accession number.
Kennedy, Clarence
Kent, A. J 30108
Knowles, W. A
Knox, M. V. B 30565
Kremer, Rev. E. M
Lewars, W. H
Lewis, C. H
Lüders, Dr. C. W
Lummins, S. C
McLemore, Tipton 30434
McMillan, P. A 30130
Marshall, Dr. E. B 30260
Matthews, P. F
Miller, Charles, jr
Montelar, M. le Marquis de 30189
Moore, P. A
Moorehead, W. K
New Brunswick, Natural History Soci-
ety of
Nicklin, J. B
Noyes, Isaac P
Owen, Miss M. A 29899
Pearse, A. S
Phelps, G. R 30717
Plumb, J. Neale 30512
Pollard, Norval 30345, 30766, 30827
Pridemore, Gen. A. L 29857
Royal Zoological Museum, Florence, Italy. 3074:
Samson, A. A
Shelley, D. H. 2968
Smith, T. B. 30042
Smithsonian Institution
Smithsonian Institution (Bureau of Eth-
nology) 29990, 30517
Snyder, Dr. J. J 30012
Spanogle, Samuel 30590
Steiner, Dr. Roland 29546, 29912, 30420
Stewart, Dr. T. B
Stilwell, L. W
Thompson, Mrs. J. M 3055
Torrey, Mrs. M. C. C
Tracy, Andrew
Tweed, J. W
Way, N. S. 3037
Weir, Paul
Wilson, Miss S. R
Wilson, Thomas 29612, 29630, 30134, 30618
DEPARTMENT XV.
ETHNOLOGY.
Abbott, Dr. W. L 29960, 29967, 3074
Adler, Dr. Cyrus
Adler, Dr. Felix 30206
Agriculture, Department of
Allen, Pardon 20738
Azeez, Miss A. A
Barber, Dr. E. A
Bartleman, R. M 30729
Benjamin, William E 29660
Boas, Dr. Franz 30195
Bond, G. J 30340
Braida, S. C 30129
Brown, Capt. W. C., U. S. Army 30140

Accession number.	Accession number.
Bryant, H. G 30514	Smithsonian Institution (Bureau of Eth-
Burnett, Dr. S. M	nology)
Bush, S. S	29889, 30341, 30497, 30498, 30579, 30646
Campbell, W. P	Standinger and Bang Haas 29587
Carl, Wohlgemuth 30402	Wulzberger, S
Cawood, W. H. H	Wesley, William, & Son 29606, 29814, 29815
Crenshaw, Mrs. W. H 30769	Wilkinson, E. C
Culin, Stewart	
Dall, W. H 30046	DEPARTMENT XVI.
Damon, R. F 30208	Oriental Antiquities.
Daniel, Dr. Z. T 30114	
Deeble, Dr. H. M 30802	Adler, Dr. Cyrus
Dieffenbach, J. G	Royal Museum, Berlin, Germany
Dorsey, G. A 29943	Turner, Mrs. W. W 30570
Fényes, Dr. A	DEPARTMENT XVII.
Fewkes, Dr. J. Walter 30432, 30606, 30781	
Fukustima, Kimma 30496	ARTS AND INDUSTRIES.
Funk and Wagnall Company 30708	Abbott, Dr. W. L
Germansky, A. L	Adler, Dr. Cyrus
Glen Island Museum 29752, 30021	Arup Brothers
Goode, Dr. G. Brown	Autocopyist Company
Haddon, Dr. A. C	Beale, C. F. T
Haskell, G. W	Blackmar, Gen. W. W
Hawley, F. S	Blackford, J. W
Heade, M.J	Brown, Mrs. J. Crosby 29593, 29793, 30167, 30431
High School Museum, Saginaw, Mich 30083	Brown, W.D
Horniman Museum	Brownell, estate of Lieut. Frank E 30411
Hongh, Miss Clara	Cartwright, O. C
Hough, F. C	Castor, T. H., & Co
Hough, Walter	Copp, John B
Hunton, T. G 30066	Cranch, Mrs. C. D
Jerichor, Professor	Daggett, Albert 30373
Johnson, J. E	Davis, C. E
Kahn, David	Doubleday, Mrs. Abner
Kocher, Dr. J. F	Du Bose, Mrs. J. W
Kreko, Gabriel de	Dugès, Dr. A
Leggatt Brothers 29797	Earle, J. S., & Sons
Lemke, Miss Elizabeth 30343	Earll, R. E. 30292, 30293
Lovett, Edward	Electric Storage Battery Company, Phila-
Lubny Museum, Russia	delphia
McGuire, J. D. 30220	Elliott, R. I. 30572
Marashlian, S. S. 30516	Evans, A. B. 30348
Matthews, Dr. Washington, U. S. Army 30086	Farmer, Miss S. J
30151	Fenyés, Dr. A
Matthews, Mrs. Washington	Fish Commission, U.S. 29551
Merriam, Dr. C. H. 30472	Franklin & Co. 29634
Merrill, G.P. 29737	Gardner, A. L. 29538
Merrill, H.C. 30025	
Morse, Rev. P. H	Gilder, R. W 30023 Glover, Rev. A. K 29581
Niblack, Lieut. A. P., U. S. Navy 30685	Goode, Dr. G. Brown
Palestine Exploration Fund, London 29586	Griswold, N. L. 30728
Pennsylvania, University of 29701, 29702	Hiatt, J. W. 30652, 30690
	Hornstein, L. 30322
Pettigrew, F. W	Interior Department (U. S. Patent Office) 30157
Phillips, Barnet	
Robertson, E. L	Japanese Fan Company, New York 29810
Rockhill, Hon. W. W 29892, 30022, 30613, 30677	Jenson, Lawrence 2963
Royal Zoological Museum, Florence, Italy. 30742	Jewett, Mrs. 30719
Samson, Clara W	Jörgenson, S. M. 30689
Savage, M. F	Kan Ko Ba. 29610
Schuyler, E. O	Kunz, G. F. 2979:
Schlüter, Dr. Wilhelm 29605	Langley, Hon. S. P. 29616, 29617, 29618, 29619, 2979
Schweinburg, Fraulein Victoria. 29891	Laun, John 3045
Scidmore, Miss E. R	Lubny Museum, Russia
Shipley, E. E	Lycett, Edward
Smithsonian Institution	Lycett, William

Accession number.	Accession number
Mason, Prof. O. T	Soria, Señor D. Arturo
Mayer, Robert, & Co 30635	Souhami, A. R 3008
Morse, E. L 30763	Swain, John, & Son
New Brunswick, Natural History Society	Sweeny, T. W 3025
of 30511, 30799	Tenney, Miss Hattie 2990
Philadelphia, City Council of 29918	The Brusstar Ship Building Company 2991
Phytologic Museum, Australia 30398	The Telegraphic Historical Society of
Prestel, F. A. C 30637	North America 30578, 3078
Reed, H. A	Tiffany, C. L 3045
Rockhill, Hon. W. W 29808	Tiffany & Co
Rockwood Pottery Company 30586	Treasury Department, U. S 3036
Savage, M. F 30547	True, F. W 3011
Schott, Mrs. Augusta 30525	Tubb, C. L
Schnyler, E. O	Turner, Miss S. W
Scidmore, Miss E. R 30540	Van Deusen, R. T 3030
Sheppard, Lieutenant, U. S. Navy 29863	Ward's Natural Science Establishment 2959
Smithsonian Institution 29868	Weeks, R
29981, 30406, 30689, 30800	Wise, Hon. H. S
Smolinski, Joseph	

### APPENDIX III.

LIST OF ACCESSIONS TO THE MUSEUM LIBRARY BY GIFT AND EX-CHANGE DURING THE FISCAL YEAR ENDING JUNE 30, 1896.1

### I.—INSTITUTIONS.

### AFRICA.

### Cape Colony.

Cape Town.

SOUTH AFRICAN MUSEUM.

Report of trustees, 1894-1895.

SOUTH AFRICAN PHILOSOPHICAL SO-CIETY.

Transactions, VIII, pt. 2, 1892-1895. (III, pt. 2; v, pt. 2; vI, pts. 1-2; VII, pt. 1; VIII, pt. 1.)

### Egytp.

Cairo.

INSTITUT ÉGYPTIEN.

Bulletin (3) v, pts. 4-7, 1894. ((3) v, pts. 1-3.)

Société Khédiviale de Géographie. Catalogue sommaire des monuments esposés dans le Musée National de l'art Arabe. Max Herz. Cairo, 1895. 12 mo, 187 pp.

### AMERICA.

#### NORTH AMERICA.

British America.

Canada.

Chicoutimi.

Le Naturaliste Canadien, XXII, pts. 8-12, 1895; XXIII, pts. 1-5, 1896. (XXI; XXII, pts. 1-6.)

Halifax.

NOVA SCOTIAN INSTITUTE OF NATURAL SCIENCE.

Proceedings and transactions, (2) 1, pt. 4, 1895; II, pt. 1, 1895. (I, pt. 4; II; IV, pts. 1-3; v, pts. 3-4; VI-VII; (2) I, pts. 1-3.)

### Montreal.

GEOLOGICAL SURVEY OF CANADA.

Annual reports (new series), vi, 1892-1893. (1843–1871, 1874–1891.)

Contributions to Canadian paleontology, II, pt. 1, 1895. (Complete.)

Maps, Nova Scotia, sheets Nos. 25-38. Ottawa, 1895, 8vo.

Maps of the principal auriferous creeks in the Cariboo mining district, British Columbia. Amos Bowman, Nos. 364-372, Ottawa, 1895. 8vo.

Paleozoic fossils, J. F. Whiteaves. ш, рt. 2, 1895. (г, п, рt. 1; ш, pt. 1.)

NATURAL HISTORY SOCIETY.

Canadian record of science, VI, pts. 3-8, 1894-1896. (Complete.)

ST. LAURENT COLLEGE, LIBRARY AND Museum.

Bulletins 10-11, 1894-1895.

Toronto.

CANADIAN INSTITUTE.

Functions of a great university. J. M. Clark. Toronto, 1895, 8 vo.

Transactions IV, pt. 2, 1895. (Complete.)

Ottawa.

DEPARTMENT OF AGRICULTURE, CEN-TRAL EXPERIMENTAL FARM. Bulletins 21-23, 1895.

Report, 1894. Quebec.

Université Laval.

Annuaire, 1895-1896. (1892-1894.)

<sup>1</sup> The numbers of volumes and parts given in parentheses at the end of each citation indicate what the library already possessed of the various series.

St. John.

NATURAL HISTORY SOCIETY OF NEW BRUNSWICK.

Bulletins 13-14, 1895. (1-5, 10-11.) Teredo notes. E. T. P. Shewen. St. John, 1895. 8 vo, 6 pp.

Winnipeg.

DEPARTMENT OF AGRICULTURE AND IMMIGRATION.

Bulletins 47-48, 1895. (44-45.)

### Mexico.

Aguascalientes.

EL INSTRUCTOR, XII, pts. 3-4, 1895.

Mexico.

Comision Geologica.

Boletín 1, 1895.

Instituto Geologico de México. Boletín 2, 1895.

Description d'un Axolotl des montagnes de Las Cruces. Alf. Duges. México, 1895. 8 vo, 6 pp.

Expedicion científica á Popocatepetl. G. José. México, 1895. 8 vo, 48 pp.

INSTITUTO MÉDICO NACIONAL.

Anales, I, pt. 8, 1896. (Complete.)

MEXICAN COMMISSION OF THE AT-LANTA EXPOSITION.

Arte del idioma tarasco . . . año de 1714. P. F. D. Basalenque. México, 1886. fol, 86 pp.

Cartilla huasteca con su gramática, diccionario, y varias reglas para aprender el idioma. Marcelo Alejandre. México, 1890. fol., 179 pp.

Coleccion de documentos é informes sobre la Langosta, qua ha invadido la República . . . 1879-1886. México, 1886. 8vo, 705 pp.

Datos para la materia médica Mexicana. Pt. 1. México, 1895. 8vo, 515 pp.

Estudio arqueológico y jeroglífico del calendario ó gran libro astronómico, histórico, cromológico de los antiquos Indios. D. Abadiano. México, 1889. 8vo, 202 pp.

Flora Mexicana. Ed. 2, M. Sessé and J. M. Mociño. México, 1894. fol, 249 pp.

Gramática de la lengua zapoteca. México, 1886. fol, 143 pp.

Historia de la médicina en México, 1-111. México, 1886-1888. 4to. Mexico-Continued.

MEXICAN COMMISSION OF THE AT-LANTA EXPOSITION—Continued.

Nombres géográficos del estado de Tabasco. J. N. Rovirosa. México, 1888. 4to, 36 pp.

Piscicultura en aqua dulce. Estéban Cházari. México, 1884. 8vo, 828 pp.

Plantæ novæ Hispaniæ. Ed. 2. M. Sessé and J. M. Mociño. México, 1893. fol, 175 pp.

Sinopsis mineralógica. C. F. de Landero. México, 1891. 8vo, 528 pp.

Tratado de geología. Mariano Bárcena. México, 1886. 8vo, 435 pp. Museo Nacional de México.

Catálogo de la collección de anthropología. No. 4. H. L. Herrera. México, 1895. 8vo, 164 pp.

Catálogo de la collección de aves del Museo Nacional. No. 2. H. L. Herrera. México, 1895. 8vo, 114 pp.

Catálogo de la collección de mamíferos del Museo Nacional. No. 1. H. L. Herrera. México, 1895. 8vo, 41 pp.

Catálogo de la collección de reptiles y batracios. No. 3. H. L. Herrera. México, 1895. 8vo, 65 pp.

Catálogo del departamento de arqueología. No. 1. Jesus Galindo. México, 1895. 102 p.

Guia para visitar los salones de história de México. México [n.d.]. 8vo, 147 pp.

Sociedad científica. "Antonia Alzate." Memorias y revista, 1X, pts. 1-6, 1895-1896. (III-VII.)

Tacubaya.

Cosmos. I, pts. 1-24; II, pts. 1-10, 1892-1893.

#### United States.

### Alabama.

Auburn.

AGRICULTURAL EXPERIMENT STATION. Bulletins (new series), 70-71, 1896. (New series), 1-66.)

Birmingham.

NATURAL HISTORY AND PHILOSOPHI-CAL SOCIETY.

Proceedings, IX, pt. 2, 1896.

#### Arizona.

Tucson.

AGRICULTURAL EXPERIMENT STATION. Bulletins 13-14, 1895.

#### Arkansas.

Fayetteville.

Agricultural Experiment Station.
Annual reports, 1889-1892.

Bulletins 20, 30-31, 1891-1894. (2, 5-10, 12-19.)

### California.

Berkeley.

College of Agriculture—Experiment Station.

Bulletins 109-110, 1896. (82-108.)

Report of the work of the agricultural experiment stations. Sacramento, 1896. 8vo, 481, pp.

UNIVERSITY OF CALIFORNIA.

Bulletin of the department of geology, I, pts. 10-14, 1895-1896. (Complete.)

Critical periods in the history of the earth. Joseph Le Conte. Berkeley, 1895. 8vo, 24 pp.

Lick Observatory contributions. No. 5, 1895. (Complete.)

Olives, pickling processes, etc. A. P. Hayne. Sacramento, 1895. 8vo, 37 pp.

Register, 1895–1896. (1875, 1877–1883, 1887–1895.)

Palo Alto.

LELAND STANFORD JUNIOR UNIVER-SITY.

Fishes of Sinaloa. David Starr Jordan. Palo Alto, 1895. 8vo, 64 pp.

Publications (geology and paleontology), No. 1, 1895.

San Diego.

OUT OF DOORS FOR WOMEN, II, pt. 21, 1895. (I, pts. 1-2.)

West American Scientist, IX, pt. 80, 1895. (i, pts. 1, 3, 5, 10-11; ii, pts. 12-19; iii, pts. 22-24, 26-31; iv, pts. 33-38; vii-viii; ix, pt. 78.)

#### Sacramento.

California State Mining Bureau. Bulletins, 5-8, 1895-1896. (4.)

San Francisco.

California Academy of Sciences. Memoirs, II, t. 5, 1896. (II, pts. 1-4.) Proceedings, (2) v. pts. 1-2, 1896. (1-VI; VII, pt. 1; (2) 1-IV.) San Francisco-Continued.

INDUSTRY, pts. 84-90, 1895-1896. (Pts. 74, 76-83.)

#### Colorado.

Colorado Springs.

COLORADO COLLEGE.

Studies, VI, 1896. (Complete.)

Denver.

COLORADO SCIENTIFIC SOCIETY.

Determination of bismuth in refined lead. L. G. Eakins. Denver, 1895. 8vo, 9 pp.

Dyke on the Columbia vein in Ward district, Boulder County, Colo. C. S. Palmer and W. B. Stoddard. Denver, 1895. 8vo, 6 pp.

Nickel deposits near Riddles, Oregon. W. L. Austin. [Denver, 1896.] 8vo, 27 pp.

Occurrence of Tellurium in oxidized form associated with gold. Richard Pearce. Denver, 1895. 8vo, 4 pp.

Proceedings, IV, 1891-1893. (II, pts. 1-2; III, pts. 1-3.)

Recent history and present status of chemistry. Charles S. Palmer. Denver, 1894. 8vo, 15 pp.

Some notes on the occurrence of Uraninite in Colorado. Richard Pearce. Denver, 1895. 8vo, 3 pp.

Vein structure in the Enterprise mine. T. A. Richard. Denver, [n.d]. 8vo, 8 pp.

Volcanie rock of Alum Hill, Boulder County, Colo. C. Irving Andrews. Denver, 1895. 8vo, 8 pp.

MINING REVIEW, XXXIV, pts. 26-32, 1895. (XXXI, pts. 4-24, 26; XXXII; XXXIII, pts. 2-3, 5-11, 17-26; XXXIV, pts. 1-25.)

Fort Collins.

STATE AGRICULTURAL COLLEGE EX-PERIMENT STATION.

Bulletin 31, 1893. (4-6, 9-30.)

#### Connecticut.

Meriden.

SCIENTIFIC ASSOCIATION.

Annual address. J. T. Pettee. Meriden, 1893. 8vo, 31 pp.

Transactions, 11, 1885-1886; v, 1893. (111-1v.)

New Haven.

CONNECTICUT ACADEMY OF ARTS AND SCIENCES.

Transactions, IX, pt. 2, 1895. (v, pt. 1, 6-8.)

CONNECTICUT STATE BOARD OF HEALTH.

Monthly bulletin, x, pt. 2, 1895. (II, pts. 11-12; III-VII; VIII, pts. 8-11; IX, pts. 2, 9.)

Portland.

OBSERVER, THE. VI, pts. 9-12, 1895; VII, pts. 1-4, 1896. (Complete.) PRACTICAL MICROSCOPY, VI, pt. 8, 1895. (VI, pts. 1, 4.)

#### Delaware.

Wilmington.

DELAWARE COLLEGE AGRICULTURAL EXPERIMENT STATION.

Sixth annual report, 1893. (Complete.)

Bulletins 25-26, 1895. (Complete.)

#### District of Columbia.

Washington.

AGRICULTURE, DEPARTMENT OF.

Bureau of Animal Industry. Bulletin 10, 1896. (4, 6-7.)

Circular, Nos. 4-5, 1895.

Division of Agricultural Soils.

Bulletin 5, 1896. (2-4.) Division of Agrostology.

Bulletins 1-2, 1895-1896.

Division of Entomology.

Insect life, VII, pt. 5, 1895. (Complete.)

Technical Series No. 1.

Division of Forestry.

Circular; Nos. 11 and 13, 1896.

Division of Ornithology and Mammalogy.

North American Fauna, No. 10, 1895. (Nos. 1-5, 7-8.)

Division of Statistics.

Bulletin 9, 1895. Miscellaneous series.

Library.

Bulletins 8, 10-11, 1895-96. (1-4, 6-7.)

Office of Experiment Station.

Bulletins 28-29, 1896. (22, 24-26.)

Report of the Secretary, 1895. (1889, 1891, 1893.)

Section of Foreign Markets. Circular No. 8 [n. d.].

Washington-Continued.

AGRICULTURE, DEPARTMENT OF—Continued.

Weather Bureau.

Monthly Weather Review, XXIII, pts. 6-10, 1895. (XXI, pts. 10-13; XXII, XXIII, pts. 1-5.)

Weather report: Nebraska weather review, 1895.

AMERICAN JEWISH HISTORICAL SO-CIETY.

Publications, pts. 2-4, 1889-1896 (Complete.)

AMERICAN MONTHLY MICROSCOPICAL JOURNAL, XVI, pts. 7-12, 1895; XVII, pts. 1-6, 1896. (I, pt. 2; II, pt. 4.; v, pts. 1-11; vI, pts. 1-5,7-9, 11; vII, pts. 4, 6, 10; vIII, pts. 4-5, 7-12; IX; XI, pts. 1-11; XII; XIII, pts. 2-12; XIV-XV; XVI, pts. 1-6.)

ANTHROPOLOGICAL SOCIETY OF WASII-INGTON.

AMERICAN ANTHROPOLOGIST, VIII, pts. 2-4, 1895; IX, pts. 1-6, 1896. (Complete.)

Assay Commissioners, Board of. Proceedings, 1896.

Biological Society of Washington. Proceedings, x, pp. 55-92, 115-125, 1896. (Complete.)

CENSUS BUREAU.

Abstract of the Eleventh Census, 1890. Ed. 2. Washington, 1896. 8vo, 300 pp.

Report on crime, pauperism, and benevolence in the United States. Pt. 2. General tables. F. H. Wines. Washington, 1895. 4to, 1035 pp.

Report on manufacturing industries of the United States at the Eleventh Census, 1890. Pt. 2. Statistics of cities. Pt. 3. Selected industries. Washington, 1895. 4to.

Report on statistics of churches in the United States. Washington, 1894. 4to, 812 pp.

Report on transportation business in the United States, 1890. H. C. Adams. Pt. 1. Transportation by land. Washington, 1895. 4to, 867 pp. Pt. 2. Transportation by water. Washington, 1894. 4to, 532 pp. Washington-Continued.

CENSUS BUREAU-Continued.

Report on vital and social statistics in the United States, 1890. Pt. 3. Statistics of deaths. J. S. Billings. Washington, 1894. 4to, 1051 pp.

Report on wealth, debt, and taxation of the Eleventh Census. Pt. 2. Valuation and taxation. J. K. Upton. Washington, 1895. 4to, 654 pp.

Statistics of agriculture. Agriculture by irrigation. Statistics of fisheries. Washington, 1895. 4to.

CIVIL SERVICE COMMISSION.

Report XI, 1893-94.

COAST AND GEODETIC SURVEY.

Report, 1893, 1894, pts. 1-2; 1895, pts. 1-2. (1851-1866, 1868-1892.)

EDUCATION, BUREAU OF.

Report, 1892–1893. (1884–1885; 1886–1887, 1888–1890.)

Science of nutrition and art of cooking in the Aladdin oven. Edward Atkinson. Boston, 1896.
8vo. 246 pp.

ETHNOLOGY, BUREAU OF.

Annual report, XIII, 1896. (Complete.)

FISH COMMISSION.

American lobster. F. H. Herrick. Washington, 1895. 4to, 252 pp.

Contributions toward the improvement of salmonoids and crawfish in smaller water courses. Karl. Wozelka-Iglau. Washington, 1896. 4to, 10 pp.

Establishment of stations for the propagation of salmon on the Pacific coast. J. J. Brice. Washington, 1896. 8vo, 6 pp.

Fishes of the Neuse River basin. B. W. Evermann and U. O. Cox. Washington, 1895. 4to, 8 pp.

Fisheries of the Pacific coast. Wm. A. Wilcox. Washington, 1895. 8vo, 176 pp.

Food of the oyster, clam, and ribbed mussel. John Lotsy. Washington, 1896. 8vo, 11 pp.

List of fishes and mollusks collected in Arkansas and Indian Territory in 1894. S. E. Meek. Washington, 1896. 9 pp. Washington-Continued.

FISH COMMISSION-Continued.

Notes on fish culture in Germany. S. Jaffé. Washington, 1895. 4to, 14 pp.

Notes on the investigation of the menhaden fishery in 1894, with special reference to the foodfishes taken. Hugh M. Smith. Washington, 1895. 4to, 18 pp.

Preliminary report upon salmon investigation in Idaho in 1894. B. W. Evermann. Washington, 1895. 4to, 32 pp.

Review of the history and results of the attempts to acclimatize fish and other water animals in the Pacific States. Hugh M. Smith. Washington, 1896. 4to, 94 pp.

Report upon ichthyological investigations in western Minnesota and eastern North Dakota. A. J. Woolman. Washington, 1896. 8vo, 31 pp.

Report on a reconnoissance of the oyster beds of Mobile Bay and Mississippi Sound, Alabama. Homer P. Ritter. Washington, 1896.

Report of the U. S. Commissioner of Fish and Fisheries. XIX, 1893. (I-X, XII-XVIII.)

Report on the work of the U. S. Fish Commission steamer Albatross, 1893. Z. L. Tanner. Washington, 1896. 4to, 37 pp.

GEOGRAPHIC NAMES, BOARD OF.

Bulletins 2-3, 1891.

Decisions, 1895-1896.

Report, 1890, 1891.

GEOLOGICAL SURVEY.

Annual reports, XIV, 1893, and XV, 1894. (Complete.)

Bulletins, 118-122, 1894. (1-86, 90-117.)

Geologicatlas of the United States, pts. 1-6, 8-12. Washington, 1894, 4to.

Monographs 23-24, 1894. (Complete.)

LABOR, DEPARTMENT OF.

Bulletins, 1-4, 1895-96.

8th special report of the Commissioner of Labor, 1895. (7.)

LIGHT-HOUSE BOARD.

List of lights and fog signals on the Atlantic and Gulf coasts. Washington, 1896. 8vo, 147 pp. Washington-Continued.

NATIONAL GEOGRAPHIC SOCIETY.

National Geographic Magazine, VII, pts. 3-7, 1896. (1 pts. 1-4; III, pp. 53-204.)

NATIONAL MUSEUM.

Bulletins, 47-48. (Complete.)

Chinese games with dice and dominoes. Stewart Culin. Washington, 1895. 8vo, 47 pp.

Cowbirds. Charles Bendire. Washington, 1895. 8vo, 38 pp.

If public libraries, why not public museums. E. S. Morse. Washington, 1895. 8vo, 10 pp.

Museum collections to illustrate religious history and ceremonials.
Cyrus Adler. Washington, 1895.
8vo, 10 pp.

Notes on the ethnology of Tibet. W. W. Rockhill. Washington, 1895.

8vo, 83 pp.

Onyx marbles: Their origin, composition, and uses, both ancient and modern. George P. Merrill. Washington, 1895. 8vo, 45 pp.

Poisonous snakes of North America. L. Stejneger. Washington, 1895. 8vo, 51 pp.

Primitive American armor. Walter Hough. Washington, 1895. 8vo, 27 pp.

Proceedings, XVII, 1894; XVIII, 1895. (Complete.)

Two Persepolitan casts in the United States National Museum. Cyrus Adler. Washington, 1895. 8vo, 3 pp.

The weapons and wings of birds. F. A. Lucas. Washington, 1895. 8vo, 11 pp.

PUBLIC DOCUMENTS, SUPERINTEND-ENT OF.

Public documents . . . check list. Washington, 1895. 8vo, 222

Report of the iron regions of northern Louisana and eastern Texas.
[Lawrence C. Johnson.] Washington, 1888. 12 mo, 54 pp.

SMITHSONIAN INSTITUTION.

Account of the Smithsonian Institution, its origin, history, objects, and achievements. G. Brown Goode. Washington, 1895. 8vo, 38 pp. Washington-Continued.

SMITHSONIAN INSTITUTION—Cont'd.

Alphabetical vocabularies of the Challam and Lummi. George Gibbs. New York, 1863. fol., 36 pp.

Annual report of the board of regents, 1893. (Complete.)

Cartlidge porcelain works. Edwin A. Barber. Indianapolis, 1895. 8vo, 59 pp.

Composition of expired air and its effects upon animal life. J. S. Billings, S. W. Mitchell, and D. H. Bergen. Washington, 1895. fol, 81 pp.

Densities of oxygen and hydrogen. Edward W. Morley. Washington, 1895. 4to, 128 pp.

Exhibit of the Smithsonian Institution at the Cotton States Exposition at Atlanta. Washington, 1895. 8vo.

Index to Cerium and Lanthanum. W. H. Magee. Washington, 1895. 8vo, 43 pp.

Index to Foraminifera. pt. 2. Charles
Davies Sherborn. Washington,
1896. 8vo, 42 pp.

Index to the literature of Didymium.

A. C. Langmuir. Washington,
1894. 8vo, 17 pp.

Plantæ Wrightianæ Texano—Neo Mexicanæ. Asa Gray. III, pts. 1-2. Cambridge, 1850 and 1852. 4to.

Radices verborum iroquæorum; radical words of the Mohawk language.

Jacques Bruyas. New York, 1852.

4to, 123 pp.

Report of S. P. Langley, 1895.

SURGEON-GENERAL'S OFFICE.

Alphabetical list of abbreviations of titles of medical periodicals employed in index-catalogue. I-XVI, inclusive. Washington, 1895. 4to, 282 pp.

Index catalogue of the library of the Surgeon-General's Office. (2) 1. Washington, 1895. 4to, 822 pp. (Complete.)

TREASURY DEPARTMENT.

Annual report of the Solicitor, 1895.

Washington-Continued.

TREASURY DEPARTMENT—Continued.

Annual report of the supervising surgeon-general of the Marine-Hospital Service of the United States for 1865.

Report of the Life-Saving Service, 1895. (1881-1889.)

WAR, DEPARTMENT OF.

Index to the report of Chief of Engineers U. S. Army. 1888-1892.

Mexican bibliography of general literature. Pt. 1, 1896.

Subject catalogue of the War Department Library. No. 1. Washington, 1894, 4to, 36 pp.

Subject catalogue No. 2. Index to periodicals, annuals, and serials. Rev. ed. 4to, 37 pp.

#### Florida.

Jacksonville.

FLORIDA AGRICULTURAL EXPERIMENT STATION.

Bulletins 31, 1895, and 35, 1896. (1-24.)

Catalogue, 1894-1895.

#### Georgia.

Altanta.

STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS—GEORGIA EXPERIMENT STATION.

Bulletins 22-26, 1893-1894. (('omplete.)

### Illinois.

Abingdon.

NATURALIST AND COLLECTOR, I, pts. 1-3, 1895.

Chicago.

ACADEMY OF SCIENCES.

Bulletin (geological and natural history series) No. 1, 1896.

A naturalist in Mexico. Frank C. Baker. Chicago, 1895. 8vo, 145 pp.

FIELD COLUMBIAN MUSEUM.

Annual report of director, 1894-1895. Publications.

Anthropological series, 1, pt. 1,1895. Botanical series, 1, pts. 1-2, 1895. Geological series, 1, pt. 1, 1895.

Ornithological series, 1, pt. 1, 1896. Report series, 1, pt. 1, 1895.

Zoological series, 1, pts. 1-3, 1895.

### Evanston.

Northwestern University. Catalogue, 1894-1895. Springfield.

ILLINOIS STATE MUSEUM OF NATURAL HISTORY.

Bulletins 8-9, 1896. (3-6.)

Urbana.

UNIVERSITY OF ILLINOIS AGRICUL-TURAL EXPERIMENT STATION. Bulletins 43-45, 1895. (Complete.)

#### Indiana.

Lafayette.

PURDUE UNIVERSITY AGRICULTURAL EXPERIMENT STATION. Bulletins 52-54, 1894-1895. (5-6, 11,

13-51.)

#### lowa.

Ames.

AGRICULTURAL EXPERIMENT STATION.
Bulletins 28-31, 1895. (Complete.)
Darenport.

ACADEMY OF SCIENCES.

Summary of the archæology of Iowa. F. Starr. Davenport, 1895. 8vo, 72 pp.

Proceedings, vi, pt. 1, 1893. (Complete.)

Des Moines.

IOWA HISTORICAL DEPARTMENT, Annals (3), 11, pt. 5, 1896.

Iowa City.

STATE HISTORICAL SOCIETY.

Documentary material relating to the history of Iowa. Nos. 1-2. Iowa City, 1895.

Record, XI, pt. 4, 1895; XII, pt. 2, 1896. (X, XI, pts. 1-3.)

### Kansas.

Topeka.

STATE AGRICULTURAL COLLEGE.

Annual report, VIII, 1895. (Complete.)

Kansas State Historical Society. Biennial report, 1x, 1895.

KANSAS ACADEMY OF SCIENCES.

Transactions, XIV, 1893-1894. (I-III. VIII-XIII.)

Kansas University Quarterly, 111, pts. 2-4, 1894-1895; IV, 1895-1896. (Complete.)

### Kentucky.

Lexinaton.

STATE COLLEGE AGRICULTURAL EXPERIMENT STATION.

Bulletins, 1-7, 9, 11-55, 63, 1885-1896. Circulars, 1-3, 1885-1890.

Reports, 1888-1893.

Owensboro.

INVESTIGATORS' CLUB.

Papers, 1895. 8vo, 93 pp.

### Louisiana.

Baton Rouge.

STATE EXPERIMENT STATIONS.

Bienuial reports, 1890, 1892, 1893, 1894.

Bulletins (2), 34–36, 1895. (32–33.)

#### Mainea

Portland.

SOCIETY OF NATURAL HISTORY.

Proceedings, 11, pt. 3, 1895. (1881, pts. 1, 3, 10-11; 1882, pts. 8, 10-11; 1889, pt. 9.)

### Maryland.

Baltimore.

JOHNS HOPKINS UNIVERSITY.

Annual report, xx, 1895. (1877-1879, 1885-1887, 1890-91, 1893.)

Circulars, XIV, pt. 120, 1895; XV, pts. 121-126, 1895-96. (I-II; III, pts. 27-31; IV, pts. 36-42; V-VI; VII, pts. 60-62, 64-67; VIII-XIII; XIV, pts. 115-118.)

Studies in the biological laboratory, 111, pt. 8, 1886. (1, 11, pts. 2-4;

Studies in historical and political science, XIII, pts. 8-12, 1895; XIV, pts. 1-7, 1896. (VIII-XII; XIII, pts. 1-7.)

Register, 1895–1896. (1880–1881, 1884–1894.)

College Park.

MARYLAND AGRICULTURE EXPERIMENT STATION.

Annual report, VIII, 1895. (Complete.) Bulletins, 34–38, 1896. (Complete.)

#### Massachusetts.

Amherst.

AGRICULTURAL COLLEGE EXPERIMENT STATION.

Annual report, XXXIII, 1896.

Crambidæ of North America. C. H. Fernald. Amherst, 1896. 8vo. 93 pp.

HATCH EXPERIMENT STATION.

Annual report, VIII, 1896.

Annual summary, 1895.

Bulletins, 30-39, 1895-1896. (Complete.)

METEOROLOGICAL OBSERVATORY.

Bulletins, 82-90, 1895-1896. (1-4, 11-13, 15, 17, 21-22, 23-87.)

Boston.

APPALACHIAN MOUNTAIN CLUB.

Appalachia, VIII, pt. 1, 1896. (Complete.)

Register, 1896.

MUSEUM OF FINE ARTS.

Annual report, XIX, 1895; XX, 1896.

SOCIETY OF NATURAL HISTORY.

Memoirs, v, pts. 1-2, 1895. (Complete.)

Proceedings, XXVII, pts. 1-6, 1894. (Complete.)

### Cambridge.

HARVARD UNIVERSITY.

Botany. List of plants obtained on the Peary auxiliary expedition of 1894. H. Emerson Wetherill. Boston, [n. d.] 8vo, 10 pp.

Contributions from the Gray Herbarium (new series), No. 9, 1895. (Nos. 1, 3-18, new series, 1-8.)

Nomenclature question. B. L. Robinson. Boston, [n. d.] 8vo, 3 pp.

Museum of Comparative Zoology. Annual report, 1894-1895. (1, 111-x, XIII, XVI-XXV.)

Bulletins, XXVII, pts. 2-7, 1895; XXVIII, pt. 1, XXIX, pts. 1-2, 1895– 1896. (I-V; V1, pts. 1-4, 8-12; VII, pts. 1-9, 11; VIII, pts. 5, 7, 9-10, 12-13; IX, pts. 1-8; X, pts. 2, 4-6; XI, pts. 1-3, 5-7, 9-11; XII, pts. 1-6; XIII, pts. 1-9; XIV-XV; XVI, pts. 1-4, 6-15; XVII, pts. 1-6; XVIII; XIX, pts. 1-4; XX, pts. 1-8; XXI, pts. 1-5; XXII, pts. 1-4; XIII, pts. 1-6; XXIV, pts. 1-7; XXV; XVI, pts. 1-2; XXVII, pt. 1,

Memoirs, XIX, pt. 1, 1895. (I-V; VI, pt. 2; VII, pts. 1, 2, No. 1; 2, No. 3; VIII, pts. 1-3; IX, pts. 1-3; X, pts. 1-4; XIV, pts. 1 No. 1, 2-3; XV.)

#### Salem.

AMERICAN ASSOCIATION FOR THE AD-VANCEMENT OF SCIENCE.

Proceedings, XXXIX-XLIII, 1889-1894. (Complete.)

#### Springfield.

LIBRARY ASSOCIATION.
Annual report, XXXIV, 1895.

### South Framingham.

McPherson's Geological Record, 11, pts. 1-3, 1895. (Complete.) Worcester.

SOCIETY OF ANTIQUITIES.

Worcester births, marriages, and deaths. F. P. Rice. Worcester, 1894. 8vo. 54 pp.

#### Michigan.

Ann Arbor.

STATE AGRICULTURAL COLLEGE EX-PERIMENT STATION.

Bulletins, 125-130, 1895. (113-124.)

Detroit.

MUSEUM ART SCHOOL.

Circular of instruction, 1895-1896.

Houghton.

MICHIGAN MINING SCHOOL.

Annual report of the director, 1895. Prospectus of elective studies. Houghton, 1895. 12mo, 50 pp.

#### Minnesota.

Minneapolis.

GEOLOGICAL AND NATURAL HISTORY SURVEY.

Annual report, XXIII, 1894. (I-XIII, XV-XXII.)

Geology of Minnesota. 111, pt. 1, 1895. Report of the State geologist, 1895.

St. Paul.

MINNESOTA UNIVERSITY STATE EX-PERIMENT STATION.

Annual report of the entomologist, 1895.

#### Mississippi.

Agricultural College.

AGRICULTURAL AND MECHANICAL COL-LEGE.

Annual report, VIII, 1895. (II-VI.) Bulletins 32-37, 1894-1896. (Complete.)

# Missouri.

Jefferson City.

MISSOURI GEOLOGICAL SURVEY.

Reports IV-VII, 1894. (Complete.) St. Louis.

Age of Steel, LXXVII, pt. 26, 1895; LXXVIII, 1895; LXXIX, pts. 1-14, 16-25, 1896. (LXXV-LXXVI; LXXVII, pts. 1-25.)

St. Louis Lumberman, xv, pts. 5-6, 1895; xvi, 1895; xvii, 1896 (1, pts. 2-6, 111-xiv; xv, pts. 1-4.) Missouri Botanical Garden.

Annual report, VII, 1896. (Complete.)

Montana.

Bozeman.

AGRICULTURAL EXPERIMENT STATION.
Bulletin 9, 1896. (2-4.)

Nevada.

Reno.

STATE UNIVERSITY AGRICULTURAL EX-PERIMENT STATION.

Bulletins 25, 27-29, 1895-1896.

# New Hampshire.

Hanover.

AGRICULTURAL EXPERIMENT STATION. Bulletins 25-33, 1895-96.

New Jersey.

Camden.

THE FORESTER. 11, pt. 2, 1896.

New Brunswick.

AGRICULTURAL COLLEGE EXPERIMENT STATION.

Bulletins 103–104, 1894. (25, 41, 98–102.)

New Mexico.

Las Cruces.

COLLEGE OF AGRICULTURE AND ME-CHANIC ARTS.

Bulletins 16-18, 1896. (Complete.)

# New York.

Albany.

NEW YORK AGRICULTURAL EXPERI-MENT STATION.

Bulletin 74, 1894. (1-10, 12-73.)

Albion.

Museum, The. 1, pts. 3-12, 1895; 11, pts. 1-10, 1896. (Complete.)

It haca.

CORNELL UNIVERSITY, AGRICULTURAL EXPERIMENT STATION.

Bulletins 95-113, 1895-1896. (9, 74-103.)

Library bulletin, III, pt. 10, 1895. (III, pts. 1-9.)

Bulletin of the horticultural division, No. 114, 1896.

New York.

ACADEMY OF SCIENCES.

Annals, VIII, pts. 6-12, 1895. (1, II, pts. 5-6, 9-11; III; IV, pts. 1-4, 8-12; V; VI, pts. 1-6; VII; VIII, pts. 1-5.)

Memoirs, 1895. No. 1.

Transactions, XIV, 1894-1895. (I, pts. 1-3, 5-8; III; V, pts. 1-8; VI; VII, pts. 1-6.)

AMERICAN AGRICULTURIST. LVI, pts. 1-3, 5-6, 8-26, 1895; LVII, 1896. (LIV, pts. 2, 5-18; LV.)

New York-Continued.

AMERICAN MUSEUM OF NATURAL HISTORY.

Annual report, XXVII, 1895. (1, 3-10, 13, 15-26.)

Bulletin, VII, 1895. (Complete.)

DIPLOMATIC AND CONSULAR REVIEW, 1, pts. 4-8, 10, 17, 19, 22, 1896.

ENTOMOLOGICAL SOCIETY OF NEW YORK.

Journal, 111, pts. 3-4, 1895; 1V, pts. 1-2, 1896. (Complete.)

Maimonides Free Library. Annual report, 1896.

Notes on Books, viii, pt. 161-164, 1896. (149-151, 153-160.)

MINERAL COLLECTOR, 11, pt. 12, 1896. (1, 11, pts. 8 and 10.)

POPULAR SCIENCE MONTHLY, XLVIII, pts. 1-6, 1895–1896. (1, pts. 1, 3; III-VII; VIII, pts. 43-45, 47-48; IX, pts. 49-53; X, pts. 56-60; XI-XII; XIII, pts. 73-75, 77-78; XIV-XXI; XXIII, pts. 4-5; XXIV; XXV, pts. 1-3, 5-6; XXVI-XXX; XXXII, pts. 1, 3, 6; XXXII, pts. 1-5; XXXIII, pts. 1-3, 5-6; XXXIV-XXXV; XXXVI, pts. 1, 3-6; XXXIV-XXXV; XXXVII, pts. 1, 3-6; XXXIII, pts. 1, 3-6; XXXIII, pts. 1-2.)

TORREY BOTANICAL CLUB.

Bulletin, XXII, pts. 7-12; XXIII, pts. 1-5, 1896. (1-VII, XIV-XXI.)

Rochester.

ACADEMY OF SCIENCES.

Proceedings, 11, pt. 4, 1895. (Complete.)

GEOLOGICAL SOCIETY OF AMERICA. Bulletin, VII, 1895-1896. (Complete.)

#### North Carolina.

Chapel Hill.

ELISHA MITCHELL SCIENTIFIC SOCIETY.

Journal, XII, pts. 1-2, 1895-1896. (II-XI.)

Raleigh.

AGRICULTURAL EXPERIMENT STATION.

North Carolina agricultural experiment station during 1894.

Raleigh, 1895. 8vo, 605 pp.

Press bulletin 69, 1895.

Special bulletins 34-37, 1895-1896. (31-33.)

#### North Dakota.

Fargo.

AGRICULTURAL EXPERIMENT STATION. Bulletins 18-22, 1895-1896. (15-17.) Ohio.

Cincinnati.

Museum Association of Cincinnati. Annual report, XIV, 1894.

Catalogue, 1895. (Complete.)

SOCIETY OF NATURAL HISTORY.

Journal, XVIII, pts. 1-4, 1896. (Complete.)

Wooster.

AGRICULTURAL EXPERIMENT STATION. Bulletins, 58-67, 1895-1896. (53-57.)

# Oregon.

Corrallis.

AGRICULTURAL EXPERIMENT STATION.
Bulletius, 38-41, 1895-1896. (2-37.)

Portland.

LIBRARY ASSOCIATION.

Annual report, XXXI, 1894.

Oregon Naturalist, II, pts. 7-12, 1895; III, pts. 1-5, 1896. (1, pts. 1-2.)

# Pennsylvania.

Harrisburg.

United States Association of Charcoal Iron Workers.

Journal, III-VIII, IX, pt. 1, 1882-1890. (Complete.)

GEOLOGICAL SURVEY OF PENNSYL-VANIA.

Final report, summary, III, pts. 1-2, 1895. (Complete.)

General index to the final summary report of the geology of Pennsylvania. Harrisburg, 1895. 8vo, 98 pp.

Meadville.

('HAUTAUQU'AN, THE, XXI-XXVI, 1895–1896. (X-XX.)

Philadelphia.

AMERICAN PHILOSOPHICAL SOCIETY.
Proceedings, XXXIV, pt. 147, 1895.

(I-XXII, XXXII-XXXIII.)

Analetic Magazine, The, pts. 1-2, 1817; pts. 1-2, 1818.

ENTOMOLOGICAL NEWS, VI, pts. 7-10, 1895; VII, pts. 1-6, 1896. (Complete.)

SEARCHER, THE (new series), I, pt. 4, 13; 1895-1896.

UNIVERSITY OF PENNSYLVANIA.

Annual report of the curator of the Museum of American Archæology. 1890.

Bulletin, I, pt. 4. 1894. (Complete.) Catalogues, 1886-87, 1891-92, 1892-93, 1893-94. Philadelphia-Continued.

University of Pennsylvania—Continued.

Comparative study of the chemical behavior of pyrite and marcasite. Amos P. Brown. Philadelphia, 1894. 8vo, 9 pp.

Contributions from the botanical laboratory. 1, pt. 2, 1893. (Com-

plete.)

Department of Archæology and Paleontology. Addresses delivered at the opening ceremonies of the exhibition of objects used in worship. Philadelphia, 1892. 12mo, 19 pp.

Catalogue of objects used in religious ceremonies. Philadelphia, 1892. 12mo, 174 pp.

Somerville talismans. Philadelphia, 1889. 8vo, 41 pp.

Handbook of information concerning the school of biology. Philadelphia, 1889. 4to, 125 pp.

Opening exercises of the Institute of Hygiene of the University of Pennsylvania, February 22, 1892. Philadelphia, 1892. 8vo, 65 pp.

Publications.

Philology, literature and archaeology series, I, pts. 1-4; 11, pts. 1-2, 4, 1891-92.

Philosophical series Nos. 1-2, 1890-1892.

Political economy and public law series, I, pts. 1-8; II, III, pts. 1-2, 1887-1892.

Report of the Provost, 1892.

Study in chemical behavior of tungsten and molybdenum and their trioxides. Charles H. Ehrenfeld. Philadelphia, 1894. 8vo, 24 pp.

Synthetic museum of comparative anatomy as the basis for a comprehensive system of research. John A. Ryder. Philadelphia, 1893. 8vo, 15 pp.

Wagner Free Institute of Science. Transactions, 11, 1889, 1V, 1896. (Complete.)

Rhode Island.

Providence.

AGRICULTURAL SCHOOL AND EXPERI-MENT STATION,

Annual report, VIII, pt. 2, 1894. (I-VI.) Bulletin, 32, 1895. (1-28.) Providence-Continued.

PROVIDENCE ATHENÆUM.

Annual report of the board of directors, LX, 1895. (LIX.)

# South Carolina.

Charleston.

CLEMSON AGRICULTURAL COLLEGE. Bulletins, 23–24, 1895. (12, 14–20.)

#### South Dakota.

Fermilion.

AGRICULTURAL COLLEGE EXPERIMENT STATION.

Annual catalogue, No. 14, 1895–96. Bulletins, 43–45, 1895. (1–4, 9–11, 14, 18, 20–24, 26, 32–40.)

# Utah.

Logan.

AGRICULTURAL COLLEGE. Bulletin 43, 1896. (1-40.)

# Vermout.

Rutland.

STATE DEPARTMENT OF FISHERIES AND GAME.

General laws of the State of Vermont relating to fish and game. Rutland, 1895. 8vo., 13 pp.

# Virginia.

Charlottesville.

AGRICULTURAL AND MECHANICAL COL-LEGE.

Bulletin (new series), 1V, pts. 1-2, 1895. (Nos. 2-11; new series, 1, pts. 1-10.)

Catalogue, 1895-1896. (1889-1894.)

## Wisconsin.

Madison.

ACADEMY OF SCIENCE, ARTS, AND LETTERS.

Transactions, x, 1894-1895. (Complete.)

AGRICULTURAL EXPERIMENT STATION.
Annual report, XI, 1895. (Complete.)
WASHBURN OBSERVATORY.

Publications, IX, pts. 1-2, 1896. (Complete.)

WISCONSIN UNIVERSITY.

Bulletin, Economics, Political Science, and History Series. I, pt. 2, 1895. (Complete.)

Bulletin, Engineering Series, 1, pt. 5, 1894. (Complete.)

Bulletin, Science Series, 1, pts. 2-4, 1895. (Complete.)

Milwaukee.

WISCONSIN NATURAL HISTORY SO-CIETY.

Occasional papers, 111, 1896. (Complete.)

PUBLIC MUSEUM.

Annual report, XIII, 1895. (1, III-XII.)

Wyoming.

Laramie.

STATE UNIVERSITY AGRICULTURAL EXPERIMENT STATION.

Annual report, 1895. (1892–1893.) Bulletins 22–25, 1895. (Complete.)

West Indies.

Havana.

REAL ACADEMIA DE CIENCAS MÉDI-CAS, FÍSCIAS Y NATURALES.

Hygiene colonial en Cuba. Habana, 1895. 8vo, 57 pp.

Kingston.

INSTITUTE OF JAMAICA.

Bulletins, new series, II, pts. 6-12, 1895; III, pts. 1-4, 1896. (1887, pt. 1, 1891-1893, pts. 1-50; new series, I; II, pts. 1-5.)

Journal, 11, pt. 2, 1895. (1, pts. 1-8; 11, pt. 1.)

Port of Spain.

TRINIDAD FIELD NATURALISTS' CLUB. Journal, 11, pts. 8-12, 1895-1896. (Complete.)

Trinidad.

ROYAL BOTANIC GARDENS.

Annual report of superintendent, 1894-1895.

Bulletins of miscellaneous information, 11, pt. 6, 1896. (1, pts. 14-24; 11, pt. 1.)

VICTORIAN INSTITUTE.

Proceedings, 11, 1895.

CENTRAL AMERICA.

Costa Rica.

San José,

MUSEO NACIONAL.

Informe presentado al senor secretario de estado en el despacho de fomento. Anastasio Alfaro. San José, 1895. 8vo, 24 pp.

SOUTH AMERICA.

Argentine Republic.

Buenos Aires.

Museo Nacional de Buenos Aires. Anales, iv, (2) 1895. (III, pp. 95-173.) Buenos Aires-Continued.

Museo Nacional de Buenos Aires—Continued.

Sobre peces de aqua dulce nuevos ó poco conodidos de la República Argentina. Carlos Berg. Buenos Aires, 1895. 8vo, 45 pp.

La Plata.

FACULTAD DE AGRONOMÍA Y VETERINARIO.

Revista, I, pt. 12., II, pts. 13-16, 1895-1896. (I, pts. 5-7, 9, 12.)

MUSEO DE LA PLATA.

Anales, sección de arqueología, pts. 1-3, 1892.

Anales, sección de historia Americana, pts. 1-2, 1890-1891.

Anales, sección de historia general, pt. 1, 1892.

Anales, paleontología Argentina, 1-111, 1891-1894.

The La Plata Museum. R. Lydekker. London, 1894. 8vo, 21 pp.

Lettre sur les Musées Argentino. Henry A. Ward. La Plata, 1890. 8vo, 11 pp.

Mapa-relieve de la República Argentina. La Plata, 1894.

Memoria, 1894-1895.

Revista, 111-1V, 1892-1893. (Complete.)

Chile.

Santiago.

Société Scientifique du Chile.

Actes, v, pts. 1-3, 1895. (Complete.) Instituto de Hijiene, de Santiago. Revista Chilena de Hijiene, i, pt. 3, 11, pts. 4-5, 1894-1895. (Complete.)

# Uruguay.

Montevideo

DIRECCION GENERAL DE INSTRUCCION PUBLICA.

Memoria, 1893.

Musée et Bibliothèque Pédagogiques.

Publication, No. 1-2, 1894.

Museo Nacional de Montevideo. Anales, iv, 1896. (Complete.) Reglamento, 1893.

#### Venezuela.

Caracas.

CLINICA DE LOS NIÑOS POBRES, VII, pts. 70-73, 1895; VIII, pts. 74-84, 1895; (V, pts. 49-54, 58; VI, pts. 64-69.)

# ASIA.

# India.

Calcutta.

INDIA BOTANICAL SURVEY.

Records, I, pts. 5-6, 1895. (Complete.)

INDIAN MUSEUM.

The Agricultural Ledger, pt. 15, 1893; pts. 5, 12, 18, 1894; pts. 5-7, 9-10, 12-13, 15-17, 1895.

Catalogue of coins. Pt. 2. Charles J. Rodgers. Calcutta, 1894. 8vo, 255 pp.

Figures and descriptions of nine species of Squillidæ. James Wood-Mason. Calcutta, 1895. 8vo, 11 pp.

Materials for a carcinological fauna of India. No. 1. A. Alcock. Calcutta, 1895. 8vo, 135 pp.

## Japan.

Tokio.

ANTHROPOLOGICAL SOCIETY.

Bulletins, X, pts. 110-114, 1895; XI, pts. 115-119, 1895-1896. (IX, pts. 102; X, pts. 103-108.)

Journal, XII, pt. 129, 1896.

DEPARTMENT OF EDUCATION.

Annual report of the minister of Japan. XXII, 1893.

History of the Empire of Japau. Tokyo, 1893. 8vo, 428 pp.

TOKIO LIBRARY.

Annual report, 1895.

# EUROPE.

#### Austria-Hungary.

Brünn.

NATURFORSCHENDER VEREIN.

Verhandlungen, XXXII, XXXIII, 1893-94.

Budapest.

MAGYR ORNITHOLOGICAL KOZPONT.

Aquila, II, pts. 3-4, 1895.; III pts. 1-2, 1896. (Complete.)

Hallein.

Ornithologisches Jahrbuch, vi, pts. 3-6, 1895; vii, pts. 1-2, 1896. (1, pts. 4, 6-12; ii-iv; v, pts. 1-2, 4-6; vi, pts. 1-2.)

Linz.

MUSEUMS FRANCISO-CAROLINUM. Bericht 3-9, 11-16, 18-31, 33-52, 1837-1894.

NAT MUS 96-12

Prag.

KÖNIGL. BÖHMISCHE GESELLSCHAFT DER WISSENSCHAFTEN.

Jahresbericht, 1894.

Sitzungsbericht, 1894.

VEREIN FÜR GESCHICHTE DER DEUTSCHEN IN BÖHMEN.

Mittheilungen, XXXIII, pts. 1-4, 1894–1895.

Trieste.

MUSEO CIVICO DI STORIA NATURALE. Atti (new series), III, 1893.

# Belgium.

Aurers.

ACADÉMIE D'ARCHÉOLOGIE DE BEL-GIQUE.

Annales (4), VIII, pt. 13, 1895.

Bulletin (4) des annales, pt. 2, no. 23, 1895.

Société Royale de Géographie. Bulletin, xx, pts. 2-4, 1895-1896. (IX,

pts. 2, 5; xx, pt. 1.)

Mémoires, IV, 1895.

Bruxelles.

COMMISSIONS ROYALES D'ART ET D'ARCHÉOLOGIE.

Bulletins, XXXIII, pts. 7-12, 1894. (XXVII-XXXI; XXXII, pts. 1-4, 9-12; XXXIII, pts. 1-4.)

Société Royale Malacologique.

Procès-verbaux, xxi, pts. 11-12, 1892; xxii-xxiv, 1893-1895.

## France.

Beaune.

SOCIÉTÉ D'HISTOIRE, D'ARCHÉOLOGIE ET DE LITTÉRATURE DE L'AR-RONDISSEMENT.

Mémoires, 1878-1879, 1885-1892.

Caen.

Société Linnéenne de Normandie. Mémoires (2) 11, pts. 2-3, 1895.

Châteaudun.

SOCIÉTÉ DUNOISE, ARCHÉOLOGIE, HIS-TOIRE, SCIENCES ET ARTS. Bulletin 104, 1895.

Thombourd

Cherbourg.

SOCIÉTÉ NATIONALE DES SCIENCES NATURELLES ET MATHÉMA-TIQUES,

Mémoires, XXIX, 1892-1895. (XXV-XXVIII.)

Lille.

REVUE BIOLOGIQUE DU NORD DE LA FRANCE, VI, pts. 7-12, VII, pts. 1-6, 1891-1895. Lyon.

SOCIÉTÉ D'AGRICULTURE, SCIENCES ET INDUSTRIES.

Annales (7), 11, 1894.

Moulins.

REVUE SCIENTIFIQUE DU BOURBON-NAIS ET DU CENTRE DE LA FRANCE, IX, pt. 98, 1896. (VIII, pt. 89.)

Paris.

MINISTÈRE DE L'INSTRUCTION PUB-LIQUE.

Mission scientifique au Mexique et dans l'Amérique centrale. Recherches zoologiques. Pt. 3, liv. 14, 1895.

Rapport sur les observations faites en 1894 à la station entomologique de Paris. Paris, 1895. 8vo, 10 pp.

Bulletin administratif au ministère de l'instruction publique. LVII, pts. 1144-1167, LVIII, pts. 1168-1184, 1895. (LIII, pts. 1041-1064; LIV, pts. 1065-1091, LV, pts. 1104-1116; LVI, LVII, pt. 1143.)

Muséum d'Histoire Naturelle. Bulletins 1-3, 6-8, 1895; 1-3, 1896.

Nouvelles archives (3), VII, 1895. ((2) IV; (3) II, pts. 2-6; (3) VI, pts. 1-2.)

Société Entomologique de France. Annales, lxiii, pts. 1-4, 1894-1895. (LVII-LXII.)

Société Zoologique de France. Bulletin, XXII, pts. 1-10, 1895. (I-XX.)

# Germany.

Berlin.

Anthropologische Gesellschaft. Gefäss von Chama. E. P. Dieseldorff. 1896. 8vo, 7 pp.

DEUTSCHER SEEFISCHERVEREIN. Mittheilungen, I-XI, XII, pts.1-5,1885-

1896.

GESELLSCHAFT FÜR ERDKUNDE.

Verhandlungen, XXII, pts. 8-10, 1895; XXIII, pts. 1-3, 1896.

Zeitschrift, xxx, pt. 6, 1895; xxxi, pt. 1, 1896.

KÖNIGL. BOTANISCHEN GARTENS UND MUSEUMS.

Notizblatt, 1894-1895.

KÖNIGL. MUSEUM FÜR NATURKUNDE. Aethiopische eurybrachiden. F. Karsch. Berlin, 1895. 8vo, 8 pp.

Berlin-Continued.

KÖNIGL. MUSEUN FÜR NATURKUNDE— Continued.

Aethiopische heteroceren. No. 1-2. F. Karsch. Berlin, 1895. 8vo.

Aethiopische rhopaloceren. No. 1. F. Karsch. Berlin, 1895. 8vo, 8 pp.

Beiträge zur fauna der südöstlichen und östlichen Nordsee. Nos. 1-2. F. Heincke. Kiel, 1894. Fol.

Beiträge zur kenntniss der Longicornier (Coleoptera). H. J. Kolbe. Berlin, 1893. 8vo, 22 pp.

Beiträge zur kenntniss der mistkäfer, Lamellicornia onthophila. H. J. Kolbe. Berlin, 1894. 8vo, 13 pp.

Über die von Dr. Bohls in Paraguay gesammelten Mollusken, insbesondere einige varietäten von Odontostmus striatus. Von Martens. Berlin, 1894. 8vo, 15 pp.

Coleopteren aus Afrika. Nos. 1-2. H. J. Kolbe. Berlin, 1894. 8vo.

Coleopteren aus Togo in Ober-Guinea. H. J. Kolbe. Berlin, 1894. 8vo, 4 pp.

Das entstehen der gelenkformen. Gustav Tornier. Leipzig, 1894– 1895. 8vo, 122 pp.

Diagnosen neuer Tagfalter aus Afrika. C. Aurivillius. n. p., 1895. 8vo, 4 pp.

Einige neue afrikanische Tagfalter aus den familien der Nymphaliden, Acraeïden, Danaïdiden aus Satyriden. F. Karsche. Berlin, 1894. 8vo, 32 pp.

Eiesnester pelagischer fische aus dem mittelatlatischen ocean. C. Möbius. Berlin, 1894. 8vo, 9 pp.

Erworbene saügetiere des naturhistorischen museum in Lübeck. Paul Matschie. Berlin, 1894. 8vo, 6 pp.

Fühlerformen der Dipteren. Benno Wandolleck. Jena, 1894. 11 pp.

Gehirns von der rie senschlange (Python molurus). Rabl. Rückhard. Berlin, 1894. 8vo, 88 pp.

Geographische verbreitung und lebensweise der nutzbaren walfische C. Möbius. Berlin, 1894. 8vo, 4 pp. Berlin-Continued.

Königl. Museum für Naturkunde— Continued.

Über grasgallen. E. H. Riibsaamen. Berlin, 1895. 8vo, 17 pp.

Kenntnis der geographischen verbreitung der Bryozoengattung Plumatella in Afrika. M. Meissner. Berlin, 1893. 8vo, 4 pp.

Libellula lugnbris Ehrenberg i litt., eine neue nubische, der Libellula trinacria Selys ähnliche Libellulide. F. Karsch. Berlin, 1895. 8vo, 4 pp.

Morphogenie und phylogenie der Crinoiden. Otto Jaekel. Berlin, 1894. 8vo, 21 pp.

Die zoologische sammlung des Königl. Museum für Naturkunde. Berlin, 1895. 4to.

Natürliche verwandtschaft und die verbreitung der Manis-arten. Paul Matschie. Berlin, 1894. 8vo, 13 pp.

Ein ostafrikanischer vertreter der wanzengattung *Chalcocoris.* F. Karsch. Berlin, 1895. 8vo, 1 p.

Papilio neumanni, eine nene von Herrn Oskar Newmann in Ost-Afrika art der Echerioidesgruppe. F. Karsch. Berlin, 1895. 8vo, 3 pp.

Pfeilgiftkäfer der kalahari-wüste, Diamphidia simplex Péring. (Locusta Fairm.) H. J. Kolbe. Berlin, 1894. 8vo, 8pp.

Pompiliden-gattung Pepsis. Robt. Lucas. Berlin, 1895. 8vo, 92 pp. Spongillidenstudien, III. W. Welt-

ner. Berlin, 1895. 8vo, 35 pp. Synopsis der in Afrika gefundenen

arten der Reteliden-Gattung

Popillia. H. J. Kolbe. Berlin,

1894. 8vo, 57 pp.

Verzeichniss der von Herrn Dr. Paul Preuss in kamerum gesammelten schnabelkerfe, nebst beschreibung der neuen arten. F. Karsch. n. p., 1894. 8vo, 58 pp.

Einige neue westafrikanische Heteropteren aus den beiden Gruppen der pentatomideen und Coreideen. F. Karsch. Berlin, 1895. 8vo, 8 pp.

Zoologische sammlung. C. Möbius. Berlin, [n. d.]. 8vo, 15 pp. Berlin-Continued.

Königl. Museum für Völkerkunde.
Denkschöpfung ungebender welt aus
kosmogonischen vorstellungen in
cultur und uncultur. A. Bastian.
Berlin, 1896. 8vo, 211 pp.

Ethnologisches Notizblatt. Pt. 3,

KÖNIGL. PREUSSISCHE AKADEMIE DER WISSENSCHAFTEN.

Sitzungsberichte, pts. 26-52, 1895.

Naturae Novitates, pts. 6-21, 1895; pts. 1-4, 1896. (1879, pts. 1, 5-18; 1881-1886; 1887, pts. 1-2, 4-17, 20-25; 1888, pts. 1-6, 8-15, 18-20, 25; 1889-1894; 1895, pts. 1-6.)

Boun.

NATURHISTORISCHER VEREIN.

Verhandlungen, L11, pt.,1, 1895 (XLV-L1).

Niederrheinische Gesellschaft für Natur-und Heilkunde.

Sitzungsberichte, 1895, pt. 1.

Bremen

NATURWISSENSCHAFTLICHER VEREIN. Abhandlungen, XIII, pt. 3, 1896; XIV, pt. 1, 1895.

Breslau.

MUSEUM SCHLESISCHER ALTERTHÜMER.
Die bemalten thongefässe Schlesiens
ans vorgeschichtlicher zeit. Breslan, 1889. fol. unp.

Führer durch die samlungen... Ed. 3. Breslau, 1891. 12mo, 116 pp.

Martinikirche in Breslau, 1883. 4to, 35 pp.

Schlesische fürstenbilder des mittelalters. Breslau, 1872. 4to, v. p.

Schlesische gläser. Breslau, 1891. 8vo, 288 pp.

Schlesiens grab-denkmale und grabinscriften. Nos. 3-4. Breslau, 1872. 8vo.

Schlesische münzen und medaillen. Pts. 1-2. Breslau, 1883. 4to.

NATURWISSENSCHAFTLICHE GESELL-SCHAFT ISIS.

Sitzungsberichte, 1895. (1882-1884, 1886; 1887, Jan. to July, 1892, July to Dec., 1893.)

Frankfurt.

NATURWISSENSCHAFTLICHER VEREIN. Helios, pts. 1-6, 1895.

Societatum Litteræ, IX, pts. 4-9, 1895. (VIII, IX, pts. 1-3.) Freiburg.

NATURFORSCHENDE GESELLSCHAFT. Berichte, IX, pts. 1-3, 1894-1895.

SOCIÉTÉ FRIBOURGEOISE DES SCIENCES NATURELLES.

Bulletin, VI, 1890-1893.

Hildesheim.

RŒMER MUSEUM.

Hadenoid genera with hairy eyes. A. Radcliffe Grote. n. p., 1895. 8vo. 8 pp.

List of North American Eupterotidæ, Ptilodontæ, Thyatiridæ, Apatelidæ and Agrolidæ. Radcliffe Grote. Bremen, 1895. 8vo, 87 pp.

Kiel.

NATURWISSENSCHAFTLICHER VEREIN FÜR SCHLESWIG-HOLSTEIN.

Schriften, x, pt. 2, 1895. v, pts. 1-2; IX, pts. 1-2; X, pt. 1.

Leipsic.

NATURFORSCHENDE GESELLSCHAFT. Sitzungsberichte, XIX-XXI, 1895.

NATURWISSENSCHAFTLICHER VEREIN FÜR SACHSEN UND THÜRINGEN. Zeitschrift, LXVIII, pts. 1-2, 1895.

VEREIN FÜR ERDKUNDE.

Mitteilungen, 1894. (1881-1885, 1891-1893.)

Wissenschaftliche Veröffentlichungen des Vereins für Erdkunde, I, 1891, 11, 1895.

Lübeck.

GEOGRAPHISCHE GESELLSCHAFT UND NATURHISTORISCHE MUSEUM.

Mitteilungen (2), pts. 7-8, 1895.

Luxemburg.

FAUNA VEREIN LUXEMBURGER NATUR-FREUNDE. V, pt. 1, 1895. (I, II, pts. 1-2; III-IV.)

Meissen.

VEREIN FÜR GESCHICHTE DER STADT. Mitteilungen, IV, pt. 1, 1895.

NATURWISSENSCHAFTLICHER VEREIN. Jahresbericht, pts. 8-10.

Stuttgart.

KÖNIGLICHE STAATSARCHIV.

Wirtembergisches Urkundenbuch, VI.

Wiesbaden.

NASSAUISCHER VEREIN FÜR NATUR-KUNDE.

Jahrbücher, XLI, 1888. (XLV-XLVII.)

Great Britain and Ireland.

Cambridge.

MUSEUM AND LECTURE ROOM SYNDI-CATE.

Annual report, XXIX, 1894.

Cardiff.

NATURALISTS' SOCIETY.

Report and transactions, XXVII, pt. 1,1895. (XXIV, XXV, pt. 1; XXVI.)

Dublin.

ROYAL DUBLIN SOCIETY.

Scientific proceedings (new series), VIII, pts. 3-4, 1894. (New series, IV-VII; VIII, pts. 1-2.)

Scientific transactions (new series), v, pts.5-12, 1894-1896; VI, pt. 1, 1896. (New series, III-IV; V, pts. 1-4.)

Edinburgh.

MUSEUM OF SCIENCE AND ART.

List of additions to the art and industrial divisions, 1894. Edinburgh, 1895. 8vo, 44 pp.

ROYAL PHYSICAL SOCIETY.

Proceedings, XIII, pt. 1, 1894-1895. (IX-XII,)

Glasgow.

NATURAL HISTORY SOCIETY.

Proceedings and transactions, IV, pt. 1 (new series), 1892-1894. (New series, III, pts. 2-3.)

PHILOSOPHICAL SOCIETY.

Proceedings, XXVI, 1895. (XXV.)

Guernsey.

SOCIETY OF NATURAL SCIENCE.

Report and transactions, 1895. (1882-1894.)

Liverpool.

BIOLOGICAL SOCIETY.

Proceedings and transactions, IX. 1895. (Complete.)

London.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

Journal, xxv, 1895. (XIII, pt. 4; XIV-XX; XXI, pts. 2-4; XXII-XXIV.)

BRITISH MUSEUM.

Catalogue of birds, XXV and XXVII. London, 1895-96.

Catalogue of the fishes in the British Museum. G. A. Boulenger. Ed. 2, I. London, 1895. 8vo.

Catalogue of fossil fishes. Pt. 3. A. S. Woodward. London, 1895. 8vo, 544 pp.

London-Continued.

BRITISH MUSEUM-Continued.

Fossil plants of the Wealden. Pt. 2. London, 1895. 8vo, 259 pp.

Introduction to the study of rocks. L. Fletcher. London, 1896. 8vo, 118 pp.

Spiders of Burma. T. Thorell. London, 1895. 8vo, 406 pp.

Statement of progress and acquisitions made in the department of British and media-val antiquities and ethnography in 1893. London, 1894. 8vo, 14 pp.

Guide to the British Mycetozoa exhibited in the department of botany. London, 1895. 8vo, 40 pp.

EGYPT EXPLORATION FUND.

Temple of Deir el Bahari. Pt.1. E.
Naville. London, 1895. fol. 15 pp.
Geological Society.

Geological literature added to the Geological Society's library. London, 1896. 8vo, 157 pp.

Transactions, IV, 1896.

Quarterly journal, ll. pts. 3-4; lli, pts. 1-2, 1895-1896. (1, pts. 1, 3, 4; ll, pts. 6-8; lli-l; ll, pts. 1-2.)

Hooker's Icones Plantarum. XXIV, pts. 3-4; XXV, pts. 1-3, 1895– 1896. (I-II; V-IX, XI-XXIII, XXIV, pts. 1-2.)

Inspector of Fisheries.

Annual report, XXXIV, 1895.

INTERNATIONAL JOURNAL OF MICRO-SCOPY AND NATURAL SCIENCE. (3) v, pts. 27-28, 1895; vI, pts. 29-31, 1896. (IV-V; new series, 1, pts. 1-5; III, pt. 12; IV, pt. 1; (3) I-IV.)

JAPAN SOCIETY.

Booklet, No. 2, 1895-1896.

Transactions and proceedings. 11-111, 1892-1893.

LINNEAN SOCIETY.

Journal. (Botany) xxx, pt. 209-210, 1894. (xxviii-xxix; xxx, pts. 205-208.)

Journal. (Zoology) xxv, pts. 158-160, 1895. (VIII, pts. 31-32; xI, pt. 55-56; xIV, pt. 74; xv, pt. 84; xvI-xxIV.)

List of members, 1894-1895.

Proceedings, 1893-1894. (1875-1892.) Transactions (Botany), (2) IV, pt. 2; V, pt. 1, 1894-1895. ((2) II-III; IV, pt. 1.) London—Continued.

LINNEAN SOCIETY-Continued.

Transactions (Zoology), vi, pt. 3, 1894. ( (2) i-v; vi, pts. 1-2.)

MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM.

Journal (new series), III, special number, 1894. (Complete.)

ROYAL GARDENS OF KEW.

Bulletin of miscellaneous information, 100-107, 1896. (1887-1891, 1892, pts. 61-64, 71; 1893, pts. 73-84; 1894, 85-93.)

SCIENCE GOSSIP (new series), II, pts. 19-24, 1895. (New series, I, pts. 2-5, 8-12; II, pt. 16.)

ZOOLOGICAL SOCIETY.

Proceedings, 1895. (1830–1887, 1892–1894.)

Transactions, XIII, pts. 2-3, 1895. (I, X, pts. 1-2, 4-15.)

Manchester.

FIELD NATURALISTS' AND ARCHÆOLO-GISTS' SOCIETY.

Report and proceedings, 1893-1894. (1892.)

GEOGRAPHICAL SOCIETY.

Journal, x, pts. 4-6, 1894; xi, pts. 1-6, 1895-1896. (IX, pts. 10-12.)

MICROSCOPICAL SOCIETY.

Transactions and annual report, 1893-1894.

STEAM USERS ASSOCIATION.

Memorandum of the chief engineer. Manchester, 1895. 8vo, 35 pp.

OWENS COLLEGE.

Catalogue of Hadfield collection of shells, 1895.

Catalogue of the library, 1895.

Museum guide, 1895.

Report of Manchester Museum, 1895. (1890-1894.)

Studies in biology, III, 1895.

Studies from physical and chemical laboratories, 1, 1893.

Marlborough.

College Natural History Society. Report, XLIV, 1895.

Newcastle-on-Tyne.

Tyneside Geographical Society. Journal, III, pts. 3-4, 1895-1896. (Complete.)

Tring.

TRING MUSEUM.

Novitates Zoologica. II, pts. 2-3, 1895; III, pt. I, 1896. (Complete.)

Yorkshire.

GEOLOGICAL AND POLYTECHNIC SO-CIETY.

Proceedings (new series), XII, pt. 5, 1895.

Holland.

Harlem.

Archiv Néerlandaises des Sciences Exactes et Naturelles, XXIX, pts. 2-5, 1895; XXX, pt. 1, 1896. (XXVIII, pt. 5, XXIX, pt. 1.)

' AMSTERDAM KOLONIAL MUSEUM.

Bulletins, 1894–1896. (1892, pts. 1–3, 1893, pt. 3.)

Extra bulletin, 2, 1895. (Complete.)

Leyden.

ROYAL MUSEUM OF NATURAL HISTORY.

Notes from, XVII, pt. 13, 1895. (X-XVI.)

Italy.

Bergamo.

Ateneo di Scienze, Lettere ed Arti. Atti, XII, 1894-1895.

Catania.

Academia Gioenia di Scienze Naturali.

Bullettino (new series), pts. 41-43, 1895-1896. (New series, pts. 36-40.) Florence.

BIBLIOTECA NAZIONALE CENTRALE.

Bollettino delle publicazioni Italiane, pts. 227-238, 240, 1895; pts. 241-242, 244-251, 1896. (Pts. 1, 3-51, 53-70, 72-105, 107-169, 174, 175, 213, 217-218, 221-226.)

Genoa.

Musei di Zoologia e Anatomia Comparata della R. Università. Bollettino, 27-33, 1894-1895. (22-26.) Società Ligustica di Scienze Natu-

RALI E GEOGRAFICHE.
Atti, VI, pt. 2, 1896. (V, pts. 1-3;

Milan. VI, pt. 1.)

REVISTA DI STUDI PSICHICI, I, pts. 6-11, 1895; II, pts. 1-3, 1896. (1, pts. 1-5.)

SOCIETÀ ITALIANA DI SCIENZE NATURALI.

Atti, XXXV, pts. 1-4, 1895-1896. (II, IV-XVII; XVIII, pts. 1-4; XIX-XXXII; XXXIII, pts. 1-2; XXXIV.) Modena.

R. ACCADEMIA DI SCIENZE, LETTERE ED ARTI.

Memorie, (2) x, 1894. (IX, 1893.) Opere inviate, 1894. Pavia.

Universita di Pavia.

Bollettino Scientifico, xVII, pts. 1-4, 1895. (xVI, pts. 1-4.)

Pisa.

SOCIETA TOSCANA DI SCIENZE NATU-RALI.

Atti, 1-XIII, 1875-1894.

Rome.

REALE ACCADEMIA DEI LINCEI.

Atti, (5) 1v, 2 sem.; v, 1 sem., pts. 2-12; v, 2 sem., pts. 1-12, 1895-1896. ((4) VII, (5) 1-1v.)

SOCIETÀ ROMANA PER GLI STUDI ZOOLOGICA.

Bollettino, IV, pts, 3, 5-6, 1895. (I, pts. 1-2, 6; II, pts. 1-3; III, pts. 4-6; IV, pts. 1-2.)

Torino.

TORINO MUSEI DI ZOOLOGIA ED ANAT-OMIA COMPARATA.

Bollettino, x, pts. 193–220, 1895; x1, pts. 221–226, 1896. (1x, pts. 166– 192.)

Norway.

Bergen.

BERGENS MUSEUM.

Aarbog, 1893.

Development and structure of the whale. Pt. 1. Bergen, 1894. 4to.

Samlingen of Norske Oldsager, 1. A. Lorange. Bergen, 1875. 4to, 196 pp.

Turbellaria ad sitora Norvegia occidentalia turbellaries ved Norges Westkyet. Olaf S. Jensen. Bergen, 1878. 4to, 97 pp.

Christiania.

Norges Geologiske Undersögelse. [Monographs] 10-17, 1893-1895.

NORSKE GRADMAALINGS COMMISSION.

Resultate der im Sommer 1894 in dem sudlichsten theile Norwegens ausgeführten pendelbeobachtungen. O. E. Schiotz. Christiania, 1895. 4to. 16 pp.

Stavanger.

STAVANGER MUSEUM.

Aarsberetning, 1894. [1893.]

Tromsöe.

TROMSÖE MUSEUMS.

Aarsberetning, 1890, 1891, 1893. (1888–1892.)

Aarshefter, pts. 15. 1893, and 17, 1895. (13, 14, 16.)

# Portugal.

Lisboa.

DIRECÇÃO DOS TRABALHOS GEOLOGICOS DE PORTUGAL.

Communicações, 111, pt. 1. 1895-1896.

SOCIEDADE DE GEOGRAPHIA.

Actas das ressões, XIV, 1894. (II, 1882; pt. 142, 1894.)

Boletín, XIII, pt. 12, 1894; XIV, pts. 1-10, 1895. (I, pts. 1-4; II, pts. 7-12; III, pts. 2, 4, 10; IV; V, pts. 1-2, 4-10, 12; VI, pt. 12; VII, pt. 1; VIII-XII.)

Coimbra.

COIMBRA UNIVERSIDADE.

Annuario, 1895–1896. (1894–1895.)

Porto.

Annaes des Sciencias Naturaes. II, pts. 3-4, 1895; III, pts. 1-2, 1896. (Complete.)

# Russia.

Moscow.

Société Impériale des Naturalistes. Bulletins, 1-4, 1895, (1887, pt. 4, 1888-1894.)

St. Petersburg.

Académie Impériale des Sciences. Bulletin, (5) 11, pts. 3-4, 1895. ( (4) XXXVI, pts. 1-2; (5) 1, 11, pts. 1-2.)

Memoires, XLII, pts. 9, 11-12, 1894. ((7) XI, pt. 4; XIX, XXXIX, pts. 1-2; XLI, pts. 5-6,9; XLII, pts. 1-5.)

Impériale Akademija Nauk.

Zapiski, LXXI, LXXII, pts. 1-2; LXXIII, pts. 1-2; LXXIV, 1883-1894.

Société Impériale Russe de Géographie.

Izvjestija, XXXI, pts. 1-5, 1895.

Opisamie putesheslyiya, zapadnyi kitij, v. 1.

G. E. Gunn-Grzhimajls. St. Petersburg, 1896. 4to, 547 pp.

Otchet, 1894. (1892–1893.)

Zapiski, XXVII, 1895. (1-XI.)

Tiflis.

HORTUS BOTANICUS TIFLISIENSES. Index Seminum, v, 1895.

KAUKASICHE MUSEUM. Bericht, 1894-1895. Spain.

Madrid.

SOCIEDAD ESPAÑOLA DE HISTORIA NATURAL.

Anales, XXIII, pts. 1-3, 1895.

# Sweden.

Lund.

UNIVERSITATES LUNDENSIS.

Aar-Skrift Acta, XXXI, pts. 1-2, 1895. (XXIV-XXX.)

Stockholm.

KÖNGL. SVENSKA VETENSKAP AKA-DEMIE,

Bihang Handlingar, xx, pts. 1-4, 1896.

Handlingar, XXVI, 1894. (XIX, pt. 1, XX, pts. 1-2; XXI-XXV.

Ofversigt-Forhandlungen, LII, 1896. (XXXV-LI.)

# Switzerland.

Aarau.

AARGAUISCHE NATURFORSCHENDE GESELLSCHAFT.

Mitteilungen, pt. 7, 1896.

Basel.

BASEL UNIVERSITÄT.

Mitteilungen aus der ethnographischen sammlung, 1, pt. 2, 1895.

NATURFORSCHENDE GESELLSCHAFT. Verhandlungen, XI, pt. 1, 1895. (VII, pt. 1; X, pt. 3.)

St. Gallen.

NATURWISSENSCHAFTLICHE GESELL-SCHAFT.

Bericht ii. d. Thätigkeit der St. Gallischen naturwissenschaftliche Gesellschaft, 1893-1894. (1890-1892.)

# OCEANICA.

## AUSTRALASIA.

# Australia.

Brisbaue.

AUSTRALIAN ROYAL GEOGRAPHICAL SOCIETY. QUEENSLAND BRANCH. Proceedings and transactions, 1894—

1895, X. (1X.)

Sydney.

AUSTRALIAN MUSEUM.

Annual report of trustees, 1894.

Records, 11, pts. 6-7, 1895-1896. (Complete.)

Sydney-Continued.

LINNEAN SOCIETY OF NEW SOUTH WALES.

Proceedings (2), x, pts. 1-2, 1895. (Complete.)

ROYAL SOCIETY OF NEW SOUTH WALES.

Exchanges and presentations made by the Royal Society of New South Wales, 1894. Sydney-Continued.

ROYAL SOCIETY OF NEW SOUTH WALES—Continued.

Journal and proceedings, xxvIII, 1894. (XV-XXVII.)

# New Zealand.

Wellington.

REGISTER-GENERAL'S OFFICE.

New Zealand official yearbook, 1895. (1894.)

# II.—INDIVIDUALS.

ADLER, CYRUS.

Trial of Jorge de Almeida by the Inquisition in Mexico. Cyrus Adler. Baltimore, 1895. 8vo, 78 pp.

ALLEN, CHARLES H.

Artificial preservation of timber. Charles H. Allen. Lowell, Mass., 1895. 8vo, 24 pp.

AURIVILLIUS, C. W. S.

Plankton des Baltischen meeres. C.W. S. Aurivillius. Stockholm, 1896. 8vo, 82 pp.

BALLET, JULES,

La Guadeloupe, 1, pt. 2. Jules Ballet. Basse-Terre, 1895. 8vo, 619 pp. (Complete.)

BANGS, OUTRAM.

Present standing of the Florida Manatee, Trichechus latirostris (Harlan), in Indian River waters. Outram Bangs. Washington, 1895. 8vo, 7 pp. BARBOZA DU BOCAGE, J. V.

Herpétologie d'Angola et du Congo. J. V. Barcage du Borboza. Lisbonne, 1895. 4to, 203 pp.

BAYE, Baron de.

Antiquités frankes trouvées en Bohême. Baron de Baye. Caen, 1894. 8vo, 36 pp.

BAYLEY, W. S.

Basic massive rocks of the Lake Superior region. W. S. Bayley. Chicago, 1895. 8vo, 20 pp.

Sphernlitic volcanics at North Haven, Me. W. S. Bayley. [Rochester], 1894. 8vo, 3 pp.

Summary of progress in petrography in 1895. W. S. Bayley. Waterville, Me., 1896. 8vo.

BEECHER, CHARLES E.

Larval stages of Trilobites. Charles E. Beecher. New Haven, 1895. 8vo, 25 pp. BEECHER, CHARLES E.—Continued.

Morphology of *Triarthrus*. Charles E. Beecher. [New Haven], 1896. 8vo, 6 pp.

Supposed discovery of the antennæ of Trilobites by Linnæus in 1759. Charles E. Beecher. New Haven, 1890. 8vo, 4 pp.

Validity of the family Bohemillidæ Barrande. Charles E. Beecher. [Minneapolis], 1896. 8vo, 3 pp.

BENJAMIN (Mrs.), MARCUS.

Circular and daily programme of the 44th meeting of the American Association for the Advancement of Science. Springfield, 1895. 8vo, 195 pp.

Report on the New Red [sandstone] of Bucks and Montgomery counties, [Pa.] B. S. Lyman. Philadelphia, 1895. 8vo, 30 pp.

Boas, Franz.

Chinook texts. Franz Boas. Washington, 1895. 8vo, 2 pp.

Bofill, Arthur.

Catálogo de los moluscos testáceos terrestres del Ilano de Barcelona. Arthur Bofill. Barcelona, 1879. 8vo, 24 pp.

Catalogo de los moluscos fósiles pliocenos de Cataluña. Arthur Bofill and D. J. Almera. Barcelona, 1892. 8vo, 107 pp.

Contributions a la faune malacologique de la catalogue. Arthur Bofill. n.p., 1886. 8vo, 14 pp.

Excursío á Montserrat. Arthur Bofill. Barcelona, 1882. 8vo, 16 pp.

Excursío als Pyrineus Centrals. Arthur Bofill. Barcelona, 1884. 8vo, 98 pp.

Moluscos fósiles de los terrenos terci aries superiores de Cataluña. Arthur Bofill and D. J. Almera. Madrid, 1886. 8vo, 48 pp. Bofill, Arthur-Continued.

Serra de cardó (Tortosa) moluscos recullits en aquesta localitat en agost de 1882. Arthur Bofill. Barcelona, 1890. 8vo, 19 pp.

## BOLTON, H. C.

Berthelot's contributions to the history of chemistry. (Review.) H. C. Bolton. Baltimore, 1896. 8vo, 9 pp.

## BOUCARD, A.

Catalogue des exposants. Exposition Universelle International. G. E. Guzman. n. p., 1889. 8 vo, 117 pp.

Humming Bird, The. London. v. pts. 3-4, 1895.

# Bowes, J. L.

Notes on Shippa. J. L. Bowes. London, 1895. 8vo, 109 p.

## Broadhurst, H. T.

Do the young of vipers take refuge down the throat of the mother in case of sudden surprise or danger? H. T. Broadhurst. n. p. [1895]. 8vo, 29 pp.

# BUCHANAN, J. Y.

Sur la densité et l'alcalinité des eaux de l'Atlantique et de la Méditerranée. J. Y. Buchanan. [Paris, 1893.] 8vo, 4 pp.

#### CALL, R. ELLSWORTH.

Certain recent, quaternary, and new fresh-water mollusca. R. Ellsworth Call. Davenport, 1886. 8vo, 8 pp.

Chemistry of soils. R. Ellsworth Call. Des Moines, 1892. 8 vo, 7 pp.

Contribution to a knowledge of the fresh-water mollusea of Kansas. No. 3. Fresh-water bivalves. R. Ellsworth Call. [Madison], 1885. 8vo,

Cost of a geological survey of Iowa. R. Ellsworth Call. n.p. [n.d.] 8vo,

Genus Campeloma, Rafinesque, with a revision of the species recent and fossil. R. Ellsworth Call. Topeka, 1886. 8vo, 18 pp.

Geographic and hypsometric distribution in North American Viviparidae. R. Ellsworth Call. Louisville, Ky., 1894. 8vo, 10 pp.

Gross anatomy of Campeloma. R. Ells-. Chamberlain, L. T. worth Call. [Philadelphia, 1888.] 8vo, 7 pp.

CALL, R. ELLSWORTH-Continued.

Induration of certain Tertiary sandstones of northeast Arkansas. R. Ellsworth Call. Des Moines, 1894. 8vo, 6 pp.

Iowa Academy of Science. Proceedings, 1887-1889.

Mammoth Cave. R. Ellsworth Call. Louisville, 1895. 16mo, unp.

Memoranda on a collection of fishes from the Ozark regions of Missouri. R. Ellsworth Call. Des Moines, 1887. 8vo. 4 pp.

New serpent from Iowa. R. Ellsworth Call. Des Moines, 1891. 8vo, 3 pp.

Papers read before the Iowa Academy of Sciences. R. Ellsworth Call. Des Moines, 1892. 8vo, 30 pp.

Papers published in abstract in the Proceedings of the Iowa Academy of Sciences, 1887-1889. R. Ellsworth Call. [Des Moines] 1890. 8vo, 82 pp.

Parvus group of Unionidæ. R. Ellsworth Call. [Des Moines] 1890. 8vo, 7 pp.

Pyrgulopsis a new genus of Rissoid mollusk, with description of two new forms. R. Ellsworth Call. [Des Moines 1883. 8vo, 6 pp.

Sketch of the physical geography of Iowa. R. Ellsworth Call.

Moines, 1891. 8vo, 7 pp.

Study of the Unionidae of Arkansas, with incidental reference to their distribution in the Mississippi Valley. R. Ellsworth Call. St. Louis, 1895. 8vo, 64 pp.

Tertiary silicified woods of eastern Arkansas. R. Ellsworth Call. Little Rock, 1891. 8vo, 8 pp.

# CAMPBELL, W. J.

Majolica and Fayence. Ed. 2. Arthur Beckwith. New York, 1877. 8vo, 185 pp.

CAREY, THOS. K., & BROS.

Illustrated catalogue of machinery and supplies. Baltimore, 1895. 8vo, 676 pp.

# CARPENTER, GEORGE H.

Collections to illustrate the evolution and geographical distribution of animals. George H. Carpenter. [Dublin] 1894. 8vo, 37 pp.

Conchology 1-11. George W. Knoer. Nuremberg, 1764. 4to.

CHAMBERLAIN, L. T-Continued.

Oysters and all about them. v, 1-2.
John R. Philpots. London, 1890.
8vo.

COLLINGE, WALTER E.

Skull of the dog. Walter E. Collinge. London, 1896. 12mo, 124 pp.

COSTE, F. H. PERRY.

New method of soil analysis. F. H. Perry Coste. London, 1896. 8vo, 6 pp.

CRAVEN, ANDREW F.

Columbian University Summer School, session 1896. Washington, 1896. 8vo, 15 pp.

DIEFFENBACHER, J. G.

Attack and defense of fortified places. Ed. 3. John Muller. London, [1770.] 8vo, 13 pp.

EARLE, (Mrs.) HENRY.

Martyrs of the prison ships of the Revolution. Alice Morse Earle. Philadelphia, 1895. 8vo, 15 pp.

EYSTER, (Mrs.) NELLIE BLESSING.

Work of the Woman's Indian Association of northern California. San Francisco, 1896. 16mo, 8 pp.

FEWKES, J. WALTER.

Aid to a collector of the Collenterata and Echinodermata of New England. J. Walter Fewkes. Salem, 1891. 8vo, 92 pp.

Catalogue of the Hemenway collection in the Historico-American Exposition of Madrid. J. Walter Fewkes. Washington, 1895. 8vo, 48 pp.

Central American ceremony which suggests the snake dance of the Tusayan villages. J. Walter Fewkes. Washington, 1893. 8vo, 22 pp.

Contributions to ethno-botany. J. Walter Fewkes. Washington, 1896. 8vo, 21 pp.

Journal of American Ethnology and Archæology, IV. Boston and New York, 1894.

Kinship of a Tanoan-speaking community in Tusayan. J. Walter Fewkes. Washington, 1894. 8vo, 6 pp.

Oraibi flute altar. J. Walter Fewkes. Boston, 1895. 8vo, 18 pp.

The god "D" in the codex cortesianus. J.Walter Fewkes. Washington, 1895. 8vo, 18 pp. FIGUEIRA, José H.

Los primitivos habitantes del Uruguay ensayo paleoetnológico. José H. Figueira. Montevideo, 1894. 4to, 44 pp.

Reglamento del Museo Nacional. Montevideo, 1893.

GILL, THEODORE.

The American Field. x, pts. 5-9, 11-12, 15-16, 21-26; xi, pts. 1-5, 7-8, 10-11, 13-26; xii, pts. 1-19, 25; xv, pts. 1-20; xvi, pt. 12; xix, pts. 9-11; xxviii, pt. 27; xxix, pts. 1-22, 24-26, xxx, pts. 2-4, 6-26; xxxi-xxxv; xxxvi, pts. 1-21, 24-26; xxxvii-xxii; xliii, pts. 1-14, 17-19, 21. (xiii-xiv; xvi, pts. 1-11, 13-26; xvii-xviii; xix, pts. 1-8, 10, 12-23, 25-26; xx-xxvii; xxviii, pts. 1-24, 26.)

Huxley and his work. Theo. Gill. New York, 1896. 8vo, 11 pp.

GOODE, G. BROWN.

Alabama as it is. B. F. Riley. Montgomery, 1893. 8vo, 328 pp.

Astronomical observations made at the Naval Observatory. J. M. Gillis. Washington, 1846. 8vo, 671 pp.

Bulletin du troisième congrès international de zoologie. Leyden, 1895. 8vo.

Canadian Naturalist (new series), vI, pts. 1-4; vII, pts. 1-2, 5; vIII, pts. 1-2.

Class book of nature. J. Frost ed. Hartford, 1842. 8vo. 278 pp.

Compend of history from the earliest times. Saml. Whelpley. Boston, 1826. 12mo, 293 pp.

Conversations on chemistry. J. L. Comstock. Hartford, 1828. 8vo, 348 pp.

Eclectic Repertory and Analytical Review. Philadelphia. I-II, 1811-1812.

Elements of experimental chemistry. I-II. Wm. Henry. Philadelphia, 1819. 8vo.

Elements of technology. Jacob Bigelow. Boston, 1831. 8vo, 521 pp.

Epitome of the whole art of navigation.

James Atkinson. London, 1782. 8vo,
334 pp.

Etudes sur les fourmis, gnêpes et les abeilles. Notes 10-12. Charles Janet. Beauvais, 1895. 8vo. GOODE, G. BROWN-Continued.

Familiar, instructive, and entertaining stories. Selected for the use of schools. Herman Daggett. Poughkeepsie, 1818. 24mo, 288 pp.

First lines of physiology. Reynell Coates. Philadelphia, 1850. 8vo, 340 pp.

Fischerie Zeitung. Stettin. x, pts. 1-9; x1, pts. 40, 47-52, 1887-1888.

Handbook of standard or American phonography. Andrew J. Graham. New York, 1858. 8vo, 216 pp.

Historical and descriptive lessons, embracing sketches of the history, character, and customs of all nations. Brattleboro, 1828. 12mo, 336 pp.

History of wonderful animals, containing account of most remarkable fishes, beasts, and birds. Dublin, 1818. 24mo, 180 pp.

In memoriam. John Adam Ryder. Philadelphia, 1895. 8vo, 28 pp.

Manual of mineralogy. J. D. Dana. New Haven, 1867. 8vo, 454 pp.

Medical Repository. New York, IV-V, 1807-1808.

Memorial of Charles V. Riley. G. Brown Goode. [New York] 1896. 8vo, 8 pp.

Mineralogy according to the natural history system. Robert Jameson. Edinburgh, 1837. 8vo, 283 pp.

Naturalists' Own Book (The). Philadelphia, 1835. 8vo, 400 pp.

New York Medical and Physical Journal. 1, 1822.

Observations sur les frelons. Charles Janet. Paris, 1895. 4to, 4 pp.

Outlines of physical geography. George W. Fitch. New York, 1863. 8vo, 225 pp.

Philadelphia Medical Museum. Philadelphia, 1-IV, 1805-1808.

Philosophy of natural history. Ed. 5. Wm. Smellie. Boston, 1834. 12mo, 321 pp.

Popular natural history. II. New York, 1834. 8vo, 298 pp.

Principles of Greek grammar. Peter Bullions. New York, 1864. 8vo, 324 pp.

Principles of nuseum administration. G. Brown Goode. York [Pa.], 1895. 8vo, 73 pp. GOODE, G. BROWN-Continued.

Schriften der Berlinischer Gesellschaft Naturforschender Freunde. Berlin, I-v, 1780-1784, VIII, 1788.

Tennessee Exposition. [Prospectus.] Washington, 1896. fol., 1 p.

Text-book on natural philosophy. Wm. Draper. New York, 1849. 8vo, 381 pp. Treatise on astronomy. Elias Loomis.

New York, 1865. 8vo, 331 pp.

Treatise on meteorology. Elias Loomis. New York, 1868. 8vo, 305 pp.

Zoological science or nature in living forms. A. M. Redfield. New York, 1858. 8vo, 700 pp.

# GROTE, A. RADCLIFF.

Hypenoid moths and allied groups.

A. Radeliff Grote. Philadelphia,
1895. 8vo, 21 pp.

Guilfoyle, W. R.

Fibers from plants. W. R. Guilfoyle. Melbourne, 1894. 8vo, 38 pp.

GURLEY, R. R.

Handbuch der gewachskunde enthaltendeine flora von Deutschland. J. C. Mössler. I-II. Ed. 3. Altona, 1833. 8vo.

Historical and descriptive account of Peruvian sheep called Carneros de la Tierra. Wm. Walton. London, 1818. 8vo, 183 pp.

## HAMILTON, JOHN.

Catalogue of the coleoptera common to North America, northern Asia, and Europe, with distribution and bibliography. John Hamilton. Philadelphia, 1889. 8vo.

Duplicates of papers on coleoptera, published mostly in Canadian Entomologist. John Hamilton. Allegheny, Pa., 1892-1895. 8vo, v. p.

Synopsis of the Cerambycidæ of North America. Pt. 3. C. W. Leng. [Philadelphia,] 1896. 8vo, 78 pp.

# HAUPT, PAUL.

Dixième Congrès International des Orientalistes. Genève.

Bulletin des adhésions, 1894.

Circular No. 3, 1894.

Liste des membres; liste des délégations; règlements du congrès etc. Genève, 1894. 8vo, 61 pp.

Membres n'habitant pas Genève présents au 6 septembre 1894. HEMSLEY, W. BOTTING.

Description of some new plants from eastern Asia. W. Botting Hemsley. [London,] 1895. 8vo, 18 pp.

Diagnoses plantarum novarum vel minus cognitarum Mexicanarum et Centrali-Americana. Pts. 1-2. W. Botting Hemsley. London, 1878-1879. 8vo.

Drift seed (Ipomoea tuberosa, L.). W. Botting Hemsley. [London,] 1892.

8vo, 8 pp.

Flora of the Tonga or Friendly Islands. W. Botting Hemsley. [London,] 1893. 8vo, 59 pp.

Obscure species of Triumfetta. Botting Hemsley. [London,] 1890.

8vo, 2 pp.

Observations on a botanical collection made by A. E. Pratt in western China. W. Botting Hemsley. [London,] 1892. 8vo, 35 pp.

Synonymy of orchidaceous Didymoplexis, Griffith, and the elongation of the pedicles of D. pallens after flowering. W. Botting Hemsley. [London,] 1883. 8vo, 4 pp.

Report on the botanical collections from Christmas Islands, Indian Ocean, made by Capt. J. P. Maclear and J. J. Lister. W. Botting Hemsley. [London,] 1889. 8vo, 12 pp.

Report on vegetation of Diego Garcia. W. Botting Hemsley. [London,]

1886. 8vo, 9 pp.

Two small collections of dried plants from Thibet. W. Botting Hemsley. [London,] 1893, 8vo, 40 pp.

HILL-TOUT, C.

Later prehistoric man. C. Hill-Tout. Toronto, 1895. 8vo, 19 pp.

HOLM, THEO.

Studies upon the Cyperaceae. Theo. Holm. Washington, 1896. 8vo, 3pp. HORSFORD, EBEN NORTON.

Defenses of Norumbega. Eben Norton Horsford, Cambridge, 1891, 8vo. 84 pp.

Discovery of the ancient city of Norumbega. Eben Norton Horsford. Boston, 1890. 8vo, 55 pp.

John Cabot's landfall in 1497 and the site of Norumbega. Eben Norton Horsford. Cambridge, 1886. 42 pp.

Horsford, Eben Norton-Continued.

Landfall of Leif Erikson, A: D. 1000, and the site of his home in Vineland. Eben Norton Horsford. Boston, 1892. Fol., 148 pp.

Sketch of the Norse discovery of America at the festival of the Scandinavian societies assembled May 18. 1891, in Boston. Eben Norton Horsford. Boston, 1891. 8vo, 29 pp.

HOUGH, WALTER.

Washington Elliot. guide. Wm. Washington, 1837. 24mo, 310 pp.

JAMES, J. F.

Address: The buildings of the State. Joseph Cox. Columbus, 1888. 8vo, 24 pp.

Address: Motions of the solar system. Ormond Stone. Salem, 1888. 8vo, 15 pp.

Development of the oyster with remarks on allied genera. Robert T. Jackson. Salem, [n. d.] 19 pp.

First fauna of the earth. J. F. James. Philadelphia, 1895. 8vo, 7 pp.

Indiana Academy of Sciences, constitution, by-laws, officers, and list of members. Brookville, 1888. 8vo. 12 pp.

Paul Broca and the French school of anthropology. Robert Fletcher. Washington, 1882. 8vo, 32 pp.

Photography with high powers by lamplight. Jacob D. Cox. Cincinnati, 1884. 8vo, 6 pp.

Remarks on Daimonelix, or "Devil's corkscrew," and allied fossils. J.F. James. Washington, 1895. 8vo, 6 pp.

Sponges: recent and fossil. J. F. James. [Philadelphia,] 1895. 8vo, 10 pp.

JONES, JOSEPH.

Original investigation on the natural history of yellow fever. Joseph Jones. Chicago, 1894. 8vo, 311 pp.

KRAEMER, AUGUSTINE.

Ein planktonausflug in die vulkanische gegend. Neu-Seelands. Augustine Kraemer. Braunschweig, 1896. 4to, 5 pp.

KUNZ, GEORGE F.

Lexicon and catalogue of the loan exhibition of the chapel of St. Gabriel, Peekskill, New York. New York, 1895. 8vo, 90 pp.

KUNTZE, OTTO.

Geonenetische beiträge. Otto Kuntze. Leipzig, 1895. 8vo, 77 pp.

KUSCHEL, M.

Abriss einer beschreibung von vogeleiern der athiopischen ornis. Kuschel, Breslau, 1895, 8vo, 213 pp.

LE CONTE, JOSEPH.

Critical periods in the history of the earth. Joseph Le Conte. Berkeley, 1895. 8vo, 22 pp.

LITTLEFIELD, G. E.

Essay on the causes of the variety of complexion and figure in the human Samuel S. Smith. species. Brunswick, 1810. 8vo, 411 pp.

Nouvelle relation de la France équinoxiale. P. Barrère. Paris, 1743. 12mo, 250 pp.

Luxmidass, Govurdhandass.

Sanskrit ghatkharpar kavyam chandrika. Bombay, [n.d.] 8vo, 62 pp.

Sanskrit marutashkti. Bombay, [n. d.] 8vo, 626 pp.

Sanskrit vedant chintamani. Paudit Gattulalji. Bombay, [n. d.] 51 l.

MCGUIRL, T. H.

Proceedings of the Royal Geographical Society of London. 1; 11, pts. 1-7, 10-12, 1879-1880.

MARTIN, F. R.

Ein beiträg zur kenntniss der vorgeschichte und kultur Sibirischer völker. F. R. Martin. Stockholm, 1895. fol., 35 pls.

MARTIN, RUD.

Weitere bemerkungen zur Pithecanthropus-frage. Rud Martin. Zürich, 1896. 8vo, 18 pp.

MASON, GEORGE E.

Description of a new earth snake of the genus Silybura. George E. Mason. London, 1888. 8vo, 3 pp.

Mason, O. T.

Altertümer aus Guatemala. E. Seler. n. p., 1896. 4to, 7 pp.

American antiquities and discoveries of the West. Josiah Priest. Albany, 1834. 8vo, 400 pp.

American historical register. Philadelphia. Pt. 12, 1895.

American journal of psychology. Baltimore. I, pts. 1-4, 1887-1888.

Annual statement of the Commissioner of Education. W. T. Harris. Washington, 1894-1895. 8vo.

MASON, O. T .- Continued.

Brief history of Japanese bronze, Edward Greey. New York, 1888. 4to, 30 pp.

Bulletin de la société d'anthropologie. Paris. vi, (4) pts. 1, 3, 4-5, 1895-1896. Climate and health. Washington. 1,

pts. 4 and 6. 1895.

Combined system of drainage and irrigation. A. P. Cole. Wellsville, 1889. 8vo, 103 pp.

Compilation of the Revised Statutes of the United States. Washington, 1875. 192 pp.

Congrès International d'Anthropologie d'Archéologie Préhistoriques. Compte rendu de la dixième session 1888. Paris, 1891. 8vo, 654 pp.

Corcoran Gallery of Art. Catalogue of paintings, casts, bronzes, etc. Wash-

ington, [1895] 60 pp.

Coupe et mobilier funéraire de la terrasse des Horteaux. E. d'Acy. Beaugency, 1895. 8vo, 388-95+419-26 pp.

Dénombrement et types des cranes néolithiques de la Gaule. Philippe Salmon. Paris, 1896. 8vo, 76 pp.

Dictionnaire de la langue Dènè-Dindjié. P. E. Petitot. Paris, 1876. fol. 367 pp.

Un diplomate anglais au début du siècle. De Nadaillac. Paris, 1895. 8vo, 51 pp.

Evolution of the Brachipoda. Agnes Crane. London, 1895. 8vo, 23 pp.

Francisque et André d'Albaigne cosmographes lucquois au service de la France. E. T. Hamy. Paris, 1895. 8vo, 34 pp.

Feather, The. Washington. 1896.

Glacier de l'Aletsch et le lac de Mirjelen. Roland Bonaparte. Paris, 1889. 4to, 26 pp.

Grain smuts; their cause and prevention. Walter T. Swingle. Washington, 1895. 8vo, 12 pp.

Great pyramids and Napoleon. Harry R. Evans. Washington, 1895. 8vo,

Hawaiian Historical Society, annual report. III, 1895.

Imitateurs d'Alexander Brumas, John Milton Pièrre Freret, M.-L.-A. Boizot, E. T. Hamy, Paris, 1895. 8vo, 12 pp.

MASON, O. T.—Continued.

Iowa, Historical Department of. Des Moines. 2d bienuial report, 1895.

Kamilaroi class system of the Australian aborigines. R. H. Matthews. Brisbane, 1894. 8vo, 17 pp.

Latest phase of the Southern Ute question. Francis E. Leupp. Philadelphia, 1895. 8vo, 39 pp.

Limon des plateaux du nord de la France et les Silex travaillés qu, il renferme. E. d'Acy. Paris, 1878. fol., 72 pp.

Manual of elementary chemistry. George Fownes. Philadelphia, 1864. 8vo, 600 pp.

Mémoire de Jean-Louis-Armand de Quetreloges de Bréau. Lille, 1892. 4to, 109 pp.

Memoria sobre la pesca en Cadiz y su provincia. Francisco Asís de Vera. Madrid, 1895. 8vo, 46 pp.

Mittheilungen der Anthropologischen Gesellschaft in Wien. xxv, pts. 2-3, 1895.

Modern scientific investigation; its methods and tendencies. J. S. Newberry. Philadelphia, 1867. 8vo, 21 pp.

Mount Vernon Ladies' Association, report of. New Haven, 1895. 8vo, 44 pp.

Notice sur une collection de dessins provenant de l'expédition de d'Entreeasteaux. E. T. Hamy. Paris, 1895. 8vo, 18 pp.

Official report of the United States expedition to explore the Dead Sea and river Jordan. W. F. Lynch. Baltimore, 1852. 4to, 235 pp.

Our neutrality laws. (Originally published in the Mexican Financier, Mexico, 1895.) J. G. Bourke. n. p. 8vo, 32 pp.

Premier etablissement des Néerlandais a maurue. Roland Bonaparte. Paris, 1890. 4to, 60 pp.

Report of the Chief of the Weather Bureau for 1895. Willis L. Moore. Washingtou, 1895. 8vo, 32 pp.

Schieszinstruktion für den Armbrustschiitzen. H. Bollinger. Schaffhausen, 1884. 8vo, 16 pp.

Sépultures des grottes des Baoussé-Roussé. E. d'Acy. Angers, [n. d.] 8vo, 10 pp. MASON. O. T .- Continued.

Students' practical chemistry. H. Morton and A. R. Leeds. Philadelphia, 1866. 8vo, 311 pp.

Teachers' College Bulletin. New York. No. 6, 1896.

Trudy 5 go Archeologicheskago Syezda v. Tiphlisye, 1881. Moscow, 1887. fol, 336 pp.

U. S. Board on Geographic Names. Decisions January, 1892, to September, 1895. Washington, 1895. 8vo, 16 pp.

U. S. Consular reports. Washington. XLVII, pt. 174; XLIX, pt. 181-183, 1895; L, pt. 184, 1896.

U. S. Department of Agriculture, report of Secretary, 1895.

U. S. Government publications. Descriptive catalogne . . . 1774-1881.Washington, 1885. 4to, 1392 pp.

U. S. Sanitary Commission. Sketch of its purposes and its work. Boston, 1863. 16mo, 299 pp.

Yngre jernalders svaerd. A. L. Lorange. Bergen, 1889. fol, 80 pp.

MATTHEWS, R. H.

Aboriginal rock pictures of Australia. R. H. Matthews. Brisbane, 1894. 8vo, 25 pp.

Aboriginal rock paintings and carvings in New South Wales. R. H. Matthews. Melbourne, 1894. 8vo, 14 pp.

MERRIAM, J. W.

Associacion Salitrera de Propaganda. Circular trimestral, Nos. 2-7. Iquique, 1894. 8vo.

Bedeutung de Chilisalpeters für den gertenbau. Berlin [n. d.]. 12mo, 15 pp.

Combien de nitrate de soude (Salpètre de Chili) fait-il donner au champ et à quelle époque cela doit-il se faire? Max Weitz. Anvers [n. d.]. 8vo, 16 pp.

Ensayos de diferentes clases de Abonos . . . en el año de 1894. Santiago, 1894. 4to, 19 pp.

How to use nitrate. Ed. 3. Bernard Dyer. London [n. d.]. 52 pp.

Food for plants. New ed. S. M. Harris. n. p. [n. d.] 12mo, 32 + 16 pp. Fumure des champs et des jardins. L. Grandeu. Paris, 1893. 12mo, 155 pp.

MERRIAM, J. W .- Continued.

Importancia del nitrado de soda (Salitre de Chile) en la jardineria y horticulturea. Max Weitz. Iquique, 1894. 8vo, 13 pp.

Kurze anleitung zur rationellen stickstoffdüngung landwirthschaftlicher kulturpflanzen unter besonderer berückichtigung des Chilisalpeters. Paul Wagner. Berlin, 1894. 8vo, 48 pp.

Landwirthschaftliche "Raubbau" ein mahnruf! Ed. 2. Max Weitz. Berlin, 1893. 8vo, 44 pp.

Nitrat de soda en agricultura. D. L. Grandeau. Barcelona, 1895. 16mo, 15 pp.

El nitrato de soda ó el salitre de Chile en la agricultura. D. L. Grandeau. Iquique, 1895. 8vo, 14 pp.

Propaganda salitrera. Pablo Wagner. Berlin, 1894. 8vo, 8 pp.

Oué caudidad de nitrato de soda necesitan los diferentes cultivos. Max Weitz. Iquique [n. d.]. 8vo, 16 pp.

Salitre de Chile 6 nitrato de soda. René Le Feuvre. Arturo Dagnino. Santiago, 1893. 8vo, 75 pp.

Význam chilského ledku v yahradnictvi. Berlin [n. d.]. 8vo, 16 pp. MERRILL, GEORGE P.

American spelling book, containing rudiments of the English language. Noah Webster, Concord, 1830. 16mo, 168 pp.

Catechism of botany. Wm. Mavor. New York, 1820. 24mo, 70 pp.

Catechism of health. Wm. Mayor. New York, 1821. 24mo, 63 pp.

Catechism of general knowledge. Wm. Mayor. New York, 1821. 24mo, 72 pp.

Female education. Joseph Emerson. Boston, 1822. 8vo, 40 pp.

First lessons in geography and astronomy. J. A. Cummings. New Haven, 1813. 24mo, 82 pp.

Geography made easy. Jedidiah Morse. Boston, 1818. 16mo, 364 pp.

Geographical view of Acadie and Maine.
n. p. [n. d.] 8vo, 102 pp.

Greek grammar (title-page missing). 8vo, 194 pp.

History of the United States of America. Charles A. Goodrich. Boston, 1836. I6mo, 352 pp.

MERRILL, GEORGE P.—Continued.

Massachusetts compendium. Ed. 2. Portland, 1816. 24mo, 99 pp.

Natural philosophy. Wm. Enfield. Boston, 1811. 8vo, 428 pp.

School compendium of natural and experimental philosophy. R. Green Parker. New York, 1848. 8vo, 382 pp.

Scholars' arithmetic. Dan'l Adams. Ed. 8. Keene, 1813. 8vo, 216 pp.

Short system of practical arithmetic. Wm. Kinne. Ed. 6. Hallowell, 1827. 16mo, 240 pp.

Premières campagnes scientifiques de la Princesse-Alice. Albert de Monaco. Paris [1895]. 4to, 5 pp.

MORTON, F. S.

Foraminiferous deposit from the bottom of the North Atlantic. A. H. Mackay. [Halifax], 1894. 8vo, 4 pp.

NASH, ANDREW O.

Illustrated catalogue of R. Hoe and Company. New York, 1871. 4to, 87 pp.

ORMEROD, ELEANOR A.

Nineteenth report of observations of injurious insects and common farm pests during the year 1895. Eleanor A. Ormerod. London. 8vo.

PALACKY, J.

Verbreitung der fische. Ed. 2. J. Palacky. Prag, 1895. 8vo, 239 pp. PAREY, PAUL.

Inhaltsverzeichnis wissenschaftlichlandwirtschaftlicher zeitschriften. Berlin. No. 213, 1896.

PECKHAM, & W.

Occasional papers of the Natural History Society of Wisconsin, 111, 1896. PORTER, J. J.

Dictionary of chemistry and mineralogy. Andrew Ure. London, 1831. 8vo. 844 pp.

Pyburn, George.

Contribution to the theory of chemical affinity. George Pyburn. Sacramento, 1895. 4to, 8 pp.

Responsibility devolving on men of science in relation to social problems. George Pyburn. Sacramento, 1896. 4to, 11 pp.

QUARITCH, BERNARD.

Little catalogue of geography Americana voyages. Bernard Quaritch. London, 1895. 8vo, 200 pp. REED, E. C.

Fosores o Avispas cavadoras. E. C. Reed. Santiago, 1894. 8vo, 57 pp. Reynolds, (Mrs.) Sheldon.

Report of the commissioner to locate the site of frontier forts of Pennsylvania. 1-11. Harrisburg, 1896. 8vo.

RIGGS, ELMER S.

New species of Dinictis from the White River Miocene of Wyoming. Elmer S. Riggs. Philadelphia, 1896. 8vo, 5 pp.

RILEY, C. V., estate of.

Manual of topographic methods. Henry Gannet. Washington, 1893. 4to.

New Jersey agricultural experiment station bulletin 41, 1887.

Ox bot in the United States. C. V. Riley. Washington, 1892. 8vo, 16 pp.

Poisonous insects. C.V. Riley. New York, 1887. 8vo, 10 pp.

Remarks on the insect defoliators of our shade trees. C. V. Riley. New York, 1887. 8vo, 12 pp.

Reports of the Entomologist of the Department of Agriculture, 1888-1893.
C. V. Riley.

United States Geological Survey bulletins 97-100, 102-117, 1893-1894.

KILEY, (Mrs.) C. V.

Mémoires de l'Académie des Sciences de l'Institut Impérial de France. XXXI, pts. 1-2, 1860.

Rose, J. N.

Report of the Secretary of Agriculture, 1893.

SCHALOW, HERMAN.

Über eine vogelsammlung aus Westgrönland. Herman Schalow. Leipzig, 1895. 8vo, 25 pp.

SCHULZE, ERWIN.

Faunæ mammalium Saxonicæ. Erwin Schulze. Leipzig, 1893. 8vo, 11 pp. Lithia hercynica. Erwin Schulze. Leipsic, 1895. 12mo, 192 pp.

Über das system des pflanzen. Erwin Schulze. Leipsic, 1894. 8vo, 4 pp.

SETH, M. J.

History of the Americans in India. M. J. Seth. Calcutta, 1895. 12mo, 8 pp. Shuffeldt, R. W.

Method of modeling certain invertebrata for museum exhibition. R. W. Shufeldt. Washington, 1894. 8vo, 2 pp. SHUFELDT, R. W.—Continued.

Nidiologist, The. New York. II, pt. 12, 1895.

Progress in American ornithology 1886-1896. R.W. Shufeldt. Philadelphia, 1896. 8vo, 16 pp.

SIMMONDS, F. W.

Floating sand: An unusual mode of river transportation. F. W. Simmonds. [Minneapolis] 1896. 8vo, 9 pp.

Reply to some statements in Professor Tarr's "Lake Cayuga a rock basin." F. W. Simmonds. Austin, 1896. 8vo, 5 pp.

STEARNS, F.

Catalogue of marine mollusks of Japan. Henry A. Pilsbry. Detroit, 1895. 8vo, 196 pp.

STERN, (Mrs.) M.

Das National Magazine. Leipsic, 1834. 4to, 416 pp.

STILES, C. W.

Anatomy of the large American fluke (*Pasciola magno*) and a comparison with other species of the genus. C. W. Stiles. Washington, 1894. 8vo, 22 pp.

Notes on parasites, No. 4. Myzomimus. [New York,] 1892. 8vo, 3 pp. Notes on parasites, Nos. 27-31, 33-34.

STRONG, R. M.

Ohio Ornithological Club. Wilson Ornithological Chapter of the Agassiz Association.

Bulletins, 4-6, 1895-1896.

Washington, 1894. 8vo.

Journal, 1-11, 1893.

Ornithologist and oologist semiannual, 11, pt. 2, 1890.

Semiannual, III, pt. 1, 1891.

Wilson Quarterly, IV, pts. 1-2, 1892.

SUCKLEY, G.

Report on the fishes collected on the survey (U. S. P. R. R. Ex. and Surveys). n.p. [n.d.] 4to, 81 pp.

SURFACE, H. A.

Descriptive catalogue of the shells of Franklin County, Ohio. Pt. 1. H. A. Surface. n. p., 1890. 8vo, 47 pp.

THOMAS, FR.

Notiz über vorkommen und fang von Liriomyza urophorina mik. Fr. Thomas. Berlin, 1895. 8vo, 2 pp. TRUE, F. W.

Annual report of the board of directors of the Zoological Society of Philadelphia, XIX-XXI, 1891-1893.

Comparative anatomy of the pyramid tract. E. C. Spitzka. New York, [n. d.]. 8vo, 47 pp.

Corrections on notes on some birds obtained at Madeira, Deserta Grande, and Porto Santo. W. R. Ogilvie Grant. [London,] 1891. 8vo, 2 pp.

Corrections to paper on genus Turnix. W. R. Ogilvie Grant. [London] 1888. 8vo, 2 pp.

Description of a new species of Arborophila. [London] 1891. 8vo, 2 pp.

Francolinus altumi, Fischer and Reichenow, is the male of F. hildebraudti, Cabanis. W. R. Ogilvie Grant. [London] 1889. 8vo, 2 pp.

Gallinaceous genera Bambusicola and Arboricola. W. R. Ogilvie Grant. [London] 1892. 8vo, 13 pp.

Genus Plantalea with description of a new species from New Guinea. W. R. Ogilvie Grant. [London] 1889. 8vo, 26 pp.

Genus Turnix. W. R. Ogilvie Grant. [London] 1889. 8vo, 30 pp.

Further note on Francolinus hildebraudti, Cabanis, and observations on Pternistes humboldti, Peters. W. R. Ogilvie Grant. [London] 1891. 8vo, 3 pp.

Note on Ardeiralla woodfordi. W. R. Ogilvie Grant. [London] 1891. 8vo, 2 pp.

Notes on the changes of plumage in red grouse (Lagopus scoticus). W. R. Ogilvie Grant. [London] 1893. 8vo, 5 pp.

Notes on the genus Cotuvnix. W. R. Ogilvie Grant. [London] 1892. 8vo, 8 pp.

Notes on some birds obtained at Madeira, Deserta Grande, and Porto Santo. W. R. Ogilvie Grant. [London] 1890. 8vo, 8 pp.

Note on Turnix beccarn, Salvadori. W. R. Ogilvie Grant. [London] 1890. 8vo, 2 pp.

Pigeons collected by Mr. A. H. Everett in Mantanani and Bangney, off the northwest coast of Borneo. W. R. Ogilvie Grant. [London] 1888. 8vo, 2 pp.

NAT MUS 96-13

TRUE, F. W.—Continued.

Short review of Francolins belonging to genera Francolinus and Pternistes. W. R. Ogilvie Grant. London, 1892. 8vo, 24 pp.

Some new Francolins and new Hornbill discovered by Mr. F. J. Jackson in eastern Africa. W. R. Ogilvie Grant. [London] 1891. 8vo, 4 pp.

Some new and rare Francolins. W. R. Ogilvie Grant. [London] 1890. 8vo, 6 pp.

Species Rallus pusillus of Pallas and its allies. W. R. Ogilvie Grant. [London] 1890. 8vo, 3 pp.

Third contribution to list of birds collected by Mr. C. M. Woodford in the Solomon Archipelago. W. R. Ogilvie Grant. [London] 1889. 8vo, 2 pp.

Proceedings of the fourth and fifth annual session of the Association of American Anatomists, 1892–1893. Washington.

Salamanders found in the vicinity of New York City. Wm. L. Sherwood. New York, 1895. 8vo, 17 pp.

Sausswasser-fische des Indischen Archipels, nebst bemerkungen über den ursprung der fauna von Celebres.
Max Weber. Leiden, 1894. 4to, 72 pp.

TSCHUSI, VICT. RITTER VON.

Tannenheher in Oesterreich-Ungarn. Vict. Ritter von Tschusi. Braunschweig, 1895. 8vo, 10 pp.

Underwood, L. C.

Voyages to Guinea, Brasil, and the West Indies in His Majesty's ships Swallow and Weymouth, J. Atkins, London, 1735. 8vo, 265 pp.

VENTRE, CAMILLE.

Nonvelle méthode de stenograpie. Camille Ventre. Paris, 1893. 8vo, 1 p. Volkov, Tu.

Le traineau dans les rites funéraires de l'Ukraine. Th. Volkov. Paris, 1896. 8vo, 24 pp.

WEBBER, H. J.

Preliminary notice of a fungus parasite on Aleyrondes citri. R. and H. J. Webber. Eustis, Fla., 1894. 8vo, 2 pp.

Study on the plant fecundation. H. J. Webber. New York, 1893. 8vo. 2 pp.

WEBBER, H. J.—Continued.

Studies on the dissemination and leaf reflexion of Yucca aliofolia and other species. H. J. Webber. Eustis, Fla., 1895. 8vo, 22 pp.

Treatment for sooty mold of the orange. H. J. Webber. Eustis, Fla. [n. d.] 8vo, 4 pp.

"White fly" and sooty mold. H. J. Webber. Eustis, Fla., 1894. Fol. 1 p.

WESLEY, WILLIAM AND SON.

Nachrichten aus den Buchhandel. Leipsic. Pts. 79-235, 237-294, 296-302, 1895; pts. 1-35, 1896. (1-15, 28-43, 46-47, 50-56, 58-75, 1894; 1, 5-13, 15-78, 1895.)

WHITE, C. A.

Address to the anthropological section of the British association held at Cardiff in August, 1891. F. W. Müller. n. p., 1896. 8vo, 23 pp.

WILDER, HARRIS H.

Nasengegend von Menopoma alleghaniense und Amphiuma tridactylum, nebst bemerkungen über den morphologie des Ramus ophthalmicus WILDER, HARRIS H.—Continued. profundus trigemiui. Harris H. Wilder. Jena [n.d.]. 8vo, 22 pp.

WILLSEY AND WOOD.

Harper's book of facts. New York, 1895. 4to, 954 pp.

WOODWARD, C. L.

Sylvia Americana. D. J. Browne. Boston, 1832. 8vo, 408 pp.

YEWDALL, JOHN.

Wool combing by hand as practiced before the introduction of machine combs. John Yewdall. Philadelphia, 1896. Fol.

ZEBALLOS, E. S.

Arbitration upon a part of the national territory of Misiones. 1. New York, 1893. 8vo, 771 pp.

Arguments for the Argentine Republic upon the question with Brazil in regard to the territory of Misiones, etc. Washington, 1894. 8vo, 334 pp.

Descriptive account of the Republic of Guatemala, Central America. Chicago, 1893. 12mo, 39 pp.

La question Misiones. Buenos Aires, 1892. 8vo, 205 pp.

# APPENDIX IV.

BIBLIOGRAPHY OF THE U. S. NATIONAL MUSEUM FOR THE FISCAL YEAR ENDING JUNE 30, 1896.

(With supplements containing lists of the new families, genera, and species described.)

PUBLICATIONS OF THE MUSEUM.1

#### ANNUAL REPORT.

Annual Report | of the | Board of Regents | of the | Smithsonian Institution, | showing | the Operations, Expenditures, and Condition | of the Institution | for the | year ending June 30, 1893. |— | Report | of the | U. S. National Museum. |— | Washington: | Government Printing Office. | 1895.

8vo, pp. I-XXI, 1-794, 184 pls., 116 figs.

#### PROCEEDINGS.

Smithsonian Institution. | United States National Museum. | — | Proceedings | of the | United States National Museum. | — | Volume XVII. | 1894. | — | Published under the direction of the Smithsonian Institution. | — | Washington: | Government Printing Office. | 1895.

8vo, pp. I-XIII, 1-765, pls. I-XXXII, 90 figs.

# BULLETIN.

Smithsonian Institution. | United States National Museum. | — | Directions for Collecting Minerals. | By | Wirt Tassin, | Assistant Curator of the Department of Minerals. | — | Part H of Bulletin of the United States National Museum, No. 39. | — | Washington: | Government Printing Office. | 1895.

8vo, pp. [1]-[6], figs. 1-8.

Smithsonian Institution. | United States National Museum. | — | Directions for Collecting Rocks and for | the Preparation of Thin Sections. | By | George P. Merrill, | Curator of the Department of Geology. | — | Part I of Bulletin of the United States National Museum, No. 39. | — | Washington: | Government Printing Office. | 1895.

8vo, pp. [1]-[15], tigs. 1-17.

Smithsonian Institution. | United States National Museum. | — | Directions for Collecting Specimens and | Information Illustrating the | Aboriginal Uses of Plants. | By | Frederick V. Coville, | Honorary Curator of the Department of Botany. | — | Part J of Bulletin of the United States National Museum, No. 39. | — | Washington: | Government Printing Office. | 1895.

8vo, pp. [1]-[8].

Smithsonian Institution. | United States National Museum. | — | Directions for Collecting and Preparing Fossils. | By | Charles Schuchert, | Assistant Curator of the Department of Paleontology. | — | Part K of Bulletin of the United States National Museum, No. 39. | — | Washington: | Government Printing Office. | 1895.

8vo, pp. [1]-[31], figs. 1-13.

The titles of the papers from the Report and Proceedings of the National Museum, which were published in separate form during the year, are given in Appendix V.

195

PAPERS BY OFFICERS OF THE NATIONAL MUSEUM AND OTHERS, BASED ON MUSEUM MATERIAL.

ADLER, CYRUS. Museum collections to | ASHMEAD, WILLIAM H.-Continued. illustrate religious history and ceremonials.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1893 (1895), pp. 755-768.

— Two Persepolitan casts in the U.S. National Museum.

> Rev. Smithsonian Inst. (U. S. Nat. Mus.), 1893 (1895), pp. 749-753, pls. 1, 2.

AMERICAN ORNITHOLOGISTS' UNION. Checklist | of North American Birds | Prepared by a Committee | of the | American Ornithologists' Union. | Second and revised edition. | - | New York | American Ornithologists' Union. | 1895.

8vo, pp. I-XI, pp. 1-372.

This new and revised list of North American birds contains the names of one thousand and seventy-one species and subspecies of recent birds, with a concise statement of their geographical distribution; of sixty-four fossil species, arranged under the geological periods to which they belong; and of twenty-six hypothetical species, with a short notice regarding their present status.

ANTHONY, A. W. New races of Colaptes and Passerella from the Pacific Coast.

Auk, XII, No. 4, Oct., 1895, pp. 347-349. Colaptes chrysoides brunnescens, and Passerrella iliaca stephensi are described.

- A new species of the genus Dryobates. Auk, XIII, No. 1, Jan., 1896, pp. 31-34. Dryobates villosus montanus is described.

ASHMEAD, WILLIAM H. Description of a new species of Telenomus bred by Mr. F. W. Urich from a Coccid.

> Journ. Trinidad Field Nat. Club, II, Aug., 1895, p. 220.

Describes Telenomus minutissimus, n. sp.

 Description of a new genus and new species of Proctotrypid bred by Mr. F. W. Urich from an Embiid.

> Journ. Trinidad Field Nat. Olub, 11, 1895, pp. 264 266.

Describes Embidobia, n. g., and E. urichi,

- Report on the parasitic Hymenoptera of the Island of Grenada, comprising the families Cynipidæ, Ichneumonida, Braconida, and Proctotrypidæ.

Proc. Zool. Soc. Lond., XLVIII, 1895 (Apr., 1896), pp. 742-812.

Reports on one hundred and eighty-six species of parasitic Hymenoptera collected on this island by Mr. Herbert H. Smith. Six new genera and one hundred and twenty-eight species are new to science.

- Descriptions of new parasitic Hymenoptera. (Paper No. 2.)

> Trans. Am. Ent. Soc. Phila., XXIII, No. 2, Apr.-June, 1896, pp. 179-234.

Describes five new genera and one hundred and twenty-seven new species, sixty-seven of which are in the National Museum.

BENDIRE, CHARLES. The Cowbirds.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1893 (1895), pp. 587-624, pls. 1-3.

BENEDICT, James E. Preliminary descriptions of a new genus and three new species of Crustaceans from an artesian well at San Marcos, Tex.

> Proc. U. S. Nat. Mus., XVIII, No. 1087, Apr. 14, 1896, pp. [1], [2]. Advance edition.

Describes three blind crustaceans, a shrimp, an isopod, and an amphipod, taken by the U. S. Fish Commission from an artesian well 188 feet deep at San Marcos, Texas.

BISHOP, Louis B. Description of a new Horned Lark and a new Song Sparrow, with remarks on Sennett's Nighthawk.

Auk, XIII, No. 2, Apr., 1896, pp. 129-135.

Otocoris alpestris hoyti and Melospiza fasciata juddi, both from North Dakota, are described as new subspecies. Remarks are offered on the validity of Chordeiles virginianus sennetti.

BREWSTER, WILLIAM. Descriptions of a new Warbler and a new Song Sparrow.

Auk, XIII, No. 1, Jan., 1896, pp. 44-47.

Compsothlypis americana usnca from Maine and Melospiza fasciata merrilli from Mt. Sherman, Idaho, are described as new subspecies.

CALVERT, PHILIP P. Notes on the Odonata from East Africa collected by the Chanler expedition.

> Proc. U. S. Nat. Mus., XVIII, No. 1047, Apr. 15, 1896, pp. 143-145.

Gives full synonymy of the seven species of dragon flies collected by the Chanler-Höhnel expedition up the Tana River. Measurements and notes on the genitalia are added.

- East African Odonata collected by Dr. W. L. Abbott.

> Proc. U. S. Nat. Mus., XVIII, No. 1046, Apr. 23, 1896, pp. 121-142.

CALVERT, PHILIP P.—Continued.

Of the thirteen species of dragon ties collected by Dr. W. L. Abbott in the Kilimanjaro region and on the Seychelles, four species are here described as new and most of the older species are redescribed, special attention being given to the sexual characters, which are illustrated by fifteen woodcuts.

CASANOWICZ, I. M. The Jews of southern Russia.

Am. Anthropologist, IX, Apr., 1896, pp. 143-145.

CHAPMAN, FRANK M. The changes of plumage in the Dunlin and Sanderling.

Bull. Amer. Mus. Nat. Hist., VIII, Art. 1, Mar., 1896, pp. 1-8.

Attention is directed to Gatke's claim that changes of color occur in these species without molt, which is denied by the author of the present paper.

CHERRIE, GEORGE K. An apparently new Chordeiles from Costa Rica.

Auk, XIII, No. 2, Apr., 1896, pp. 135, 136. Chordeiles virginianus aserriensis, from San José, Costa Rica, is described as new.

CHITTENDEN, F. H. The more important insects injurious to stored grain.

Yearbook U.S. Dept. Agric., 1894 (July, 1895), pp. 287-294, 9 figs.

A popular scientific account of thirteen common injurious insects that affect stored cereals, with a general consideration of the subject and the means of control.

— Some Coleopterons enemies of the grapevine.

Insect Life, VII, No. 5, July, 1895, pp. 384-387.

A list of the beetles injuring the grapevine, supplementary to a list of thirty-six species published by Mr. Lawrence Bruner in the Report of the Nebraska State Horticultural Society for 1895.

— The Horse-radish Flea-beetle.

Insect Life, VII, No. 5, July, 1895, pp. 404–406, 1 fig.

An account of the introduction of the European *Phyllotreta armoraciæ* into this country, and its damage to horse-radish, together with a consideration of its habits.

Two new species of beetle of the Tenebrionid genus Echocerus.

Proc. U. S. Nat. Mus., XVIII, No. 1041, Apr. 23, 1896, pp. 79. 80.

CLARKE, FRANK W. Note on a garnet from California.

Am. Journ. Sci. (Series 3), L. July, 1895, p. 76.

- [Review of] On the densities of oxygen and hydrogen, and on the ratio

CLARKE, FRANK W .- Continued.

of their atomic weights, by Edward W. Morley. *Smithsonian Contrib. to Knowl.*, XXIX, 1895, pp. 1-128, figs, 1-40.

Journ. Am. Chem. Soc., xviii, No. 2, Feb., 1896, p. 192.

— Third annual report of committee on atomic weights. Results published during 1895.

Journ, Am. Chem. Soc., XVIII, No. 3, Mar., 1896, p. 197.

COMSTOCK, F. M. The Parasitic Jaeger near Cleveland, Ohio.

Auk, XIII, No. 2, Apr., 1896, p. 171.

Two specimens of this species (one of which was sent to the Smithsonian Institution) are recorded from the vicinity of Cleveland, Ohio.

CONANT, F. S. Notes on the Chetognaths.

Johns Hopkins Univ. Circ., xv, No. 126, June, 1896, pp. 82-85.

The first chapter is upon Egg-laying, based upon observations of Sagitta hisrida, Conant; the second, on the Diverticulata of the Intestine, and the third on Classification. This is followed by short descriptions of nine American species of Chaetognaths.

COOK, O. F. Priodesmus, a new genus of Diplopoda from Surinam.

Proc. U. S. Nat. Mus., XVIII, No. 1037, Apr. 23, 1896, pp. 53-57, pl. 1, figs. 1-19.

Describes a new genus of Diplopods which has for its type a new species, *Priodesmus acus*, from Surinam, in the National Museum collection. A second species of the genus is described from Para, Brazil, which is in the Berlin Museum. The plate gives structural details of *P. acus*.

— Two new Diploped Myriapeda of the genus Oxydesmus from the Congo.

Proc. U. S. Nat. Mus., XVIII, No. 1036, Apr. 23, 1896, pp. 47-52.

Describes two interesting new species of myriapods (Oxydesmus campii and O. flabellatus) collected in the Congo Free State by Rev. J. H. Camp.

— An arrangement of the Geophilide, a family of Chilopoda.

Proc. U. S. Nat. Mus., XVIII, No. 1039, Apr. 23, 1896, pp. 63-75.

All the known genera are here reviewed, thirty-four being recognized as valid. These aclassified into nine families. The whole group is elevated to the rank of superfamily under the name Geophiloidie.

— On Geophilus attenuatus, Say, of the class Chilopoda.

Proc. U. S. Nat. Mus, XVIII, No. 1038, Apr. 23, 1896, pp. 59-62.

# COOK, O. F.—Continued.

The author comes to the conclusion that the species long known in Europe as Geophilus ferrugineus, Koch, also occurs on this continent, and is identical with Say's species. It has the generic characters of Mecistocephalus of Newport, and should now be called Mecistocephalus attenuatus, Say.

— East African Diplopoda of the suborder Polydesmoidea, collected by William Astor Chanler.

Proc. U. S. Nat. Mus., XVIII, No. 1042, Apr. 23, 1896, pp. 81-111, pl. II-VI.

A complete monograph of the species of this group known from East Africa, based partly on the material in the Berlin Museum. Analytical tables are given of the seven families occurring in Africa and of the genera of the three families represented in East Africa. Three new genera and five new species are described. The types are: Three in the National Museum (coll. Chanler-Höhnel), one in the British Museum, and one in Berlin. Structural details of all the known East African species are shown in the plates.

COQUILLETT, DANIEL W. Two Dipterons Leaf-miners on garden vegetables.

Insect Life, vii, No. 5, July, 1895, pp. 381-384, 2 figs.

An account of the habits of *Drosophila flaveola* and its injury to radishes by mining the leaves, and of *Trypeta fratria*, and its damage to parsnips by similar work.

— Two dipterons insects injurious to cultivated flowers.

Insect Life, VII, No. 5, July, 1895, pp. 399-402, 1 fig.

An account of the habits and transformations of *Phytomyza chrysanthemi* and of its damage to Chrysanthemums. Also an account of a Cecidomyiid fly and its damage to the garden poppy.

--- A new wheat pest.

Insect Life, VII, No. 5, July, 1895, pp. 406-408, 1 fig.

A consideration of Sciara tritici, n. sp., and of its probable damage to young wheat plants.

— Diptera of Florida.

Proc. Acad. Nat. Sci. Phila., 1895, pp. 307-319.

Describes three new genera and eighteen new species, two of the latter being founded partly on specimens in the National Museum.

# - Culicidæ from North America.

Canadian Entomologist, XXVIII, No. 2, Feb., 1896, p. 43.

Describes three new species, two of which are based on specimens in the National Museum.

COQUILLETT, DANIEL W .- Continued.

Revision of the North American Empide, a family of two-winged insects.

> Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, pp. 387-440.

An analytical key is given to the thirtyfour genera of this family recognized as occurring in North America, four of which are described as new. Twelve genera have analytical keys to their species, and sixty-six new species are described.

CORY, CHARLES B. Descriptions of two new species of birds from Santo Domingo.

Auk, XII, No. 3, July, 1895, pp. 278, 279. Hyetornis fieldi and Elainia cherriei are described as new.

COULTER, JOHN M. Preliminary revision of the North American species of *Echinocactus*, *Cereus*, and *Opuntia*.

Contrib. U. S. Nat. Herbarium, III, No. 7, Apr. 1, 1896, pp. 355-462.

This paper is a monograph of *Echinocactus*, *Ccreus*, and *Opuntia*, and forms the second part of Professor Coulter's work on North American Cactaceae.

COULTER, JOHN M., and ROSE, JOSEPH NELSON. *Deanea*, a new genus of Umbellifera from Mexico.

Botan. Gaz., XX, No. 8, Aug., 1895, pp. 372, 373, pl. XXVII.

The genus Dcanea is named for Mr. Walter Deane, of Cambridge, Mass. It contains two species, viz: nudicaulis and tuberosa, both natives of western Mexico.

— Umbelliferæ.

Contrib. U. S. Nat. Herbarium, 111, Nov., 1895, pp. 227-288.

This article forms a portion of a report on a collection of plants made by J. M. Sandberg and assistants in northern Idaho in the year 1892. Twenty-three species are enumerated. Peucedanum salmoniforum, Coulter and Rose, is described as new.

— Report on Mexican Umbellifere, mostly from the State of Oaxaca, recently collected by C. G. Pringle and E. W. Nelson.

> Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, pp. 289-309, pls. v-x.

A history of the collection is given, with notes on each station visited, and a catalogue of the species. Four new genera and 26 new species are reported upon. The following species are figured: Coaxana purpurea, Deanea nudicaulis, Neogoezia gracilipes, Neogoezia minor Neonelsonia ovata, Osmorrhiza mexicana.

COVILLE, FREDERICK VERNON. Juneus scirpoides and its immediate relatives.

Bull. Torrey Botan. Club, XXII, July 31, 1895, pp. 302-305.

Notes upon the group, key to the species, descriptions, and synonymy of four species.

— The botanical explorations of Thomas Coulter in Mexico and California.

> Botan. Gaz., xx, Dec. 16, 1895, pp. 519-531, 1 map.

This paper embraces a biographical sketch of Dr. Thomas Coulter, an account of his travels in America, extracts from his writings descriptive of his travels in California. a bibliography of papers based on Dr. Coulter's collections, and a chronological list of most of the species bearing his name.

 Directions for collecting specimens and information illustrating the aboriginal uses of plants.

> Bull. U. S. Nat. Mus., No. 39, Part J, 1895, pp. [1]—[8].

— Botany of Yakutat Bay, Alaska.

Contrib. U. S. Nat. Herbarium, 111, No. 6, Jan. 15, 1896, pp. 325-353.

Field report by Frederick Funston. Catalogue of species collected in Alaska by Frederick Funston in 1892.

— Report of the Chief of the Division of Botany for 1895.

Rep. Sccy. Agric., 1895 (June 11, 1896), pp. 159-164.

Some additions to our vegetable dietary.

Yearbook U. S. Dept. Agric., 1895 (1896), pp. 205-214, 9 figs.

Popular descriptions and illustrations of native and introduced plants most commonly used for pot herbs or greens.

COX, ULYSSES O. A collection of birds from Mount Orizaba, Mexico.

Auk, XII, No. 4, Oct., 1895, pp. 356-359.

A list of species, with brief notes, and a description of the recently new Pipilo orizabæ,

Cox.
(See also under Barton W. Ever-

CULIN, STEWART. Chinese games with dice and dominocs.

MANN.)

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1893 (1895), pp. 489-537, pls. 1-12, figs. 1-33.

DALL, WILLIAM HEALEY. The St. Elias Bear.

Science (New series), 11, No. 30, July 26, 1895, p. 87.

DALL, WILLIAM HEALEY-Continued.

A new species of bear, *Ursus enimonsi*, from the St. Elias region, is described from skins seen at Sitka. Photographs of other skins are in the Museum collection.

— Description of a new Vitrea from Puget Sound.

Nautilus, 1x, No. 3, July, 1895, pp. 27, 28. Vitrea johnsoni, from near Seattle, and V. subrupicola, var. speleca, Dall, from Cave City, Calaveras County, Cal., are described. Both types are in the National Museum.

Three new species of Macoma from the Gulf of Mexico.

Nautilus, 1x, No. 3, July, 1895, pp. 32-34.

Macoma limula, ranging from North Carolina to Barbados; M. mitchelli, from Matagorda Bay, Texas; and M. leptonoidea, from the same locality, are described. The types are in the National Museum collection.

— Synopsis of the subdivision of Holospira and some related genera.

Nautilus, 1x, No. 5, Sept., 1895, pp. 50-57. The genera Holospira, Calcentrum, and Eucalodium are divided into five subgenera and eleven sections on the internal characters of the shell, of which five sections and two subgenera are described as new.

On the discovery of fat and muscular fiber belonging to remains of a mammoth on the peninsula of Alaska.

Science (New series), 11, No. 45, Nov. 8, 1895, p. 636.

An account of specimens obtained by Mr. W. J. Fisher. These specimens are from the "ground-ice" formation on the Naknek River, Alaska, now in the National Museum.

— Alaska as it was and is, 1865-1895. Annual presidential address, delivered before the Philosophical Society of Washington, December, 1895.

Bull. Philosoph. Soc. Wash., XIII, Dec., 1895, pp. 123-162.

This article reviews the changes of thirty years in Alaska, as observed by the author, and summarizes the results of explorations in the territory growing out of the work of Robert Kennicott and his party, with a bibliography of scientific papers relating thereto.

The text of this paper was reprinted in *Science* (New series), 111, No. 54, Jan. 10, 1896, pp. 37-45, and No. 55, Jan. 17, 1896, pp. 87-92.

— [Review of] A catalogue of the marine mollusks of Japan, with descriptions of new species and notes on others collected by Frederick Stearns. By Henry A. Pilsbry. Detroit, 1895. 8vo, pp. I-VIII, I-196, pls. I-IX.

DALL, WILLIAM HEALEY-Continued.

Science (New series), 11, No. 57, Dec. 20, 1895, pp. 855, 856.

A review of a catalogue based on the literature and on the collections made by Mr. Stearns. A portion of these collections is now in the National Museum.

— [Review of] Die Gastropoden der Plankton-Expedition. By Dr. H. Simroth. Kiel and Leipsic, Lipsius and Fischer. 1895. 4to, pp. 1-206, pls. 1-22.

Science (New series), III, No. 54, Jan. 10, 1896, p. 69.

A review of the important work on the Plankton gastropeds by Simroth, published by Lipsius and Fischer.

- New data on Spirula.

Science (New series), III, No. 59, Feb. 14, 1896, pp. 243-245.

From specimens of Spirula in the National Museum collection the author is enabled to correct certain errors in the Challenger Monograph of Spirula by Huxley and Pelseneer, and to show the probability that this animal, though able to swim, is generally sessile in deep water on stones or other solid objects.

--- On some new species of Scala.

Nautilus, IX, No. 10, Feb., 1896, pp. 111, 112.

Description of an Oligocene, a Miocene, and one recent species of *Scala* represented in the collection of the National Museum and that of Mr. W. G. Mazyck.

[Review of] Geological biology; an introduction to the geological history of organisms, by Henry S. Williams. New York, 1895, pp. 1-xx, 1-395, with illus.

Science (New series), III, No. 64, Mar. 20, 1896, pp. 445-447.

A review of the work in question, illustrating its scope and character.

— Geographical notes on Alaska.

Bull. Am. Geographical Soc., xxvIII, No. 1, Mar., 1896, pp. 1-20.

Summary of geographic notes made during the summer of 1895 together with cartographic data on the Aleutian region and some anthropological notes on native map drawing.

— The so-called Jeannette relics.

National Geographic Magazine, VII, No. 3, Mar., 1896, pp. 93-98.

In this paper the authenticity of the socalled Jeannette relies, found off the coast of Greenland in 1884, is questioned and discussed, tegether with the bearing of the discovery on Nansen's polar explorations. DALL, WILLIAM HEALEY-Continued.

The Russo-American telegraph project of 1864-1867.

National Geographic Magazine, VII, No. 3, Mar., 1896, pp. 110, 111.

This is a brief account of the chief facts connected with the expedition referred to

— Diagnoses of new tertiary fossils from the southern United States.

Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, pp. 21-46.

Descriptions of forty-three new species, two new subgenera, one new section, and five new varieties, chiefly of Miecene and Oligocene fossils from the southern states and the Antillean region. The Opisthobranchiata, Terebridæ. Conidæ, and Umboniidæ furnish most of the species. The presence of the Egyptian genus Carolia is for the first time noted in American beds.

—— Diagnoses of new mollusks from the survey of the Mexican boundary.

Proc. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, pp. 1-6.

Descriptions of eleven new species, one new variety and one new subgenus in the Museum collection, chiefly of land shells collected by Dr. E. A. Mearns in the vicinity of the Mexican boundary.

— Diagnoses of new species of mollusks from the northwest coast of America.

Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr 23, 1896, pp. 7-20.

Descriptions of twenty-seven new species and two new genera of marine mellusks dredged on the west coast of America by the U. S. Fish Commission steamer Albatross. Types of these species are in the National Museum collection.

— New species of Leda from the Pacific coast.

Nautilus, x, No. 1, May, 1896, pp. 1, 2.

Descriptions of three new species of *Leda* in the National Museum, from the western coast of the United States.

— [Review of] Text-book of Comparative Anatomy, Part 11, Mollusca. By Arnold Lang. Translated by H. M. and M. Bernard. London and New York, Macmillan & Co. 1896. 8vo, pp. xvi+618, with illus.

Science (New series), III, No. 75, June 5, 1896, pp. 847-849.

Review of the work mentioned, with corrections of inaccuracies therein.

— Note on Neritina showalteri, Lea.

Nautilus, X, No. 2, June, 1896, pp. 13-15. The types of this species in the National

# DALL, WILLIAM HEALEY-Continued.

Museum are discussed, and the animal shown to belong to a new genus, *Lepyrium*, which is here described.

— Scientific results of explorations by the U. S. Fish Commission Steamer Albatross. No. XXXIV.—Report on Mollusca and Brachiopoda dredged in deep water, chiefly near the Hawaiian Islands, with illustrations of hitherto untigured species from northwest America.

Proc. U. S. Nat. Mas., XVII, No. 1032, July 8, 1895, pp. 675-733, pls. XXIII-XXXII.

This paper includes the description of mellusks and brachiopods dredged on the Archibenthal platean about the Hawaiian Islands, as well as others obtained by the Albatross on the western coast of America. A large number of species hitherto unfigured are fully illustrated, and twenty-nine new species, four new subgenera, two new genera, and one new family are described. The types of all are in the Musenm. Apart from descriptions of new forms the most important feature of the paper is found in the anatomical data relating to the genera Euciroa and Halicardia, Callocardia and Lyonsiella, the subgenus Spergo of the Pleurotomida, Ancistrolepis of the Buccinida, and the brachiopod genus Frieleia. It is shown that in the genus Halicardia a peripedal septum is formed by a thick outgrowth from the mantle independent of the gills and siphonal septum; that in Euciroa and Callocardia the gills differ in very important characters from those of their nearest relatives, and incidentally that the subdivision of the pelecypods into orders based on differences of the gills alone is unnatural and can not be maintained. A peculiar organ, the opisthopodium, discovered many years ago in Pholadomya, by Owen, is shown to exist also in Halicardia, and is suitably illustrated.

## DEWEY, LYSTER H. Tumble mustard.

Bull. Torrey Botan. Club, No. 22, Aug. 31, 1895, p. 370.

Note on the distribution of Sisymbrium altissimum.

## - Table of one hundred weeds.

Yearbook U. S. Dept. Agric., 1894 (Sept. 13, 1895), pp. 581–586.

A table is given showing the common and technical names and certain characteristics of one hundred weeds which are troublesome in the United States, with notes indicating methods of eradication.

## — Laphamia ciliata, sp. nov.

Botan. Gaz., xx, Sept. 25, 1895, p. 425. Description of a new species of Laphamia from Arizona. DEWEY, LYSTER H .- Continued.

Distribution of the Russian Thistle in North America.

Botan, Gaz., XX, Nov. 17, 1895, p. 501, 1 map.

Notes on the rapid dissemination of *Salsola kali tragus*, with map showing its present distribution.

# — Graminew.

Contrib. U. S. Nat. Herbarium, 111 Nov. 23, 1895, pp. 259-266.

Notes upon the grasses in a collection of plants made by J. H. Sandberg and assistants in northern Idaho in the year 1892.

## --- The Russian Thistle.

Circ. Div. Bot., U. S. Dept. Agric., No. 3 (revised edition), Dec. 17, 1895, pp. 1-8, 3 figs.

— Distribution of Prickly Lettuce in the United States.

Botan. Gaz., XXI, Jan. 16, 1896, pp. 34, 35, 1 map.

Notes on the rapid dissemination of *Lactuca scariola*, with map showing its present distribution.

— Tumbling mustard, Sisymbrium altissimum.

Circ. Div. Bot., U. S. Dept. Agric., No. 3, June 25, 1896, pp. 1-8, 3 figs.

Origin and introduction into America; names and description; related weeds; methods of dissemination; points of danger; warning to South Dakota timothy-seed growers; methods of eradication; complete eradication possible.

— Two hundred weeds, how to know them, and how to kill them.

Yearbook U. S. Dept. Agric., 1895 (1896), pp. 592-611.

Notes on the eradication of weeds. A table is presented giving the common and technical names of two hundred species, with notes on their origin, distribution, character of flowers, methods of propagation, injurious character, and methods of eradication.

ELLIOT, DANIEL GIRAUD. Descriptions of an apparently new species and subspecies of Ptarmigan from the Alentian Islands.

Auk, XIII, No. 1, Jan., 1896, pp. 24-29, pl. III. Lagopus evermanni, from Attu Island, and Lrupestris townsendi, from Kyska and Adak Islands, are described.

EVERMANN, BARTON W., and COX, ULYSSES O. The fishes of the Neuse River Basin.

Bull. U. S. Fish Com., xv. 1895 (Mar. 2, 1896), pp. 303-310.

EVERMANN, BARTON W., and KEN-DALL, WILLIAM C. Description of a new species of Pipefish (Siphostoma scorelli) from Corpus Christi, Texas.

> Proc. U. S. Nat. Mus., XVIII, No. 1043, Apr. 15, 1896, pp. 113-115.

In this paper a full description of a pipefish allied to S. affine of Günther is given, with notes on specimens obtained in Florida waters.

FOX, WILLIAM J. Synopsis of the Bembicini of Boreal America.

Proc. Acad. Nat. Sci. Phila., 1895, pp. 351-374.

The author recognizes five genera in this tribe, and gives synoptical tables for distinguishing the genera and species belonging to each found in our fauna. Two new species, Monedula tenuicornis and M. usitata, were discovered in the Museum material sent to him.

— Synopsis of the North American species of Gorytes, Latr.

Proc. Acad. Nat. Sci. Phila., 1895, pp. 517-539.

This is a brief synopsis, in tabular form, of our species of *Gorytes*, with descriptions of some new species. Mr. Fox discovered three new species in the Museum material transmitted to him.

GILL, THEODORE. Notes on Orectolobus or Crossorhinus, a genus of Sharks.

*Proc. U. S. Nat. Mus.*, XVIII, No. 1057, Apr. 15, 1896, pp. 211, 212.

— Notes on the fishes of the genus Characinus.

Proc. U. S. Nat. Mus., XVIII, No. 1058, Apr. 15, 1896, pp. 213-215.

— On the proper name of the Gunnels or Butter-fishes.

Proc. U. S. Nat. Mus., XVIII, No. 1048, Apr. 23, 1896, pp. 147-151.

— The differential characters of the Syngnathid and Hippocampid fishes.

Proc. U. S. Nat. Mus., XVIII, No. 1049, Apr. 23, 1896, pp. 153–159.

— Notes on the synonymy of the Torpedinide or Narcobatide.

Proc. U. S. Nat. Mus., XVIII, No. 1050, Apr.

23, 1896, pp. 161-165.

The families of the Synentognathous fishes and their nomenclature.

Proc. U. S. Nat. Mus., XVIII, No. 1051, Apr. 23, 1896, pp. 167-178.

— On the application of the name Tenthis to a genus of fishes.

Proc. U. S. Nat. Mus., XVIII, No. 1052, Apr. 23, 1896, pp. 179-189.

GILL, Theodore—Continued.

Notes on the nomenclature of Scymnus or Scymnorhinus, a genus of Sharks.

Proc. U. S. Nat. Mus., XVIII, No. 1053, Apr. 23, 1896, pp. 191-193.

— Notes on the genus Cephaleutherus of Rafinesque, and other rays with aberrant pectoral fins (Propterygia and Hieroptera).

Proc. U. S. Nat. Mus., XVIII, No. 1054, Apr. 23, 1896, pp. 195-198.

— Notes on Characinoid fishes with ctenoid scales, with a description of a new Psectrogaster.

Proc. U. S. Nat. Mus., XVIII, No. 1055, Apr. 23, 1896, pp. 199-203.

The differential characters of Characinoid and Erythrinoid fishes.

Proc. U. S. Nat. Mus., XVIII, No. 1056, Apr. 23, 1896, pp. 205-209.

— The nomenclature of *Fachicentron* or *Elacate*, a genus of Acanthopterygian fishes.

Proc. U. S. Nat. Mus., XVIII, No. 1059, Apr. 23, 1896, pp. 217–219.

— Note on the nomenclature of the Pacilioid fishes.

Proc. U. S. Nat. Mus., XVIII, No. 1060, Apr. 23, 1896, pp. 221-224.

The nomenclature of the fishes of the Characinoid genus Tetragonopterus.

Proc. U. S. Nat. Mus., XVIII, No. 1061, Apr. 23, 1896, pp. 225-227.

— Note on *Plectroplites* and *Hypoplectrodes*, genera of Serranoid fishes.

Proc. U. S. Nat. Mus., XVIII, No. 1082, June 24, 1896, pp. 567, 568.

GOËS, AXEL. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California, in charge of Alexander Agassiz, carried on by the U. S. Fish Commission steamer Albatross, during 1891, Lieut. Commander Z. L. Tanner, U. S. N., commanding. XX.—The Foraminifera.

Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, pp. 1-103, pls. I-IX and chart.

To facilitate comparison of the Foraminifera from both sides of the Isthmus of Panama, Dr. Goës has included the results of an examination of a series of soundings collected by the U.S. Coast Survey steamer Blake and the U.S.

GOES, AXEL-Continued.

Fish Commission steamer Albatross in the Gulf of Mexico and Caribbean Sea.

A list of the species found at each station is followed by a systematic account of the species, and a table showing their bathymetrical distribution on both sides of the Isthmus.

GOODE, G. Brown (Editor). Report | of the | United States Commission | to the | Columbian Historical Exposition | at Madrid. | — | 1892-93. | — | With special papers. | — | Washington: | Government Printing Office. | 1895.

8vo, pp. 1-411, with plates and figures.

GOODE, G. Brown. The reception of foreign students into French universities and schools.

Science (New series), III, No. 65, Mar. 27, 1896, pp. 467-470.

— The Lacoe Collection in the National Museum.

Science (New series), 1v, No. 79, July 3, 1896, pp. 8-10.

HARRIS, GILBERT DENNISON. The Midway Stage.

Bull. Am. Paleontology, 1, No. 4, June 11, 1896, pp. 1-157, pls. 1-15.

This paper, based partly on Museum material, is a monograph of the geology and paleontology of the so-called Midway Stage, or lower division of the Eocene of the southern states. It comprises an historical and stratigraphical account of the formation, followed by descriptions of all the known molluscan fossils belonging to the Midway Stage.

HARTLAUB, C. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California, in charge of Alexander Agassiz, carried on by the U. S. Fish Commission steamer Albatross, during 1891, Lient. Commander Z. L. Tanner, U. S. N., commanding. XVIII.—Die Comatuliden.

Bull. Mus. Comp. Zool., XXVII, No. 4, Aug., 1895, pp. 127-152, pls. i-iv.

Describes seven species of Antedon, four of which are new. In an appendix a new species of Antedon from Gaspard Strait is described. Based on material which will be deposited in the Museum.

## HASSALL, ALBERT.

(See under Charles Wardell Stiles.)

HERRICK, FRANCIS HOBART. The American Lobster: A study of its habits and development. HERRICK, Francis Hobart-Cont'd.

Bull. U. S. Fish Com., 1895, pp. 1-252, pls. A-J and 1-54.

This is an exhaustive monograph. In the chapter on large lobsters several specimens in the National Museum collection are described.

HOLLAND, W. J. List of the Lepidoptera collected in eastern Africa by Dr. W. L. Abbott, with descriptions of some apparently new species.

> Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, pp. 229–258, pl. VII, figs. 1–14, pl. VIII, figs. 1–4.

The species of Lepidoptera collected by Dr. W.L.Abbottin Masai Land and on Kilima Njaro are enumerated, with references, synonymy, and notes on their distribution and variations. Of butterflies there are ninety-one species, of which six species and one subspecies are described as new. The species of moths number forty-three, of which sixteen species and one genus are new. Nineteen of the new species are figured on the plates.

— List of the Lepidoptera collected in Somali Land, East Africa, by Mr. William Astor Chanler and Lieutenant von Höhnel.

> Proc. U. S. Nat. Mus., XVIII, No. 1063, May 27, 1896, pp. 259-268.

The Lepidoptera collected by the Chanler-Höhnel expedition up Tana River, from the coast to Hameye, embracing forty-three species of butterflies and three species of moths, are here enumerated. Two species of butterflies are described as new.

— List of the Lepidoptera from Aldabra, Seychelles, and other East African islands, collected by Dr. W. L. Abbott.

Proc. U. S. Nat. Mus., XVIII, No. 1064, May 27, 1896, pp. 265–273, pl. VIII, figs. 6-11,

Eighteen species of butterflies and sixteen species of moths, collected by Dr. W. L. Abbott on the Indian islands north of Madagascar, are here enumerated, with references and notes on their distribution. Of the butterflies, three species are described as new, two from Aldabra and one from Seychelles. One species and one subspecies of the moths are also described for the first time. Six species are figured on the plate.

— List of the Lepidoptera collected in Kashmir by Dr. W. L. Abbott.

Proc. U. S. Nat. Mus., XVIII, No. 1065, May 27, 1896, pp. 274–278.

An enumeration of twenty-nine species of butterflies and five species of motts, collected in Kashmir. These species were obtained at altitudes varying from one thousand to ten thousand feet. HOLZINGER, JOHN M. Report on a collection of plants made by J. H. Sandberg and assistants, in northern Idaho in the year 1892.

Contrib. U. S. Nat. Herbarium, III, No. 4, Nov. 23, 1895, pp. 205-287, pls. III, IV.

This report is based upon a collection of one thousand two hundred and seventy-two plants. Seven species are described as new: Bryum sandbergii, Holzinger; Cardamine leibergii, Holzinger; Dicranoweisia contermina, Renauld and Cardot; Orthotrichium holzingeri, Renauld and Cardot; Peucedanum salmoniflorum, Couter and Rose; Peronospora giliæ, Ellis and Everhart.

The following species are figured: Cardamine leibergii, Holzinger; Viola orbiculata, Geyer.

HOUGH, WALTER. Catalogue of the ethnological collection of the United States National Museum of the Smithsonian Institution.

Report of the United States Commission to the Columbian Historical Exposition at Madrid, 1892-93 (1895), pp. 143-193.

The ancient Central and South American pottery in the Columbian Historical Exposition at Madrid in 1892.

Report of the United States Commission to the Columbian Historical Exposition at Madrid, 1892-93 (1895), pp. 339-365, figs. 1-63.

— Primitive American armor.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1893 (1895), pp. 625-651, pls. 1-22, figs. 1-5.

The object of this paper is, first, to present the different types of armor worn by the American Indians, to wit, plate armor, slat armor, stick armor, and skin armor; second, to show the distribution of these different types, both ethnically and geographically.

HOWARD, LELAND O. The beet-leaf Pegomyia.

Insect Life, VII, No. 5, July, 1895, pp. 379-381, 1 fig.

An account of the habits of *Pegomyia vicina*, and the damage which its larva does by mining the leaves of the sugar beet in California.

— An injurious parasite.

Insect Life, VII, No. 5, July, 1895, pp. 403, 404, 1 fig.

An account of a Chalcidid parasite, infesting the beneficial larva of Dakruma coccidivora, which preys upon the injurious scale insect Pulvinaria innumcrabilis. A new genus and species are creeted for the parasite—Leucodesmia, n. g., typica, n. sp.

HOWARD, LELAND O .- Continued.

— [Special notes; general notes; notes from correspondents.]

Insect Life, VII, No. 5, July, 1895, pp. 361-364, 411-430.

Forty-four notes, varying in length from three lines to three pages, upon a variety of entomological topics, most of them relating to material now in the National Museum.

- Some scale insects of the orchard,

Yearbook U. S. Dept. Agric., 1894 (July, 1895), pp. 249-276, 17 figs.

Introductory; life history and habits of scale insects in general; classification; species to be considered; natural enemies; table of parasites; Mytilaspis pomorum; Chionaspis purpurus; Aspidiotus camelliæ; A. juglansregiæ; A. perniciosus; Diaspis lanatus; Lecanium persicæ; Lecanium prunastri; remedies for orchard scale; preventives; inspection and quarantine laws.

— Revision of the Aphelining of North America.

> Tech. Ser., Div. Ent., U. S. Dept Agric., No. 1, Sept., 1895, pp. 1-44, 14 figs.

A complete monograph of the North American species of one subfamily of the Chalcid parasitic flies. Introductory chapters treat on the economic importance of this group and their host relations, and a list is also given of the described European species. Analytical tables of the genera and species are presented. Ten genera and twenty-nine species are recognized in our fauna, of which two genera and seven species are here described as new.

— A new genus and species in the Aphelining.

Canadian Entomologist, XXVII, 1895, pp. 350, 351.

Describes Ameristus ceroplastes, from specimens reared from a Ceroplastes on Euphorbia hypericifolia in Jamaica, B. W. I., by Dr. M. Grabham.

— Mosquitoes and fleas.

Circ. Div. Ent., U. S. Dept. Agric., 13 (Series 2), Feb. 1, 1896, pp. 1-4.

— The Mexican Cotton-boll Weevil (Anthonomus grandis, Bop.).

Circ. Div. Ent., U. S. Dept. Agric., 14 (Series 2), Feb. 12, 1896, pp. 1-8, 5 figs.

General appearance and method of work; distribution; natural history and habits; popnlar names; parasites and natural enemies; remedies.

Spanish edition of same, March, 1896.

— General work against insects which defoliate shade trees in cities and towns.

> Circ. Div. Ent., U. S. Dept. Agric., 15 (Series 2), Mar. 6, 1896, pp. 1-4.

HOWARD, LELAND O.—Continued.

The Grass and Grain Joint-worm Flies and their allies: a consideration of some North American Phytophagic Eurytomine.

> Tech. Ser., Div. Ent., U. S. Dept. Agric., No. 2, Mar., 1896, pp. 1-24, 10 figs.

Treats of the species of Phytophagic Enrytonine that have been reared and whose life history is known. There are tive genera and twenty species, of which fourteen species are described as new.

- To prevent the growth of beard.

Science (New series), III, No. 74, May 29, 1896, p. 813.

An account, on the authority of Dr. B. F. Egeling, of Montercy, Mexico, of the native superstition that certain cocoons hung around the neck will prevent the growth of beard, and the announcement that the cocoons are those of Attacus jorulla, Westw.

— The shade-tree insect problem in the eastern United States.

Yearbook U. S. Dept. Agric., 1895 (June, 1896), pp. 361-384, 11 figs.

Introductory; Galerueella luteola: Orgyia leucostigma; Hyphantria cunea; relative immunity from insects of different varieties of shade trees; general work against shade-tree insects in cities and towns.

- On two interesting new genera of scale-insect parasites.

Canadian Entomologist, XXVIII, 1896, pp. 165-167.

Reviews the scale-insect parasites other than Encyrtinæ and Aphelininæ, and describes two new pirenine genera and species from New Zealand and Australia.

JOHNSON, CHARLES W. A review of the Stratiomyia and Odontomyia of North America.

Trans. Am. Ent. Soc., XXII, No. 2, July, 1895, pp. 227-277, pls. III, 1V.

A complete monograph of the North American species of the Diptera-genera Stratiomyia and Odontomyia, partly based on the material in the National Museum. The species are tabulated in analytical keys, all elaborately described, and most of them figured on the plates. Of the genus Stratiomyia twenty species are recognized, one of which is described as new, and the original descriptions of seven unrecognized species are added. In the genus Odontomyia there are thirty-one valid species, seven of which are described as new, and original descriptions of fifteen unrecognized species are added. The types of three of the new species are in the National Museum.

KENDALL, WILLIAM C.

(See under Barton W. Evermann.)

LEIDY, Joseph. Fossil vertebrates from the Alachua clays of Florida.

Trans. Wagner Free Inst. Sci., IV, Jan., 1896, pp. 1-61, pls. I-XIX.

A posthumous paper of Dr. Joseph Leidy, completed and edited by Mr. Frederic A. Lucas, including the identification of most of the species with those previously described. Definite characters are assigned to Procamelus major (Leidy) for the first time, and Rhinoecros proterus, Leidy, and R. longipes, Leidy, are shown to be Aphelops fossiger (Cope) and A. malacorhinus (Cope).

LINELL, MARTIN L. Description of a new species of Golden Beetle from Costa Rica.

Proc. U. S. Nat. Mus., XVIII, No. 1040, Apr. 23, 1896, pp. 77, 78.

Describes a new species of the Rutelidæ from Costa Rica, and comments on the generic character and on the variety in collections of the golden and silver-colored species of the group.

LUCAS, Frederic Augustus (editor). (See under Joseph Leidy.)

LUCAS, FREDERIC AUGUSTUS. Notes on the osteology of Zenglodon cetoides.

Am. Naturalist, Aug., 1895, pp. 745, 746.

Describes salient skeletal characters of the species in the light of the material obtained by the U.S. National Museum.

--- Note on Pallas' Cormorant.

Science (New series), it, Nov.15,1895, p. 661.

Notes the finding of a skull of this extinct species by Dr. Stejneger.

--- The weapons and wings of birds.

Rep. Smithsonian Inst. (U.S. Nat. Mus.), 1893 (1895), pp. 653-663, pl. 1, figs. 1-8.

Describes the various spurs and callosities on the wings of birds which render them effective as weapons.

— The deltoid muscle in the Swifts.

Auk, XIII, Jan., 1896, pp. 28, 29.

Reference is made to the variability of this muscle in the group, and special conditions are shown to be characteristic of certain genera.

— The fossil birds of Patagonia.

Auk, XIII, Jan., 1896, pp. 61-63.

A review of Ameghino's work on the gigantic extinct birds of Patagonia, taking the ground that, while they had no near allies among existing birds, they certainly were not related to the ostriches.

—— Does the private collector make the best museum administrator?

Science (New series), III, Feb. 21, 1896, p. 289.

The author takes the ground that the private collector does not make the best administrative officer.

LUCAS, FREDERIC AUGUSTUS-Cont'd.

Museum methods—The exhibition of fossil vertebrates.

Science (New series), III, Apr. 17, 1896. pp. 573-576.

Discusses the question as to whether vertebrate fossils should be exhibited with skeletons of recent animals, and takes the ground that they should be displayed apart.

— The taxonomic value of the tongue in birds.

Auk, Apr., 1896, pp. 109-114, 13 figs.

Describes the modifications of the tongue in various species of birds, and considers that they are due to adaptation to food or feeding habits, and are not of value for purposes of classification.

— Osteological and pterylographical characters of the Procniatide.

Proc. U. S. Nat. Mus., XVIII, No. 1077, June 24, 1896, pp. 505-507, figs. 1-5.

Describes the anatomical characters of this new family of birds.

--- The tongues of woodpeckers.

Bull. Div. Ornithology and Mammalogy, U. S. Dept. Agric., No. 7, 1895, pp. 35-39, pls. 1-111.

Describes the tongues of various species of North American woodpeckers, and shows the relation between the style of tongue and character of the food.

#### McGREGOR, R. C. Albinos.

Nidologist, III, No. 9, May, 1896, p. 94. Notes are offered on seven albino birds collected by the author.

MARLATT, CHARLES L. The Currant Stem-girdler.

Insect Life, VII, No. 5, July, 1895, pp. 387-390, 2 figs.

An account of the early stages of Phyllæcus flaviventris.

—— The principal insects of the grape.

Yearbook U. S. Dept. Agric., 1895 (June, 1896), pp. 385-404, 11 figs.

Gives some statistics of the damage to the grape from insects, the life histories and habits of these insects, and the means employed for the extermination of the following species: Phylloxera vastatrix, Planch; Fidia viticida, Walsh; Amphicerus bicaudatus, Say; Haltica chalybca, Ill.; Macrodactylus subspinosus, Fahr.; Desmia maculatis, Westw.; Philampelus achemon, Drury; Agrotis messoria, Harris; Agrotis saucia, Huhn.; Typhlocyba vitifex, Fitch: Eudemis botrana, Schiff.

America, a subfamily of leaf-feeding

MARLATT, CHARLES L .- Continued.

Hymenoptera of the family Tenthredinide.

Tech. Ser. Div. Ent., U. S. Dept. Agric., No. 3, 1896, pp. 1-135.

This is an extended or monographic work on this group (largely based upon Museum material), and a complete revision of the Nematine of North America north of Mexico. Synoptical tables of the genera and species are given, and some new genera and many new species are described.

# MASON, OTIS TUFTON. Footgear.

Science (New series), 111, 1896, p. 598.

This communication draws attention to the fact that the footgear of the American Indians in the areas occupied by the Latin American race in aboriginal times, to wit, Middle and South America, had two toe strings, or a loop inclosing two toes, while in post-Columbian times the type of sandal has come into vogue which was first introduced from Egypt and the Orient into Spain in the eighth century, and from Spain and Portugal imposed upon the American tribes.

# — Bows and arrows of Central Brazil.

Science (New series), III, 1896, pp. 868, 869

The object of this communication is to draw attention to the work of Dr. Fred. Meyer, and the existence of a long area between the Atlantic slope of the Andes and the Brazilian Highlands where the types of bows and arrows are of a decidedly mixed character, as are also the peoples.

— Introduction of the Iron Age into America.

Am. Anthropologist, 1x, 1896, pp. 191-215.

This paper calls attention to the profound impression made upon the American aborigines from the very first by the importation into their country, in large numbers, of the common mechanics and laborers of Europe, as well as of slaves from Africa. Vestiges of African arts, and of the folk arts of Europe in the fifteenth and sixteenth centuries, cropped out in many places, and frequently these arts are confounded with those of the aborigines.

—— Comparison of the Zuñi with the Finnish belt-weaving apparatus.

Globus, Braunschweig, LXIX, 1896, pp. 12-14, 2 illus.

This paper calls attention to the identity of the heddle used by the Zuñi Indians in weaving their garters and belts and the apparatus used by the Finns in northwestern Russia for the same purpose, and maintains that this likeness is not due to the similar causes operating under similar circumstances, but that in it we have a good example of acculturation. MEARNS, EDGAR A. Description of a | MERRILL, George Perkins-Cont'd. new Heron (Ardea virescens authonyi) from the arid region of the interior of North America.

Auk, XII, No. 3, July, 1895, pp. 257-259. Ardea virescens anthonyi is described.

- Preliminary diagnoses of new mammals from the Mexican border of the United States.

> Proc. U. S. Nat. Mus., XVIII, No. 1075, pp. 443-447. Advance edition Mar. 25, 1896.

- Preliminary diagnoses of new mammals from the Mexican border of the United States.

> Proc. T. S. Nat. Mus., XIX, No. 1103, May 25, 1896, pp. [1]-[4]. Advance edition.

--- Preliminary description of a new subgenus and six new species and subspecies of Hares, from the Mexican border of the United States.

> Proc. U. S. Nat. Mus., XVIII, No. 1081, June 24, 1896, pp. 551-565.

MEEK, SETH E. A list of fishes and mollusks collected in Arkansas and Indian Territory in 1894.

> Bull. U. S. Fish Com. XV, 1895 (Apr. 13, 1896), pp. 341-349.

MERCER, HENRY C. Chipped stone implements at the Columbian Historical Exposition at Madrid.

> Report of the United States Commission to the Columbian Historical Exposition at Madrid, 1892-93 (1895), pp. 367-397, pls. I-III, figs. 1-27.

MERRILL, GEORGE PERKINS. The onyx marbles: Their origin, composition and uses, both aucient and modern.

> Rep. Smithsonian Inst. (T. S. Nat. Mus.), 1893 (1895), pp. 539-585, pls. 1-18.

- Directions for collecting rocks and for the preparation of thin sections.

> Bull. U. S. Nat. Mus., No. 39, Part I, 1895. pp. [1]-[15], figs. 1-17.

- Notes on asbestos and asbestiform minerals.

> Proc. U. S. Nat. Mus., XVIII, No. 1066, Apr. 23, 1896, pp. 281-292,

Shows that the material commercially included under the name as bestos belongs to four independent mineral species, viz: (1) True asbestos (Tremolite), (2) Anthophyllite, (3) Serpentine, and (4) Crocidolite. It is suggested that the fibrous structure is due to shearing.

An occurrence of free gold in granite.

Am. Journ. Sci., 1, Apr., 1896, pp. 309-311. Briefly describes what is apparently a normal granite from Sonora, Mexico, containing particles of metallic gold embedded in both quartz and feldspar.

- Disintegration and decomposition of diabase at Medford, Mass.

> Bull. Geol. Soc. America, VII, 1896, pp. 349-362, 1 pl.

MILLER, GERRIT S., Jr. Description of a new Jay from Mexico.

Auk, XIII, No. 1, Jan., 1896, pp. 34-37, 1 fig. Aphelocoma gracilis, from Jalisco, Mexico, is described, and illustrated with a text figure.

MORSE, EDWARD S. If public libraries, why not public museums?

> Rep. Smithsonian Inst. (U.S. Nat. Mus.), 1893 (1895), pp. 769-780.

MÜLLER, G. W. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and iu the Gulf of California, in charge of Alexander Agassiz, carried on by the U.S. Fish Commission steamer Albatross during 1891, Lieut. Commander Z. L. Tanner, U.S. N., commanding. XIX.-Die Ostracoden.

> Bull. Mus. Comp. Zool., XXVII, No. 5, Oct., 1895, pp. 155-169, pls. 1-111.

Gives detailed descriptions of one new genus and three new species.

Based on material which will be turned over to the Museum.

OBERHOLSER, HARRY C. Descriptions of two new subspecies of the Downy Woodpecker, Dryobates pubescens (Linnæus).

> Proc. U. S. Nat. Mus., XVIII, No. 1080, June 24, 1896, pp 547-550.

The name Dryobates pubescens meridionalis, Swainson, is found applicable for the form of Downy Woodpecker inhabiting the Gulf States of the United States, while the form occurring in Alaska is described as new under the name Dryobates pubescens nelsoni. Descriptions, comparisons, and tables of measurements of these forms are added.

PALMER, WILLIAM. On the Florida Ground Owl, Spectyto floridana.

Auk, XIII, No. 2, Apr., 1896, pp. 99-108, pl.II. An account of the habits of this species as observed by the writer.

PERGANDE, THEODOR. Observations on certain Thripidæ.

Insect Life, VII, No. 5, July, 1895, pp. 390-395.

Descriptions of three new species of Thripidæ, accounts of their habits, and some consideration of two previously described species.

PILSBRY, HENRY A. A remarkable Central American Melanian.

Proc. Acad. Nat. Sci. Phila., 1896, pp. 269, 270.

This is a description of a remarkable species of *Pachycheilus* in which the adult has the outer lip sinuous, somewhat as in *Melanatria*. The types from the Tehuantepec region are in the National Museum.

POLLARD, ('HARLES LOUIS. Notes on some southern Cassias.

Bull. Torrey Botan. Club, XXII, Dec. 30, 1895, pp. 513-516, pls. 250-252.

Describes and figures C. multipinnata and C. depressa, new species, and gives key to the Chamæcristoid Cassias of the South.

- Viola sagittata hicksii, var. nov.

Botan. Gaz., XX, July 15, 1895, p. 326.

Describes a new variety of Viola sagittata from the District of Columbia.

Some new or rare plants.

Botan. Gaz., XXI, Apr. 25, 1896, pp, 232-235.

Describes Phaseolus smilacifolius as new; cites additional localities for Rhamnus frangula and Cassia multipinnata nashii; notes the further occurrence of Phacelia covillei, Perilla frutescens, and Limnanthemum nymphæoides in the District flora.

The purple-flowered, stemless violets of the Atlantic Coast.

Proc. Biol. Soc. Wash., x, May 26, 1896, pp. 85-92.

A general discussion of the eastern acaules cent purple flowered violets, with a key to the species. V. ovata, Nutt., V. dentata, Pursh V. villosa, Walt., and V. septemboh, LeConte are here restored to specific rank, while V. sagittata hickeii is made a variety of V. ovata.

RICHMOND, CHARLES W. Helminthophila leucobronchialis in Maryland.

Auk, XII, No. 3, July, 1895, p. 307. This warbler is recorded from Beltville, Md., from a specimen in the National Museum collected by Mr. A. H. Thayer.

—— Descriptions of three new birds from the Island of Margarita, Venezuela.

Auk, XII, No. 4, Oct., 1895, pp. 367-371.

Amazilia aliciæ, Doleromya pallida, and Cardinalis robinsoni are described as new.

RICHMOND, CHARLES W.—Continued.

Description of a new species of Plover from the east coast of Madagascar.

Proc. Biol. Soc. Wash., x, Mar. 14, 1896, pp. 53, 54.

Ægialitis thoracica is described as new.

— Catalogue of a collection of birds made by Dr. W. L. Abbott in Kashmir, Baltistan, and Ladak, with notes on some of the species, and a description of a new species of Cyanecula.

Proc. U. S. Nat. Mus., XVIII, No. 1078, June 24, 1896, pp. 451-503.

A catalogue of the specimens, seven hundred and forty-six in number, referable to one hundred and eighty-eight species, obtained by Dr. Abbott in Kashmir, Baltistan, and Ladak, accompanied by the collector's notes on colors and measurements. Cyanecula abbotti from Nubra Valley, Ladak, is described as new, and critical notes are given on several species.

RIDGWAY, ROBERT. On the correct subspecific names of the Texan and Mexican Screech Owls.

Auk, XII, No. 4, Oct., 1895, pp. 389, 390.

Scops mccallii of Cassin is found to be a synonym of S. trichopsis, Wagler; the bird usually designated as Megascops asio trichopsis thus not being entitled to that name, is supplied with a new one, viz: Megascops asio cineraceus.

— Junco phwonotus, Wagler, not J. cinereus (Swainson).

Auk, XII, No. 4, Oct., 1895, p. 391.

The Fringilla cinerea of Swainson being preoccupied, it is here found necessary to use the name Junco phæonotus, Wagler, in its stead, for the Mexican Junco and its subspecies.

— On Fisher's Petrel (*Æstrelata fisheri*). *Auk*, XII, No. 4, Oct., 1895, pp. 319-322, pl.

A description and synonomy of this species is given, accompanied by a colored plate.

— Nesting of the Duck Hawk in trees.

Nidologist, III, Nos. 4 and 5, Dec., 1895, pp.

An account of the nesting of a pair of Duck Hawks in trees near Mount Carmel, Ill.

— Description of a new species of Ground Warbler from eastern Mexico.

Proc. U. S. Nat. Mus., XVIII, No. 1045, Apr. 15, 1896, pp. 119, 120.

Geothlypis flavovclatus, from Alta Mira, Tamaulipas, is described.

— Preliminary descriptions of some new birds from the Galapagos Archipelago.

#### RIDGWAY, ROBERT-Continued.

Proc. U. S. Nat. Mus., XVIII, No. 1067, Apr. 23, 1896, pp. 293, 294.

Geospiza pachyrhyncha (Tower Island), Geospiza fatiqata (Indefatigable Island), Camarhynchus bindloci (Bindloc Island), Camarhynchus compressirostris (Jervis Island), and Camarhynchus incertus (James Island) are described.

— Description of a new subspecies of the genus *Peucedramus*, Cones.

*Proc. U. S. Nat. Mus.*, XVIII, No. 1074, May 21, 1896, pp. 441.

Peucedramus olivaceus aurantiacus (Chilasco, Vera Paz, Guatemala) is described as a new subspecies.

Characters of a new American family of Passerine birds.

*Proc. U. S. Nat. Mus.*, XVIII, No. 1076, June 24, 1896, pp. 449, 450.

A new family, the Prochiatide, is created for the reception of *Prochias viridis*, heretofore placed in the family Tanagride.

On birds collected by Dr. W. L. Abbott in the Seychelles, Amirantes, Gloriosa, Assumption, Aldabra, and adjacent islands, with notes on habits, etc., by the collector.

Proc. U. S. Nat. Mus., XVIII, No. 1079, June 24 1896, pp. 509-546.

Lists of the birds of the following islands are given, accompanied in many cases with notes by the collector: I, Seychelles; II, Amirante group; III, Flat Island; IV. Coëtivy; V, Providence Island; VI, Assumption Island; VII, Gloriosa Island; VIII, Aldabra Island. The name Turtur abbotti is proposed for a Turtle Dove inhabiting Mahé, Seychelles, thought to be different from T. picturatus, and descriptions of thirteen recently new species and subspecies are added. Several other rare or interesting species are described and remarked upon. An appendix contains a bibliography and a tabulated list of two hundred and twelve species occurring in the various islands near Madagascar. Their status, whether native, introduced, or extinct, and the islands inhabited by them, is indicated.

A | Manual | of | North American Birds | By Robert Ridgway, | — | Illustrated by 464 outline drawings of the generic characters, | — | Second edition. | Philadelphia: | J. B. Lippincott Company. | 1896.

8vo, pp. 1-XIII, 1-653, pls. 1-CXXIV.

All North American species, and many allied ones from extralimital regions are concisely described. In the appendix over ninety species, added to the North American avitatina since the issue of the first edition, are described. The following species and genera are here named for the first time: Cardinalis cardinalis floridanus, Orcospiza, and Arremonops.

NAT MUS 96-14

ROBERTS, C. II. The species of Dineutes of America, north of Mexico.

Trans. Am. Ent. Soc., XXII, No. 3, July, 1895, pp. 279-288, pls. v, vi.

A monograph of the North American species of aquatic beetles of the genus Dineutes. Twelve species are recognized as valid, three of which are described as new. The types are in the National Museum. The male genitalia and the secondary sexual characters of the anterior legs and of the apices of elytra are figured on the plates.

ROCKHILL, WILLIAM WOODVILLE.

Notes on the ethnology of Tibet.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1893 (1895), pp. 665-747, pls. 1-52.

ROSE, JOSEPH NELSON. A yellow-flow-ered Cosmos.

Garden and Forest, VIII, No. 406, Dec. 4, 1895, p. 484, pl. 66.

A short account of the rediscovery of a very fine yellow Cosmos.

— Description of plants, mostly new, from Mexico and the United States.

Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, pp. 311-323, pls. XI-XVI.

This paper consists mostly of descriptions of new species by Dr. Rose, Mr. E. G. Baker of the British Museum, and Prof. Alfred Cogniaux of Verviers, Belgium. The following species are figured: Mimosa spirocarpa, Rose; Ligusticum verticillatum (Hook.) Coult. and Rose; Ligusticum castwoodw, Coult. and Rose; Velea glauca, Coult. and Rose; Thurvvia triflora, Rose; Tradescantia brevifolia (Torr.) Rose.

— Arracacia filiformis, Coulter and Rose.

Hooker's Icon. Plant., v, pt. 2, Jan., 1896, pl. 2429.

A technical description, with note by D. Oliver of the Royal Botanic Gardens, Kew, England.

- Notes upon Tradescantia micrantha.

Botan. Gaz., xxi, No. 5, May, 1896, pp. 301, 302, pl. xx.

A short note regarding the rediscovery and cultivation of a Spiderwort from Texas.

(See also under JOHN M. COULTER.)

RYDBERG, P.A. Flora of the sand hills of Nebraska.

Contrib. U. S. Nat. Herbarium, III, No. 3, Sept. 14, 1895, pp. 133–200, 2 pls. and 1 fig. A catalogne is given of the species collectlby Mr. Rydberg in 1893, together with a short

A catalogue is given of the species collected by Mr. Rydberg in 1893, together with a short account of the floral districts, topography, and chinatic conditions of the region.

— The flora of the Black Hills of Dakota.

RYDBERG, P. A.—Continued.

Contrib. U. S. Nat. Herbarium, III, No. 8, June 13, 1896, pp. 463-536.

Mr. Rydberg gives not only a catalogue of the species which he collected in the Black Hills in 1892, but also some account of the geography, the goology, and the floral districts.

SAUNDERS, HOWARD, and SALVIN, OSBERT. Catalogue | of the | Gavize and Tubinares | in the | collection | of the | British Museum. | — | Gavize | (Terns, Gulls, and Skuas) | By | Howard Saunders. | Tubinares | (Petrels and Albatrosses) | By | Osbert Salvin. | London: | Printed by order of the Trustees. | \* \* \* | 1896.

8vo, pp. i-xv, 1-475, pls i-viii.

This volume constitutes No. xxv of the Catalogue of the Birds in the British Museum. Descriptions of all the species, synonymy, and lists of the specimens in the British Museum are given. The portion devoted to the Tubinares is based partly upon material in the U.S. National Museum.

SCHUCHERT, CHARLES. Directions for collecting and preparing fossils.

Bull. U. S. Nat. Mus., No. 39, Part K, 1895, pp. [1]-[31], figs. 1-13.

This paper treats of the conditions under which fossils are found, the apparatus required, and methods of collecting and packing fossils; also the methods employed in the preparation of fossils for study. A list is added giving some important localities for fossils in North America.

— Museum methods. On the arrangement of great paleontological collections.

Science (New series), III, No. 68, Apr. 17, 1896, pp. 576-579.

— Dry dredging in the Mississippian Sea.

Science (New series), 11, 1895, pp. 679-681. An account of a collecting tour through New York, Ontario, and Michigan.

- American fossil Brachiopoda.

Science (New series), 11, 1895, pp. 722-724.

This is a short summary of a work entitled "A Synopsis of American fossil Brachiopoda, including Bibliography and Synonymy," to be published by the U.S. Geological Survey.

SHUFELDT, ROBERT W. The Black Skimmer.

Popular Science News, XXIX, No. 7, New York, July, 1895, pp. 93-100.

A popular account of the birds known as skimmers, of which three species are recognized, all belonging to the genus Rynchops.

SHUFELDT, ROBERT W .- Continued.

The article is illustrated by a pen drawing, being a reduced copy, by the author, of Audubon's colored plate of the Black Skimmer, R. niger.

— [Review of] Birderaft. A field book of two hundred song, game, and water birds. By Mabel Osgood Wright. With full-page plates, containing one hundred and twenty-eight birds in the natural colors, and other illustrations. Pp. I-XVI, 1-317. Macmillan & Co., New York, July, 1895.

Nidiologist, II, No. 11, New York, July, 1895, p. 159.

- —— [Review of] The Auk, July, 1895.
  Nidiologist, II, No. 12, New York, Aug., 1895. n. 172.
  - [Review of] California Water Birds, [etc.]. By Leverett M. Loomis. *Proc. Cal. Acad. Sci.* (Series 2), v, June 19, 1895, pp. 177-224.
    - Nidiologist, 11, No. 12, New York, Aug., 1895, p. 172.
- [Review of] Ornis. Internat. Zeits. für die gesammte Ornithol., etc. Herausgegeben von Professor Dr. R. Blasius, VIII Jahrgang. Heft I and II. Braunschweig, 1895, pp. 1-211.

Nidiologist, 11, No. 12, New York, Aug., 1895, p. 171.

— The Long-tailed Jaeger.

Popular Science News, XXIX, No. 8, New York, Aug., 1895, p. 115.

This is a brief article, describing the habits of the birds called Jaegers, of the genera Megalestris and Stercorarius. Attention is called to the fine series of these birds on exhibition in the ornithological department of the National Museum; and the article is illustrated by a good figure of the long-tailed Jaeger, drawn by the anthor and reduced from Audubon's colored plate.

— [Review of] Game birds at home. By Theodore S. Van Dyke. New York: Fords, Howard & Hulbert, 1895. 16 mo, pp. 1-219.

Nidiologist, 111, No. 1, New York, Sept., 1895, p. 11.

— Terns.

Popular Science News, XXIX, No. 9, New York, Sept., 1895, p. 131.

Contains a short description of the life habits of several of these birds, and is illustrated by a figure of the head of a specimen of Trudeau's Tern (natural size). SHUFELDT, ROBERT W .- Continued.

Photographs of living birds: Aiken's Owl, and Wood Pewee.

Nidiologist, III, No. 2, New York, Oct., 1895, pp. 13-15.

Gives experiences in the matter of the photography of living birds, the article being illustrated by half-tone pictures of a pair of Aiken's Screech Owls, Megascops a. aiken, eaptured by the anthor at Fort Wingate, N. Mex. It is probable that this is the first photograph of this species ever published. In the photograph of the young Wood Pewees, Contopus vireus, both the birds and nest are given natural size, and this print has been very widely copied and republished. It has likewise been adopted as the outside-cover illumination of the Xidiologist.

- [Reviews of the following papers:] On the hyoid bone in certain parrots, by St. George Mivart, Proc. Zool. Soc. Lond., Mar., 1895, pp. 162-174; Hawks and owls from the standpoint of the farmer, by A. K. Fisher, reprinted from the Yearbook of the U. S. Dept. Agric., 1894 (1895), pp. 215-232; a revision of the genus Turdinus and genera allied to it, by J. Buttikofer, 42 pp.; The Cowbirds, by Charles Bendire, Rep. Smithsonian Inst. (U.S. Nat. Mus.), 1893 (1895), pp. 587-614, pls. 1-3; The tongues of Woodpeckers, by F. A. Lucas, reprinted from Bull. Div. Ornithol. and Mamm., U. S. Dept. Agric., No. 7, 1895, pp. 25-39, pls. I-III; The weapons and wings of birds, by F. A. Lucas, Rep. Smithsonian Inst. (U.S. Nat. Mus.), 1893 (1895), pp. 653-663, pl. 1, figs. 1-8.

Nidiologist, III, No. 2, New York, Oct., 1895, pp. 22, 23.

#### — Sea Horses.

Popular Science News (twenty-ninth year), No. 11, New York, Nov., 1895, pp. 1, 61, 3 figs.

A somewhat full account of various species of Sea Horses from different parts of the world. Illustrations are given from the works of Dr. G. Brown Goode, Dr. Günther, and Mr. Lockwood.

Photographs of young Skimmers, with notes on the breeding habits of these birds, by Mr. William Palmer.

Nidiologist, III, No. 3, New York. Nov., 1895, pp. 26-29, 2 figs.

On the 18th of September, 1895, Mr. William Palmer, of the United States National Museum, loaned the author two living specimens of the young of the Black Skimmer, Rhynchops nigra.

SHUFELDT, ROBERT W .- Continued.

These birds had been captured by Mr. Palmer on the sandy islands known as "The Isaacs," which are situated a mile or so to the castward of Cape Charles, Virginia.

The article incorporates Mr. Palmer's notes on the habits of the Skimmers on their breeding grounds, and is illustrated by two fine half-tone figures of the young of this species at different ages. These latter are from photographs made by Dr. Shufeldt from the living birds captured by Mr. Palmer.

Inmates of my house and garden, by Eliza Brightwen, New York and London, 1895, pp. 1-277; Nature in Acadie, by H. K. Swann, London, 1895, pp. 1-viii, 1-74; The skeleton of Lorius flavopalliatus compared with that of Psittacus erithacus (part 1), by St. George Mivart, Proc. Zool. Soc. Lond., Apr. 2, 1895, pp. 312-337, 363-399; Further notes on Trinidad birds, with a description of a new species of Synallaxis, by F. M. Chapman, Bull. Amer. Mus. Nat. Hist., vii, Art. IX, New York, Oct. 7, 1895, pp. 321-326.

Nidiologist, 111, No. 3, New York, Nov., 1895, pp. 33-35.

## - Bluebirds near Washington, D. C.

Forest and Stream, Rod and Gun, XLV, No. 26, New York, Dec. 28, 1895, p. 562.

Peints out that Sialia sialis is more abundant about Washington than many eastern ornithologists, who have in their writings predicted the complete extinction of the species, would have their readers believe.

Reviews of the following works:]
A naturalist in Mexico, by Frank Collins Baker, sm. 8vo, pp. 1-145, Chicago, 1895; Vogelschutz in England, by Paul Leverkühn, Sonderabdruck aus der Ornithol. Monatsschrift des Deutschen Vereins zum Schutzeder Vogelwelt, Jahrg. 1894, Nr. 1, 11, Halle, 1895; Todesanzeigen, by Paul Leverkühn, Ibid., VIII, IX, Jahrg. 1895; Birds from Cocos and Malpelo Islands, with notes on Petrels obtained at Sea, by C. II. Townsend, Bull. Mus. Comp. Zool. Harrard Coll.. XXVII, No. 3, July, 1895, Art. XVVII, pp. 121-126.

Nidiologist, 111, Nos. 4 and 5, New York, Dec., 1895, pp. 53-55.

#### — Facts about squirrels.

Am. Field, XLV, No. 4, New York and Chicago, Jan. 25, 1896, p. 80.

# SHUFELDT, ROBERT W.—Continued.

There is a widespread zoological myth entertained by the hunters and sportsmen of the United States, to the effect that male squirrels habitually castrate each other at the season of the rut. This myth finds its origin in the demand of the ignorant for some explanation to account for the disappearance of the testes in the Sciurida after the breeding season is over. This brief article gives the true explanation of the physiology of these organs in the Rodentia.

# — The mystery of eels.

Popular Science News, xxx, No. 1, New York, Jan., 1896, pp. 2, 3.

The original title of this contribution read "Eels and their Allics," but without the author's permission the editor changed it to the one here given, and under which the article appeared. It is needless to say there is no "mystery" connected with eels.

The article gives a great deal of general information on the natural history of this group of fishes, rendered in a popular style, and illustrated by a reduced copy of Anguilla rostrata, drawn by the author after Goode's figure in his "Fishery Industries of the United States;" Several references are made to the publications of the National Museum.

# — The Moose group in the National Museum.

Shooting and Fishing, IX, No. 19, New York, Feb. 27, 1896, pp. 387-389.

Contains an account of the collecting and mounting of the famous group of Moose in the mammal hall of the U.S. National Museum. The article is illustrated by four half-tones, from photographs, of the various specimens composing the group.

#### — More facts about squirrels.

Am. Field, XLV, No. 9, New York and Chicago, Feb. 29, 1896, p. 198.

A further attempt to dispel the ignorance of many hunters throughout the country in the matter of the disappearance of the testes, during the rutting season, in the Sciuridæ.

#### — More about animal photography.

Nidologist, 111, No. 6, New York, Feb., 1896, pp. 57, 58.

Contains additional information upon the methods of making photographs of living animals, and refers to the remarkable work in this line accomplished by M. Bontan, the European naturalist. The contribution is illustrated by a fine half-tone from a photograph of a living specimen of the young of the "Jack Rabbit," made by Mr. H. W. Nash, of Pneblo, Colo.

— [Reviews of the following papers:] Birds of Narberth, Pa., and vicinity, by W. E. Rotzell, 8vo, pp. 1-8, 1895;

## SHUFELDT, ROBERT W .- Continued.

A list of the birds of Maryland, by F. C. Kirkwood, reprint from *Trans.* Md. Acad. Sci., 1895, pp. 241-382; Bulletin of the British Ornithologists' Club, XXX, Nov., 1895.

Nidologist, 111, No. 6, New York, Feb., 1896, p. 67.

### - Some account of spiders.

 Great Divide, XIV, No. 2, Chicago, Feb., 1896, pp. 28, 29.

This paper gives considerable general information about the Arachnida and some allies of the family. It is illustrated by a half-tone from a photograph by Dr. Shufeldt of a specimen of Dolomedes tenelrosus carrying her young in a silken ball. It is natural size, and was taken from the living spider. Another figure, from a drawing by the author, gives a life-size representation of the "Whip-tailed Scorpion," Thelyphonus giganteus, from a specimen collected in New Mexico. Both of the specimens are now in the collections of the U. S. National Museum.

### — The American Box-tortoise.

Forest and Stream, XLVI, No. 10, New York, Mar. 7, 1896, pp. 194, 195.

The natural history of Ctstudo carolina is given, and the article is illustrated by a half-tone figure, nearly natural size, from a photograph of a living specimen of a tortoise of this species. Notes on the breeding habits are added, and reference is made to the ability of this reptile to swim when compelled to by force of circumstances.

#### - Shedding of antelope horns.

Shooting and Fishing, XIX, No. 21, New York, Mar. 12, 1896, p. 429.

Areply to Captain Cusick, of the U.S. Army, pointing out his error in entertaining the idea that Antilocapra does not shed its horns.

### — The American Partridges.

Shooting and Fishing, XIX, No. 23, New York, Mar. 26, 1896, p. 466.

Running descriptions of the American representatives of the subfamily Perdicinæ, with their breeding habits and geographical ranges. The article is based upon the material in the U. S. National Museum and the standard publications on the subject, including the author's own writings and observations. The article is illustrated by a half-tone figure, nearly life size, of the Massena Partridge, Cyrtonyx montezumæ, from a specimen in the Museum.

# —— The chimneys of Burrowing Crayfish.

Observer, VII, No. 3, Portland, Conn., Mar., 1896, pp. 85-89.

The literature on this subject is reviewed to a considerable extent, and the problem as to whether or not the crayfish builds its "chimney" SHUFELDT, ROBERT W .- Continued.

or "tower" as a matter of design, or simply to get rid of the earth pellets rolled up during the excavation of its burrow, is discussed.

Dr. Shufeldt agrees with Prof. Ralph S. Tarr in the premises that no design is implied on the part of the crayfish in these structures, and the only intention of the animal is to get rid of the earth balls it brings up while engaged in forming its burrow. Dr. C. C. Abbott holds a converse view. The article is illustrated by a drawing, by Dr. Shufeldt, of the "chimney" of Barton's Crayfish, C. bartonii robustus, made from one of his photographs taken near Washington.

— Sawfish and Rays.

Great Divide, XIV, No. 3, Chicago, Mar., 1896, pp. 48, 49.

More or less full, popular accounts of these fishes, based upon material in the U.S. National Museum and upon Dr. Shufeldt's personal experiences in the southern seas Figures of Pristis pectinatus, drawn by the author from Dr. Goode's "Fishery Industries of the United States," and others of Torpedo occidentalis, Raia levia, and Trygon sabina, are given, all being considerably reduced.

- [Reviews of the following papers:] On the cranial osteology, classification, and phylogeny of the Dinornithidæ, by T. Jeffery Parker, Trans. Zool. Soc. Lond., XIII, pt. XI, Oct., 1895, pls. LVI-LXII, pp. 373-428; Rep. Com. für den. 11ten Internat. Ornithol. Congress, 3, Sect., Anatomie der Vögel, by Max Fürbringer; Ueber die mit dem Visceralskelet verbundenen spinalen Muskeln bei Selachien, by Max Fürbringer, Abdruck aus der Jenaischen Zeitsehrift für Naturwissenschaft, XXX, N. F. XXIII, pp. 127-135; Die ästhetische Betrachtung der Thiere, by K. Möbius, Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften zu Berlin, XLV, 1895, pp. 1, 2.

Nidologist, III, No. 7, New York, Mar., 1896, pp. 78, 79.

Zoological myths.

Am. Field, XLV, No. 15, New York and Chicago, Apr. 11, 1896, pp. 343, 344.

Still another attempt to dispel some of the existing ignorance in reference to the physiology of the male organs of generation (the testes) in the Sciuridæ. Examples are here given of a number of other zoological fables that receive wide credence among some people.

— Snowbirds.

Nidologist, 111, No. 8, New York, Apr., 1896, pp. 81, 82.

SHUFELDT, ROBERT W .- Continued.

On the number of species and subspecies of the genus Junco in the United States, with remarks upon their habits and ranges. This contribution is illustrated by a vignette of a fine mounted pair (male and female) of Junco hyemalis, the work of Mr. Harry C. Denslow, formerly one of the taxidermists in the U.S. National Museum.

— [Reviews of the following papers by J. H. Gurney:] Ornithological notes from Norfolk, reprinted from the Zoologist for Mar., 1895, pp. 1-8; Supposed occurrences of the Spotted Sandpiper in Yorkshire, reprinted from the Zoologist, Mar., 1895, pp. 311, 312; On the recent abundance of the Little Auk, Mergulus alle, Linn., in Norfolk, reprinted from the Transactions of the Norfolk and Norwich Naturalists' Society, VI, art. VIII, pp. 67-70; Catalogue of the Birds of Prey (Accipites and Striges), with the number of specimens in the Norwich Museum, London, 1894, pp. 1-56.

Nidologist, III. No. 8, New York, Apr., 1896, pp. 89, 90.

— [Review of] Memoir of the late John Henry Gurney, by Thomas Southwell, reprinted, with some revisions, from the Transactions of the Norfolk and Norwick Naturalists' Society, v, p. 156, London, 1896, pp. 1-12.

Nidologist, III, No. 8, New York, Apr., 1896, pp. 89, 90.

—— Some memoranda concerning sharks.

Great Divide, xiv, No. 4, Chicago, Apr.,
1896, p. 69.

Based upon personal observations and studies by the author, as well as upon material in the U. S. National Museum. The article is illustrated by figures of the White Shark, Carcharias; the Hammer-head Shark, Zygena malleus; and "the oldest existing type of vertebrate" (Chlamylosclachus anguineus), a peculiar shark from the Japanese waters, and originally described by Prof. S. Garman, of Harvard College.

— Antelope horn shedding. Sledgehammer Science.

> Shooting and Fishing, XX, No. 3, New York. May 7, 1896, p. 50.

A further reply to Capt. Cusick, pointing out to him that Auduhon was entirely wrong when he claimed that Antilocapra did not shed its horns.

— Notes on the Evening Grosbeaks.

Forest and Stream, XLVI, No. 19, May 9, 1896, p. 373.

#### SHUFELDT, ROBERT W .- Continued.

Brings up to date our knowledge of the nidification of the two American representatives of the genus Coccothraustes, with other interesting matter added. The article is illustrated by a half-tone cut made from a photograph reducing a life-size colored drawing of Dr. Shufeldt's of a pair of adult specimens of the Evening Grosbeak. This drawing has a peculiar history, as stated in the article.

# — A curious boat from the Spice Islands.

Am. Field, XLV, No. 19, New York and Chicago, May 9, 1896, p. 439.

Description of a boat constructed entirely of cloves, and now in possession of Dr. Shufeldt. Illustrated by a half-tone made from a photograph of the object by the author.

#### — Tortoises and turtles.

Great Divide, XIV, No. 5, Chicago, May, 1896, pp. 89, 90.

Personal experiences in collecting and studying tortoises, also descriptions of turtles and their habits, with references to specimens in the U.S.National Museum and the British Museum. Illustrated by copies of Günther's figures showing the arrangement of the epidermoid plates in Testudo pardalis, a half-tone of Cistudo carolina from a photograph by Dr. Shufeldt, and a drawing of the scutes of Caretta imbricata.

## —— Progress in American ornithology. 1886-1896.

 $Am.\ Naturalist,\ XXX,\ No.\ 353,\ Philadel-phia, May, 1896, pp. 357–372.$ 

Essentially an extended criticism of the second edition of the A. O. U. Check-list of North American Birds. Gives, in tabulated form, the additions of birds to the list since the appearance of the first edition, as well as those removed from it. The List of Fossil Birds of North America is similarly dealt with; while finally the matter of the classification adopted is taken in hand, and shown to be, iu many instances, antiquated and eminently unnatural.

#### - Short talks about shells.

Observer, VII, No. 5 (whole number, No. 77), Portland, Conn., May, 1896, pp. 179–183.

Brief instructions and definitions of terms for the use of young conchologists. The article is illustrated by drawings made by Dr. Shufeldt, one of the Mitre-Shell, Mitre episcopalis, and six others showing the various characters of shells. In the course of the article occasion is taken to invite attention to the conchological collections of the U. S. National Museum, and especially to the fine series of shells in the exhibition cases, prepared to show shell structure and shell growth.

— [Reviews of the following papers:]
The changes of plumage in the Dunlin

SHUFELDT, ROBERT W .- Continued.

and Sanderling, by Frank M. Chapman, Bull. Am. Mus. Nat. Hist., VIII, art. I, pp. 1-8, New York, Mar., 1896; On the changes of plumage in the Snow Flake, Plectrophenax nivalis, by Frank M. Chapman, Bull. Am. Mus. Nat. Hist., VIII, art. II, pp. 9-12, New York, Mar., 1896; Alleged changes of color in the feathers of birds without molting, by J. A. Allen, Bull. Am. Mus. Nat. Hist., VIII, art. III, pp. 13-44, New York, Mar., 1896.

Nidologist, 111, No. 9, New York, May 1896, p. 107.

--- Progress in American ornithology, 1886-1895.

Science, (New series). III, No. 75, New York, June 5, 1896, pp. 841, 842. A rejoinder to Dr. Allen.

# — Life habits of Phrynosoma.

Science (New series), III, No. 76, New York, June 12, 1896, pp. 867, 868.

A reference to an article with this title contributed to Science by Prof. Charles L. Edwards (in a former issue), pointing out to him that not all the species of Phrynosoma are oviparous, as he seems to believe; that P. douglassii, at least, is viviparous, as the author knew from his own personal observations and from specimens he had since placed in the U.S. National Museum, collected by himself in New Mexico.

#### — Opossums.

Great Divide, XIV, No. 6, Chicago, June, 1896, p. 109.

Brief descriptions of the Opossums and their allies. Illustrated by a large half-tone, showing the fine group of Virginia Opossums and young, mounted by Mr. William Palmer, and now exhibited in the mammal hall of the U.S. National Museum.

# - Frogs and their uses.

Appleton's Popular Science Monthly, XLIX, No. 2, New York, June, 1896, pp. 179-185. An article inviting attention to the numerous uses frogs are put to, both in the biological laboratories and elsewhere. Between the lines, this is an address to the antivivisectionists, showing how indispensable it is to have the use of living animal forms wherewith to demonstrate biological truths, especially in medicine and physiology. A fine half-tone of Rana catesbiana, from a photograph of a living specimen, by the author, illustrates the contribution.

# SCHWARZ, E. A. The Hippelates plague in Florida.

Insect Life, vii, No. 5, July, 1895, pp. 374-379, 2 figs.

# SCHWARZ, E. A .- Continued.

An account of the annoyance caused to human beings and animals by *Hippelates flavipes*, *Il. pusio*, and *H. plebejus* in the southern United States, with notes on geographical distribution, habits, and probable life history.

#### — An imported library pest.

Insect Life, vii, No. 5, July, 1895, pp. 396-398, 1 fig.

A consideration of the habits of Nicobium hirtum, a Ptinid beetle which has been imported into the United States and has been found to damage books in the southern states.

# SIMPSON, CHARLES TORREY. Pleurocera subulare in water mains.

Nautilus, IX, No. 4, Aug., 1895, pp. 37, 38. An account of Pleurocera subulare, Lea, a common mollusk of the Mississippi Basin, which was taken by Mr. Charles T. Lewis, of the Hannibal Water Company, Hannibal, Mo., from the water mains of that city, where in many places the dead shells accumulated so as to completely clog the pipes and faucets. Specimens were donated to the National Museum.

# Description of four new species of Unios from the Staked Plains of Texas.

*Proc. U. S. Nat. Mus.*, xviii, No, 1072, May 19, 1896, pp. 381-385, figs. 1-5.

This is a description of Unios believed to be Triassic. These four forms exhibit a remarkable diversity in form, sculpture, hinge, and other characters, and indicate that the genus Unio had long been established at the time these species were living. Specimens from the type lot and casts from types are in the National Museum collection.

# The classification and geographical distribution of the pearly fresh water mussels.

*Proc. U. S. Nat. Mus.*, xviii, No. 1068, May 19, 1896, pp. 295-343, pl. ix.

This paper briefly reviews the history of the classification of the Naiades, and proposes a new one in part, based on all the characters, but more especially on those of the hinge and embryos. Those genera which have taxodont teeth or vestiges of them, and pass through a larval stage called "lasidium," are placed in the family Mutelidæ, while those having schizodont teeth or their vestiges, and which pass through a glochidium stage, are classified under the Unionidæ, and the families and genera are defined.

It is held that the Naiades are distributed in eight regions or provinces, viz: Ethiopian, Palearctie, Oriental, and Australian in the Old World; a part of the Palearctic region, the Mississippi, Atlantic, Central American, and Neotropical provinces in the New World.

SIMPSON, CHARLES TORREY-Cont'd.

On the Mississippi Valley Unionidae found in the St. Lawrence and Atlantic drainage areas.

Am. Naturalist, XXX, No. 353, May 20, 1896, pp. 379-384.

This paper shows that the extralimital Mississippi Valley Unionidae found in the St. Lawrence Basin are usually dwarfed and dult colored, and the claim is made that many of the so-called species of the latter region are merely depauperate varieties of well-known Mississippi Valley forms which have become changed since they have occupied the waters they now inhabit. The theory is advanced that these species migrated northward at the close of the glacial epoch, by way of old streams that flowed from lakes in the north into the Mississippi Valley at that time, as the ice cap to the north and east.

## SPRAGUE, U. A. The Dwarf Thrush in Colorado.

Auk, XIII, No. 1, Jan., 1896, p. 85.

The species is recorded from Colorado, based on a specimen shot near Boulder.

STANTON, TIMOTHY WILLIAM. Contributions to the Cretaceous Paleontology of the Pacific Coast. The fauna of the Knoxville beds.

Bull. U. S. Geol. Surv., No. 133, 1895 (Feb. 3, 1896), pp. 1-132, pls. 1-20.

This monograph is an extended treatise on the fossil animals found in the Knoxville beds, the local development of this horizon along the Pacific Coast, and the relationship of this fauna with other faunas. It is based almost entirely upon material gathered by the U. S. Geological Survey, and now in the U. S. National Museum collection.

# STEJNEGER, LEONHARD. Aleut Baidarkas in Kamchatka.

Science (New series), II, July 19, 1895, pp. 62, 63.

A correction of certain statements by Dr. Guillemard in his "Cruise of the Marchesa," concerning some baidarkas alleged to be of Kurile origin.

— The poisonous snakes of North America.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1893 (1895), pp. 337-487, pls. 1-19, figs. 1-70.

A popular scientific treatise on our poisonous snakes, with general reference to their anatomy, physiology, morphology, and habits.

— Description of a new genus and species of Blind Tailed Batrachian from the subterranean waters of Texas.

Proc. U. S. Nat. Mus., XVIII, No. 1088, Apr. 15, 1896, pp. [1]-[3]. Advance edition.

STEJNEGER, LEONHARD-Continued.

Typhlomolge rathbuni is described as a new genus and species. It is the most remarkable herpetological discovery for many years, as the new genus is only the third one of the batrachian superfamily Proteoideæ.

Description of a new species of snake (Tantilla eiseni) from California.

Proc. U. S. Nat. Mus., XVIII, No. 1044, Apr. 15, 1896, pp. 117, 118.

STEPHENS, F. Descriptions of two new subspecies of California birds.

Auk, XII, No. 4, Oct., 1895, pp. 371, 372. Callipepla gambeli deserticola and Spectyto cunicularia obscura are described as new.

STILES, CHARLES WARDELL. Bemerkungen über Parasiten—39: Pyrosoma, Apiosoma, und Piroplasma Gattungsnamen des Texassieber parasiten.

> Centralbl. f. Bak., Paras. u. Infektionskrank, XVIII, 1895, 1 abt., pp. 282, 283; Veterinary Magazine, II, 1895, p. 346.

— Spherularia bombi in America. An animal in which Prolapsus vagina is normal.

Entomological News, v1, 1895, pp. 248-250, pl. XI.

- A revision of the adult leporine Cestodes.
  - C. R. des séances du Troisième Congres Internat. d. Zool., Leyde, 1895, pp. 347– 351.

Reprint of Notes on Parasites—38: Preliminary note to "A revision of the adult leporine Cestodes," Veterinary Magazine, 11, 1895, pp. 341-346.

STILES, CHARLES WARDELL, and HAS-SALL, ALBERT. Notes on parasites— 41: Cittotania denticulata (Rudolphi, 1804) Stiles and Hassall, 1896.

> Veterinary Magazine, 111, 1896, pp. 6-9; Centralbl. f. Bak., Paras. u. Infektionskrankt., XIX, 1896, pt. 1, pp. 70-72.

Notes on parasites—42: Comparison of the type of D. longissimum v. istomum, Linstow, 1883, with the type of D. longissimum corvinum, Stiles & Hassall, 1894.

Veterinary Magazine, 111, 1896, pp. 151-155, figs. 1-4.

— Notes on parasites—43: The synonymy of Opisthorchis conus (Creplin, 1825).

Veterinary Magazine, 111, 1896, pp. 156-158.

STILES, CHARLES WARDELL, and HAS-SALL, ALBERT—Continued.

Notes on parasites—44: Dicrocalium lanceatum, Stiles & Hassall, 1896.

Veterinary Magazine, 111, 1896, p. 158.

— Notes on parasites—45: Dioctophyme or Eustrongylus?

Veterinary Magazine, 111, 1896, pp. 159, 160.

Notes on parasites—46: An examination of the type of Moniezia rogti (Moniez, 1879) Stiles & Hassall, 1896.

Veterinary Magazine, III, 1896, pp. 160, 161.

— Notes on parasites—47: On the priority of Cittotwaia, Riehm, 1881, over Ctenotwaia, Railliet, 1891.

Veterinary Magazine, III, 1896, p. 407.

STONE, WITMER. A revision of the North American Horned Owls with description of a new subspecies.

Auk, XIII, No. 2, Apr., 1896, pp. 153-156. The horned owls of North America are briefly treated, and a key to the different forms is given. The name Bubo subarcticus of Hoy is found to be a synonym of Bubo arcticus, Swainson. A new form is described as Bubo virginianus occidentalis, and the name pacificus of Cassin is revived for a small, dark-colored form from sonthern California.

— The molting of birds, with special reference to the plumages of the smaller land birds of eastern North America.

Proc. Acad. Nat. Sci. Phila., 1896, pt. 1, Jan., Feb., and Mar., 1896, pp. 108-167, pls. IV, V, 2 figs.

About one hundred and forty species are treated, and valuable information is given on the subject of molting.

TASSIN, WIRT. Directions for collecting minerals.

Bull. U. S. Nat. Mus., No. 39, Part H, 1895, pp. [1]-[6], figs. 1-8.

TOWNSEND, C. H. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California, in charge of Alexander Agassiz, carried on by the U.S. Fish Commission steamer Albatross, during 1891, Lieut. Commander Z. L. Tanner, U.S. N., commanding. XVII.—Birds from Cocos and Malpelo islands, with notes on petrels collected at sea.

Bull. Mus. Comp. Zool., XXVII, No. 3, July, 1895, pp. 121-126, 2 pls.

#### TOWNSEND, C. H.—Continued.

Six species are enumerated from Cocos Island, of which Cocornis agassizi and Nesotricous ridgwayi, both genera and species, are described as new. The rare gull, Creagrus furcatus, was found in numbers on Malpelo Island, and four specimens were seenred. The five species of petrels obtained at sea include such rare ones as Oceanodroma cryptoleucura, O. melaina, and Halocyptena microsoma.

# WILSON, THOMAS. Grooved stone axes.

Archwologist, No. 10, 1895, pp. 153–156, figs. 24–28; No. 11, 1895, pp. 169, 170, figs. 29–32; No. 12, 1895, pp. 187, 188.

Describes and figures the various styles of prehistoric grooved stone axes peculiar to North America.

— Catalogue of the display from the department of prehistoric anthropology, U. S. National Museum, at the Columbian Historical Exposition at Madrid.

Report of the United States Commission to the Columbian Historical Exposition at Madrid, 1892–93 (1895), pp. 93–142, pls. 1-VI, figs. 1-67.

The department of prehistoric anthropology in the National Museum was represented at

#### WILSON, THOMAS-Continued.

the Exposicion Historico-Americana by about 5,000 objects, selected from the collections, and intended to present a synopsis of aboriginal industry. The objects were exhibited in nineteen double slope-top cases, which were distributed throughout the main hall assigned to the United States. They were classified, so far as possible, in such a way as to show a series of implements and objects in each case or in each portion of a case. General labels descriptive of the series were printed in Spanish and distributed in their appropriate places. A description of the objects displayed, together with the names assigned to them, the material used, the mode of manufacture, and probable purpose, are set forth in the catalogue.

# — Age of the Indian race; proofs of the antiquity of the red man in America.

The Sun, New York, Apr. 12, 1896.

The original colony must have been restricted in number and locality. It grew in numbers and spread to other localities, until the Indian population increased to millions, and covered the two continents. This required a long period of time. The original colony must have had but one language, but by extension and separation it acquired new ones, until the number amounted to nearly two hundred.

LIST OF NAMES OF INDIVIDUALS, WITH ADDRESSES, WHOSE WRITINGS ARE INCLUDED IN THE FOREGOING BIBLIOGRAPHY.

ADLER, CYRUS, Librarian, Smithsonian Institution; Honorary Assistant Curator of Oriental Antiquities and Custodian of the Collection of Religious Ceremonial Objects, U. S. National Museum.

American Ornithologists' Union, New York City.

ANTHONY, A. W., San Diego, Cal.

ASHMEAD, WILLIAM H., U. S. Department of Agriculture; Custodian of the Collection of Hymenoptera, U. S. National Museum.

Bendire, Charles, Major U. S. Army (retired); Honorary Curator, Department of Birds' Eggs, U. S. National Museum.

Benedict, James E., Assistant Curator, Department of Marine Invertebrates, U. S. National Museum.

BISHOP, LOUIS B., 77 Whitney avenue, New Haven, Conn.

BREWSTER, WILLIAM, Cambridge, Mass.

CALVERT, PHILIP P., Academy of Natural Sciences, Philadelphia, Pa.

Casanowicz, I. M., Aid, Department of Oriental Antiquities, U. S. National Museum.

CHAPMAN, FRANK M., American Museum of Natural History, New York City.

CHERRIE, GEORGE K., Field Columbian Museum, Chicago, Ill.

CHITTENDEN, F. H., U. S. Department of Agriculture.

CLARKE, FRANK W., U. S. Geological Survey; Honorary Curator, Department of Minerals, U. S. National Museum.

COMSTOCK, F. M., School of Applied Sciences, Cleveland, Ohio.

CONANT, F. S., Johns Hopkins University, Baltimore, Md.

Соок, О. F., Custodian of the Collection of Myriapoda, U. S. National Museum.

Coquillett, Daniel W., U. S. Department of Agriculture; Custodian of the Collection of Diptera, U. S. National Museum.

CORY, CHARLES B., 100 Boylston street, Boston, Mass.

COULTER, JOHN M., President, University of Indiana, Bloomington, Ind.

COVILLE, FREDERICK VERNON, Botanist, U. S. Department of Agriculture; Honorary Curator, Department of Botany, U. S. National Museum.

Cox, ULYSSES O., Mankato, Minn.

CULIN, STEWART, University of Pennsylvania, Philadelphia, Pa.

Dall, William Healey, U. S. Geological Survey; Honorary Curator, Department of Mollusks, U. S. National Museum.

DEWEY, LYSTER H., Assistant Botanist, U. S. Department of Agriculture.

ELLIOT, DANIEL GIRAUD, Field Columbian Museum, Chicago, Ill.

EVERMANN, BARTON W., U. S. Fish Commission.

FOX, WILLIAM J., Academy of Natural Sciences, Philadelphia, Pa.

GILL, THEODORE, Associate in Zoology, U. S. National Museum.

Goës, Axel, Linköping, Sweden.

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

HARRIS, GILBERT DENNISON, Cornell University, Ithaca, N. Y.

HARTLAUB, C., Königliche Biologische Anstalt, Helgoland.

HERRICK, FRANCIS HOBART, Adelbert College, Cleveland, Ohio.

HOLLAND, W. J., Chancellor, Western University of Pennsylvania, Allegheny, Pa. HOLZINGER, JOHN M., U. S. Department of Agriculture.

HOUGH, WALTER, Assistant Curator, Department of Ethnology, U. S. National Museum.

HOWARD, LELAND O., Entomologist, U. S. Department of Agriculture; Honorary Curator, Department of Insects, U. S. National Museum.

JOHNSON, CHARLES W., Wagner Free Institute of Science, Philadelphia, Pa.

KENDALL, WILLIAM C., U. S. Fish Commission.

Leidy, Joseph. (Deceased.)

LINELL, MARTIN L., Aid, Department of Insects, U. S. National Museum.

Lucas, Frederic Augustus, Chrator, Department of Comparative Anatomy, U. S. National Museum.

McGregor, R. C., Palo Alto, Cal.

MARLATT, CHARLES L., U. S. Department of Agriculture.

Mason, Otis Tufton, Curator, Department of Ethnology, U.S. National Museum.

MEARNS, EDGAR A., U. S. Army, Fort Myer, Va.

MEEK, SETH E., Arkansas Industrial University, Fayetteville, Ark.

MERCER, HENRY C., University of Pennsylvania, Philadelphia, Pa.

MERRILL, GEORGE PERKINS, Curator, Department of Geology, U. S. National Museum.

MILLER, GERRIT S., Jr., U. S. Department of Agriculture.

Morse, Edward S., New York City.

MULLER, G. W., Königliche Universität, Greifswald, Germany.

OBERHOLSER, HARRY C., U. S. Department of Agriculture.

PALMER, WILLIAM, Taxidermist, U. S. National Museum.

PERGANDE, THEODOR, U. S. Department of Agriculture.

PILSBRY, H. A., Academy of Natural Sciences, Philadelphia, Pa.

Pollard, Charles Louis, Honorary Assistant Curator, Department of Botany, U.S. National Museum.

RICHMOND, CHARLES W., Assistant Curator, Department of Birds, U. S. National Museum.

RIDGWAY, ROBERT, Curator, Department of Birds, U. S. National Museum.

ROBERTS, CHRIS. H., Paris, Ontario, Canada.

ROCKHILL, WILLIAM WOODVILLE, Assistant Secretary of State.

Rose, Joseph Nelson, Honorary Assistant Curator, Department of Botany, U. S. National Museum.

Rydberg, P. A., Columbia College, New York City.

SALVIN. OSBERT. 10 Chandos street, Cavendish Square, London, England.

SAUNDERS, HOWARD, London, England.

Schuchert, Charles, Assistant Curator, Department of Paleontology, U. S. National Museum.

SCHWARZ, E. A., Department of Agriculture, Custodian of the Collection of Coleopterous Larvæ, U. S. National Museum.

Shuffeldt, Robert W., Associate in Comparative Anatomy, U. S. National Museum. Simpson, Charles Torrey, Aid, Department of Mollusks, U. S. National Museum.

SPRAGUE, U. A.

STANTON, TIMOTHY WILLIAM, U. S. Geological Survey; Custodian of Mesozoic Invertebrate Fossils, U. S. National Museum.

STEARNS, ROBERT E. C., Associate in Zoology, U. S. National Museum.

STEAMEGER, LEONHARD, Curator, Department of Reptiles and Batrachiaus, U. S. National Museum.

STEPHENS, FRANK, Witch Creek, Cal.

Stiles, Charles Wardell, Bureau of Animal Industry, U.S. Department of Agriculture; Custodian of the Helminthological Collections, U.S. National Museum.

STONE, WITMER, Academy of Natural Sciences, Philadelphia, Pa.

Tassin, Wirt, Assistant Curator, Department of Minerals, U. S. National Museum.

TOWNSEND, C. H., U. S. Fish Commission.

WILSON, THOMAS, Curator, Department of Prehistoric Anthropology, U. S. National Museum.

### SUPPLEMENT A.

# LIST OF NEW FAMILIES, GENERA, AND SUBGENERA DESCRIBED IN THE PAPERS REFERRED TO IN THE FOREGOING BIBLIOGRAPHY.

[An asterisk indicates that the type specimen is not in the National Museum.]

- Abderospira (section of Bullina). W. H. Dall. (Moll.) Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 32.
- Anaplocamus. W. H. Dall. (Moll.) *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 8.
- Ancistrolepis (subgenus). W. H. Dall. (Moll.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 709.
- Aneristus. L. O. Howard. (Hym.) Canadian Entomologist, XXVII, 1895, p. 351.
- Anoplonyx. C. L. Marlatt. (Hym.) Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agr., 1896, p. 18.
- Anysis. L. O. Howard. (Hym.) Canudian Entomologist, XXVIII, 1896, p. 167.
- Aphobetus. L. O. Howard. (Hym.) Canadian Entomologist, XXVIII, 1896, p. 166.
- Arremonops. Robert Ridgway. (Aves.) Manual N. A. Birds, ed. 2, 1896, p. 605.
- Cardiniopsis. T. W. Stanton. (Pel.) Type C. unioides, Stanton. Bull. U. S. Geol. Surv., No. 133, 1896, p. 53.
- Cirolanides. J. E. Benedict. (Iso.) *Proc. U. S. Nat. Mns.*, XVIII, No. 1087, Apr. 14, 1896, p. [1]. Advance sheet.
- Coaxana. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. *Contrib. U. S. Nat. Herbarium*, 111, No. 5, Dec. 14, 1895, p. 297, pl. 5.
- Cocornis. C. H. Townsend. (Aves.) Bull. Mus. Comp. Zool., XXVII, No. 3, July, 1895, p. 123.
- Colostemma (subgenus of Holospira). W. H. Dall. (Moll.) Nautilus, IX, No. 5, Sept., 1895, p. 50.
- Deanea. J. M. Coulter and J. N. Rose. (Bot.) Mexico. Botan. Gaz., XX, No. 8, Aug. 15, 1895, p. 372, pl. 27.

- Distomospira (section of Holospira). W. H. Dall. (Moll.) Nautilus, IX, No. 5, Sept., 1895, p. 50.
- Empimorpha. D. W. Coquillett. (Dipt.)
   Proc. U. S. Nat. Mus., XVIII, No. 1073,
   May 25, 1896, p. 396.
- Euciroidæ. W. H. Dall. (Moll.) Near Hawaii. *Proc. U. S. Nat. Mus.*, XVII, No. 1032, July 8, 1895, p. 687.
- Endistemma (section of Holospira). W.H. Dali. (Moll.) Nautilus, 1X, No. 5,Sept., 1895, p. 50.
- Euhybus. D. W. Coquillett. (Dipt.)Proc. U. S. Nat. Mus., XVIII, No. 1073,May 25, 1896, p. 437.
- Frenulina (subgenus of Muhlfeldtia).
  W. H. Dall. (Brach.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 724.
- Frieleia. W. H. Dall. (Brach.) Northwest Coast of America. *Proc. U. S. Nat. Mus.*, XXVII, No. 1032, July 8, 1895, p. 713.
- Gigantocypris.\* G. W. Müller. (Ostra.) Bull. Mus. Comp. Zool., XXVII, No. 5, Oct., 1895, p. 164.
- Gymnonychus. C. L. Marlatt. (Hym.) Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 122.
- Gyrodisca (subgenus of Gyrodes). W. H.
   Dall. (Moll.) *Proc. U. S. Nat. Mus.*,
   XVIII, No. 1035, Apr. 23, 1896, p. 44.
- Halicardia. W. Il. Dall. (Moll.) Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 697.
- Haplostemma (section of Holospira).W. H. Dall. (Moll.) Nautilus, IX, No. 5, Sept., 1895, p. 50.
- Lepidodesma. C. T. Simpson. (Moll.) Proc. U. S. Nat. Mus., XVIII, No. 1068, May 20, 1896, p. 311.

- Lepyrium. W. H. Dall. (Moll.) Nautilus, x, No. 2, June, 1896, p. 15.
- Leucodesmia. L. O. Howard. (Hym.) *Insect Life*, vii, No. 5, July, 1895, pp. 403, 404.
- Neocota. D. W. Coquillett. (Dipt.) Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 434.
- Neonelsonia. J. M. Conlter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 306, pl. 1x.
- Neoplasta. D. W. Coquillett. (Dipt.) Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 392.
- Nesotricens. C. H. Townsend. (Aves.) Bull. Mus. Comp. Zool., XXVII, No. 3, July, 1895, p. 124.
- Ogovia, W. J. Holland, (Lep.) *Proc. U. S. Nat. Mus.*, xvIII, No. 1062, May 27, 1896, p. 254.
- Oreospiza. Robert Ridgway. (Aves.) Manual N. A. Birds, ed. 2, 1896, p. 605.
- Perissopterus. L. O. Howard. (Hym.) Tech. Ser. No. 1, Div. Ent., U. S. Dept. Agric., Sept., 1895, p. 20, fig. 5.
- Physeus. L. O. Howard. (Hym.) *Tech. Ser. No. 1, Div. Ent., U. S. Dept. Agric.*, Sept., 1895, p. 43.
- Priodesmus, O. F. Cook. (Myr.) *Proc. U. S. Nat. Mus.*, XVIII, No. 1037, Apr. 23, 1896, p. 53.
- Procniatida. Robert Ridgway. (Aves.) Proc. U. S. Nat. Mus., XVIII, No. 1076, June 24, 1896, p. 449.

- Pseudomethoca, W. H. Ashmead, (Hym.) New Jersey and Florida, Trans. Am. Ent. Soc., XXIII, 1896, p. 181.
- Pseudorhodea (section of Bulinmlus). W. H. Dall. (Moll.) Nautilus, IX, No. 5, Sept., 1895, p. 51.
- Spartocentrum (subgenus of Coelocentrum). Nautilus, 1x, No. 5, Sept., 1895, p. 51.
- Spergo (subgenus of Pleurotomella). W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 680.
- Steiraxis (section of Pleurotoma). W. H.
   Dall. (Moll.) Proc. U. S. Nat. Mus.,
   XVIII, No. 1034, Apr. 23, 1896, p. 15.
- Sulcosinus (subgenus). W. H. Dall. (Moll.) Northwest Coast of America. Proc. U. S. Nat. Mas., XVII, No. 1032, July 8, 1895, p. 707.
- Thurovia. J. N. Rose. (Bot.) Texas.Contrib. U. S. Nat. Herbarium, 111, No.5, Dec. 14, 1895, p. 321, pl. 15.
- Tractolira. W. H. Dall. (Moll.) *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 12.
- Typhlomolge. L. Stejneger. (Batrach.) Proc. U. S. Nat. Mus., XVIII, No. 1088, Apr. 15, 1896, p. 620.
- Verrucina. A. Goës. (Foram.) Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 25.
- Wakullina (subgenus of Carolia). W. H.
   Dall. (Moll.) Proc. U. S. Nat. Mus.,
   XVIII, No. 1035, Apr. 23, 1896, p. 21.

### SUPPLEMENT B.

LIST OF NEW SPECIES AND SUBSPECIES DESCRIBED IN THE PAPERS REFERRED TO IN THE FOREGOING BIBLIOGRAPHY.

[An asterisk indicates that the type specimen is not in the National Museum.]

- Abutilon membranaceum. E. G. Baker. (Bot.) Jalisco, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 312.
- Abutilon wissaduloides. E. G. Baker. (Bot.) Ymala, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 312.
- Acacia pringlei. J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 316.
- Acanthopia crassicornus. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 804.
- Achæa seychellarum, var. immunda. W. J. Holland. (Lep.) Aldabra Island. Proc. U. S. Nat. Mus., XVIII, No. 1064, May 27, 1896, p. 272.
- Achæa seychellarum, W. J. Holland. (Lep.) Aldabra Island. Proc. U. S. Nat. Mus., xviii, No. 1064, May 27, 1896, p. 272, pl. viii, fig. 10.

- Acraea abbottii. W. J. Holland. (Lep.) Masai Land, Africa. *Proc. U. S. Nat. Mus.*, xviii, No. 1062, May 27, 1896, p. 233, pl. vii, fig. 1.
- Acrea pharsaloides. W. J. Holland. (Lep.) Kilimanjaro, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 232, pl. VII, fig. 3.
- Acrolisis carolinensis. W. H. Ashmead. (Hym.) Round Knob, N. C. Trans. Am. Ent. Soc., XXIII, 1896, p. 228.
- Acrolyta aletiæ. W. H. Ashmead. (Hym.) St. Louis, Mo., and Selma, Ala. Trans. Am. Eut. Soc., XXIII, 1896, p. 209.
- Acrolyta empretiae. W. H. Ashmead. (Hym.) District of Columbia. *Trans.*Am. Ent. Soc., XXIII, 1896, p. 209.
- Acrolyta mesochori. W. H. Ashmead. (Hym.) District of Columbia. *Trans.*Am. Ent. Soc., XXIII, 1896, p. 208.
- Activon chipolanus. W. H. Dall. Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 23.
- Actaon (Rictaxis) fusulus. W. H. Dall. (Moll.) Oligocene, Florida. *Proc. U. S. Nat. Mus.*, XVIII, No. 1035, Apr. 23, 1896, p. 23.
- Actwon myakkanus. W. H. Dall. (Moll.) Pliocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 24.
- Ægialitis thoracica. C. W. Richmond. (Aves.) Madagascar. Proc. Biol. Soc. Wash., x, 1896, pp. 53, 54.
- Ægilips victoriæ.\* W. H. Ashmead. (Hym.) Victoria, Vancouver Island. Trans. Am. Ent. Soc., XXIII, 1896, p. 184.
- Ænoplex betulæcola. W. H. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 208.
- Eschina rileyi. P. P. Calvert. (Odon.) Kilimanjaro, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1046, Apr. 23, 1896, p. 138, fig. 13.
- Etroxys callidii.\* W. H. Ashmead. (Hym.) Virginia Beach, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 223.
- Aglaotoma similis. W. H. Ashmead. (Hym.) Balthazar and Grand Etang, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 752.
- Aglaotoma tricolor. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 753.

- Agrypon pardiscae. W. H. Ashmead. (Hym.) St. Louis, Mo., and Fortress Monroe, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 190.
- Allocota confederate. W. H. Ashmead. (Hym.) St. Louis, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 208.
- Allotria xanthopsis. W. H. Ashmead. (Hym.) Crescent City, Fla. Traus. Am. Ent. Soc., XXIII, 1896, p. 185.
- Alpenus trifasciata. W. J. Holland. (Lep.) Kilima Njaro, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 249, pl. VII, fig. 10.
- Amauronematus californicus. C. L. Marlatt. (Hym.) Los Angeles, Cal. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 85.
- Amauronematus chalceus.\* C. L. Marlatt. (Hym.) Olympia, Wash. *Tech.* Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 84.
- Amauronematus comstocki.\* C. L. Marlatt. (Hym.) Ithaca, N. Y. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 77.
- Amauronematus cooki. C. L. Marlatt. (Hym.) Michigan. Tech. Ser. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 79.
- Amauronematus coquilletti. C. L. Marlatt. (Hym.) Los Angeles, Cal. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 84.
- Amauronematus excavatus.\* C. L. Marlatt. (Hym.) Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 85.
- Amauronematus gracilis.\* C. L. Marlatt. (Hym.) Ithaca, N. Y., and Natick, Mass. Tech. Ser. No. 3, Div. Ent., C. S. Dept. Agric., 1896, p. 78.
- Amauronematus orbitalis. C. L. Marlatt. (Hym.) Oregon and Colorado. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 80.
- Amauronematus oregonensis. \* C. L. Marlatt. (Hym.) Mount Hood, Oregon. Tech. Scr. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 80.
- Amauronematus rufipes.\* C. L. Marlatt. (Hym.) Indiana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 78.
- Amazilia alicia. C.W. Richmond. (Aves.)

  Margarita Island, Venezuela. Auk,
  XII, Oct., 1895, No. 4, p. 368.

- Amberleya dilleri. T. W. Stanton. (Gast.) Near Paskenta, Cal. *Bull. U. S. Geol. Surv.*, No. 133, 1896, p. 68, pl. 12, figs. 7-9.
- Amblyaspis brunneus. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 801.
- Amblyaspis grenadensis. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 800.
- Amblyaspis ruficornis. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 801.
- Amblyaspis xanthochroa. W. H. Ashmead. (Hym.) Balthazar, Chantilly, and Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 800.
- Amesolytus ferrugineus. W. H. Ashmead. (Hym.) Texas. Trans. Am. Ent. Soc., XXIII, 1896, p. 201.
- Anacharis mexicana.\* W. H. Ashmead. (Hym.) Sante Fe, N. Mex. Trans. Am. Ent. Soc., XXIII, 1896, p. 184.
- Anaplocamus borealis. W. H. Dall. (Moll.) Alaska. *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 9.
- Aneristus ceroplastæ. L. O. Howard. (Hym.) Jamaica, B. W. I. Canadian Entomologist, XXVII, 1895, p. 351.
- Angelica nelsoni. J. M. Coulter and J. N. Rose. (Bot.) Oaxaea, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 294.
- Angelica pringlei. J.M. Coulter and J. N. Rose. (Bot.) Mexico, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 295.
- Angelica seatoni. J. M. Coulter and J. N.
  Rose. (Bot.) Mount Orizaba, Mexico.
  Contrib. U. S. Nat. Herbarium, III, No.
  5, Dec. 14, 1895, p. 295.
- Anomia senescens. T. W. Stanton. (Pel.) Near Lowerys, Cal. Bull. U. S. Geol. Surv., No. 133, 1896. p. 35, pl. 2, fig. 2.
- Anteris striatifrons. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 798.
- Anysis australiensis. L. O. Howard. (Hym.) West Australia. Cauadian Entomologist, XXVIII, 1896, p. 167.
- Aphæreta apicalis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 787.

- Aphanognus grenadensis. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 789.
- Aphanogmus insularis. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 789.
- Antedon agassizii.\* C. Hartlanb. (Crin.) Bay of Panama and Galapagos Islands. Bull. Mus. Comp. Zool., XXVII, No. 4, Aug., 1895, p. 131, pl. 1, figs. 4, 7, 8; pl. II, figs. 16, 18, 19; pl. III, fig. 23; pl. IV, fig. 26.
- Antedon bigradata.\* C. Hartlaub. (Crin.) Bay of Panama and Galapagos Islands. Bull. Mus. Comp. Zool., XXVII, No. 4, Aug., 1895, p. 145, pl. I, fig. 5.
- Antedon parvula.\* C. Hartlaub. (Crin.) Cocos Islands. Bull. Mus. Comp. Zool., XXVII, No. 4, Aug., 1895, p. 144, pl. III, fig. 21.
- Antedon tanneri.\* C. Hartlaub. (Crin.)
  Bay of Panama. Bull. Mus. Comp.
  Zool., XXVII, No. 4, Aug., 1895, p. 141,
  pl. I, fig. 9; pl. II, fig. 13; pl. III, figs.
  20, 22.
- Aphelinus flaviceps. L. O. Howard. (Hym.) Santa Cruz Mountains, Cal. Tech. Ser. No. 1, Div. Ent., U. S. Dept. Agric., Sept., 1895, p. 25.
- Aphelocoma gracilis.\* G. S. Miller, jr. (Aves.) Sierra Bolanos, Jalisco, Mexico. Auk, XIII, 1896, No. 1, p. 34.
- Aphobetus maskelli. L. O. Howard. (Hym.) New Zealand. Canadian Entomologist, XXVIII, 1896, p. 166.
- Apsilops hirtifrons. W. H. Ashmead. (Hym.) District of Columbia; Columbus, Ohio; Champaign, Ill. Trans. Am. Ent. Soc., XXIII, 1896, p. 207.
- Aptychus (?) knoxvillensis. T. W. Stanton. (Ceph.) Near Knoxville, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 83, pl. 18, figs. 1, 2.
- Area tehamænsis. T. W. Stanton. (Pel.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 50, pl. 6, fig. 8.
- Area textrina. T. W. Stanton. (Pel.) Near Stephensons, Cal. *Bull. U. S. Geol. Surr.*, No. 133, 1896, p. 50, pl. 6, figs. 6, 7.
- Ardea virescens authonyi. E. A. Mearns. (Aves.) Salton River, Lower California. Auk, XII, July, 1895, No. 3, p. 257.

- Arracacia bracteata. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 295.
- Arracacia brevipes. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 296.
- Arracacia filiformis. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Hooker's Icones Plantarum, v, pt. 2, Jan., 1896, pl. 2429.
- Arracacia nelsoni. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 296.
- Arracacia ovata. J. M. Coulter and J. N. Rose. (Bot.) Guerrero, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 296.
- Arracacia pringlei. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 297.
- Arracacia (†) vaginata. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 297.
- Aspicera utahensis.\* W. H. Ashmead. (Hym.) Salt Lake, Utah. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 183.
- Astarte californica. T.W. Stanton. (Pel.) Near Stephensons, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 57, pl. 6, figs. 19-21.
- Astarte corrugata. T. W. Stanton. (Pel.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 56, pl. 6, fig. 16.
- Astarte trapezoidalis. T. W. Stanton. (Pel.) Near Lowerys, Cal. *Bull. U. S. Geol. Surv.*, No. 133, 1896, p. 57, pl. 6, figs. 17, 18.
- Astrodesmus stellifer. O. F. Cook. (Myr.)
  Tana River, Africa. *Proc. U. S. Nat. Mus.*, XVIII, No. 1042, Apr. 23, 1896, p. 86,
  pl. II, figs. 1-11; pl. III, figs. 1-9.
- Astrorhiza furcata. A. Goës. (Foram.) Off Acapulco, Mexico. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 19, pl. 1, figs. 4, 5.
- Astrorhiza tenuis. A. Goës. (Foram.) Pacific Ocean. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 20, pl. 1, figs. 6-8.

- Astrorhiza vermiformis. A. Goës. (Foram.) Caribbean Sea. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 20, pl. 1, fig. 9.
- Atella seychellarum. W. J. Holland. (Lep.) Seychelles Islands. Proc. U. S. Nat. Mus., XVIII, No. 1064, May 27, 1896, p. 266, pl. VIII, fig. 11.
- Atmetus californicus.\* W. H. Ashmead. (Hym.) Santa Cruz Mountains, California. Trans. Am. Ent. Soc., XXIII, 1896, p. 204.
- Atmetus nigritus.\* W. H. Ashmead. (Hym.) Columbus, Ohio. Trans. Am. Ent. Soc., XXIII, 1896, p. 204.
- Atmetus tetrazonatus.\* W. H. Ashmead. (Hym.) West Cliff, Colo. Trans. Am. Ent. Soc., XXIII, 1896, p. 204.
- Atys (Acrostemma) gracilis. W. H. Dall. (Moll.) Oligocene, Fla. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23,1896, p. 29.
- Atys obscurata. W. H. Dall. (Moll.) Oligocene, Florida. *Proc. U. S. Nat. Mus.*, XVIII, No. 1035, Apr. 23, 1896, p. 30.
- Atys cedemata. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 28.
- Atys (Acrostemma) salina. W. H. Dall. (Moll.) Eocene, Louisiana. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 29.
- Avicula (Oxytoma) whiteavesi. T. W. Stanton. (Pel.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No.133, 1896, p. 38, pl. 4, fig. 1.
- Belemnites tehamænsis. T. W. Stanton. (Ceph.) Tehama County, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 84, pl. 19, figs. 1-3.
- Belonura singularis.\* W. H. Ashmead. (Hym.) Fortress Mouroe, Va.; Georgia. Trans. Am. Ent. Soc., XXIII, 1896, p. 225.
- Benthodolium pacificum. W. H. Dall. (Moll.) Panama. *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 11.
- Beringius aleuticus. W. H. Dall. (Moll.) Northwest Coast of America. *Proc.* U. S. Nat. Mas., XVII, No. 1032, July 8, 1895, p. 711, pl. XXIX, fig. 2.

- Beringius frielei. W. H. Dall. (Moll.) Northwest Coast of America. Proc. U. S. Nat. Mus., XXVII, No. 1032, July 8, 1895, p. 711, pl. XXVII, fig. 8.
- Brachystoma robertsonii. D.W. Coquillett. (Dipt.) Illinois. *Proc. U. S. Nat. Mus.*, XVIII, No. 1073, May 25, 1896, p. 393.
- Bracon platygaster. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 782.
- Brephoctonus californicus.\* W. H. Ashmead. (Hym.) Mountain View, Cal. Trans. Am. Ent. Soc., XXIII, 1896, p. 202.
- Brephoctonus flavosus.\* W. H. Ashmead. (Hym.) Jacksonville, Fla.
  Trans. Am. Ent. Soc., XXIII, 1896, p. 202.
- Bryum sandbergii. John M. Holzinger. (Bot.) Idaho. Contrib. U. S. Nat. Herbarium, 111, No. 4, Nov. 23, 1895, p. 271.
- Bubo virginianus occidentalis.\* W. Stone. (Aves.) Mitchell County, Iowa. *Auk*, XIII, 1896, No.2, p. 156.
- Buccinum aleuticum. W. H. Dall. (Moll.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 706, pl. XXVII, fig. 7.
- Buccinum ovulum. W. H. Dall. (Moll.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 707, pl. XXIX, fig. 6.
- Bulimulus cooperi. W. H. Dall. (Moll.)
   Mexico. Proc. U. S. Nat. Mus., XVIII,
   No. 1033, Apr. 23, 1896, p. 5.
- Bulimulus levis. W. H. Dall. (Moll.)
   Mexico. Proc. U. S. Nat. Mus., XVIII,
   No. 1033, Apr. 23, 1896, p. 5.
- Bullina (Abderospira) chipolana. W. H.
  Dall. (Moll.) Oligocene, Florida. Proc.
  U. S. Nat. Mus., XVIII, No. 1035, Apr.
  23, 1896, p. 32.
- Bursera jonesii. J. N. Rose. (Bot.) Colima, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 314.
- Bursera nelsoni. J. N. Rose. (Bot.) Puebla, Mexico. Contrib. U. S. Nat. Herbarium, III. No. 5, Dec. 14, 1895, p. 314.
- Bursera tenuifolia. J. N. Rose. (Bot.) Lodiego, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895. p. 314.

- Calliodes pretiosissima. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 254, pl. VII, fig. 2.
- Calliostoma iridium. W. H. Dall. (Moll.) Western Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 7.
- Calliostoma turbinum. W. H. Dall. (Moll.) California. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 8.
- Callipepla gambeli deserticola.\* F. Stephens. (Aves.) Palm Springs, Cal. Auk, XII, Oct., 1895, No. 4, p. 371.
- Callocardia gigas. W. H. Dall. (Moll.)
  California. Proc. U. S. Nat. Mus.,
  XVIII, No. 1034, Apr. 23, 1896, p. 18.
- Callocardia lepta. W. H. Dall. (Moll.)
  California. *Proc. U. S. Nut. Mus.*,
  XVIII, No. 1034, Apr. 23, 1896, p. 17.
- Callocardia ovalis. W. H. Dall. (Moll.)
   Panama. Proc. U. S. Nat. Mus., XVIII,
   No. 1034, Apr. 23, 1896, p. 18.
- Callocardia stearnsii. W. H. Dall. (Moll.) Oregon. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 693, figs. 1A, 1B; XVIII, No. 1034, Apr. 23, 1896, p. 17.
- ('allogonia angulata, W. H. Dall. (Moll.) Panama. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 19.
- Callosune evanthides. W. J. Holland. (Lep.) Aldabra Island. *Proc. U. S. Nat. Mus.*, XVIII, No. 1064, May 27, 1896, p. 268, pl. VIII, fig. 9.
- Caloteleia grenadensis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 798.
- Caloteleia striatifrons. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 797.
- Camarhynchus bindloei. Robert Ridgway. (Aves.) Bindloe Island, Galapagos. Proc. U. S. Nat. Mus., XVIII, No. 1067, Apr. 23, 1896, p. 294.
- Camarhynchus compressirostris. Robert Ridgway. (Aves.) Jervis Island, Galapagos. Proc. U. S. Nat. Mus., XVIII, No. 1067, Apr. 23, 1896, p. 294.
- Camarhynchus incertus. Robert Ridgway. (Aves.) James Island, Galapagos. Proc. U. S. Nat. Mus., XVIII, 1896, No. 1067, Apr. 23, 1896, p. 294.

- Cancellaria centrota. W. H. Dall. (Moll.) Panama. *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 13.
- Cancellaria io. W. H. Dall. (Moll.) Panama. *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 14.
- Cardamine leibergii. John M. Holzinger. (Bot.) Idaho. Contrib. U. S. Nat. Herbarium, III, No. 4, Nov. 23, 1895, p. 212, pl. 3.
- Cardinalis cardinalis floridanus. Robert Ridgway. (Aves.) Florida. Manual N. A. Birds, ed. 2, 1896, p. 606.
- Cardinalis robinsoni. C. W. Richmond. (Aves.) Margarita Island, Venezuela. Auk, XII, Oct., 1895, No. 4, p. 370.
- Cardiniopsis unioides. T. W. Stanton. (Pel.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 55, pl. 7, fig. 5; pl. 8, fig. 1; pl. 9, fig. 1; pl. 10, fig. 1.
- Carolia (Wakullina) floridana. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 21.
- Cassia depressa. C. L. Pollard. (Bot.) Florida and Missouri. *Bull. Torrey Botan. Club*, XXII, Dec. 30, 1895, p. 515, pls. 251, 252, fig. 6.
- Cassia multipinnata. C. L. Pollard. (Bot.) Florida. Bull. Torrey Botan. Club, XXII, Dec. 30, 1895, p. 515, pls. 250, 252, fig. 3.
- Cassia multipinnata nashii. C. L. Pollard. (Bot.) Florida. Bull. Torrey Botun. Club, XXII, Dec. 30, 1895, p. 515.
- Catolaccus coeliodis.\* W. H. Ashmead. (Hym.) Roslyn, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 226.
- Ceraphron grenadensis. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 788.
- Ceraphron politifrons. W. H. Ashmead. (Hym.) Balthazar and St. Georges, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 789.
- Ceraphron rugifrons. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, NLVIII, 1895, p. 788.
- Ceraphron subopacus. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., NLVIII, 1895, p. 788.
- Ceratopria flavipes. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 807.

- Ceratopria grenadensis. W. H. Ashmead. (Hym.) Balthazar and Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 807.
- Cerion (Maynardia) pineria. W. H. Dall. (Moll.) Isle of Pines. Proc. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, p. 6.
- Cerithium paskentænsis. T. W. Stanton. (Gast.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 71, pl. 13, figs. 5, 6.
- Cerithium strigosum. T. W. Stanton. (Gast.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 71, pl. 13, fig. 7.
- Ceroptres frondosæ. W. H. Ashmead. (Hym.) St. Lonis, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 186.
- Ceroptres politus. W. H. Ashmead. (Hym.) Virginia. Trans. Am. Ent. Soc., XXIII, 1896, p. 187.
- Ceroptres rufiventris. W. H. Ashmead. (Hynu.) Cadet, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 186.
- Charaxes chanleri. W. J. Holland. (Lep.) Tana River, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1063, May 27, 1896, p. 263.
- Charops apature. W. H. Ashmead. (Hym.) Fairbury, Ill. Trans. Am. Ent. Soc., XXIII, 1896, p. 193.
- Charops bimaculata. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 778.
- Chordeiles virginianus aserriensis.\* G. K. Cherrie. (Aves.) San José, Costa Rica. Auk, XIII, 1896, No. 2, p. 136.
- Chorinæus californicus.\* W. H. Ashmead. (Hym.) Santa Cruz Mountains, California. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 200.
- Chorinæus marlatti.\* W. H. Aslımead. (Hym.) Riley County, Kans. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 200.
- Choristes carpenteri. W. H. Dall. (Moll.) Panama. Proc. U. S. Nat. Mns., XVIII, No. 1034, Apr. 23, 1896, p. 10.
- ('hrestosema flavipes, W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 753.
- Chrysodomus insularis. W. H. Dall. (Moll.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII. No. 1032, July 8, 1895, p. 707. pl. XXIX, fig. 3.

- Chrysodomus (Ancistrolepis) magnus. W. H. Dall. (Moll.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII, No. 1032. July 8, 1895, p. 709, pl. XXIX, fig. 5.
- Chrysophanus abbottii. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., xviii, No. 1062, May 27, 1896, p. 240, pl. vii, fig. 4.
- ('irolanides texensis. J. E. Benedict. (1so.) San Marcos, Tex. Proc. U. S. Nat. Mus., XVIII, No. 1087, Apr. 14, 1896, p. [2]. Advance edition.
- Closterocerus niger.\* W. H. Ashmead. (Hym.) Algonquin, Ill. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 232.
- Coaxana purpurea. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 297.
- Coccophagus ochraceus. L. O. Howard. (Hym.) Alameda, Cal. Tech. Ser. No. 1, Dir. Ent., U. S. Dept. Agric., Sept., 1895, p. 38.
- Coccophagus scutatus. L. O. Howard. (Hym.) Los Angeles, Cal. Tech. Ser. No. 1, Div. Ent., U. S. Dept. Agric., Sept.. 1895, p. 38.
- Cocornis agassizi. C. H. Townsend. (Aves.) Cocos Island, Pacific Ocean. Bull. Mus. Comp. Zool., XXVII. No. 3, July, 1895, p. 123.
- Colaptes chrysoides brunnescens. A. W. Anthony. (Aves.) San Bernando, Lower California. Auk, XII, 1895, No. I, p. 347.
- Colastes grenadensis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 782.
- Colpotrochia (?) cinctiventris.\* W. H. Ashmead. (Hym.) Provincetown, Mass. Trans. Am. Ent. Soc., XXIII, 1896, p. 200.
- Colubrina mexicana. J. N. Rose. (Bot.)
  Oaxaca, Mexico. Contrib. U. S. Nat.
  Herbarium, 111, No. 5, Dec. 14, 1895,
  p. 315.
- Cominella brunneocineta. W. H. Dall. (Moll.) Panama. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 11.
- Compsothlypis americana usnea.\* Wm. Brewster. (Aves.) Lake Umbagog, Maine. Auk, XIII, 1896, No. 1, p. 44.

- Conchecia agassizii.\* G. W. Müller. (Ostra.) Gulf of California. *Bull. Mus. Comp. Zool.*, XXVII, No. 5, Oct., 1895, p. 166, pl. II, figs. 1-7, 12-14, 16-18.
- Conservula minor. W. J. Holland. (Lep.) Kilimanjaro, Africa. *Proc.* U. S. Nat. Mus., XVIII. No. 1062, May 27, 1896, p. 253, pl. VII, fig. 1.
- Conus chipolanus. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 42.
- Conus demiurgus. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 43.
- Conus isomitratus. W. H. Dall. (Moll.) Oligocene, Florida. *Proc. U. S. Nat. Mus.*, XVIII, No. 1035, Apr., 23, 1896, p. 43.
- Conns isomitratus, var. sulculus. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 43.
- Corbula (?) filosa, T. W. Stanton. (Pel.)
   Near Stepheusons, Cal. Bull. U. S.
   Geol. Surv., No. 133, 1896, p. 62, pl. 11,
   figs. 1, 2.
- Corbula (?) persulcata. T. W. Stanton. (Pel.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 61, pl. 11, fig. 3.
- Cormonema mexicana. J. N. Rose. (Bot.) Jalisco, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 315.
- Cormonema nelsoni. J. N. Rose. (Bot.) Guerrero, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 315.
- Cosmosphorus hopkinsii. W. H. Ashmead. (Hym.) Morgantown, W. Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 216.
- Cosuma marginata. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 251.
- Cothonaspis atricornis. W. II. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895. p. 745.
- Crangonyx flagellatus. J. E. Benedict. (Amph.) San Marcos, Tex. Proc. U. S. Nat. Mus., XVIII, No. 1087, Apr. 14, 1896, p. [2]. Advance edition.

- Cremastobæus annulipes. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 798.
- Cremnodes alaskensis. W. H. Ashmead. (Hym.) Fort Wrangell, Alaska. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 211.
- Cremnodes tuberculatus. W. H. Ashmead. (Hym.) Santa Cruz Mountains, California. Trans, Am. Ent. Soc., XXIII, 1896, p. 211.
- Crepis barbigera. J. B. Leiberg. (Bot.) Washington. Contrib. U. S. Nat. Herbarium, 111, No. 9, June 30, 1896, p. 565, pl. XXVI.
- Crepis monticola. F. V. Coville. (Bot.) California. Contrib. U. S. Nat. Herbarium, III, No. 9, June 30, 1896, p. 562, pl. XXII.
- Crepis rostrata. F. V. Coville. (Bot.) Washington. Contrib. U. S. Nat. Herbarium, 111, No. 9, June 30, 1896, p. 564, pl. XXV.
- Crepis scopulorum. F. V. Coville. (Bot.) Wyoming. Contrib. U. S. Nat. Herbarium, III, No. 9, June 30, 1896, p. 563, pl. XXIV.
- Cristellaria aculeata, d'Orbigny, var. marginuloides. A. Goës. (Foram.) Caribbean Sea. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 56, pl. v, figs. 15, 16.
- Cristellaria eusiformis.\* A. Goës. (Foram.) Caribbean Sea. Bul. Mus. Comp. Zool. XXIX, No. 1, Mar., 1896, p. 57, pl. v, figs. 17, 18.
- Crithionina granum, var. subsimplex.
  A. Goës. (Foram.) Caribbean Sea.
  Bull. Mus. Comp. Zool., XXIX, No. 1,
  Mar., 1896, p. 25.
- Crithionina leus. A Goës. (Foram.)
  Pacific Ocean. Bull. Mus. Comp. Zool.,
  XXIX, No. 1, Mar., 1896, p. 24, pl. II,
  figs. 5-8.
- Crithionina pisum. A Goës. (Foram.)
  Gulf of Mexico. Bull. Mus. Comp.
  Zool., XXIX, No. 1, Mar., 1896, p. 24, pl.
  II, figs. 1, 2.
- Crithionina rugosa. A. Goës. (Foram.) Pacific Ocean. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 24, pl. II, figs. 3, 4.
- Cryptopryminis illinonsis. W. H. Ashinead. (Hym.) Algonquin, Ill. *Trans.*Am. Ent. Soc., XXIII, 1896, p. 228.

- Cryptus (?) carpocapsæ. W. H. Ashmead. Mexico. Trans. Am. Ent. Soc., XXIII, 1896, p. 212.
- Ctenopelma pulchra.\* W. H. Ashmead. (Hym.) Brookline, Mass. Trans. Am. Ent. Soc., XXIII, 1896, p. 198.
- Culex tarsalis. D. W. Coquillett. (Dipt.) Argus Mountains and Folsom, California. Canadian Entomologist, XXVIII, No. 2, Feb., 1896, p. 43.
- Cyanecula abbotti. C. W. Richmond. (Aves.) Nubra Valley, Ladak, Northern India. *Proc. U. S. Nat. Mus.*, XVIII, No. 1078, June 24, 1896, p. 484.
- Cyrtogaster citripes.\* W. H. Ashmead. (Hym.) Fort George, Fla. Trans. Am. Ent. Soc., XXIII, 1896, p. 230.
- Cyrtogaster occidentalis. W. H. Ashmead. (Hym.) Indiana, Texas, District of Columbia, Virginia, South Dakota, and Colorado. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 230.
- Deanea nudicaulis. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Botan. Gaz., xx, No. 8, Aug. 15, 1895, p. 372, pl. 27.
- Deanea tuberosa. J. M. Coulter and J. N. Rose. (Bot.) Toluca Valley, Mexico. Botan. Gaz., XX, No. 8, Ang. 15, 1895, p. 373.
- Decatomidea cooki. L. O. Howard. (Hym.) Lansing, Mich. Tech. Ser. No. 2, Div. Ent. U. S. Dept. Agric., 1896, p. 23, fig. 10.
- Dentalium californicum. T. W. Stanton. (Scaph.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 62, pl. 12, fig. 3.
- Dentalium complexum. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., xvii, No. 1032, July 8, 1895, p. 686, pl. xxvi, fig. 3.
- Dentalium phaneum. W. H. Dall. (Moll.) Near Hawaii. *Proc. U. S. Nat. Mus.*, XVII, No. 1032, July 8, 1895, p. 686, pl. XXVI, fig. 1.
- Desmoceras californicum. T. W. Stanton. (Ceph.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 76, pl. 15, figs. 6, 7.
- Diaborus maculiventris.\* W. H. Ashmead. (Hym.) White Mountains, New Hampshire. Trans. Am. Ent. Soc., XXIII, 1896, p. 197.

- Diaglypta radiata. W. H. Ashmead. (Hym.) Caliveny Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 780.
- Diapria grenadensis. W. H. Ashmead. (Hym.) Balthazar, and Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 805.
- Diapria melanopleura. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 806.
- Diapria peraffinis. W. H. Ashmead. (Hym.) Balthazar and St. Georges, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 806.
- Diapria smithi. W. H. Ashmead. (Hym.) Chantilly Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 805.
- Diapria unicolor. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVII, 1895, p. 806.
- Dicerataspis arenadensis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 744.
- Dicranoweisia contermina. F. Renauld and Jules Cardot. (Bot.) Idaho. Contrib. U. S. Nat. Herbarium, III, No. 4, Nov. 23, 1895, p. 270.
- Dineutes hornii. C. H. Roberts. (Col.)
  Atlantic States. Trans. Am. Ent. Soc.,
  XXII, No. 3, p. 284, pls. 5, 6, figs. 5,
  5a, 5b.
- Dineutes nigrior. C. H. Roberts. (Col.)
  Atlantic States. Trans. Am. Ent. Soc.,
  XXII, No. 3, p. 284, pls. 5, 6, figs. 6,
  6a, 6b.
- Dinentes productus. C. H. Roberts. (Col.) Texas. Trans. Am. Ent. Soc., XXII, No. 3, p. 285, pls. 5, 6, figs. 8, 8a, 8b.
- Diplosis caulicola. D. W. Coquillett. (Dipt.) Insect Life, VII, No. 5, July, 1895, p. 401.
- Disparoneura abbottii. P. P. Calvert. (Odon.) Kilimanjaro, Africa. Proc. U. S. Nat., Mus., XVIII, No. 1046, Apr. 23, 1896, p. 140.
- Doleromya pallida. C. W. Richmond. (Aves.) Margarita Island, Venezuela. Auk, XII, Oct., 1895, No. 4, p. 369.
- Drosophila maculosa. D. W. Coquillett. (Dipt.) Archer, Fla. Proc. Acad. Nat. Sci. Phila., 1895, p. 317.

- Dryobates pubescens nelsoni." H. C. Oberholser. (Aves.) Nulato, Alaska. Proc. U. S. Nut. Mus., XVIII, No. 1080, June 24, 1896, p. 549.
- Dryobates villosus montanus. A. W. Anthony. (Aves.) Boulder County, Colo. Auk, XIII, 1896, No. 1, p. 32.
- Duomitus kilimanjarensis. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 252, pl. VII, fig. 8.
- Echocerus dentiger. F. H. Chittenden. (Col.) Columbus, Tex. Proc. U. S. Nat. Mus., XVIII, No. 1041, Apr. 23, 1896, p. 79.
- Echocerus recurvatus. F. H. Chittenden. (Col.) Florida. *Proc. U. S. Nat. Mus.*, XVIII, No. 1041, Apr. 23, 1896, p. 80.
- Ecphylus hypothenemi. W. II. Ashmead. Morgantown, W. Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 215.
- Ecphylus nigriceps.\* W. H. Ashmead. (Hym.) Morgantown, W. Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 216.
- Ecphylus pallidus. W. H. Ashmead. (Hym.) District of Columbia; Morgantown, W. Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 215.
- Eiphosoma pyralidis. W. H. Ashmead. (Hym.) Kirkwood, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 191.
- Elainea cherriei.\* C. B. Cory. (Aves.) Calare, Santo Domingo. Auk, XII, 1895, No. 3, p. 279.
- Elatus sisymbii. W. II. Ashmead. (Hym.) Las Cruces, N. Mex. Trans. Am. Ent. Soc., XXIII, 1896, p. 218.
- Emarginula flabellum. W. H. Dall. (Moll.) Clarion Island. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 10.
- Emarginula hawaiiensis. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 685, pl. XXVI, fig. 7.
- Embidobia urichi. W. H. Ashmead. (Hym.) Trinidad, West Indies. *Journ. Trinidad Field Nat. Club*, II, 1895, pp. 261-266.
- Empimorpha comantis. D. W. Coquillett. (Dipt.) San Francisco, Cal. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 396.

Empis avida. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 405.

Empis captus. D. W. Coquillett. (Dipt.) North Carolina and Georgia. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 405.

Empis clausa. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII,

No. 1073, May 25, 1896, p. 401.

Empis comantis. D. W. Coquillett. (Dipt.) Northern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 402.

Empis compta. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 405.

Empis gulosa. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 408.

Empis humile. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 403.

Empis levicula. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 406.

Empis loripedis. D. W. Coquillett. (Dipt.) Illinois and Ohio. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 400.

Empis manca. D. W. Coquillett. (Dipt.) Southern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 406.

Empis otiosa. D. W. Coquillett. (Dipt.) Illinois and Connecticut. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 407.

Empis ravida. D.W. Coquillett. (Dipt.) New Hampshire. Proc. U. S. Nat. Mus., xviii, No. 1073, May 25, 1896, p. 403.

Empis tenebrosa. D. W. Coquillett. (Dipt.) Texas. Proc. U. S. Nat. Mus., xvIII, No. 1073, May 25, 1896, p. 404.

Empis tersa. D. W. Coquillett. North Carolina. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 404.

Empis valentis. D.W. Coquillett. (Dipt.) Northern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p.

Empis virgata. D.W. Coquillett. (Dipt.) Washington. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 408.

Encarsia coquilletti. L. O. Howard. (Hym.) Los Angeles, Cal. Tech. Ser. No. 1, Div. Ent., U. S. Dept. Agric., Sept., 1895, p. 29, fig. 9.

Encarsia luteola. L. O. Howard. (Hym.) District of Columbia. Tech. Ser. No. 1, Div. Ent., U. S. Dept. Agric., Sept., 1895,

Encyrtus mesograptæ. W. H. Ashmead. (Hym.) Jacksonville, Fla. Trans. Am. Ent. Soc., XXIII, 1896, p. 232.

Endomychobius flavipes.\* W. H. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 227.

Eniaca texana. W. H. Ashmead. (Hym.) Texas. Trans. Am. Ent. Soc., XXIII, 1896, p. 217.

Epiphragmophora arizonensis. W. H. Dall. (Moll.) New Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, p. 1.

Epiphragmophora arnheimi. W. H. Dall. (Moll.) California. Proc. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, p. 6.

Epiphragmophora hachitana. Dall. (Moll.) New Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, p. 2.

Epyris pygmaeus. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p.

Eremotylus arctiæ. W. H. Ashmead. (Hym.) District of Columbia; Jackson, Miss.; Viueland, N. J.; Selma, Ala.; Alameda, Cal. Trans. Am. Ent. Soc., XXIII, 1896, p. 192.

Eretmocerus californicus. L.O. Howard. (Hym.) Los Angeles, Cal. Tech. Ser. No. 1, Div. Ent., U. S. Dept. Agric., Sept., 1895, p. 17, fig. 3.

Ervilia maculosa. W. H. Dall. (Moll.) Hatteras. Nautilus, x, No. 3, June, 1896, p. 26.

Eryngium alternatum. J. M. Coulter and J. N. Rose. (Bot.) Guerrero, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 298.

Erynginm involucratum. J. M. Coniter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 299.

Eryngium montanum. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 300.

- Eryngium nelsoni. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 300.
- Euceroptres primus. W. H. Ashmead. (Hym.) Near Merrimac River, Massachusetts. Trans. Am. Ent. Soc., XXIII, 1896, p. 187.
- Euchrysis hyalinipenuis. W H. Ashmead. (Hym.) Argus Mountain, Death Valley, Panamint Valley, and Los Angeles, Cal.; Texas, and St. Louis, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 232.
- Euchrysis maculipennis. W. H. Ashmead. (Hym.) Santa Cruz Mountains, California. Trans. Am. Ent. Soc., XXIII, 1896, p. 232.
- Euciroa pacifica. W. H. Dall. (Moll.) Near Hawaii. *Proc. U. S. Nat. Mus.*, xvii, No. 1032, July 8, 1895, p. 688, pl. 22, figs. 2, 4; pl. 24, figs. 4, 5, 7, 8; text figures 1, 2.
- Encola aliena. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 758.
- Eucela atriceps. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 758.
- Eucœla ferruginea. W. H. Aslunead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895. p. 759.
- Enecela inconstans. W. H. Ashmead. Balthazar and Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 759.
- Encela nigriceps. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 759.
- Encela obliterata. W. H. Aslımead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 757.
- Eucuela perplexa. W. II. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 757.
- Eucela unifoveata. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 757.
- Eurytoma tylodermatis.\* W. H. Ashmead. (Hym.) Roslyn, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 218.

- Eurytomocharis eragrostidis. L. O. Howard. (Hym.) Lafayette, Ind. Tech. Ser. No. 3, Div. Ent., V. S. Dept. Agric., 1896, p. 21, fig. 8.
- Eurytomocharis triodia. L. O. Howard. (Hym.) Virginia. Tech. Ser. No. 2, Div. Ent., U. S. Dept. Agric., 1896, p. 21.
- Eusimus aerobasidis. W. H. Ashmead. Paxton, Ohio. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 212.
- Euthrips occidentalis. T. Pergande. (Thysanopt.) Insect Life, VII, No. 5, July, 1895, p. 392.
- Exochilum aeronyctæ. W. H. Ashmead. (Hym.) Placer County, Cal., and Washington, D. C. Trans. Am. Ent. Soc., XXIII, 1896, p. 190.
- Exochus xanthopsis.\* W. H. Ashmead. (Hym.) Victoria, British Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 201.
- Exolytus ithacæ.\* W. H. Ashmead. (Hym.) Ithaca, N. Y. Trans, Am. Ent. Soc., XXIII, 1896, p. 206.
- Exyston abdominalis.\* W. H. Ashmead. (Hym.) Beverly, Mass. Trans. Am. Ent. Soc., XXIII, 1896, p. 197.
- Figitodes atricornis.\* W. H. Ashmead. (Hym.) Santa Fe, N. Mex. Trans. Am. Ent. Soc., XXIII, 1896, p. 182.
- Fissurella bipunctata. T. W. Stanton. (Gast.) Near Stephensons, Cal. Bull. U. S. Geol. Surr., No. 133, 1896, p. 63, pl. 13, fig. 8.
- Frieleia halli. W. H. Dall. (Brach.)
  Northwest Coast of America. Proc. U. S. Nat. Mus., XXVII, No. 1032, July 8, 1895, p. 714, pl. XXIV, figs. 6, 9-13.
- Fundulus scartes. S. E. Meek. (Pisc.) St. Francis River, Arkansas. Bull. U. S. Fish Com., XV, 1895, p. 347.
- Fusus rufocaudatus. W. H. Dall. (Moll.) Panama. *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 12.
- Galphimia sessilifolia. J. N. Rose. (Bot.)
  Oaxaca, Mexico. Contrib. U. S. Nat.
  Herbarium, 111, No. 5, Dec. 14, 1895,
  p. 313.
- Ganaspis diastrophi. W. H. Ashmead. (Hym.) West Point, Nebr. Trans. Am. Ent. Soc., XXIII, 1896, p. 184.
- Geospiza fatigata. Robert Ridgway. (Aves.) Indefatigable Island, Galapagos. *Proc. U. S. Nat. Mus.*, XVIII, No. 1067, Apr. 23, 1896, p. 293.

- Geospiza pachyrhyncha. Robert Ridgway. (Aves.) Tower Island, Galapagos. *Proc. U. S. Nat. Mus.*, XVIII, No. 1067, Apr. 23, 1896, p. 293.
- Geothlypis flavovelatus. Robert Ridgway. (Aves.) Alta Mira, Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1045, Apr. 15, 1896, p. 119.
- Gigantocypris agassizii.\* G. W. Müller. (Ostra.) Pacific Coast of America. Bull. Mus. Comp. Zool., XXVII, No. 5, Oct., 1895, p. 155, pl. 1, figs. 1-5, 8-10, 12-15, 17-21, 24; pl. 11, figs. 8-10, 15; pl.
- Gigantocypris pellucida.\* G. W. Müller. (Ostra.) West Coast of Central America. Bull. Mus. Comp. Zool., XXVII, No. 5, Oct., 1895, p. 164, pl. 1, figs. 6, 7, 11, 16, 22, 23; pl. 11, fig. 11.
- Gonodela kilimanjarensis. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 256, pl. VIII, fig. 4.
- Gonodela rhabdophora. W. J. Holland. (Lep.) Masai Land, Africa. *Proc. U. S. Nat. Mus.*, XVIII, No. 1062, May 27, 1896, p. 256, pl. VIII, fig. 5.
- Gorgopis abbottii. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 253, pl. VII, fig. 9.
- Gorytes coquilletti. W. J. Fox. (Hym.) Los Angeles, Cal. Proc. Acad. Nat. Sci. Phila., 1895, p. 531.
- Gorytes diversus. W. J. Fox. (Hym.) Los Angeles, Cal. *Proc. Acad. Nat. Sci. Phila.*, 1895, p. 524.
- Gorytes mellimoides. W. J. Fox. (Hym.) Texas. *Proc. Acad. Nat. Sci. Phila.*, 1895, p. 524.
- Gonania mexicana. J. N. Rose. (Bot.) Culiacan, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 314.
- Gronotoma insularis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 743.
- Gryon basicinetus. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 796.
- Grypocentrus bimaculatus.\* W. H. Ashmead. (Hym.) Hanover, N. H. Trans. Am. Ent. Soc., XXIII, 1896, p. 199.

- Gymnonychus californicus. C. L. Marlatt. (Hym.) Brockport, N. Y., and Sacramento, Cal. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 122.
- Gymnonychus resinicolor. C. L. Marlatt. (Hym.) Fort Wrangle, Alaska. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 125.
- Gypsina vesicularis,\* Goës, var. discus. A. Goës. (Foram.) Caribbean Sea. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 74, pl. VII, figs. 4-6.
- Gyrodes (Gyrodisca) duplinensis. W. H. Dall. (Moll.) Miocene, North Carolina. Proc. U. S. Nat. Mas., XVIII, No. 1035, Apr. 23, 1896, p. 45.
- Habrocytus languriæ.\* W. H. Ashmead. Roslyn, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 220.
- Habrocytus rhodobæni.\* W. H. Ashmead. (Hym.) Roslyn, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 220.
- Hadronotus agilis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 799.
- Hadronotus atrocoxalis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 799.
- Hadronotus grenadensis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., 1895, p. 800.
- Hadronotus rugosithorax. W. H. Ashmead. (Hym.) St. Johns River, Grenada. Proc. Zooi. Soc. Lond., XLVIII, 1895, p. 799.
- Halizoa rufipes. W. H. Ashmead. (Hym.) Owens Valley, Cal. Trans. Am. Ent. Soc., XXIII, 1896, p. 225.
- Haminea pompholyx. W. H. Dall. (Moll.) Oligocene, Florida, Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 32.
- Haplophragmium lituolinoideum. A.
  Goës. (Foram.) Gulf of Mexico. Bull.
  Mus. Comp. Zool., XXIX, No. 1, Mar.,
  1896, p. 32, pl. 111, figs. 17-20.
- Haplophragmium obsoletum. A. Goës. (Foram.) Caribbean Sca. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 31, pl. 111, figs. 14-16.

Haplophragminm turbinatum, Brady, var. helicoideum. A. Goës. (Foram.) Pacific Ocean and Caribbean Sea. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 30, pl. 111, figs. 10-13.

Helcion granulatus. T. W. Stanton. (Gast.) Near Stephensons, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 63, pl.

XII, fig. 4.

Heliothrips cestri. T. Pergande. (Thysanopt.) Insect Life, VII, No. 5, July, 1895, p. 391.

Heliothrips fasciata, T. Pergande, (Thysanopt.) Insect Life, VII, No. 5, July, 1895, pp. 391, 392.

- Hemerodromia captus. D. W. Coquillett. (Dipt.) New York. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p.
- Hemerodromia rogatoris. D. W. Coquillett. (Dipt.) North Carolina. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 392.
- Hemiteles maculithorax. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Loud., XLVIII, 1895, p. 780.
- Hemithyris craneana. W. H. Dall. (Brach.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 717, pl. xxx1, figs. 5, 6.
- Hemithyris beecheri. W. H. Dall. (Brach.) Off Hawaii. Proc. U. S. Nat. Mus., XXVII, No. 1032, July 8, 1895, p. 717, pl. XXXI, figs. 1-4.
- Hemitiles euryptychia. W. H. Ashmead. (Hym.) St. Louis, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 210.
- Hemitiles laticinctus. W. H. Ashmead. (Hym.) New Haven, Conn. Trans. Am. Ent. Soc., XXIII, 1896, p. 210.
- Hepialus kenia. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 252, pl. VII, fig. 6.
- Heptameris flavipes. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 751.
- Heptamerocera aliena. W. H. Ashmead, (Hym.) Mount Gay Estate and Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 763.
- Heptamerocera bicolor. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 761.

- Heptamerocera flavicornis. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 763.
- Heptamerocera gracilicornis. W. H. Ashmead. (Hym.) Mount Gay Estate. Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 762.
- Heptamerocera robusta. W. H. Ashmead. (Hym.) Vendome Estate, Grenada. Proc. Zool. Soc. Lond., XIVIII. 1895, p. 762.
- Heptamerocera singularis. W. H. Ashmead. (Hym.) St. Georges, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p.
- Heptamerocera xanthognatha. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 762.
- Heterospilus astigma.\* W. H. Ashmead. (Hym.) Morgantown, W. Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 215.
- Heterospilus caryæ.\* W. H. Ashmead. (Hym.) Morgantown, W. Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 214.
- Heterospilus texanus.\* W. H. Ashmead. (Hym.) Cypress Mills, Tex. Trans. Am. Ent. Soc., XXIII, 1896, p. 214.
- Hexacola dubia. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 750.
- Hexaplasta affinis. W. H. Ashmead. (Hym.) Balthazar, Mount Gay Estate and St. Johns River, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 768.
- Hexaplasta brunneiclavata. W. H. Ashmead. (Hym.) St. Johns, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 772.
- Hexaplasta consimilis. W. H. Ashmead. (Hym.) Grand Etang and Balthazar, Grenada. Proc. Zool. Soc. Lond., xlviii, 1895, p. 768.
- Hexaplasta crassinervis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. хьун, 1895, р. 769.
- Hexaplasta dolichomera. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 771.
- Hexaplasta dubiosa. W. H. Ashmead. (Hym.) Mount Gay Estate, Grand Etang, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 774.

- Hexaplasta hexomera. W. H. Ashmead. (Hym.) Chantilly and St. Johns River, Grenada. *Proc. Zool. Soc. Loud.*, XLVIII, 1895, p. 773.
- Hexaplasta incongrua. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 773.
- Hexaplasta instabilis. W. H. Ashmead. (Hym.) Balthazar and St. Georges, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 771.
- Hexaplasta longicornis. W. H. Ashmead. (Hym.) Balthazar and Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 769.
- Hexaplasta melanocera. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 767.
- Hexaplasta pleuralis. W. H. Ashmead. (Hym.) Chantilly, Grenada, *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 773.
- Hexaplasta proxima. W. H. Ashmead. (Hym.) St. Johns River, St. Georges, Mount Gay Estate, Balthazar, Grand Etang, and Chantilly, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII. 1895, p. 772.
- Hexaplasta 4-punctata. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 769.
- Hexaplasta rufolateralis W. H. Ashmead. (Hym.) Chantilly, Balthazar, Mount Gay Estate, and St. Georges, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 772.
- Hexaplasta striatiscutellaris. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Loud.*, XLVIII, 1895, p. 770.
- Hexaplasta tenuicornis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 770.
- Hexaplasta unifoveata. W. H. Ashmead. (Hym.) Mount Gay Estate, St. Georges, and Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 771.
- Hilara cana. D. W. Coquillett. (Dipt.) Southern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 395.
- Hilara johnsoni. D. W. Coquillett. (Dipt.) Alabama. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 395.

- Hilara viridis. D. W. Coquillett. (Dipt.) Kingston, Jamaica. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 395.
- Holospira (Distomospira) bilamellata.
  W. H. Dall. (Moll.) New Mexico.
  Proc. U. S. Nat. Mus., XVIII, No. 1033,
  Apr. 23, 1896, p. 4.
- Holospira (Metastoma) crossei. W. H. Dall. (Moll.) New Mexico. Prov. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, p. 4.
- Holospira (Haplostemma) mearnsii. W. H. Dall. (Moll.) New Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, p. 4.
- Holospira (Metastoma) pilsbryi. W. H. Dall. (Moll.) Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, p. 4.
- Holospira (Bostrichocentrum) veracruziana. W. H. Dall. (Moll.) Mexico. *Proc. U. S. Nat. Mus.*, XVIII, No. 1033, Apr. 23, 1896, p. 4.
- Hoplites angulatus. T. W. Stanton. (Ceph.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 80, pl. 18, figs. 3, 4.
- Hoplites crassiplicatus. T. W. Stanton. (Ceph.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 81, pl. 18, fig. 8.
- Hoplites dilleri. T. W. Stanton. (Ceph.) Near Lowerys, Cal. Bull. U. S. Geol. Surr., No. 133, 1896, p. 82, pl. 18, figs. 6, 7.
- Hoplites hyatti. T. W. Stanton. (Ceph.) Near Riddles, Oreg. Bull. U. S. Geol. Surv., No. 133, 1896, p. 79, pl. 16, fig. 2.
- Hoplites storrsi. T. W. Stanton. (Ceph.) Near Cooper's, Cal. *Bull. U. S. Geol. Surv.*, No. 133, 1896, p. 79, pl. 17, figs. 1, 2; pl. 18, fig. 5.
- Hoplogryon pallipes. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Loud., XLVIII, 1895, p. 797.
- Hormius rugosicollis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 783.
- Hybos slossonæ. D. W. Coquillett. (Dipt.) New Hampshire. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 437.

- Hypoleptus columbianus. W. H. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXII, 1896, p. 203.
- Hypsileura gregaria, T. W. Stanton.
  (Gast.) Near Paskenta, Cal. Bull. U.
  S. Geol. Surv., No. 133, 1896, p. 70, pl.
  13, figs. 1, 2.
- Hypsileura (?) occidentalis. T. W. Stanton. (Gast.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896. p. 70, pl. 13, figs. 13, 14.
- Ictoplectis orgyiæ. W. H. Ashmead. (Hym.) Alameda, Cal. Trans. Am. Ent. Soc., XXIII. 1896, p. 213.
- Inoceramus ovatus. T. W. Stanton. (Pel.) Tehama County, Cal. Bull. U. S. Geol. Surv., No. 133, 1896. p. 47, pl. 4, fig. 15.
- Ischyroenemis pacificus.\* W. H. Ashmead. (Hym.) Santa Cruz Mountains, California. Trans. Am. Ent. Soc.. XXIII, 1896, p. 199.
- Isosoma abnorme. W. H. Ashmead. (Hym.) Manhattan, Kans., and Texas. Trans. Am. Ent. Soc. XXIII, 1896, p. 219.
- Isosoma agrostidis. L. O. Howard. (Hym.) Placer County, Cal. Tech. Ser. No. 2, Div. Ent., U. S. Dept. Agric., p. 12, fig. 2.
- Isosoma bromi. L. O. Howard. (Hym.) Los Angeles, Cal. Tech. Ser. No. 2, Dir. Ent., U. S. Dept. Agric., 1896, p. 11.
- Isosoma bromicola. L. O. Howard. (Hym.) Los Angeles, Cal. Tech. Ser. No. 2, Div. Ent., U. S. Dept. Agric., 1896, p. 16.
- Isosoma californicum. L. O. Howard. (Hym.) Argus Mountains, California. Tech. Ser. No. 2, Div. Ent., U. S. Dept., Agric., 1896, p. 10.
- Isosoma captivum. L. O. Howard. (Hym.) Illinois and Indiana. Tech. Ner. No. 2, Div. Ent., U. S. Dept. Agric., 1896, p. 13, fig. 3.
- Isosoma fitchi. L. O. Howard. (Hym.) New York. Tech. Ser. No. 2, Div. Ent.. U. S. Dept. Agric., 1896, p. 20.
- Isosoma hageni. L. O. Howard. (Hym.) Boston, Mass. Tech. Ser. No. 2, Div. Ent., U. S. Dept. Agric., 1896, p. 12.
- Isosoma hirtifrons. L. O. Howard. (Hym.) Mercer County, Cal. Tech. Ser No. 2, Dir. Ent., U. S. Dept. Agric., 1896, p. 16, fig. 6.

- Isosoma maculatum. L. O. Howard. (Hym.) Indiana. Tech. Ser. No. 2. Div. Ent., U. S. Dept. Agric., 1896, p. 15.
- Isosoma websteri. L. O. Howard. (Hym.) Illinois. Tech. Ner. No. 2, Div. Ent., U. S. Dept. Agric., 1896, p. 15, fig. 5.
- Isosomorpha muhlenbergia. L. O. Howard. (Hym.) Cadet, Mo. Tech. Ser. No. 2. Div. Ent., U. S. Dept. Agric., 1896, p. 20.
- Kleidotoma atrocoxalis. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 746.
- Kleidotoma bipunctata. W.H. Ashmead. Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII. 1895, p. 748.
- Kleidotoma marginalis. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 747.
- Kleidotoma nana. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc.* Zool. Soc. Lond., XLVIII, 1895, p. 748.
- Kleidotoma pygidialis. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Sov. Lond.*, XLVIII, 1895, p. 748.
- Kleidotoma smithii. W. H. Ashmead. (Hym.) Balthazar and Grand Etang, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 747.
- Labena trilineata. W. H. Ashmead. (Hym.) St. Georges, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 781.
- Lachnoptera ayresii, var. abbottii. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896. p. 234.
- Lagena orbignyana, Seguenza, var. elongata. A. Goës. (Foram.) Pacific Ocean. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar. 1896. p. 52.
- Lagopus evermanni. D. G. Elliot. (Aves.) Attu Island, Alaska. Auk, XIII, 1896, No. 1, p. 25.
- Lagopus rupestris townsendi, D. G. Elliot. (Aves.) Kyska- and Adak Islands, Alaska. Auk, XIII, 1896, No. 1, p. 26.
- Laphamia ciliata. L. H. Dewey. (Bot.) Arizona. Botan. Gaz., xx, Sept. 25,1895, p. 425.
- Leda cellulita. W. H. Dall. (Moll.) Puget Sound. Nautilus, x. No. 1, May, 1896, p. 1.

- Leda conceptionis. W. H. Dall. (Moll.) California. Nautilus, x, No. 1, May, 1896, p. 2.
- Leda glabra. T. W. Stanton. (Pel.) Near Stephensons, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 53, pl. 6, fig. 15.
- Leda leonina. W. H. Dall. (Moll.) Oregon. Nautilus, x, No. 1, May, 1896, p. 2.
- Leibergia orogenioides. J. M. Coulter and J. N. Rose. (Bot.) Idaho. *Contrib.* U. S. Nat. Herbarium, 111, No. 9, June 30, 1896, p. 575, pl. XXVII.
- Lepus arizonæ major. E. A. Mearns. (Mamm.) Calabassas, Ariz. *Proc. U. S. Nat. Mus.*, XVIII, No. 1081, June 24, 1896, p. 557.
- Lepus arizonæ minor. E. A. Mearns. (Mamm.) El Paso, Tex., *Proc. U. S. Nat. Mus.*, xvIII, No. 1081, June 24, 1896, p. 557.
- Lepus gaillardi. E. A. Mearns. (Mamm.)
  West Fork of the Playas Valley near
  monument No. 63, Mexican boundary
  line. Proc. U. S. Nat. Mus., XVIII, No.
  1081, June 24, 1896, p. 560.
- Lepus merriami. E. A. Mearns. (Mamm.)
  Fort Clark, Tex. Proc. U. S. Nat.
  Mus., XVIII, No. 1075, May 21, 1896, p.
  444.
- Lepus sylvaticus holzneri. E. A. Mearns. (Mamm.) Near the summit of the Huachuca Mountains, Southern Arizona. *Proc. U. S. Nat. Mus.*, XVIII, No. 1081, June 24, 1896, p. 554.
- Lepus texianus deserticola. E. A. Mearns. (Mamm.) Western edge of the Colorado Desert, at the base of the Coast Range Mountains, in San Diego County, Cal. Proc. U. S. Nat. Mus., XVIII, No. 1081, June 24, 1896, p. 564.
- Lepus texianus griseus. E. A. Mearns. (Mamm.) Fort Hancock, Tex. Proc. U. S. Nat. Mus., XVIII, No. 1081, June 24, 1896, p. 562.
- Leucodesmia typica. L. O. Howard. (Hym.) Florida. *Insect Life*, VII, No. 5, July, 1895, p. 404.
- Leucoma tavetensis. W. J. Holland. (Lep.) Taveta, Africa. *Proc. U. S. Nat. Mus.*, XVIII, No. 1062, May 27, 1896, p. 250.
- Ligusticum eastwoodæ. J. M. Coulter and J. N. Rose. (Bot.) Colorado. Coutrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 320.

- Lima multilineata. T. W. Stanton. (Pel.) Near Stephensons, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 36, pl. 2, figs. 4, 5.
- Limneria aeronyetæ. W. H. Ashmead. (Hym.) London, Ontario. Trans. Am. Ent. Soc., XXIII, 1896, p. 194.
- Limneria ephestia. W. H. Ashmead. (Hym.) Missouri. Trans. Am. Ent. Soc., XXIII, 1896, p. 195.
- Limneria heliæ. W. H. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 194.
- Limneria nephelodis. W. H. Ashmead. (Hym.) St. Louis, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 194.
- Limneria rufa. W. H. Ashmead. (Hym.) St. Louis, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 193.
- Limopsis compressus. W. H. Dall. (Moll.) Panama. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 16.
- Liothyrina clarkeana. W. H. Dall. (Brach.) Northwest Coast of America. Proc. U. S. Nat. Mus., xvii, No. 1032, July 8, 1895, p. 718, pl. xxxi, figs. 9, 10.
- Lophyrocera nigriceps. W. H. Ashmead. (Hym.) Key West, Fla. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 214.
- Loptopeza compta. D. W. Coquillett. (Dipt.) New Hampshire and Massachusetts. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 435.
- Loxotropa grenadensis. W. H. Ashmead. Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 803.
- Loxotropa pleuralis. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 803.
- Lucina colusænsis. T. W. Stanton. (Pel.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 60, pl. 11, figs. 4, 5.
- Lucina ovalis. T. W. Stanton. (Pel.)
   Near Paskenta, Cal. Bull. U. S. Geol.
   Surr., No. 133, 1896, p. 59, pl. 12, fig. 1.
- Lunatia sandwichensis. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 684, pl. XXVI, fig. 8.
- Lycena perpulchra. W. J. Holland. (Lep.) Kilimanjaro, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 239, pl. VII, fig. 7.

- Lyonsiella alaskana, W. H. Dall. (Moll.) Alaska. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 703, pl. XXV, fig. 2.
- Macandrevia americana. W. H. Dall. (Brach.) Northwest Coast of America. Proc. U. S. Nat. Mns., XVII, No. 1032, July 8, 1895, p. 721, pl. XXXII, figs. 1, 4, 7.
- Macandrevia craniella. W. H. Dall. (Brach.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 722, pl. XXX, fig. 1.
- Macandrevia diamantina. W. H. Dall. (Brach.) Northwest Coast of America. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 723, pl. XXX, fig. 5; pl. XXXII, figs. 3, 6.
- Macoma leptonoidea. W.H. Dall. (Moll.) Texas. Nautilus, IX, No. 3, July, 1895, p. 33.
- Macoma limula. W. H. Dall. (Moll.) Antilles. *Nautilus*, 1x, No. 3, July, 1895, p. 32.
- Macoma mitchelli. W. H. Dall. (Moll.) Texas. Nautilus, IX, No. 3, July. 1895, p. 33.
- Malvaviscus palmeri. E.G. Baker. (Bot.) Jalisco, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 313.
- Mantipeza palloris. D. W. Coquillett. (Dipt.) New Hampshire. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 392.
- Marptodesmus chanleri. O. F. Cook. (Myr.) Tana River, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1042, Apr. 23, 1896, p. 95, pl. IV, figs. 1-10.
- Megarhina rutila. D. W. Coquillett. (Dipt.) North Carolina and Archer, Fla. Canadian Entomologist, XXVIII, p. 44.
- Megascops asio cineraceus. Robert Ridgway. (Aves.) Auk, XII, Oct., 1895, No. 4, p. 390.
- Meghyperus occidens. D. W. Coquillett. (Dipt.) Southern California. Proc. U. S. Nat. Mus., XVIII. No. 1073. May 25, 1896, p. 435.
- Melospiza fasciata juddi.\* L. B. Bishop. (Aves.) Rock Lake, N. Dak. Auk, XIII. 1896, No. 2, p. 132.
- Melospiza fasciata mervilli.\* Wm. Brewster. (Aves.) Fort Sherman, Idaho. Auk, XIII, 1896, No. 1, p. 46.

- Meniscus dakrumæ. W. H. Ashmead. (Hym.) Alameda, Cal. Trans. Am. Ent. Soc., XXIII, 1896, p. 212.
- Meraporus dubie.\* W. H. Ashmead. (Hym.) District of Columbia. *Trans.* Am. Ent. Soc., XXIII, 1896, p. 219.
- Mesochorus aprilinus. W. H. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 196.
- Mesocrina (?) microrhopalæ.\* W. H. Ashmead. (Hym.) Roslyn, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 217.
- Mesoleius olympia.\* W. H. Ashmead. (Hym.) Olympia, Wash. Trans. Am. Ent. Soc., XXIII, 1896, p. 199.
- Metapon californicum. W. H. Ashmead. (Hym.) Los Angeles, Cal.; Riley County, Kans., and Georgia. Trans. Am. Ent. Soc., XXIII, 1896, p. 229.
- Metapon rufipes. W. H. Ashmead. (Hym.) Jacksonville, Fla.; Georgia; District of Columbia, and South Dakota. Trans. Am. Ent. Soc., XXIII, 1896, p. 229.
- Metaretia inconspicua. W. J. Holland. (Lep.) Kilimanjaro, Africa. *Proc. U. S. Nat. Mus.*, xviii, No. 1062, May 27, 1896, p. 250, pl. vii, fig. 3.
- Microphorus ravidus. D. W. Coquillett. (Dipt.) Southern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 409.
- Miliolina procera. A. Goës. (Foram.) Caribbean Sea. Bull. Mus. Comp. Zool., XXIX, No.1, Mar., 1896, p. 82, pl. vii, figs. 7-9.
- Mimosa spirocarpa. J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 316.
- Mnesidæus apicalis.\* W. II. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 202.
- Monedula tenuicornis. W. J. Fox. (Hym.) San Bernardino County, Cal. Proc. Acad. Nat. Sci. Phila., 1895, p. 368.
- Monedula usitata. W. J. Fox. (Hym.) Los Angeles County, Cal. Proc. Acad. Nat. Sci. Phila., 1895, p. 371.
- Museniopsis cordata. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5. Dec. 14, 1895, p. 304.
- Museniopsis dissecta. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 304.

Museniopsis scabrella. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico, Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 304.

Museniopsis schaffneri. J. M. Coulter and J. N. Rose. (Bot.) San Luis Potosi, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 303.

Museniopsis serrata. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 304.

Museniopsis ternata filifolia. J. M. Coulter and J. N. Rose. (Bot.) Chihuahua, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 303.

Museniopsis tuberosa. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 303.

Myoconcha americana. T. W. Stanton. (Pel.) Near Stephensons, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 48, pl. 2, fig. 11.

Mythicomyia tibialis. D. W. Coquillett. (Dipt.) Los Angeles County, Cal. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 409.

Nematus pergandei.\* C. L. Marlatt. (Hym.) Washington, D. C. Tech Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 90.

Nematus pontanioides.\* C. L. Marlatt. (Hym.) Mount Hood, Oregon. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 89.

Nematus unicolor.\* C. L. Marlatt. (Hym.) Mount Hood, Oregon; Green Valley, N. Y. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 88.

Neocota weedii. D. W. Coquillett. (Dipt.) Mississippi. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p.

Neonelsonia ovata. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 307.

Nesotriccus ridgwayi. C. H. Townsend. (Aves.) Cocos Island, Pacific Ocean. Bull. Mus. Comp. Zool., XXVII, No. 3, July, 1895, p. 124.

Neuratelus americanus.\* W. H. Ashmead. (Hym.) Fredericktown, Md. Trans. Am. Ent. Soc., XXIII, 1896, p. 203. Neuratelus liriodendri.\* W. H. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 203.

Nodosaria raphanistrum, var. obsoleta. A. Goës. (Foram.) Caribbean Sea. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 63, pl. vi, fig. 3.

Notropis buchanani. S. E. Meek. (Pisc.) Near Poteau, Ind. T. Bull U.S. Fish Com., xv, 1895, p. 342.

Nucula gabbi. T. W. Stanton. (Pel.)
 Near Lowerys, Cal. Bull. U. S. Geol.
 Surv., No. 133, 1896, p. 51, pl. 6, figs. 11,
 12.

Nucula iphigenia. W. H. Dall. (Moll.)
 Panama. Proc. U. S. Nat. Mus., XVIII,
 No. 1034, Apr. 23, 1896, p. 15.

Nucula storrsi. T. W. Stanton. (Pel.)
 Near Paskenta, Cal. Bull. U. S. Geol.
 Surr., No. 133, 1896, p. 52, pl. 6, figs. 13, 14.

Odontomyia aldrichi.\* C. W. Johnson. (Dipt.) Kansas. *Trans. Am. Ent. Soc.*, xxII, No. 3, p. 262, pl. 1v, fig. 17.

Odontomyia fallax. C. W. Johnson. (Dipt.) Georgia. Trans. Am. Ent. Soc., XXII, No. 3, p. 257.

Odontomyia hydrolenoides.\* C. W. Johnson. (Dipt.) Canada. Trans. Am. Ent. Soc., XXII, No. 3, p. 262, pl. 1v, fig. 10.

Odontomyia mexicana. C. W. Johnson. (Dipt.) Tehuantepec, Mexico. *Trans.* Am. Ent. Soc., XXII, No. 3, p. 271.

Odontomyia occidentalis.\* C. W. Johnson. (Dipt.) Pennsylvania. *Trans.*Am. Ent. Soc., XXII, No. 3, p. 268, pl. IV, figs. 23, 24.

Odontomyia similis.\* C. W. Johnson. (Dipt.) Colorado. Trans. Am. Ent. Soc., XXII, No. 3, p. 267, pl. IV, fig. 6.

Odontomyia texasiana. C. W. Johnson. (Dipt.) Waco, Tex. Trans. Am. Ent. Soc., XXII, No. 3, p. 259.

Cannthe pringlei. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1885, p. 307.

Ogovia tavetensis. W. J. Holland. (Lep.) Masai Land, Africa. *Proc. U. S. Nat. Mus.*, XVIII, No. 1063, May 27, 1896, p. 254, pl. VII, fig. 13.

Olcostephanus (Simbirskites) mutabilis. T. W. Stanton. (Ceph.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 77, pl. 15, figs. 1-5. Olcostephanus (Polypthychites) trichotomus. T. W. Stanton. (Ceph.) Near Lowerys. Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 78, pl. 16, fig. 1.

Otacustes periliti. (Hym.) District of Am. Eut. Soc., XXI

Onychomys torridus arenicola. E. A. Mearns. (Mamm.) Rio Grande, about 6 miles from El Paso, Tex. Proc. U. S. Nat. Mus., XIX, No. 1103, May 25, 1896, p. 3. Advance edition.

Onychomys torridus perpallidus. E. A. Mearns. (Mamm.) Left bank of the Colorado River, at monument No. 24, Mexican boundary line. *Proc. U. S. Nat. Mus.*, XIX, No. 1103, May 25, 1896, p. 4. Advance edition.

Opis californica. T. W. Stanton. (Pel.) Near Stephensons, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 58, pl. 7,

figs. 1-4

Orodesmus bicolor. O. F. Cook. (Myr.) Tana River, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1042, Apr. 23, 1896, p. 102, pl. v, figs. 8-14.

Orodesmus forceps.\* O. F. Cook. (Myr.)
East Africa. *Proc. U. S. Nat. Mus.*,
XVIII, No. 1042, Apr. 23, 1896, p. 101,
pl. IV, figs. 13-16.

Orodesmus unicolor. O. F. Cook. (Myr.)

Mombassa, Africa. *Proc. U. S. Nat Mus.*, XVIII, No. 1042, Apr. 23, 1896,
p. 105, pl. vi, figs. 8-10.

Oronotus albomaculatus. W. H. Ashmead. (Hym.) Texas. Trans. Am.

Ent. Soc., XXIII, 1896, p. 205.

Orthetrum abbottii. P. P. Calvert. (Odon.) Kilimanjaro, Africa. Proc. U.S. Nat. Mus., XVIII, No. 1046, Apr. 23, 1896, p. 134, fig. 11.

Orthetrum truncatum. P. P. Calvert. (Odon.) Kilimanjaro, Africa Proc. U. S. Nat. Mus., XVIII, No. 1046, Apr.

23, 1896, p. 128, fig. 6.

Orthotrichium holzingeri. F. Renauld and Jules Caudot. (Bot.) Idaho. Contrib. U. S. Nat. Herbarium, 111, No. 4, Nov. 23, 1895, p. 270.

Ostrea falco. W. H. Dall. (Moll.) Oligocene, Florida. *Proc. U. S. Nat. Mus.*, XVIII, No. 1035, Apr. 23, 1896, p. 22.

- Ostrea podagrina. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 22.
- Otacustes orgyiæ, W. H. Ashmead. (Hym.) St. Louis, Mo. Trans. Am. Ent. Soc., XXIII, 1896, p. 209.

- Otacustes periliti. W. H. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 210.
- Otocoris alpestris hoyti.\* L. B. Bishop. (Aves.) Cando, N. Dak. Auk, XIII, No. 2, 1896, p. 130.
- Oxydesmus campii. (), F. Cook. (Myr.) Congo, Africa. *Proc. U. S. Nat. Mus.*, xviii, No. 1036, Apr. 23, 1896, p. 49.
- Oxydesmus flabellatus. O. F. Cook. (Myr.) Congo, Africa. *Proc. U. S. Nat. Mus.*, XVIII, No. 1036, Apr. 23, 1896, p. 51.
- Pachycheilus dalli. H. A. Pilsbry. (Moll.) Tehuantepec, Mexico. Proc. Acad. Nat. Sci. Phila., 1896, p. 269.
- Pachynematus abdominalis. C. L. Marlatt. (Hym.) Skokomish River, Wash. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 104.
- Pachynematus affinis.\* C. L. Marlatt. (Hym.) Montana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 97.
- Pachynematus apicalis.\* C. L. Marlatt. (Hym.) Montana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 107.
- Pachynematus aurautiacus.\* C. L. Marlatt. (Hym.) Montana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 95.
- Pachynematus auratus.\* C. L. Marlatt. (Hym.) Montana. Tech. Ser. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 99.
- Pachynematus carolinensis.\* C. L. Marlatt. (Hym.) North Carolina. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 109.
- Pachynematus clypeatus. C. L. Marlatt. (Hym.) Montana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 102.
- Pachynematus coloradensis. (Hym.) Colorado. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 101.
- Pachynematus graminis. C. L. Marlatt. (Hym.) Nevada. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 100.
- Pachynematus hoodii.\* C. L. Marlatt. (Hym.) Mount Hood, Oregon. Tech. Ser No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 104.
- Pachynematus infumatus. C. L. Marlatt. (Hym.) Agricultural Collego, Mich. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 107.

- Pachynematus koebelei. C. L. Marlatt. (Hym.) Oregon. Tech. Ser. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 108.
- Pachynematus minutus. C. L. Marlatt. (Hym.) Olympia, Wash. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 110.
- Pachynematus montivagus.\* C. L. Marlatt. (Hym.) Mount Washington, New Hampshire. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 110.
- Pachynematus nevadensis. C. L. Marlatt. (Hym.) Nevada. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 110.
- Pachynematus occidentalis.\* C. L. Marlatt. (Hym.) Washington. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 109.
- Pachynematus pubescens.\* (Hym.)
  Mount Washington, N. H. Tech. Ser.
  No. 3, Div. Ent., U. S. Dept. Agric., 1896,
  p. 100.
- Pachynematus punctulatus.\* C. L. Marlatt. (Hym.) New Hampshire. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 103.
- Pachynematus robustus.\* C. L. Marlatt. (Hym.) Montana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 102.
- Pachynematus thoracicus.\* (Hym.) Montana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 108.
- Pachynematus tritici. C. L. Marlatt. (Hym.) Indiana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 106.
- Pachynematus wrangeli. C. L. Marlatt. (Hym.) Fort Wrangel, Alaska. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 109.
- Palæmonetes antrorum. J. E. Benedict. (Dec.) San Marcos, Tex. Proc. U. S. Nat, Mus., xviii, No. 1087, Apr. 14, 1896, p. [1]. Advance edition.
- Panstenon columbiana.\* W. H. Ashmead. (Hym.) District of Columbia.

  Trans. Am. Ent. Soc., XXIII, 1896, p. 231.
- Paramiomoea heptatoma. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 751.
- Passerella iliaca stephensi.\* A. W. Anthony. (Aves.) San Jacinto Monntains, California. Auk, XII, 1895, No. 4, p. 348.

- Patula strigosa, var. concentrata. W. H. Dall. (Moll.) New Mexico. *Proc. U. S. Nat. Mus.*, XVIII, No. 1033, Apr. 23, 1896, p. 1.
- Pectunculus arcodentiens. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 705, pl. XXVI, fig. 6.
- Pectunculus ovatus. T. W. Stanton. (Pel.) Near Stephensons, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 51, pl. vi, figs. 9, 10.
- Pentacrita coxalis. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 749.
- Pentacrita proxima. W. H. Ashmead. Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 750.
- Pentamerocera angularis. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 775.
- Pentamerocera connectans. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 777.
- Pentamerocera distinguenda. W. H. Ashmead. (Hym.) Balthazar and St. Johns River, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 776.
- Pentamerocera erythropleura. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 776.
- Pentamerocera lateralis. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 777.
- Pentamerocera nanella. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 777.
- Pentamerocera 6-punctata. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 776.
- Periclistus californicus. W. H. Ashmead. (Hym.) Colorado and Wyoming. Trans. Am. Ent. Soc., XXIII, 1896, p. 188.
- Periclistus smilacis. W. H. Ashmead. (Hym.) Chicago, Ill. Trans. Am. Ent. Soc., XXIII, 1896, p. 188.
- Perilissus paniscoides.\* W. H. Ashmead. Central Park, New York City, and Canada. Trans. Am. Ent. Soc., XXIII, 1896, p. 197.

Perilissus southwickii.\* W. H. Ashmead. (Hym.) Central Park, New York City. Trans. Am. Ent. Soc., XXIII, 1896, p. 196.

Periploma carpenteri. W. H. Dall. (Moll.) Panama. *Proc. U. S. Nat. Mus.*, xvIII, No. 1034, Apr. 23, 1896, p. 20.

Periploma stearnsii. W. H. Dall. (Moll.) California. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 19.

Perissopterus mexicanus. L. O. Howard. (Hym.) Guadalajara, Mexico. Tech. Scr. No. 1, Div. Ent., U. S. Dept. Agric., Sept., 1895, p. 22.

Peromyscus boylii penicillalus. E. A. Mearns. (Mamm.) Foothills of the Franklin Mountains near El Paso, Tex. Proc. U. S. Nat. Mus., XIX, No. 1103, May 25, 1896, p. 2. Advance edition.

Peromyseus canus. E. A. Mearns. (Mamm.) Fort Clark, Tex. *Proc. U. S. Nat. Mus.*, XVIII, No. 1075, May 21, 1896, p. 445.

Peromyscus eremicus arenarius. E. A. Mearns. (Mamm.) Rio Grande, about 6 miles from El Paso, Tex. Proc. U. S. Nat. Mus., XIX. No. 1103, May 25, 1896, p. 2. Advance edition.

Peromyscus texanus elementis. E. A. Mearns. (Manun.) San Clemente Island, California. Proc. U. S. Nut. Mus., XVIII, No. 1075, May 21, 1896, p. 446.

Peromyscus texanus medius. E. A. Mearns. (Mamin.) Nachoguero Valley, Lower California. Proc. U. S. Nat. Mus., XVIII, No. 1075, May 21, 1896, p. 446.

Peromyscus tornillo. E. A. Mearns. (Mamm.) Rio Grande, about 6 miles above El Paso, Tex. *Proc. U. S. Nat. Mus.*, XVIII, No. 1075, May 21, 1896, p. 445.

Pencedanum salmoniflorum. J. M. Coulter and J. N. Rose. (Bot.) Idaho. Contrib. U. S. Nat. Herbarium, III, No. 4, Nov. 23, 1895, p. 228.

Peucedramus olivaceus aurantiacus. Robert Ridgway. (Aves.) Guatemala. Proc. t'. S. Nat. Mus., XVIII, No. 1074, May 21, 1896, p. 441.

Phenopria angulifera. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Loud., XLVIII, No. 2, 1895, p. 810.

Phænopria balthazari. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Loud., XLVIII, 1895, p. 811.

Phenopria grenadensis. W. H. Ashmead. (Hym.) Balthazar and Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 810. (No. 3, err. angulifera, nee No. 2.)

Phænopria magniclavata. W. H. Ashmead. (Hym.) Grand Etang and Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 812.

Phenopria nigriclavata. W. H. Ashmead. (Hym.) Chantilly Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 811.

Phænopria nigricornis. W. H. Ashmead. (Hym.) St. Johns River, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 810.

Pheogenes walshiæ. W. H. Ashmead. (Hym.) Fairbury, Ill. *Trans. Am.* Ent. Soc., XXIII, 1896, p. 205.

Phaseolus smilacifolins. C. L. Pollard. (Bot.) Florida. Botun. Gaz., XXI, Apr. 25, 1896, p. 232.

Philobrya atlantica. W. H. Dall. (Moll.)\*
Spiring Bay, Argentina. Proc. U. S.
Nat. Mus., XVIII, No. 1034, Apr. 23, 1896,
p. 16.

Phos cocosensis. W. H. Dall. (Moll) Cocos Island. *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 11.

Photopsis nanus. W. H. Ashmead. (Hym.) Tucson, Ariz. Trans. Am. Eut. Soc., XXIII, 1896, p. 181.

Phygadeuon phryganidia. W. H. Ashmead. (Hym.) Alameda, Cal. *Trans.* Am. Ent. Soc., XXIII, 1896, p. 207.

Phylloceras knoxvillensis. T. W. Stanton. (Ceph.) Bull. U. S. Geol. Surv., No. 133, 1896, p. 72, pl. 14, figs. 1-4.

Piezobria floridana. W. H. Ashmead. (Hym.) Archer, Fla. Trans. Am. Ent. Soc., XXIII, 1896, p. 185.

Platypalpus incultus. D. W. Coquillett. (Dipt.) Southern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 439.

Platypalpus tersus. D. W. Coquillett. (Dipt.) Georgia and North Carolina. Proc. t<sup>r</sup>. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 439.

Platyterma citripes, W. H. Ashmead. (Hym.) Westeliffe, Colo. Trans. Am. Ent. Soc., XXIII, 1896, p. 223.

- Platyterma fuscipes.\* W. H. Ashmead. (Hym.) Marquette, Mich. Trans. Am. Ent. Soc., XXIII, 1896, p. 223.
- Platyura elegans. D. W. Coquillett. (Dipt.) North Carolina. *Proc. Acad.* Nat. Sci. Phila., 1895, p. 307.
- Pleurotoma (Steiraxis) aulaca. W. H. Dall. (Moll.) Acapulco, Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 14.
- Pleurotoma (Drillia) microscelida. W. H. Dall. (Moll.) Near Hawaii. *Proc. U. S. Nat. Mns.*, XVII, No. 1032, July 8, 1895, p. 677.
- Pleurotomella castanea. W. H. Dall. (Moll.) Galapagos Islands. *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 15.
- Pleurotomella climacella. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 679, pl. XXXI, fig. 14.
- Pleurotomella gypsina. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 678, pl. XXX, fig. 10.
- Pleurotomella hawaiiana. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 679.
- Plusiotis keithi, M. L. Linell. (Col.) Costa Rica. *Proc. U. S. Nat. Mus.*, XVIII, No. 1040, Apr. 23, 1896, pp. 77, 78.
- Poa annua rigidiuscula. L. H. Dewey. (Bot.) Idaho. Contrib. U. S. Nat. Herbarium, 111, Nov. 23, 1896, p. 262.
- Polycyrtus floridanus.\* W. H. Ashmead. (Hym.) Jacksonville, Fla. Trans. Am. Ent. Soc., XXIII, 1896, p. 230.
- Polygyra chiricahuana. W. H. Dall. (Moll.) New Mexico. *Proc. U. S. Nat. Mus.*, XVIII, No. 1033, Apr. 23, 1896, p. 2.
- Polygyra mearnsii. W. H. Dall. (Moll.) New Mexico. *Proc. U. S. Nat. Mus.*, XVIII, No. 1033, Apr. 23, 1896, p. 2.
- Polymecus grenadensis. W. H. Ashmead. (Hym.) Grand Etang, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 802.
- Polymecus macrurus. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 801.
- Pontania acuminata. C. L. Marlatt. (Hym.) Michigan. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 32.

- Pontania atra. C. L. Marlatt. (Hym.) Michigan. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 37.
- Pontania atriventris.\* C. L. Marlatt. (Hym.) Mount Hood, Oregon. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 38.
- Pontania bruneri. C. L. Marlatt. (Hym.) Robinson's Ranch, Wyo. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 35.
- Pontania californica. C. L. Marlatt. (Hym.) Alameda, Cal. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 38.
- Pontania cressoni.\* C. L. Marlatt. (Hym.) Washington. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 26.
- Pontania excavata. C. L. Marlatt. (Hym.) California, Colorado, and Veta Pass, Colorado. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 30.
- Pontania gracilis. C. L. Marlatt. (Hym.) Virginia. Tech. Ser. No. 3, Div. Eut., U. S. Dept. Agric., 1896, p. 39.
- Pontania kincaidi. C. L. Marlatt. (Hym.) Olympia, Wash. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 33.
- Pontania monile. C. L. Marlatt. (Hym.) American Fork Canyon, Utah. *Tech.* Ser. No.3, Div. Ent., U. S. Dept. Agric., 1896, p. 43.
- Pontania nigrita.\* C. L. Marlatt. (Hym.) Michigan. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 28.
- Pontania pacifica.\* C. L. Marlatt. (Hym.) Southern California. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 35.
- Pontania pectoralis.\* C. L. Marlatt. (Hym.) Algonquin, III. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 31.
- Pontania pyriformis. C. L. Marlatt. (Hym.) Donner, Cal. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 43.
- Pontania rebusta. C. L. Marlatt. (Hym.) Michigan and District of Columbia. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 32.
- Pontania resinicola. C. L. Marlatt. (Hym.) Los Angeles, Cal. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 30.

- Pontania rugolosa. C. L. Marlatt. (Hym.) Michigan. Tech. Ser. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 41.
- Pontania stigmatalis.\* C. L. Marlatt. (Hym.) Mount Hood, Oregon. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 39.
- Pontania sulphurea.\* C. L. Marlatt. (Hym.) Montana and Nevada. Tech. Ser. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 41.
- Pontania truncata.\* C. L. Marlatt. (Hym.) Southern California. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 38.
- Priodesmus acus. O. F. Cook. (Myr.) Surinam. *Proc. U. S. Nat. Mus.*, XVIII, No. 1037, Apr. 23, 1896, p. 55, pl. 1, figs. 1–17.
- Priodesmus parae.\* O. F. Cook. (Myr.)
   Para, Brazil. *Proc. U. S. Nat. Mus.*,
   XVIII, No. 1037, Apr. 23, 1896, p. 56.
- Prionopoda beginii.\* W. H. Ashmead. (Hym.) Sherbrooke, Canada. *Trans.* Am. Ent. Soc., XXIII, 1896, p. 198.
- Prionopoda coloradensis.\* W. H. Ashmead. (Hym.) Fort Collins, Colo. Trans. Am. Ent. Soc., XXIII, 1896, p. 198.
- Prionopoda ruficornis.\* W. H. Ashmead. (Hym.) Ithaca, N. Y. Trans. Am. Ent. Soc., XXIII, 1896, p. 198.
- Prionosciadium megacarpum. J.M.
  Coulter and J. N. Rose. (Bot.)
  Oaxaca, Mexico. Contrib. U. S. Nat.
  Herbarium, III, No. 5, Dec. 14, 1895, p.
  308.
- Pristiphora banksi. C. L. Marlatt. (Hym.) Sea Cliff, Long Island, and Ithaca, N. Y. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 117.
- Pristiphora carolinensis.\* C. L. Marlatt. (Hym.) North Carolina. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 120.
- Pristiphora coloradensis.\* C. L. Marlatt. (Hym.) Colorado. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 121.
- Pristiphora dyari.\* C. L. Marlatt. (Hym.) Keene Valley, N. Y. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 118.
- Pristiphora hoodi.\* C. L. Marlatt. (Hym.) Mount Hood, Oregon. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 119.

- Pristiphora koebelei. C. L. Marlatt. (Hym.) Washington. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 119.
- Pristiphora murtfeldtiæ. C. L. Marlatt. (Hym.) Kirkwood, Mo. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 117.
- Pristiphora nigra. C. L. Marlatt. (Hym.) Easton, Wash. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 114.
- Pristiphora occidentalis. C. L. Marlatt. (Hym.) Oregon and Washington. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 121.
- Pristomerus euryptychiæ. W. H. Ashmead. (Hym.) District of Columbia. Trans. Am. Ent. Soc., XXIII, 1896, p. 192.
- Pteronus antennatus.\* C. L. Marlatt. (Hym.) New Hampshire. Tech. Ser. No. 3, Div. Ent., U.S. Dept. Agric., 1896, p. 61.
- Pteronus atriceps.\* C. L. Marlatt. (Hym.) Nevada. Tech. Ser. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 52.
- Pteronus anratus.\* C. L. Marlatt. (Hym.) Washington. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 60.
- Pteronus bicolor.\* C. L. Marlatt. (Hym.) Mount Hood, Oregon, and Olympia, Wash. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 56.
- Pteronus californicus. \* C. L. Marlatt. (Hym.) California. Tech. Ser. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 60.
- Pteronus coloradensis.\* C. L. Marlatt. (Hym.) Colorado and Montana. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 52.
- Pteronus cornelli.\* C.L.Marlatt. (Hym.) New York. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 65.
- Pteronus dubius. C. L. Marlatt. (Hym.) Wellesley, Mass. Tech. Scr. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 74.
- Pteronus dyari.\* C. L. Marlatt. (Hym.) New York. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 58.
- Pteronus foveatus.\* C. L. Marlatt. (Hym.) Washington. Tech. Ser. No. 3, Div. Eut., U.S. Dept. Agric., 1896, p. 55.
- Pteronus fylesi. C. L. Marlatt. (Hym.) South Quebec, Canada. Tech. Scr. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 54.

- Pteronus harringtoni. C. L. Marlatt. (Hym.) Ottawa, Canada, and South Quebec, Canada. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 53.
- Pteronus hyalinus.\* C. L. Marlatt. (Hym.) Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 67.
- Pteronns kincaidi.\* C. L. Marlatt. (Hym.) Olympia, Wash. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 55.
- Pteronus koebelei. C. L. Marlatt. (Hym.) California and Oregon. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 71.
- Pteronus latus.\* C. L. Marlatt. (Hym.) Massachusetts and Pennsylvania. *Tech.* Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 48.
- Pteronus lombarda. C. L. Marlatt. (Hym.) Lansing, Mich., and New York. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 73.
- Pteronus longicornis.\* C. L. Marlatt. (Hym.) Michigan, New York, Long Island, Massachusetts, and Canada. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 72.
- Pteronus magus.\* C. L. Marlatt. (Hym.) Canada. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 67.
- Pteronus occidentalis. C. L. Marlatt. (Hym.) Placer County and Los Angeles, Cal. Tech. Ser. No. 3, Div. Ent., V. S. Dept. Agric., 1896, p. 48.
- Pteronus pacificus.\* C. L. Marlatt. (Hym.) Olympia, Wash. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 49.
- Pteronus populi. C. L. Marlatt. (Hym.) Massachusetts. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 59.
- Pterouus quereus. C. L. Marlatt. (Hym.) Ithaca, N. Y. Tech. Scr. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 67.
- Pteronus tricolor.\* C. L. Marlatt. (Hym.) New Hampshire. Tech. Ser. No. 3, Dir. Ent., U. S. Dept. Agric., 1896, p. 56.
- Pteronus unicolor.\* C. L. Marlatt. (Hym.) California. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 72.

- Pteronus vancouverensis. C. L. Marlatt. (Hym.) Vancouver Island; Alameda and Placer counties, Cal., and Nevada. Tech. Ser. No. 3, Div. Ent., U. S. Dept. Agric., 1896, p. 70.
- Pteropurpura postii. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 44.
- Reophax armatus.\* A. Goës. (Foram.)
  Pacific Ocean and Caribbean Sea. Bull.
  Mus. Comp. Zool., XXIX, No. 1, Mar.,
  1896, p. 29, pl. 1, fig. 1.
- Reophax insectus. A. Goës. (Foram.)

  Pacific Ocean. Bull. Mus. Comp. Zool.,

  XXIX, No. 1, Mar., 1896, p. 28, pl. III,
  figs. 6, 7.
- Reophax turbo. A. Goës. (Foram.) Caribbean Sea. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 29, pl. 1, figs. 2, 3.
- Retusa chipolana. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 28.
- Retnsa (Cylichnina) decapitata. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 30.
- Retusa (Cylichnina) duplinensis. W. H. Dall. (Moll.) Miocene, North Carolina. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 31.
- Retusa (Cylichnina) microtrema. W. H. Dall. (Moll.) Miocene, North Carolina. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 31.
- Retusa (Cylichnina) quercinensis. W. H.
  Dall. (Moll.) Oligocene, Florida.

  Proc. U. S. Nat. Mus., XVIII, No. 1035,
  Apr. 23, 1896, p. 31.
- Rhamphomyia abdita. D.W. Coquillett. (Dipt.) Washington. *Proc. U. S. Nat. Mus.*, XVIII, No. 1073, May 25, 1896, p. 430.
- Rhamphomyia amplicella. D. W. Coquillett. (Dipt.) Southern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 431.
- Rhamphomyia amplipedis. D. W. Coquillett. (Dipt.) Massachusetts. *Proc.* U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 422.

- Rhamphomyia arcuata. D. W. Coquillett. (Dipt.) Massachusetts. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 421.
- Rhamphomyia avida. D. W. Coquillett. (Dipt.) Massachusetts. *Proc. U. S. Nat. Mus.*, xviii, No. 1073, May 25, 1896, p. 425.
- Rhamphomyia bifilata. D.W. Coquillett. (Dipt.) Southern California. *Proc. U. S. Nat. Mus.*, XVIII, No. 1073, May 25, 1896, p. 424.
- Rhamphomyia californica. D. W. Coquillett. (Dipt.) California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 420.
- Rhamphomyia ciliata. D. W. Coquillett. (Dipt.) New Hampshire. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 428.
- Rhamphomyia colorata. D. W. Coquillett. (Dipt.) Texas. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 420.
- Rhamphomyia compta. D. W. Coquillett. (Dipt.) United States. Prov. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 423.
- Rhamphomyia duplicis. D. W. Coquillett. (Dipt.) Southern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 424.
- Rhamphomyia effera. D. W. Coquillett. (Dipt.) Colorado. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 427.
- Rhamphomyia fimbriata. D. W. Coquillett. (Dipt.) California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 429.
- Rhamphomyia flexuosa. D. W. Coquillett. (Dipt.) Colorado. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 433.
- Rhamphomyia gilvipilosa. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII. No. 1073, May 25, 1896, p. 434.
- Rhamphomyia insecta. D.W. Coquillett. (Dipt.) Texas. Proc. U. S. Nat. Mus., xviii, No. 1073, May 25, 1896, p. 426.
- Rhamphomyia loripedis. D. W. Coquillett. Southern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 419.

- Rhamphomyia manca. D.W. Coquillett. (Dipt.) North Carolina. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 427.
- Rhamphomyia nasoni. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 423.
- Rhamphomyia otiosa. D. W. Coquillett. (Dipt.) Colorado. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 425.
- Rhamphomyia parva. D. W. Coquillett. (Dipt.) Massachusetts. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 433.
- Rhamphomyia pectoris. D. W. Coquillett. (Dipt.) St. Catherine Island, Georgia. *Proc. U. S. Nat. Mus.*, XVIII, No. 1073, May 25, 1896, p. 420.
- Rhamphomyia piligeronis. D. W. Coquillett. (Dipt.) Illinois. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 432.
- Rhamphomyia ravida. D.W. Coquillett. (Dipt.) Illinois, Texas, and New Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 418.
- Rhamphomyia setosa. D. W. Coquillett. (Dipt.) New Hampshire. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 426.
- Rhamphomyia stylata. D. W. Coquillett. (Dipt.) Southern California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 432.
- Rhamphomyia sudigeronis. D. W. Coquillett. (Dipt.) California. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 431.
- Rhamphomyia tersa. D. W. Coquillett. (Dipt.) New Hampshire. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 422.
- Rhamphomyia valga. D. W. Coquillett. (Dipt.) New Hampshire. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 428.
- Rhamphomyia virgata. D. W. Coquillett. (Dipt.) Massachusetts. *Proc. U. S. Nat. Mus.*, XVIII, No. 1073, May 25, 1896, p. 430.
- Rhodosciadium dissectum. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 309.

- Rhodosciadium glaucum. J. M. Coulter and J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 309.
- Rhogas bifasciatus. W. H. Ashmead. (Hym.) St. Georges and Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 784.
- Rhoptromeris atriclavata. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 754.
- Rhynchonella schucherti. T. W. Stanton. (Brach.) Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 31, pl. 1, figs. 1-4.
- Rhynchosia pringlei. J. N. Rose. (Bot.)
  Oaxaca, Mexico. Contrib. U. S. Nat.
  Herbarium, III, No. 5, Dec. 14, 1895, p.
  316.
- Rimula expansa. W. H. Dall. (Moll.) Panama. *Proc. U. S. Nat. Mus.*, XVIII, No. 1034, Apr. 23, 1896, p. 10.
- Ringicula chipolana. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 25.
- Ringicula semilimata. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 24.
- Sabatia pustulosa. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 677, pl. XXVI, fig. 10.
- Sagitta flaccida. F. S. Conant. (Chet.) Bimini, Bahamas. Johns Hopkins Univ. Circ., xv, No. 126, June, 1896, p. 85.
- Sagitta tenuis. F. S. Conant. (Chæt.) Kingston Harbor, Jamaica. Johns Hopkins Univ. Circ., XV, No. 126, June, 1896, p. 85.
- Sapyga pelopæi. W. H. Ashmead. (Hym.) Toronto, Grenada. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 179.
- Sarathrus nasoni.\* W. H. Ashmead. (Hym.) Algonquin, Ill. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 182.
- Scala (Sthenorhytis) mazyckii. W. H. Dall. (Moll:) South Carolina. Nautilus, 1X, No. 10, Feb., 1896, p. 111.
- Scala mitchelli. W. H. Dall. (Moll.) Texas. Nautilus, IX, No. 10, Feb., 1896, p. 112.

- Scala ranellina. W. H. Dall. (Moll.) Alabama. Nautilus, IX, No. 10, Feb., 1896, p. 111.
- Scaphander alatus. W. H. Dall. (Moll.) Near Hawaii. *Proc. U. S. Nat. Mus.*, xvii, No. 1032, July 8, 1895, p. 676, pl. xxvii, fig. 2.
- Scaphander langdoni. W. H. Dall. (Moll.) Oligocene, Florida. *Proc. U. S. Nat. Mus.*, XVIII, No. 1035, Apr. 23, 1896, p. 28.
- Scaphella benthalis. W. H. Dall. (Moll.) Panama. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 13.
- Sciara tritici. D. W. Coquillett. (Dipt.) Insect Life, VII, No. 5, July, 1895, p. 407.
- Secodes phleotribi.\* W. H. Ashmead. (Hym.) Roslyn, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 233.
- Seleucus gillettei.\* W. H. Ashmead. (Hym.) Fort Collins, Colo. *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 206.
- Seleucus rufiventris.\* W. H. Ashmead. (Hym.) Agricultural College, Mich. Trans. Am. Ent. Soc., XXIII, 1896, p. 207.
- Sida cinerea. E. G. Baker. (Bot.) Jalisco, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 311.
- Sida lodiegensis. E. G. Baker. (Bot.) Lodiego, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 311.
- Siphostoma scovelli. Evermann and Kendall. (Pisc.) Corpus Christi, Tex. Proc. U. S. Nat. Mus., xviii, No. 1043, Apr. 15, 1896, pp. 113-115.
- Solariella ceratophora. W. H. Dall. (Moll.) California. Proc. U. S. Nat. Mus., XVIII, No. 1034, Apr. 23, 1896, p. 9.
- Solariella nuda. W. H. Dall. (Moll.)
   California. Proc. U. S. Nat. Mus.,
   XVIII, No. 1034, Apr. 23, 1896, p. 9.
- Solariella reticulina. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 684, pl. XXVI, fig. 9.
- Solecurtus (?) dubius. T. W. Stanton. (Pel.) Near Stephensons, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 61, pl. 10, figs. 4, 5.
- Solemya occidentalis. T. W. Stanton. (Pel.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 55, pl. 10, figs. 2, 3.

- Solenaspis singularis. W. H. Ashmead. (Hym.) Algonquin, Ill. Trans. Am. Ent. Soc., XXIII, 1896, p. 183.
- Sozuza stevensii. W. J. Holland. (Lep.) Kilima Njaro, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 248, pl. VII, fig. 14.
- Spadella maxima. F. S. Conant. (Chaet.) North Atlantic Ocean. Johns Hopkins Univ. Circ., XV, No. 126, June, 1896, p. 84.
- Spanoctecnus caseyi.\* W. H. Ashmead. (Hym.) Norfolk, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 196.
- Spathius flavotestaceus. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 783.
- Spectyto cunicularia obscura. F. Stephens. (Aves.) Lake County, Cal. Auk, XII, Oct., 1895, No. 4, p. 372.
- Spergo daphnelloides. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 683, pl. XXXI, fig. 11.
- Spergo glandiniformis. W. H. Dall. (Moll.) Near Hawaii. Proc. U. S. Nat. Mus., XVII, No. 1032, July 8, 1895, p. 680, pl. XXIV, figs. 1, 2.
- Spermophilus harrisi saxicolus. E. A. Mearns. (Manun.) Tinajas Altas, Gila Monntaius, Yuma Connty, Ariz. Proc. U. S. Nat. Mus., XVIII, No. 1075, May 21, 1896, p. 444.
- Spermophilus mexicanns parvidens. E. A. Mearns. (Mamm.) Fort Clark, Tex. Proc. U. S. Nat. Mus., XVIII, No. 1075, May 21, 1896, p. 443.
- Spilarctia abbottii. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 248.
- Spondylus fragilis. T. W. Stanton. (Pel.) Tehama County, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 35, pl. 11, fig. 3.
- Stibolepis atomaria. W. J. Holland. (Lep.) Taveta, Africa. Proc. U. S. Nat., Mus., XVIII, No. 1062, May 27, 1896, p. 251.
- Stictomischus auratus.\* W. H. Ashmead. (Hym.) Roslyn, Va. Trans. Am. Ent. Soc., XXIII. 1896, p. 221.
- Stratiomyia bruneri.\* C. W. Johnson. (Dipt.) Custer, S. Dak. Trans. Am. Ent. Soc., XXII, No. 3, July, 1895, p. 233, pl. 111, figs. 7, 8.

- Sychnoleter americana.\* W. H. Ashmead. (Hym.) Jacksonville, Fla. Trans. Am. Ent. Soc., XXIII, 1896, p. 196.
- Syncrasis flavifrons. W. H. Ashmead. (Hym.) Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 786.
- Syneches debilis. D. W. Coquillett. (Dipt.) Maryland. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 436.
- Syneches hyalinus. D. W. Coquillett. (Dipt.) Maryland. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 437.
- Synergus agrifoliæ. W. H. Ashmead. (Hym.) Los Angeles, Cal. Trans. Am. Ent. Soc., XXIII, 1896, p. 189.
- Synergus atripennis. W. H. Ashmead. (Hym.) Crescent City, Fla. Trans. Am. Ent. Soc., XXIII, 1896, p. 189.
- Synergus brevicornis. W. H. Ashmead. (Hym.) Eldorado Connty, Cal. *Trans.* Am. Ent. Soc., XXIII, 1896, p. 189.
- Synopias flavipes. W. H. Ashmead. (Hym.) Balthazar and Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 802.
- Syntomopus affinis.\* W. H. Ashmead. (Hym.) District of Columbia. *Trans.* Am. Ent. Soc., XXIII, 1896, p. 228.
- Tachydromia schwarzii. D. W. Coquillett. (Dipt.) Northern California and Utah. Proc. U. S. Nat. Mus., XVIII, No. 1073, May 25, 1896, p. 440.
- Tantilla eiseni. L. Stejneger. (Rep.)California. Proc. U. S. Nat. Mus.,XVIII, No. 1044, Apr. 15, 1896, p. 117.
- Telenomus albitarsis, W. H. Ashmead. (Hym.) Mount Gay Estate and St. Johns River, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 795.
- Telenomus connectans. W. H. Ashmead. (Hym.) Balthazar, Chantilly Estate, Grand Etang, and Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 792.
- Telenomus consimilis. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 796.
- Telenomus convergens. W. H. Ashmead. Balthazar, Mount Gay Estate, and St. Georges, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895,p.795.

- Telenomus flaviventris. W. H. Ashmead. (Hym.) Kingston, Jamaica. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 795.
- Telenomus fuscicornis. W. H. Ashmead. (Hym.) Balthazar, Grand Etang, Mount Gay Estate, and St. Johns River, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 794.
- Telenomus grenadensis. W. H. Ashmead. (Hym.) Chantilly Estate, Balthazar, and Mount Gay Estate, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 791.
- Telenomus latifrons. W. H. Ashmead. (Hym.) Balthazar, Mount Gay Estate, and St. Georges, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 792.
- Telenomus longiclavatus. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 792.
- Telenomus luteipes. W. H. Ashmead. (Hym.) Balthazar, Chantilly Estate, and St. Johns River, Grenada. *Proc. Zool. Soc. Loud.*, XLVIII, 1895, p. 792.
- Telenomus minutissimus. W. H. Ashmead. (Hym.) Trinidad, West Indies. Journ. Trinidad Field Nat. Club, Aug., 1895, 11, p. 220.
- Telenomus nigriclavatus. W. H. Ashmead. (Hym.) Balthazar, Grand Etang, and Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 794.
- Teracolus aldabrensis. W. J. Holland. (Lep.) Seychelles Islands. *Proc. U. S. Nat. Mus.*, xviii, No. 1064, May 27, 1896, p. 272, pl. viii, figs. 7, 8.
- Teracotona clara. W. J. Holland. (Lep.) Kilimanjaro, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 249, pl. VII, fig. 12.
- Terebra (Acus) amitra. W. H. Dall. (Moll.) Oligocene, Santo Domingo. Proc. U. S. Nat. Mus., XVIII. No. 1035, Apr. 23, 1896, p. 39.
- Terebra (Acus) bipartita, Sby., var. cirrus. W. H. Dall. Oligocene, Santo Domingo. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 38.
- Terebra (Acus) bipartita, Sby., var. Oligomitra. W. H. Dall. (Moll.) Oligocene, Santo Domingo. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 38.

- Terebra (Acus) bipartita. Sby., var. Spirifera. W. H. Dall. (Moll.) Oligocene, Santo Domingo. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 38.
- Terebra (Acus) chipolana. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 39.
- Terebra (Acus) curvilineata. W. H. Dall. (Moll.) Miocene, New Jersey. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 36.
- Terebra gabbi. W. H. Dall. (Moll.) Oligocene, Santo Domingo. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 34.
- Terebra haitensis. W. H. Dall. (Moll.) Oligocene, Santo Domingo. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 35.
- Terebra (Hastula) inornata. W. H. Dall. (Moll.) Miocene, New Jersey. *Proc. U. S. Nat. Mus.*, XVIII, No. 1035, Apr. 23, 1896, p. 35.
- Terebra (Acus) langdoni. W. H. Dall. (Moll.) Oligocene, Florida. *Proc. U. S. Nat. Mus.*, xvIII, No. 1035, Apr. 23, 1896, p. 39.
- Terebra (Acus) langdoni, var. perpunctata. W. H. Dall. Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 39.
- Terebra (Acus) sincera. W. H. Dall. (Moll.) Miocene, Maryland. *Proc. U. S. Nat. Mus.*, xvIII, No. 1035, Apr. 23, 1896, p. 37.
- Terebratella californica. T. W. Stanton. (Brach.) Tehama County, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 33, pl. 1, figs. 12, 13.
- Terebratulina kiiensis. W. H. Dall and H. A. Pilsbry. (Brach.) Northwest Coast of America. *Proc. U. S. Nat. Mus.*, XVII, No. 1032, July 8, 1895, p. 720, pl. XXXII, figs. 8, 9.
- Terias mandarinulus. W. J. Holland. (Lep.) Masai Land, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1062, May 27, 1896, p. 242, pl. VII, fig. 5.
- Tetramerocera variabilis. W. H. Ashmead. (Hym.) Balthazar and Mount Gay Estate, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 778.

- Tetrastichus chlamytis.\* W. H. Ashmead. (Hym.) Roslyn, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 233.
- Tetrastichus johnsoni. W. H. Ashmead. (Hym.) Urbana, Ill. Trans. Am. Ent. Soc., XXIII, 1896, p. 233.
- Tetrastichus microrhopalæ.\* W. H. Ashmead. (Hym.) Roslyn, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 233.
- Textularia solita, Schwag, var. inflata.

  A. Goës. (Foram.) Pacific Ocean.

  Bull. Mus. Comp. Zool., XXIX, No. 1,

  Mar., 1896. p. 42, pl. V, figs. 1-3.
- Theroscopus americanus. W. H. Ashmead. (Hym.) Arlington, Va. Trans. Am. Ent. Soc., XXIII, 1896 p. 211.
- Thersilochus oculatus. W. H. Ashmead. (Hym.) Mount Gay Estate, Greuada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 779.
- Thurammina erinacea. A. Goës. (Foram.)
  Pacific Oceau. Bull. Mus. Comp. Zool.,
  XXIX, No. 1, Mar., 1896. p. 26, pl. 11, figs.
  9, 10.
- Thurovia triflora. J. N. Rose. (Bot.)
  Texas. Contrib. U. S. Nat. Herbarium,
  111, No. 5, Dec. 14, 1895, p. 321.
- Fornatina fischeri. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 26.
- Tornatina (Cylichnella) gabbi. W. H. Dall. (Moll.) Pliocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 27.
- Tornatiua incisula. W. H. Dall. (Moll.) Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 25.
- Tornatina myrmecoön. W. H. Dall. (Moll.) Miocene, North Carolina. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 25.
- Tornatina persimilis. W. H. Dall. (Moll.) Oligocene, Florida. *Proc. U. S. Nat. Mus.*, XVIII, No. 1035, Apr. 23, 1896, p. 26.
- Tractolira sparta. W. H. Dall. (Moll.)
  Panama. *Proc. U. S. Nat. Mus.*, XVIII,
  No. 1034, Apr. 23, 1896, p. 13.
- Trichoglenes occidentalis. W. H. Ashmead. (Hym.) Banfi Springs, Alberta, Canada; Easton, Wash. Trans. Am. Eut. Soc., XXIII, 1896, p. 225.
- Trichopria affinis. W. H. Ashmead. (Hym.) Balthazar, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 808.

- Trichopria bifoveata. W. H. Ashmead. (Hym.) Balthazar, Grenada. Proc. Zool. Soc. Lond., XLVIII, 1895, p. 808.
- Trichopria grenadensis. W. H. Ashmead. (Hym.) Balthazar and Grand Etang, Grenada. *Proc. Zool. Soc. Lond.*, XLVIII, 1895, p. 808.
- Triclistus terminalis.\* W. H. Ashmead.
  (Hym.) District of Columbia. Trans.
  Am. Ent. Soc., XXIII, 1896, p. 201.
- Triclistus thoracicus.\* W. H. Ashmead. (Hym.) Dixie Landing, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 201.
- Tridax tenuifolia. J. N. Rose. (Bot.) Chihuahua, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 319.
- Trybliographa xanthopoda. W. H. Ashmead. (Hym.) Balthazar, Grenada.
  Proc. Zool. Soc. Lond., XLVIII, 1895, p. 754.
- Turbo colusiensis. T. W. Stanton. (Gast.) Near Wilbur Springs, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 6, pl. 12, fig. 14.
- Turbo ? humerosus. T. W. Stanton. (Gast.) Near Lowerys, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 67, pl. 12, figs. 10, 11.
- Turbo morganeusis. T. W. Stanton. (Gast.) Morgan Valley, Lake County, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 66, pl. 12, fig. 13.
- Turbo paskentaensis. T. W. Stanton. (Gast.) Near Paskenta, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 64, pl. 12, figs. 5, 6.
- Turbo trilineatus. T. W. Stanton.
   (Gast.) Near Lowerys, Cal. Bull. U.
   S. Geol. Surv., No. 133, 1896, p. 65, pl. 12, fig. 12.
- Turbo wilburensis. T. W. Stanton. (Gast.) Near Wilbur Springs, Cal. Bull. U. S. Geol. Surv., No. 133, 1896, p. 65, pl. 12, fig. 15.
- Turritella alcida. W. H. Dall. Oligocene, Florida. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 23.
- Turtur abbotti. Robert Ridgway. (Aves.) Mahe, Seychelles. *Proc. U. S. Nat. Mus.*, XVIII, No. 1079, June 24, 1896, p. 513.
- Typhlomolge rathbuni. L.Stejneger. (Batrach.) San Marcos, Tex. Proc. U. S. Nat. Mus., XVIII, No. 1088, Apr. 15, 1896, p. 620.

- Umbonium (Solariorbis) duplinense. W.
  H. Dall. (Moll.) Miocene, Florida.
  Proc. U. S. Nat. Mus., XVIII, No. 1035,
  Apr. 23, 1896, p. 46.
- Umbonium (Solariorbis) floridanum. W.
  H. Dall. (Moll) Pliocene, Florida.
  Proc. U. S. Nat. Mus., XVIII, No. 1035,
  Apr. 23, 1896, p. 45.
- Umbonium (Solariorbis) undula. W. H. Dall. (Moll.) Miocene, North Carolina. Proc. U. S. Nat. Mus., XVIII, No. 1035, Apr. 23, 1896, p. 46.
- Unio dockumensis. C. T. Simpson. (Moll.) Triassic, Texas. Proc. U. S. Nat. Mus., XVIII, No. 1072, May 20, 1896, p. 384, fig. 5.
- Unio dumblei. C. T. Simpson. (Moll.) Triassic, Texas. Proc. U. S. Nat. Mus., XVIII, No. 1072, May 20, 1896, p. 383, fig. 3.
- Unio graciliratus. C. T. Simpson. (Moll.) Triassic, Texas. Proc. U. S. Nat. Mus., XVIII, No. 1072, May 20, 1896, p. 384, fig. 4.
- Unio mitchelli. C. T. Simpson. (Moll.) New Mexico. Proc. U. S. Nat. Mus., XVIII, No. 1033, Apr. 23, 1896, p. 5.
- Unio subplanatus. C. T. Simpson.
   (Moll.) Triassic, Texas. Proc. U. S.
   Nat. Mus., XVIII, No. 1072, May 20, 1896, p. 383, figs. 1, 2.
- Uriella rufipes. W. H. Ashmead. (Hym.) Algonquin, Ill.; Columbus, Ohio. Trans. Am. Ent. Soc., XXIII, 1896, p. 222.

- Ursus emmonsi. W. H. Dall. (Mamm.) Alaska. Science (new series), 11, No. 30, July 26, 1895, p. 87.
- Velæa glauca. J. M. Coulter and J. N. Rose. (Bot.) Oregon. Contrib. U. S. Nat. Herbarium, 111, No. 5, Dec. 14, 1895, p. 321.
- Verneuilina pusilla. A. Goës. (Foram.) Pacific Ocean. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 39, pl. v, figs. 6-8.
- Verracina rudis. A. Goës. (Foram.) Pacific Ocean. Bull. Mus. Comp. Zool., XXIX, No. 1, Mar., 1896, p. 25, pl. 1, figs. 15, 16.
- Viola sagittata hicksii. C. L. Pollard. (Bot.) Washington, D. C. Botan. Gaz., xx, July 15, 1895, p. 326.
- Vitrea johnsoni. W. H. Dall. (Moll.) Northwest Coast of America. *Nautilus*, IX, No. 3, July, 1895, p. 27.
- Vitrea subrupicola, var. spelæa. W. H. Dall. (Moll.) Cave City, Cal. Nautilus, 1X, No. 3, July, 1895, p. 27.
- Wissadula pringlei. J. N. Rose. (Bot.) Oaxaca, Mexico. Contrib. U. S. Nat. Herbarium, III, No. 5, Dec. 14, 1895, p. 312.
- Yphthima chanleri. W. J. Holland. (Lep.) Tana River, Africa. Proc. U. S. Nat. Mus., XVIII, No. 1063, May 27, 1896, p. 260.
- Xyalaspis flavipes. W. H. Ashmead. (Hym.) Great Falls, Md., and Arlington, Va. Trans. Am. Ent. Soc., XXIII, 1896, p. 183.

#### APPENDIX V.

Papers Published in Separate Form During the Fiscal Year ending June 30, 1896.

#### FROM THE REPORT FOR 1893.

Report upon the condition and progress of the U. S. National Museum during the year ending June 30, 1893. By G. Brown Goode. pp. 1–334, pls. 1–59.

The poisonous snakes of North America. By Leonhard Stejneger. pp. 337-487, pls. 1-19, figs. 1-70.

Chinese games with dice and dominoes. By Stewart Culin. pp. 489-537, pls. 1-12, figs. 1-33.

The onyx marbles. By George P. Merrill. pp. 539-585, pls. 1-18.

The Cowbirds. By Maj. Charles Bendire, U.S. Army. pp. 587-624, pls. 1-3.

Primitive american armor. By Walter Hough. pp. 625-651, pls. 1-22, figs. 1-5. The weapons and wings of birds. By Frederic A. Lucas. pp. 653-663, pl. 1,

figs. 1-8.

Notes on the ethnology of Tibet. By William Woodville Rockhill. pp. 665-747, pls. 1-52.

Two Persepolitan casts in the U.S. National Museum. By Cyrus Adler, pp. 749-753, pls. 1, 2.

Museum collections to illustrate religious history and ceremonials. By Cyrus Adler. pp. 755-768.

If public libraries, why not public museums? By Edward S. Morse. pp. 769-780.

#### FROM BULLETIN 39.

Part H. Directions for collecting minerals. By Wirt Tassin. pp. [1]-[6], figs. 1-8.

Part I. Directions for collecting rocks and for the preparation of thin sections. By George P. Merrill. pp. [1]-[15], figs. 1-17.

Part J. Directions for collecting specimens and information illustrating the aboriginal uses of plants. By Frederick V. Coville. pp. [1]-[8].

Part K. Directions for collecting and preparing fossils. By Charles Schuchert. pp. [1]-[31], figs. 1-13.

#### FROM PROCEEDINGS VOLUME XVII.

No. 1032. Report on Mollusca and Brachiopoda dredged in deep water, chiefly near the Hawaiian Islands, with illustrations of hitherto unknown species from Northwest America. By William Healey Dall. pp. 675–733, pls. XXIII–XXXIII.

#### FROM PROCEEDINGS VOLUME XVIII.

No. 1033. Diagnoses of new mollusks from the survey of the Mexican Boundary. By W. H. Dall. pp. 1-6.

No. 1034. Diagnoses of new species of mollusks from the West Coast of America. By W. H. Dall. pp. 7-20.

No. 1035. Diagnoses of new Tertiary fossils from the southern United States. By W. H. Dall. pp. 21-46.

251

- No. 1036. Two new Diploped Myriapeda of the genus Oxydesmus from the Congo. By O. F. Cook. pp. 47-52.
- No. 1037. *Priodesmus*, a new genus of Diplopoda from Surinam. By O. F. Cook. pp. 53-57, pl. 1.
- No. 1038. On *Geophilus attenuatus*, Say, of the class Chilopoda. By O. F. Cook. pp. 59-62.
- No. 1039. An arrangement of the Geophilidæ, a family of Chilopoda. By O. F. Cook. pp. 63-75.
- No. 1040. Description of a new species of Golden Beetle from Costa Rica. By Martin L. Linell. pp. 77, 78.
- No. 1041. Two new species of beetles of the Tenebrionid genus *Echocerus*. By F. H. Chittenden. pp. 79, 80.
- No. 1042. East African Diplopoda of the suborder Polydesmoidea, collected by Mr. William Astor Chanler. By O. F. Cook. pp. 81-111, pls. 2-6.
- No. 1043. Description of a new species of Pipefish (Siphostoma scovelli) from Corpus Christi, Tex. By Barton W. Evermann and William C. Kendall. pp. 113-115.
- No. 1044. Description of a new species of snake (*Tantilla eiseni*) from California. By Leonhard Stejneger. pp. 117, 118.
- No. 1045. Description of a new species of Ground Warbler from eastern Mexico. By Robert Ridgway. pp. 119, 120.
- No. 1046. East African Odonata, collected by Dr. W. L. Abbott. By Philip P. Calvert. pp. 121-142.
- No. 1047. Notes on the Odonata from East Africa, collected by the Chanler Expedition. By Philip P. Calvert. pp. 143-145.
- No. 1048. On the proper name of the Gunnels or Butter-fishes. By Theodore Gill. pp. 147-151.
- No. 1049. The differential characters of the Syngnathid and Hippocampid fishes. By Theodore Gill. pp. 153-159.
- No. 1050. Notes on the synonymy of the Torpedinidæ or Narcobatidæ. By Theodore Gill. pp. 161–165.
- No. 1051. The families of Synentognathous fishes and their nomenclature. By Theodore Gill. pp. 167–178.
- No. 1052. On the application of the name *Teuthis* to a genus of fishes. By Theodore Gill. pp. 179–189.
- No. 1053. Notes on the nomenclature of Seymnus or Seymnorhinus, a genus of sharks. By Theodore Gill. pp. 191-193.
- No. 1054. Notes on the genus *Cephaleutherus* of Rafinesque, and other Rays with aberrant pectoral fins (*Propterygia* and *Hieroptera*). By Theodore Gill. pp. 195–198.
- No. 1055. Notes on Characinoid fishes with ctenoid scales, with a description of a new *Psectrogaster*. By Theodore Gill. pp. 199-203.
- No. 1056. The differential characters of Characinoid and Erythrinoid fishes. By Theodore Gill. pp. 205-209.
- No. 1057. Notes on *Orectolobus* or *Crossorhinus*, a genus of sharks. By Theodore Gill. pp. 211, 212.
- No. 1058. Note on the fishes of the genus *Characinus*. By Theodore Gill. pp. 213–215.
- No. 1059. The nomenclature of *Rachicentron* or *Etacate*, a genus of Acanthopterygian fishes. By Theodore Gill. pp. 217-219.
- No. 1060. Note on the nomenclature of the Pœcilioid fishes. By Theodore Gill. pp. 221-224.
- No. 1061. The nomenclature of the fishes of the Characinoid genus *Tetragonopterus*. By Theodore Gill. pp. 225-227.

- No. 1062. List of the Lepidoptera collected in Eastern Africa by Dr. W. L. Abbott, with descriptions of some apparently new species. By W. J. Holland. pp. 229-258.
- No. 1063. List of the Lepidoptera collected in Somaliland, East Africa, by Mr. William Astor Chanler and Lieutenant von Höhnel. By W. J. Holland. pp. 259-264.
- No. 1064. List of the Lepidoptera from Aldabra, Seychelles, and other East African islands, collected by Dr. W. L. Abbott. By W. J. Holland. pp.
- No. 1065. List of the Lepidoptera collected in Kashmir by Dr. W. L. Abbott. By W. J. Holland. pp. 275-279, pls. 7, 8.
- No. 1066. Notes on asbestos and asbestiform minerals. By George P. Merrill. pp. 281 - 292.
- No. 1067. Preliminary description of some new birds from the Galapagos Archipelago. By Robert Ridgway. pp. 293, 294.
- No. 1068. The classification and geographical distribution of the Pearly Freshwater Mussels. By Charles T. Simpson. pp. 295–343, pl. 9. No. 1072. Description of four new Triassic Unios from the Staked Plains of Texas.
- By Charles T. Simpson. pp. 381-385.
- No. 1073. Revision of the North American Empidie, a family of two-winged insects. By D. W. Coquillett. pp. 387-440.
- No. 1074. Description of a new subspecies of the genus Pencedramus, Coues. By Robert Ridgway. p. 441.
- No. 1075. Preliminary diagnoses of new mammals from the Mexican border of the United States. By Edgar A. Mearns. pp. 443-447.
- No. 1076. Characters of a new American family of Passerine birds. By Robert Ridgway. pp. 449-450.
- No. 1077. Osteological and pterylographical characters of the Procniatide. By F. A. Lucas. pp. 505-507.
- No. 1078. Catalogue of a collection of birds made by Dr. W. L. Abbott in Kashmir, Baltistan, and Ladak, with notes on some of the species, and a description of a new species of Cyanecula. By Charles W. Richmond. pp. 451-503.
- No. 1079. On birds collected by Dr. W. L. Abbott in the Seychelles, Amirantes, Gloriosa, Assumption, Aldabra, and adjacent islands, with notes on habits, etc., by the collector. By Robert Ridgway. pp. 509-546.
- No. 1080. Descriptions of two new subspecies of the Downy Woodpecker, Dryobates pubescens, Linnæns. By Harry C. Oberholser. pp. 547-550.
- No. 1081. Preliminary description of a new subgenus and six new species and subspecies of hares, from the Mexican Border of the United States. By Edgar A. Mearns. pp. 551-565.
- No. 1082. Note on Plectroplites and Hypoplectrodes, genera of Serranoid fishes. By Theodore Gill. pp. 567, 568.
- No. 1087. Preliminary descriptions of a new genus and two new species of crustaceans from an artesian well at San Marcos, Tex. By James E. Benedict. pp. [1], [2]. (Advance edition.)
- No. 1088. Description of a new genus and species of Blind Tailed Batrachian from the subterranean waters of Texas. By Leonhard Stejneger. pp. [1]-[3]. (Advance edition.)

#### FROM PROCEEDINGS VOLUME XIX.

No. 1103. Preliminary diagnoses of new mammals from the Mexican border of the United States. By Edgar A. Mearns. pp. [1]-[4]. (Advance edition.)

#### APPENDIX VI.

SPECIMENS SENT TO THE MUSEUM FOR EXAMINATION AND REPORT. 1

The following is a complete list of the specimens received for examination and report, arranged alphabetically by names of senders, during the year ending June 30, 1896:

ACADEMY OF NATURAL SCIENCES, Philadelphia, Pa.—Transmitted by Witmer Stone: Owl. 3479 (II).

Albien, H. A., Custer, S. Dak.: Fuller's earth. (Returned.) 3434 (XIII).

ALEXANDER, Dr. C. L., Charlotte, N. C.: Bird-shaped object. 3315 (XIV).

ALFORD, CHARLES, Kenly, N. C.: Stone. (Returned.) 3512 (XIII).

ALLEN, J. A., American Museum of Natural History, New York: Three birds' skins from South America. (Returned.) 3359 (II).

AMERICAN MUSEUM OF NATURAL HISTORY, New York: Fifty-one birds' skins. (Returned.) 3337, 3420 (II).

Anderson, S. M., Glendale, Utah: Rocks. (Returned.) 3588 (XIII).

Andrews, Dr. E. A., Johns Hopkins University, Baltimore, Md.: Crab. (Returned.) 3455 (VIII).

Andrews, J. E., Gainesville, Fla.: Rock. 3634 (XIII).

Anthony, A. W., San Diego, Cal.: Three birds' skins. 3539, 3614 (II).

Appleton, J. W. M., Salt Sulphur Springs, W. Va.: Ore; supposed coal. 3669 (returned). 3696 (30644) (XIII).

ARMSTRONG, C. J., Wolcott, N. Y.: Supposed meteorite. (Returned.) 3334 (XII).

Arnold, B. W., Palmetto, Fla.: Siliceous sand. (Returned.) 3532 (XIII).

ARNOLD, H. C., Kenton, Okla.: Ores. (Returned.) 3470 (XIII).

Ashdown, J. H., Manse, Nev.: Mineral. (Returned.) 3743 (XII).

ATTWATER, H. P., San Antonio, Tex.: Three hundred birds' skins. 3693 (30609) (II).

AVERY, FRANK B., Savannah, Ga.: Stone implement. (Returned.) 3404 (XIV).

Axe, B. E., Auburn, Wash.: Roots of plants. 3639 (XVII).

Babbitt Brothers, Flagstaff, Ariz.: Rock. 3576 (30408) (XIII).

Bacon, Mrs. Lydia, Nevada, Ohio: Fragments of a supposed meteorite. (Returned.) 3496 (XII).

Baker, Frank C., Chicago Academy of Sciences, Chicago, Ill.: Mollusks. (Returned.) 3760 (VI). (See under Chicago Academy of Sciences.)

Baker Institute, Baldwin, Kans.— Transmitted by Prof. C. S. Parmenter: Insects. (Returned.) 3739 (VII).

Balsley, Dr. T. E., Reidsville, N. C.: Spider. (Returned.) 3312 (VII).

Barnes, W. A., Marshall, Va.: Insect. (Returned.) 3398 (VII).

Bateman, Dr. C. H., Newport, Tenn.: Mineral. (Returned.) 3706 (XII).

BAUMGARTEL, A. G., Holland, Mich.: Head of a duck. (Returned.) 3723 (II).

BEARD, D. P., Omaha, Nebr.: Fungus. 3771 (XI).

BEATTIE, Mrs. HAMLIN, Greenville, S.C.: Rocks. (Returned.) 3547, 3582 (XIII).

254

<sup>&</sup>lt;sup>1</sup> The first number accompanying the entries in this list is that assigned on the Museum records to sendings "for examination." The number in Roman, in parentheses, indicates the department in the Museum to which the material is referred for examination and report. When material is permanently retained, a number of another series, i. e., the permanent accession record, is placed in parentheses between the two sets of numbers referred to.

- Beck, Rollo H., Berryessa, Cal.: Nine birds'skins. (Returned.) 3265, 3613 (II).
- Bégin, L'Abbé P. A., Séminaire St. Charles-Borromee, Sherbrooke, Canada: North American Coleoptera. (Returned.) 3419 (VII).
- Bennett, Mable, Cincinnati, Ohio: Coin. (Returned.) 3662 (XVII).
- BEYER, G., New York City: Coleoptera. (Returned.) 3510 (VII).
- BIEDERMAN, C. R., Bonito, N. Mex.: Carbon inclosed in cleavings of sandstone of the Upper Coal formation. 3252 (XIII).
- BILLINGS, WILLIAM, Camden, S. C.: Concretion. (Returned.) 3421 (XIII).
- BINKLEY, S. H., Alexandersville, Ohio: Bird-shaped stone; small, cup-shaped stone; natural formation. 3282, 3329 (3382 returned) (XIV).
- BINNINGS, H. R., John Adams, Cal.: Eyeless skull found in a gravel bed. 3554 (I).
- BIRD, FRANK A., Park City, Utah: Mineral. (Returned.) 3550 (XII).
- BISHOP, ALEX., Teges, Ky.: Mineral. (Returned.) 3249 (XII).
- BLACHLY, E., Mill Grove, Mo.: Insects. (Returned). 3461 (VII).
- Blackford, C. M., Lynchburg, Va.: Minerals. (Returned.) 3620 (XII).
- BLAKE, F. A., Rociada, N. Mex.: Minerals. (Returned.) 3716 (XII).
- Bond, Warren R., Custer, S. Dak.: Samples of earth. (Returned.) 3407 (XIII).
- Bonelli, G. A., Tooele City, Utah: Root. 3349 (XVII).
- Bouldin, P., Stuart, Va.: Larval case of an insect. (Returned.) 3356 (VII).
- Bowers, M. A., Little Rock. Ark.: Galls of cottonwood tree. 3468 (30068) (VII).
- BOWMAN, J. H., Holbrook, Ariz.: Clay. (Returned.) 3681 (XIII).
- Braverman, M., Visalia, Cal.: Ore. (Returned.) 3493 (XIII).
- Breed, estate of Dr. Daniel.—Transmitted by Prof. B. T. Janney, Washton, D. C.: Collection of fossils and other material. (Portion returned.) 3477 (balance retained, 30076) (X-B).

- Breninger, G. F., Phœnix, Ariz.: Four birds' skins. (Returned.) 3656 (II).
- Brettel, Max, New York City: Caterpillar. 3295 (VII).
- Brockett, C. A., Kansas City, Mo.: White clay. (Returned.) 3422 (XII).
- Brod, P. W., Phenix, Ariz.: Insect. (Returned.) 3267 (VII).
- Brodnax, Dr. B. H., Brodnax, La.: Insects: flowers infested with insects. 3642 (returned); 3652 (30557); 3702 (VII).
- Broom, Mrs. C. W., Salt Lake City, Utah: Minerals: stones. (Returned.) 3528, 3515 (XII, XIII).
- Brown, Herbert, Tucson, Ariz.: Five reptiles. (Returned.) 3676 (IV).
- Brown, H. H., Glenelder, Kans.: Supposed graphite. (Returned.) 3412 (XII).
- Brown, M. F., Pittsburg, Tex.: Insect. (Returned.) 3622 (VII).
- Brown, P. F., Blue Ridge Springs, Va.: Insect. (Returned.) 3251 (VII).
- Brown, R. A., Mount Carmel, Ky.: 83 stone implements. (Returned.) 3577 (XIV).
- BRYANT, EDWIN S., Devils Lake, N. Dak.: Bird skin. (Returned.) 3766 (II).
- Bull, Amos, Page, Kans.: Mineral. (Returned.) 3631 (XII).
- Burckhatter. J. B., Vinita, Ind. T.: Two fragments of stone taken from a supposed petrified human figure. (Returned.) 3728 (IX).
- Burke, Edmund, Sheridan, Wyo.: Stones. (Returned.) 3659 (XIII).
- Bryan, Dr. C. B., Hampton, Va.: Insect covered with egg cases; mushrooms. 3306, 3362 (VII, XI).
- Caffrey, James, Springville, Utah: Rock. (Returned.) 3505 (XIII).
- California Academy of Sciences, San Francisco, Cal.—Transmitted by L. M. Loomis: Eight birds' skins. 3534 (II).
- Calkins, Raymond, Milford, Mich.: Pointed implement of banded slate. (Returned.) 3692 (XIV).
- Call, R. Ellsworth, Cincinnati, Ohio: Diptera from Mammoth Cave, Ky. 3633 (30531) (VII).

- Call, S. S., Kingston, N. Mex.: Insect. (Returned.) 3444 (VII).
- CARPENTER, A. V., Ophir, Utah: Ore. 3597 (XIII).
- Cartwright, O. E., Detroit, Mich.: Piece of bedticking. 3504 (30616) (XVII).
- CHANDLER, E. H., Marietta, Ga.: Worm. (Returned.) 3406 (VII).
- CHAPMAN, N. A., Twinsburg, Ohio: Insect-cases. (Returned.) 3688 (VII).
- CHICAGO ACADEMY OF SCIENCES, Chicago, Ill.—Transmitted by Frank C. Baker: Shells. 3474 (portion returned, remainder retained, 30132); 3774 (portion returned, remainder retained, 30829) (VI).
- CHILDS, Dr. L. B., Detroit, Mich.: Herb. 3469 (XVII).
- Churchill, C. H., Elreno, Okla.: Supposed phosphate of lime. (Returned.) 3537 (XIII).
- CLARKE, Master Howard, Delhi, La.: Supposed meteorite, 3311 (XII).
- CLEVELAND, CONVERSE, Englewood, N. J.: Insect. 3458 (VII).
- COBB, LEE S., Hastings, Mich.: Two stone objects. (Returned.) 3548 (XIV).
- Cole. L. J., Grand Rapids, Mich.: Bird skin. (Returned.) 3429 (II).
- Collins, J. Y., New Whatcom, Wash.: Stone. (Returned.) 3602 (XIII).
- CONAHAN, WILLIAM F., Salkum, Wash.: Ore. 3365 (XIII).
- CONNOR, C. W., Hope, N. Dak.: Moth. (Returned.) 3756 (VII).
- CONSTANT, E. W., Illawara, La.: Coin. (Returned.) 3386 (XVII).
- CONWAY, W. J., Milwaukee, Wis.: Shells. (Returned.) 3475 (VI).
- COOK, M. P. B., Lockport, N. Y.: Insect. (Returned.) 3753 (VII).
- COOPER, JAMES S., Mount Gilead, Ohio: Stone with etched figures. (Returned.) 3284 (XIV).
- CORNINGS, D., Claremont, N. H.: Clay. (Returned.) 3761 (XIII).
- CORYELL, JAMES L., Deming, N. Mex.: Mineral. (Returned.) 3755 (XII).

- Costa Rica, National Museum of, San José, Costa Rica.—Transmitted by Señor J. Fid Tristán: Crabs. 3449 (portion returned, remainder retained, 30099); 3735 (portion returned, remainder retained, 30777) (VIII).
- COUGHLIN, G. E., Indianapolis, Ind., Bones. (Returned.) 3610 (IX).
- Cox, M. V., Silver City, N. Mex.: Ore. (Returned.) 3536 (XIII).
- Cox, Philip, St. John, New Brunswick: Three frogs. 3327 (30354) (IV).
- CRAWFORD, JAMES, Colville, Wash.: Mineral. (Returned.) 3636 (XII).
- CREVELING, Prof. C. C., Davenport College, Lenoir, N. C.: Plant. 3379 (XI).
- CROCKET, B. D., San Augustine, Tex.: Fossils. (Returned.) 3650 (X-A).
- CUNDIFF, W. H., Decatur, Tex.: Ore. (Returned.) 3250 (XIII).
- CUNNINGHAM, B. L., Fort Klamath, Oreg.: Butterflies. (Returned.) 3416 (VII).
- Daniel, Dr. Z. T., Carlisle Barracks, Pa.: Insects. (Returned.) 3733, 3748 (VII).
- Daniels, Miss F. O., Athol Center, Mass.: Insect. (Returned.) 3243 (VII).
- DARBY, P. D., Custer City, S. Dak.: Supposed fuller's earth. (Returned.) 3433 (XII).
- Davis, T. Hall, Hampton, Va.: Supposed "madstone." (Returned.) 3500 (XIII).
- Dawe, John, Durango, Colo.: Rocks. 3516 (XIII).
- Dennis, Dr. R. E., Bishopville, S. C.: Insect. (Returned.) 3646 (VII).
- Dennison, G. W., Friday Harbor, Wash.: Rock. (Returned.) 3565 (XIII).
- DILG, CARL. Chicago, Ill.: Archæological objects. (Returned.) 3287 (XIV).
- DOLPHYN, W. L., Hillsboro, Tex.: Insect. (Returned.) 3535 (VII).
- Donlon, Rev. A. J., Washington, D. C.: Niagara fossils. (Returned.) 3481 (X-B).
- Doolittle, Willard, Fullerton, Ohio: Three ancient coins. (Returned.) 3307 (XVII).

- Douglass, A. E., American Museum of Natural History, New York City: Terra-cotta flageolet from Mexico and three stone whistles from Missouri. (Returned.) 3502 (XIV).
- DRAKE, E. F., Seattle, Wash.: Ore. (Returned.) 3518 (XIII).
- DUERDEN, J. E. (See under Jamaica, Institute of.)
- Duncan, Dr. W., Savannah, Ga.: Eggcase of a fish. (Returned.) 3286 (V).
- DUPREE, WILLIAM, Brooklyn, N. Y.: Fossil from the Upper Cretaceous. (Returned.) 3489 (X-B).
- Durand, C. F., Lockport, N. Y.: Insect. 3710 (VII).
- EBERSOLD, T. F., Oceanus, Fla.: Plant. 3330 (XI).
- EDWARDS, Prof. C. L., University of Cincinnati, Cincinnati, Ohio: Crabs, etc., from the Bahama Islands. (Returned.) 3640 (VIII).
- EGBERT, FERDINAND, Barstow, Cal.: Rock. (Returned.) 3721 (XIII).
- EGERT, C. D., Price, Utah: Mineral. (Returned.) 3605 (XII).
- ELDRIDGE, H. E., Apalachicola, Fla.: Mole cricket. (Returned.) 3486 (VII).
- ELLS, JAMES E., Norwalk, Conn.: Infusorial earth. (Returned.) 3415 (XII).
- EMERSON, HENRY, Delamar, Nev.: Ore. (Returned.) 3377 (XIII).
- EMMONS, Lieut. G. F., U. S. Navy. (See under Rev. J. Leomis Gould.)
- ENGLEHARDT, J. H., Montgomery, Ala.: Insect. (Returned.) 3670 (VII).
- ERRET, S. S., Cook City, Mont.: Rocks. (Returned.) 3373 (XIII).
- ERWIN, A. B., Port Kennedy, Pa.: Red clay. 3293 (XIII).
- ESMOND, DARWIN W., Newburg, N. Y.: Herbarium specimen. 3302 (XI).
- EVERETT, L. M., Clark, Fla.: Fossils. 3595 (30535) (X-B).
- Fannin, John, Provincial Museum, Victoria, British Columbia. Bird. (Returned.) 3447 (II).
- FASSETT, C. M., Spokane, Wash.: Minerals. (Returned.) 3255 (XII).
- FAUL, F., Trail, Ohio.: Insect. (Returned.) 3697 (VII).
- Feise, Henry, Spokane, Wash.: Sand; clay. (Returned.) 3289, 3296 (XIII).

  NAT MUS 96——17

- Fetch, Rev. J. W., Winchester, Ky.: Part of a fossil skull of a mammal, 3542 (30313) (X-A).
- FINKELNBURG, W. A., Winona, Minn.: Indian pottery. 3555 (XIV).
- FISHER, H. L., Stockton, N. J.: Insect; moth. 3424 (3709 returned) (VII).
- FISHER, Mrs. M. A., National Military Home, Ohio: Rock and coal. (Returned.) 3417 (XIII).
- FLOOD, OLIVER D., Clinton, Mass.: Twenty-eight birds' skins from the Hawaiian Islands. (Returned.) 3345 (II).
- FLOWER, F. G., Latona, Minn.: Seeds. (Returned.) 3691 (XI).
- FLOYD, W. J., Eureka Springs, Ark.: Rock. (Returned.) 3546 (XIII).
- FOHL, G. M., Greenville, Ky.: Insect. (Returned.) 3262 (VII).
- FONT, H. C., Hartmensville, W. Va.: Mineral. (Returned.) 3604 (XII).
- Fowler, Robert, Omro, Wis.: Birdshaped stone; Indian relics. (Returned.) 3611, 3722 (XIV).
- FREEMAN, D. W., Cardington, Ohio: Insect. (Returned.) 3492 (VII).
- French, J. C., Olean, N. Y.: Minerals; ores; sand; metal. (Returned.) 3366, 3380, 3400, 3465 (XII, XIII).
- FRICK. LOUIS, Wymore, Nebr.: Ore. (Returned.) 3396 (XIII).
- FRIEDRICH. ISAAC, Roswell, N. Mex.: Copper cup (?) from Arizona. (Returned.) 3682 (XIV).
- FRIX, A. M., Calhoun, Ga.: Insect. 3765 (30990) (VII).
- FRYE, Mrs. H. L. M., Washington, D. C.: Metal mold showing the orbit of the comet of 1682. 3673 (XVII).
- Fuchs, H. T., Tiger Mill, Tex.: Two specimens of rock; medical preparation. 3324 (returned); 3426 (XIII, XVII).
- Gallaher, E. D., Roslyn, Wash.: Ores; minerals. (Returned.) 3294, 3350, 3389 (XIII, XII).
- Gambell, J. C., Winchester, Kans.: Supposed meteorite. (Returned.) 3357 (XII).
- Garnett, A. H., Whiterock, Okla.: Rock. (Returned.) 3752 (XIII).
- Gebhart, Dr. J. S., Hot Springs, Ark.: Nuts. 3390 (XI).

- GEREND, J. N., Sheboygan, Wis.: Stone from a mound. (Returned.) 3566 (XIV).
- GERRARD, EDWARD, Camden Town. London, England: Birds' skins. 3369 (portion returned, remainder retained, 29910) (II).
- Gibney, L. E., Camden, Ark.: Clay. (Returned.) 3685 (XIII).
- Gibbs, A. S., Kingston, Ill.: Stone implement. 3560 (XIV).
- Giesler, R. G., Vincennes, Ind.: Insect. (Returned.) 3397 (VII).
- GILLILAN, Rev. J. D., Liberty Park, Salt Lake, Utah: Copper coin. (Returned.) 3621 (XVII).
- Goldsmith, I., Duncan, Ariz.: Rock. 3773 (XII).
- Godbey, Rev. S. M., Morrisville, Mo.: Shells. 3442 (returned with the exception of one specimen, 30007) (VI).
- Goodwin, Mrs. S. H., Lake Placid, N. Y.: Plant; herbarium specimen. 3309, 3372 (XI).
- Gould, C. N., Maple City, Kans.: Fossils. (Returned.) 3358, 3551, 3632 (returned with one exception, 30504) 3658, 3704, 3742 (X-B).
- GOULD, Rev. J. LOOMIS, Jackson, Ala.:Two slate carvings. (Returned.) 3680 (XV). Transmitted by Lieut. G. F. Emmons, U. S. Navy.
- Greeley, E. T., Aurora, Nev.: Ore. (Returned.) 3375 (XIII).
- Greene, John, Salt Lake City, Utah: Mineral. (Returned.) 3715 (XII).
- Grinter, T.W., Cincinnati, Ohio: Supposed pebble. (Returned.) 3649 (XIII).
- GROUT, H. W., Waterloo, Iowa: Piece of worked flint. (Returned.) 3552 (XIV).
- Guthrie, Leon M., Johnson City, Tex.: Insect. (Returned.) 3301 (VII).
- Hail, E., Ozark, Ark.: Fossils. (Returned.) 3707 (X-B).
- Hale, A. N., Gloversville, N. Y.: Sand. (Returned.) 3503 (XII).
- Hale, James F., Pikeville, Tenn.: Geological material. 3238 (XIII).
- Hall, Mrs. C. C., Westport Point, Mass.: Plants. 3361 (29828) (XI).

- Hambright, T. S., Easton, Wash.: Ores. (Returned.) 3381 (XIII).
- Hamilton, Charles, Carl Junction, Mo.: Minerals. (Returned.) 3587 (XII).
- Hand, A. W., Carlisle, N. Mex.: Insect. (Returned.) 3393 (VII).
- Hannah, R. H., Olympia. Wash.: Stone implement. 3352 (29940) (XIV).
- Hansen, A. J., Walnut, Iowa: Insect. (Returned.) 3705 (VII).
- HARDEMAN, THOMAS, Birmingham, Ala.: Insects. 3718 (30702) (VII).
- HARDY, A. H., Boston, Mass.: Stone pipe. (Returned.) 3625 (XIV).
- HARDY, Hon. A. M., House of Representatives: Rock from Indiana. (Returned.) 3530 (XIII).
- HARRIS, WARREN, Glendale, Utah: Ores. (Returned.) 3575 (XIII).
- HARRISON, ARTHUR K., Lebanon Springs, N. Y.: Shells. 3326 (29754) (VI).
- HART, JOHN M., Perry, Okla.: Stone. (Returned.) 3395 (XIII).
- HATCH, C. W., Buchanan, Mich.: Insect. (Returned.) 3270 (VII).
- HAVEMANN, L., Rancher, Mont.: Fossils. 3601 (X-B).
- HAWKINS, A. R., Gatesville, Tex.: Antique pistol. (Returned.) 3331 (XV).
- HAYSLIP, J. J., Bartlett, Tex.: Piece of a silver plate with engravings, letters, etc.; stone. (Returned.) 3678 (XVII, XIII).
- HAZEN, Gen. H. A., Washington, D. C.: Insect. (Returned.) 3348 (VII).
- Hedge, J. C., Sopchoppy, Fla.: Clays. (Returned.) 3466 (XIII).
- Hedges, H. S., Waterville, Wash.: Clay; minerals; ores. (Returned.) 3589; 3635; 3719; 3763 (XIII,XII; XIII).
- HEIGHWAY, A. E., Murphy, N. C.: Talc. 3427 (30738) (XIII).
- Helton, O. P., Shelbyville, Ill.: Stone implements. 3609 (30466) (XIV).
- HENDRICK, Hon. J. K., House of Representatives: Pebble; mineral. 3711 (returned); 3734 (XIII, XII).
- Hetherington, J. P., Logansport, Ind.: Crystals with black substance adhering; material found in a limestone quarry. 3310, 3321 (XII, XIII).

- HILL, Mrs. ARTHUR, Corry, Pa.: Insect. 3413 (VII).
- HILL, W. W., Jamesburg, N. J.; Archæological objects. (Returned.) 3472, 3543 (XĮV).
- HILLMAN, F. G., New Bedford, Mass.: Archæological object from Tennessee. (Returned.) 3342 (XIV).
- HOLDAWAY, DEAN, Price, Utah: Rock. (Returned.) 3726 (XIII).
- HOLMES, I. S., Bowmans Bluff, N. C.: Larva of moth. 3731 (30776) (VII).
- HOLMES, S. J., Chicago, Ill.: Four specimens of Anomurans from California. 3464 (three specimens returned, and one retained, 30072) (VIII).
- HOLT, E. B., Mesilla Park, N. Mex.: Bird. (Returned.) 3717 (II).
- Hoop, S. B., Sparta, Ill.: Fragment of a supposed meteorite. (Returned.) 3425 (XII).
- Hoopes, B. A., Organ, N. Mex.: Parrot. 3245. (Specimen purchased by Dr. Ralph and presented by him, 30381.) (II).
- Hoopes, Josiah, West Chester, Pa.: Birds'skins. (Returned.) 3248, 3437, 3533 (II).
- HOPKINS, LEWIS S., Lynchburg, Ohio: Small stone tablet. (Returned.) 3283 (XIV).
- Hughes, H. F., Harbor, Oreg.: Rock; two specimens of supposed grasses; rocks. 3508, 3562 (30339) (XIII, XI).
- Humphries, W. F., Holum, La.: Geological material. (Returned.) 3435 (XIII).
- Hutchinson, Dr. W. F., Winchester, Va.: Bird; leaves. 3573, 3747 (II, XI).
- Hutton, A., Huttonsville, W. Va.: Ore; earth. (Returned.) 3405, 3438 (XIII).
- Hutton, W. McG., Buffalo City, N. C.: Insect. 3288 (VII).
- Hyde, Louis H., Joliet, Ill.: Fossil insect. (Returned.) 3746 (X-B).
- Interior Department, U. S. Geological Survey: Piece of sandstone containing the impression of a fossil fish from the sandstone quarry at Pioneer, on the western slope of Coast Range, east of Yaquina Bay. (Returned.) 3484 (X-A).

- Jamaica, Institute of, Kingston, Jamaica.—Transmitted by J. E. Duerden, acting secretary: Crustaceans, 3545 (portion returned, and one specimen retained, 30276) (VIII).
- James, P. L., Paris, Tex.: Dagger. (Returned.) 3260 (XV).
- James, P. R., Stratford, Ontario, Canada: Insects. 3314 (VII).
- Janney, B. T. (See under Breed, Estate of Dr. Daniel.)
- Jarvis, P. W., Kingston, Jamaica: Crabs. 3418 (portion returned, and remainder retained, 29986 and 30112); 3520 (portion returned; remainder retained, 30337); 3561 (portion returned, and remainder retained, 30337); 3648 (30744) (VIII).
- Jewett, H. B., Wilmington, N. C.: Portions of a sturgeon. (Returned.) 3754 (V).
- Johnson, E. B., Kinsley, Kans.: Bone. (Returned.) 3268 (IX).
- JOHNSON, R. P., Chattanooga, Tenn.: Ore. (Returned.) 3531 (XIII).
- JOHNSTONE, Lieut. W. B., Golden Pond, Ky.: Insect. (Returned.) 3364 (VII). JONES, McMILLAN, Paris, Ill.: Supposed
- petrifaction. (Returned.) 3630(X-B).
  Jones, Thomas E., Mangum, Okla, T.:
- Jones, Thomas E., Mangum, Okla. T.: Herb. 3672 (XI).
- Jones, T. D., Relay, Md.: Archæological objects. (Returned.) 3572 (XIV).
- Jones & Jones, Orlando, Fla.: Supposed lime. 3617 (XIII).
- JORDAN, JOHN N., Letts Corner, Ind.: Skull of a mammal. (Returned.) 3664 (I).
- Judd, L. N., Garnett, Kans.: Five coins. (Returned.) 3491 (XVII).
- KALDING, C. D., Drytown, Cal.: Birds' skins. (Returned.) 3467, 3519 (II).
- Kelley, Andrew, Kingston, N. Mex.: Insects. (Returned.) 3454 (VII).
- Kennedy, E. J., Troy, Pa.: Metal. (Returned.) 3674 (XIII).
- Kennedy, Frank, Laramie, Wyo.: Sample of supposed china clay. (Returned.) 3677 (XIII).
- Kent, A. J., Bonners Ferry, Idaho: Ores. 3325, 3591 (3336 returned) (XIII).
- Kidd, E. Z., Deadwood, S. Dak.: Ore. 3298 (XVII).

- KIDDER, G. M., Salt Lake City, Utah: Rock. (Returned.) 3683 (XIII).
- KILPATRICK, WILLIAM, Malvern, Ark. Rock; supposed phosphate of lime. (Returned.) 3460, 3482 (XIII).
- Kimball, G. N., Waltham, Mass.: Insects. (Returned.) 3280 (VII).
- Kimber, Rev. A. C., New York City: Mineral. (Returned.) 3687 (XII).
- King, Larkin, San Saba, Tex.: Ore. (Returned.) 3495 (XIII).
- KING, Mrs. MARTHA E., Eagle Rock, Va.: Minerals. (Returned.) 3335 (XII).
- Kirsch, P. H., Columbia City, Ind.: Marine invertebrates. 3751 (portion returned; remainder retained, 30894) (VIII).
- Knowlton, W. J., Boston, Mass.: Emeralds and zircons. 3257 (XII).
- Kobbe, Maj. William A., U. S. Army: Larvæ of insects. 3281 (VII).
- Koch, Aug., Williamsport, Pa.: Bird skin. (Returned.) 3666 (II).
- LAFLER, H. A., Dewitt, Nebr.: Marine invertebrates. 3239 (29608) (VIII).
- Langdale, J. W., Washington, D. C.: Minerals. (Returned.) 3346 (XII).
- Lanks, F. E., Chathams Run, Pa.: Five archæological objects. 3378. (Returned, with the exception of one retained for study.) (XIV.)
- LAU BACH, H. G., Arapahoe, Nebr.: Spider. (Returned.) 3247 (VII).
- LEACH, WARREN R., Rushville, Ill.:
  Supposed duck. (Returned.) 3627
  (II).
- LEE, HOMER, New York City: Button. (Returned.) 3367 (XVII).
- Lewis, Dr. S. M., Whitepost, Va.: Worm. 3316 (VII).
- LIVELY, L. A., New Richmond, W. Va.: Ores. (Returned.) 3241, 3273 (XIII). LOBIN, T. E., McMinnville, Oreg.: Ore.
- LOBIN, T. E., McMinnville, Oreg.: Ore (Returned.) 3499 (XIII).
- Loomis, L. M. (See under California Academy of Sciences.)
- LOSEE, RICHARD, Radersburg, Mont.: Rock. (Returned.) 3618 (XIII).
- LOUNT, W. B., Phœnix, Ariz.: Insect. 3757 (VII).
- LOVELL & JONES, Davis, Ind. T.: Ores. 3391 (3478 returned) (XIII).

- Lowe, Dr. J. H., Holum, La.: Ore; geological material. 3351, 3446 (30011) (XIII).
- Lowe, W. P., Beulah, Colo.: Teeth of a fossil fish and a supposed fossil shell. (Returned.) 3569 (X-B).
- Luecke, C. A., Schulenburg, Tex.: Bones. (Returned.) 3277 (IX).
- Lyle, A. J., Malinda, Ga.: Minerals. (Returned.) 3333 (XII).
- McCarther, J. T., Juab, Utah: Rock. (Returned.) 3456 (XIII).
- McClelland, Mrs. H. L. C., Austinburg, Ohio: Geological specimens. (Returned.) 3452 (XIII).
- McCoy, Dr. C. E., Franklin, N. C.: Ore. (Returned.) 3269 (XIII).
- McCrea, John B., Aledo, Ill.: Insects. (Returned.) 3423 (VII).
- McGregor, Richard C., Palo Alto, Cal.: Forty-three birds' skins from Panama; fifteen birds' skins. (Returned.) 3741, 3762 (II).
- McIlhenny, E. A., Avery Island, La.: Six birds' skins. (3275 returned); four birds' skins 3318 (29812) (II).
- McKinney, F., Mason, Tex.: Insects. (Returned.) 3740 (VII).
- McMasters. A. B., Plymouth, N. Y.: Insect. 3290 (VII).
- Mackay, G. H., Boston, Mass.: Fifteen young birds; four birds' skins from Massachusetts. (Returned.) 3320, 3485 (II).
- Malin, A. C., Mesa, Ariz.: Supposed cement. (Returned.) 3259 (XIII).
- Manchester, C. B., Kinsley, Kans.: Minerals. (Returned.) 3322 (XII).
- Manger, Dr. R., San Antonio, Tex.: Mountings of insects on glass. (Returned.) 3684 (VII).
- MANGOLD, F. A., Colorado Springs, Colo.: Eskimo pipe. (Returned.) 3654 (XV).
- MARTIN, DUDLEY A., Duboistown, Pa.: Stone implements. (Returned.) 3644 (XIV).
- MARTIN, P. R., Richfield, Nebr.: Mineral. (Returned.) 3603 (XII).
- Mason, S. G., Oregon, Ill.: Fossil. (Returned.) 3744 (X-B).
- MAXON, W. A., Oneida, N.Y.: Bird skin. (Returned.) 3263 (II).

- MAXWELL, C. W., Danville, Va.: Cocoons. (Returned.) 3549 (VII).
- MEANS, H. C., Everett, Pa.: Minerals. (Returned.) 3490 (XII).
- MEENAN, W. A., Ridgway, Pa.: Insect. (Returned.) 3776 (VII).
- Mellichamp, J. H., Bluffton, S. C.: Insect. (Returned.) 3258 (VII).
- MERE, THOMAS DE LA, Mercur, Utah: Rocks. (Returned.) 3523 (XIII).
- MERRICK, E. T., New Orleans, La.: Fragment of a book showing the action of bacteria. (Returned.) 3414 (VII).
- MILLER, CHARLES, Jr., Grand Rapids, Mich.: Two specimens of minerals. 3368 (XII).
- MILLER, G. R. M., Chapel Hill, Miss.: Cast of a crinoid column. (Returned.) 3526 (X-B).
- MITCHELL, Hon. J. D., Victoria, Tex.: Bird and eggs. (Returned.) 3737 (II).
- MOFFATT, E. E., Winsted, Conn.: Chrysalis of an insect. (Returned.) 3347 (VII).
- Monroe, Alonzo, Elmgrove, Ohio: Specimen of supposed hematite. (Returned.) 3629 (XIII).
- Moore, Alex., Addy, Wash.: Mineral. (Returned.) 3769 (XII).
- Moore, Mrs. L. D., Huntsville, Ala.: Photographs, and rock with supposed inscrptions. 3265 (31846) (XIV).
- Moore, W. H., Deadwood, S. Dak.: Ore. (Returned.) 3540 (XIII).
- MORLOCK, HENRY, Fostoria, Ohio: Turtle-shell; fossils; geological material; beans. 3541 (portion returned, remainder retained, 30347); 3615 (IV; X-B; XIII; XI).
- Morrison, J. L., Greenville, Pa.: Dust or powder resembling snow. 3570 (XIII).
- Mosier. C. A., Des Moines, Iowa: Supposed stone implement from South Dakota. (Returned.) 3764 (XIV).
- Moss, T. A., Wattsville, La.: Ore. (Returned.) 3384 (XIII).
- Murch, E. F., Ellsworth, Me: Bird skin. (Returned.) 3291 (II).
- Murray, Michael, Anaconda, Mont.: Ore. (Returned.) 3581 (XIII).

- Myer, W. E. (See under W. C. Sutton.)
- Neff, George, Masontown, Pa.: Head of an insect. (Returned.) 3750 (VII).
- NEVILLE, RUSSELL, Kewanee, Ill.: Fossil. (Returned.) 3579 (X-B).
- Newberry, Rev. C. E., Puget Sound Academy, Coupeville, Wash.: Nudibranch mollusk from Puget Sound with a photograph of the same; photographs of marine invertebrates; specimen of Astrophyton. 3488 (portion returned; remainder retained, 30790) 3713 (VIII, VI, VIII).
- Newlon, Dr. W. S., Oswego, Kans.: Skull of a mammal; paleontological objects. 3457 (30156); 3668 (returned). (IX, X-B.)
- Newman, S. B., Salt Lake City, Utah: Colonial currency. (Returned.) 3730 (XVII).
- NEWTON, H. C., Springfield, Mo.: Ore. (Returned.) 3563 (XIII).
- NICHOLS, J. P., Salt Lake City, Utah: Ore. (Returned.) 3651 (XIII).
- Nichols, Dr. W. V., Oceanside, Cal.: Fossil shell and sample of earth. (Returned.) 3431 (X-B).
- NICKELL, T. J., Grand River, Ky.: Ore. (Returned.) 3729 (XIII).
- Nicklin, J. B., Chattanooga, Tenn.: Copper tomahawk. (Returned.) 3305 (XIV).
- O'CONNOR, M., Lockport, N. Y.: Sample of charcoal containing insects. 3770 (VII).
- OBERHOLZ, Mrs. F. C., Washington, D. C.: Two insects. (Returned.) 3737 (VII).
- OLMSTED, H. C., Coudersport. Pa.: Rocks. (Returned.) 3354 (XIII).
- ORAI, C. B., Pine, Oreg.: Rock. (Returned.) 3506 (XIII).
- ORCUTT, C. R., Orcutt, Cal.: Seeds. 3471 (XI).
- Osborne, Prof. H. L., Hamline University, St. Paul, Minn.: Marine shells from the Philippine Islands. 3647 (VI).
- Osgood, W. H., San José, Cal.: Two birds. (Returned.) 3567 (II).
- OSMAN, Mrs. L. E., Hillsboro, New Brunswick: Plants. 3240 (XI).

- PARKER, JAMES H., Whiteoaks, N. Mex.: Marble. (Returned.) 3408 (XIII).
- PARMENTER, C. S. (See under Baker University.)
- Parsons, Dr. W. B., Missoula, Mont.: Snake. 3299 (IV).
- PASCOE, A. H., Pass Christian, Miss.: Skull of a mammal. 3594 (30539) (I).
- PATTON, Dr. W., Ammie, Ky.: Coal. 3501 (30152) (XIII).
- Peabody, P. B., St. Vincent, Minn.: Three birds'skins. (Returned.) 3612 (II).
- Pearse, A. S., Dewitt, Nebr.: Freshwater crustaceans; toad and frog. 3403 (29948); 3571 (returned). (VIII, IV.)
- Pearson, James, Germantown. Nebr.: Sand. (Returned.) 3661 (XIII).
- PERRINE, C. O., Riverside, Cal.: Minerals. (Returned.) 3371 (XIII).
- PERRY, H. J., Cooperstown, N. Y.: Insects. (Returned.) 3279 (VII).
- PHILLEO, Miss LILLIE A., Milan, Ill.: Mollusk. 3410 (30218) (VI).
- PHILLIPS, L. H., Geneva, Ohio: Stone, supposed to be meteoric. (Returned.) 3584 (XII).
- Phipps, R. B., Scottville, N. C.: Stone. (Returned.) 3564 (XIII).
- Pon, Dr. J. F., Waynesboro, Miss.: Mineral from Alabama, supposed to contain medicinal properties, and a small vial of liquid obtained by pouring water on the mineral. 3480 (XVII).
- PORTER, C. L., Mohave City, Ariz.: Insect. (Returned.) 3574 (VII).
- PORTER, J. B., Glendale, Ohio: Worms. 3402 (VII).
- Powell, Maj. J. W. (See under Smithsonian Institution, Bureau of Ethnology).
- PRICE, T. H., Hyattstown, Md.: Rock. (Returned.) 3700 (XIII).
- PRICE, V. T., Rapid City. S. Dak.: Supposed fuller's earth. (Returned.) 3254 (XIII).
- Price, W. F., Florence, Ala.: Stone relic from Tennessee. (Returned.) 3559 (XIV).
- Pringle, H. N., Anoka, Minn.: Geological material. 3628 (XIII).

- PRITCHARD, J. T., White Hills, Ariz.: Ores. (Returned.) 3745 (XIII).
- PROCTOR, J. M.. Crossville, Tenn.: Ore. (Returned.) 3732 (XIII).
- PROVINCIAL MUSEUM, Victoria, British Columbia: Birds'skins. (Returned.) 3360 (II).
- QUICK, J. G., Coudersport, Pa.: Three specimens of ores. (Returned.) 3319 (XIII).
- RABER, C. A., Cherry, Ariz.: Ore. (Returned.) 3596 (XIII).
- Ragland, J. M., Osceola, Mo.: Ore. (Returned.) 3401 (XIII).
- Randolph, P. B., Madison, Wash.: Shells. 3317 (portion returned, remainder retained, 29720) (VI).
- RANDOLPH, R. H., Colleen, Va.: Ores. (Returned.) 3409 (XIII).
- RANDOLPH, T. B., Cadiz, Ky.: Mineral; specimen resembling a pearl. (Returned.) 3598; 3712 (XII, VI).
- Reading, D. G., Franklin, Pa.: Insect. (Returned.) 3328 (VII).
- REESE, C., Mannie, Tenn.: Insect. (Returned.) 3558 (VII).
- Reid, W. J., Medora, N. Dak.: Ores. (Returned.) 3738 (XIII).
- Rempus. F. L., Sheltonville, Ga.: Crystal saud. 3261 (XIII).
- RHODES, EMMETT, Auburn, N. Y.: Bank note of Rhode Island. (Returned.) 3623 (XVII).
- RICE, B. W., Oasis, Utah: Mineral; fossils; rock. 3657, 3665 (30599); 3698 (returned) (XII, X-B, XIII).
- RICKLEY A. M., Columbus, Ohio: Drilled ceremonial object from Illinois. (Returned.) 3441 (XIV).
- ROBERTS, C. H., Paris, Ontario, Canada: Stone implements. (Returned.) 3689 (XIV).
- ROBINSON, Lieut. WIRT, U. S. Army:
  One hundred and forty-one birds'
  skins from Margarita Island and the
  mainland of Venezuela; one hundred
  birds' skins from the same localities.
  (Returned.) 3343, 3353 (II).
- ROGERS, Mrs. C. E., Grover, Utah: Rock. (Returned.) 3246 (XIII).
- ROGERS, JOHN, San Saba, Tex.: Ore. 3556 (XIII).
- ROMEYN, Capt. HENRY, U. S. Army: Two beetles. 3237 (29562) (VII).

- Rose, S. E., Conicville, Va.: Ore. (Returned.) 3608 (XIII).
- ROTHE, L. F., Glendive, Mont.: Minerals. (Returned.) 3619 (XII).
- ROUTZAHN & GILKEY, Los Angeles, Cal.: Sample of supposed clay found on the Colorado Desert. (Returned.) 3507 (XIII).
- Rowell, George P., Percy, N. H.: Plants. 3383, 3736 (XI).
- Ruff. J. Aylett, Cincinnati, Ohio: Insect galls. 3775 (30991) (VII).
- Russell, J. R., Kingman, Ariz.: Ore. (Returned.) 3522 (XIII).
- RUTLEDGE, J. J., Juneau, Alaska: Ore. (Returned.) 3772 (XII).
- SAGER, A. J., Chambersville, Va.: Stone. (Returned.) 3392 (XIII).
- SARVER, C. A., Sarver, Wyo.: Rock. (Returned.) 3585 (XIII).
- SACL. CHARLES. Ellinger, Tex.: Supposed sand. (Returned.) 3557 (XIII).
- SAUNDERS, MORRIS B., East Norwalk, Conn.: Insect; beetle. 3242 (3278 returned) (VII).
- SAUNDERS, W. G., New Bridge, Oreg.: Insect. (Returned.) 3758 (VII).
- SAVAGE, M. F., New York City: Musical instruments and ethnological objects. 3675 (portion returned, and remainder retained, 30545, 30546, 30547) (XV).
- SAVAGE, Rev. WILLIAM R., Virginia Beach, Va.: Insects. (Returned.) 3708 (VII).
- Schaeffer, John B., Chicago, Ill.: Two fossils from Germany. 3476 (30111) (X-B).
- Schoutte, S. H. F., National, Iowa. Transmitted by Hon. Thomas Updegraff, M. C.: Ore. (Returned.) 3600 (XIII).
- Shaw, C. P., Alberene, Va.: Head of a snake. (Returned.) 3714 (IV).
- Sheldon, Prof. C. S., Oswego, N. Y.: Two hundred and forty insects. 3462 (portion returned, and remainder retained, 30098) (VII).
- SHERMAN, C. A., Manville, Wyo.: Ores. 3388 (XIII).
- SHERRILL, F. J., Pomeroy, Wash.: Ore. (Returned.) 3272 (XIII).
- Shriver, Howard, Cumberland, Md.: Fossils. (Returned.) 3443 (X-B).

- SHUFELDT, Dr. R. W. (See under L. W. Watkins.)
- SHUTTLES, A. R., Greenville, Ga.: Insect. (Returned.) 3638 (VII).
- SIMPSON, A. W., Buxton, N. C.: Substance found on the sea coast near Cape Hatteras. (Returned.) 3509 (XIII).
- SKINNER, ROSE, Lafayette, Ind.: Specimen of "Mezuzah" on parchment. (Returned.) 3394 (XVI).
- SLAUGHTER. L. T., Roanoke, Va.: Supposed petrified hickory nut. (Returned.) 3626 (X-B).
- SMALLEY, C. W., Forestdale, Vt.: Mineral. (Returned.) 3655 (XII).
- SMIDT, H. W., Horseshoe Bend, Idaho: Rocks. (Returned.) 3376 (XIII).
- SMITH, A. D., Plymouth, Ind.: Insect. (Returned.) 3313 (VII).
- SMITH, I. R., Salubria, Idaho: Minerals. (Returned.) 3643 (XII).
- SMITH, L. F., Pearl, Idaho: Rocks. (Returned.) 3699 (XIII).
- SMITH, T. B., Rose Creek, Minn.: Fossil bones. (Returned.) 3578 (X-B).
- SMITH, W. P., Temple, Mo.: Supposed meteorites. 3341, 3399 (XII).
- SMITHSONIAN INSTITUTION, Bureau of Ethnology, Maj. J. W. Powell, Director: Mammal bone, 3344(returned); earthenware figurine. 3529 (specimen and one cast of figurine returned, one cast retained, 30352) (IX, XV).
- Smout, Mrs. T. J., Wood River, Nebr.: Photograph of signatures of members of the "Non Importation Association" in the Continental Congress, October 20, 1774. 3767 (31848) (XVII).
- SNYDER, J. S., Two Taverns, Pa.: Ores. (Returned.) 3511 (XIII).
- SORNBORGER, J. D., Cambridge, Mass.: Eighteen birds skins from Labrador. (Returned.) 3527 (II).
- Spencer. A. C., Baltimore, Md.: Devonian fossils. (Returned.) 3667 (X-B).
- Spies, Albert, Newark, N. J.: Insect. (Returned.) 3428 (VII).
- SPRAGUE, W. A., Boulder, Colo.: Birds' skins. (Returned.) 3411, 3498 (II).
- SQUIER, JOHN N., Spokane, Wash.: Talc. 3463 (30067) (XIII).
- Stafford, Prof. G. A., Winfield, Kans.: Mineral. (Returned.) 3274 (XII).

- STAM, C. F., Chestertown, Md.: Mineral. (Returned.) 3385 (XII).
- STANDISH, WILLIAM S., East Las Vegas, N. Mex.: Ore. (Returned.) 3768 (XII).
- STEPHENS, F., Witch Creek, Cal.: Eleven birds' skins. (Returned.) 3338 (II).
- STEWART, Dr. E. L., Starke, Fla.: Plant. 3323 (XI).
- STEWART, Dr. T. B.. Lock Haven, Pa.: Indian relics; two stone pipes from Canada and a chipped implement from Pennsylvania. (Returned.) 3271, 3592 (XIV).
- STILWELL, L. W., Deadwood, S. Dak.: Archæological objects. 3303 (portion returned and remainder retained, 29818) (XIV).
- STITH, N. B., Medora, N. Dak.: Ores. (Returned.) 3720 (XIII).
- Stone, E. S., New York City: Fragment of supposed meteorite. (Returned.) 3439 (XII).
- Stone, Witmer, Academy of Natural Sciences, Philadelphia, Pa.: Bird skin. (Returned.) 3535 (II). (See under Academy of Natural Sciences.)
- STOUFFER, JEREMIAH. Freed, Pa.: Ore. (Returned.) 3300 (XIII).
- STOUT, R. C., Caddo. Tex.: Rocks. (Returned.) 3725 (XIII).
- STRATFORD, Major, Stratford, Ontario, Canada: Insects. 3314 (VII).
- Strong, E. C., Lewiston, Idaho: Crystals of mineral found in sand. (Returned.) 3266 (XII).
- STUART, R. C. Alton, Ill.: Insect. (Returned.) 3749 (VII).
- STURTZ, B., Bonn, Germany: Fourteen slabs with starfishes from the roofing slates of Bundenbach, Germany. 3568 (six slabs returned and eight retained, 30628) (X-B).
- Sunstine, D. R., Apollo, Pa.: Two protuberances found on a rock 30 feet below the surface. (Returned.) 3236 (XIII).
- Surface, Prof. H. A., Napa, Cal.: Insects. (Returned.) 3593 (VII).
- Sutton, W. C., Massada, Tenn.—Transmitted by W. E. Myer: Bones. (Returned.) 3430 (IX).

- Sword, J. F., Jonesville, Va.: Fifteen species of Unios. 3759 (portion returned and remainder retained, 30808) (VI).
- Taylor, Evelyn, Tiverton, R. I.: Jaw of a fish. 3304 (31847) (V).
- The Jaffa-Praeger Company, Roswell, N. Mex.: Substance resembling sand. (Returned.) 3660 (XIII).
- THIBADEAU, E. L., Glenwood Springs, Colo.: Mineral. (Returned.) 3451 (XII).
- Thompson, H. C., Centerville, Idaho: Ore. 3637 (XIII).
- Thompson, Mrs. J. M., Ocala, Fla.: Supposed casts of ancient coins. 3606 (30552) (XIV).
- THOMPSON, W. F., Fresnal, N. Mex.: Rock. (Returned.) 3690 (XIII).
- THOMSON Master E. W., Delhi, La.: Supposed meteorite. (Returned.) 3311 (XII).
- THORPE, Dr. H. H., Liberty Hill, Tex.: Two fossil bones. 3701 (30764) (X-B).
- Throp, Charles H., Big Rapids, Mich.: Archæological objects. (Returned.) 3483 (XIV).
- TIFFANY & Co., New York City: Emerald and zircon. 3332 (zircon returned and emerald retained, 29759) (XII).
- Tilford, N. C., Caneyville, Ky.: Insect. (Returned.) 3703 (VII).
- TODD, AURELIUS, College Grove, Oreg.: Insect. 3453 (VII).
- Townsend, William, Riverton, Iowa: Liquid for assay. (Returned.) 3586 (XIII).
- TOWNSHEND, J. L., Payson, Utah: Rocks. (Returned.) 3653 (XIII).
- Tristán, Señor J. Fid. (See under Costa Rica, National Museum of.)
- TWYMAN, E. W., Twymans Mill, Va.: Insect. (Returned.) 3264 (VII).
- UPDEGRAFF, Hon. THOMAS. (See under S. H. F. Schoutte.)
- VAN EPPS, PERCY M., Glenville, N. Y.: Archæological object. (Returned.) 3473 (XIV).
- VAN VLEET MANSFIELD DRUG COM-PANY, Memphis, Tenn.: Bronze medal. (Returned.) 3445 (XVII).

- Von Schmidt, J., Tustin City, Cal.: Contents of the crop of a canvas back duck. 3538 (30275) (XI).
- VON WEDELL, CURT, Dobbs Ferry, N. Y.: Two insects. 3355 (VII).
- Voss, Henry, Richmond, Tex.: Four rocks. (Returned.) 3494 (XIII).
- WARD, FRANK A., Rochester, N. Y.: Two birds' skins. (Returned.) 3459 (II).
- Ward's Natural Science Establishment, Rochester, N. Y.: Twenty-four humming-birds from Colombia, Ecuador, and Mexico. (Returned.) 3292 (II).
- WARLICK, C. E., Giddings, Tex.: Earth. (Returned.) 3580 (XIII).
- WARREN, H. M., Luray, Va.: Larva of an insect. (Returned.) 3363 (VII).
- Washington, Lawrence, Alexandria, Va.: Clay. (Returned.) 3442 (XII).
- WATKINS, L. WHITNEY, Manchester, Mich.—Transmitted by Dr. R. W. Shufeldt: Bird. (Returned.) 3448 (II).
- Watson, J. D., Mayfield, Ky.: Mineral. (Returned.) 3686 (XII).
- Watterson, W. J., Downington, Pa.: Potato embedded in wood. (Returned.) 3671 (XI).
- Watts, B. F., Wanamaker, Okla.: Rock, (Returned.) 3544 (XIII).
- WAYNE, A. T., Mount Pleasant, S. C.: Two birds'skins. (Returned.) 3497, 3777 (II).
- Webb, I. A., Deadwood, S. Dak.: Supposed fuller's earth. (Returned.) 3308 (XIII).
- Webb, Walter F., Albion, N. Y.: Two birds'skins; coral. (Returned.) 3387, 3599 (II, VIII).
- Webber, W. A., Culp, Ark.: Plant; siliceous substance. 3297; 3370 (returned) (XI, XIII).
- Weir, James, Jr., Dr., Owensboro, Ky.: Insect. (Returned.) 3679 (VII).
- Weir, Paul, Owensboro, Ky.: Stone implements; six flint implements. (Returned.) 3590, 3694 (XIV).
- WEYMER, JOSEPH, Kingston, Minn.: Stone. (Returned.) 3695 (XII).
- White, W. Seymour, Fredericksburg, Va.: Clay. 3276 (XIII).
- WHITEHORN, G. W., Rochester, Nebr.: Supposed native lime. (Returned.) 3616 (XIII).

- WHITEHORN, WORTH, Rochester, Nebr.: Fossil tooth and bone. 3724 (30824) (X-B).
- WHITELAW, D., Eufaula, Ind. T.: Insects. (Returned.) 3641 (VII).
- WIHTACRE, JACOB, Okonoko, W. Va.: Minerals. (Returned.) 3524 (XII).
- WHITAKER, E. W., Gloversville, N. Y.: Ore. (Returned.) 3487 (XIII).
- WHITNEY, A. B., North Spencer, N. Y.: Fragment of a supposed meteorite. (Returned.) 3645 (XII).
- Wilkins, F. L., Eugene, Oreg.: Rock. (Returned.) 3624 (XIII).
- Wilkinson, E., Mansfield, Ohio: Mineral. (Returned.) 3517 (XII).
- Williams, D. F., Mount Vernon, Ind.: Vegetable compound. (Returned.) 3521 (XI).
- Wilson, Master St. John, Delhi, La.: Supposed meteorite. (Returned.) 3311 (XII).
- Wilson, J. M., Jr., Kissimmee, Fla.; Roots of a plant. 3513 (XVII).
- Wilson, T. C., Taylor, Tex.: Insect. (Returned.) 3244 (VII).
- WILVERT, EMILE, Sunbury, Pa.: Two stones. (Returned.) 3436 (XII).
- Wing, E. T., Pleasantdale, Me.: Fragment of worked bone from Maine; chipped flint disk or scraper from Indiana, and a carved stone object from Montana. 3663 (XIV).
- Wing, J. S., Sr., Springville, Utah: Rocks. (Returned.) 3583 (XIII).
- WOODRUFF, IDA, Balls Ferry, Cal.: Metal. 3253 (XIII).
- WORTHEN, C. K., Warsaw, Ill.: Five mammal skins and skulls from Montana. (Returned.) 3339 (I).
- WRAY, F. P., Whiteplains, Va.: Insect. (Returned.) 3340 (VII).
- WRIGHT, BERLIN H.: Penn Yan, N. Y.: Fresh-water shells. 3553 (portion returned and remainder retained, 30279) (VI).
- Yale, Charles, Louisiana, Mo.: Two specimens of stylobites. 3374 (one specimen returned and one retained, 29917) (XIII).
- Young, L. J., Oswego, Ill.: Photographs of old coins. (Returned.) 3607 (XVII).
- ZIMMERMAN, P. C., Shiremanstown, Pa.: Ore; sand; two minerals. (Returned.) 3440, 3450, 3514 (XIII, XII).

N

# Index to list of specimens received for examination and report, arranged geographically.

Source.	Record number of lots.
orth America:	
British America	3240, 3314, 3327, 3360, 3419, 3447, 3527, 3592, 3689.
Central America	3449, 3735.
	3292, 3502.
Mexico	3232, 3302.
United States:	DOOK DADO OKIN DOWN DRIED
Alabama	3265, 3480, 3517, 3670, 3718.
Alaska	3680.
Arizona	3248, 3259, 3267, 3522, 3574, 3576, 3596, 3656, 3676, 3681, 3745, 3757, 3762, 3773.
Arkansas	3297, 3370, 3390, 3460, 3463, 3482, 3546, 3685, 3707.
California	$\begin{array}{c} 3253, 3265, 3338, 3371, 3431, 3464, 3467, 3471, 3493, 3507, 3519, 3534, \\ 3538, 3539, 3554, 3567, 3593, 3613, 3614, 3721, 3762. \end{array}$
Colorado	3411, 3451, 3498, 3516, 3569, 3654.
Connecticut	3242, 3278, 3347.
District of Columbia	3344, 3346, 3348, 3481, 3672, 3727.
Florida	3323, 3330, 3337, 3415, 3466, 3486, 3513, 3532, 3595, 3606, 3617, 3634, 3666.
Georgia	3237, 3261, 3286, 3333, 3406, 3638, 3765.
Idaho	3266, 3325, 3336, 3376, 3591, 3637, 3643, 3699.
	3287, 3410, 3423, 3425, 3441, 3474, 3560, 3579, 3607, 3609, 3627, 3630,
Illinois	3744, 3746, 3749, 3760.
Indiana	3310, 3313, 3321, 3397, 3521, 3530, 3610, 3663, 3664, 37511.
Indian Territory	3390, 3478, 3641, 3728.
Iowa	3552, 3586, 3600, 3705.
Kansas	3268, 3274, 3322, 3357, 3358, 3457, 3491, 3551, 3631, 3632, 3658, 3668, 3704, 3739, 3742.
Kentucky	3249, 3262, 3364, 3529, 3542, 3577, 3590, 3598, 3633, 3679, 3686, 3694, 3703, 3711, 3712, 3729, 3734.
Louisiana	3275, 3311, 3318, 3351, 3384, 3386, 3414, 3435, 3446, 3642, 3652, 3702.
Maine	3291,3663.
Maryland	3385, 3443, 3572, 3667, 3700.
Massachusetts	3243, 3257, 3280, 3320, 3361, 3485, 3625.
Michigan	3270, 3368, 3429, 3448, 3469, 3483, 3504, 3548, 3692, 3723.
Minnesota	3555, 3578, 3612, 3628, 3691, 3695, 3772.
Mississippi	3526, 3594.
Missouri	3341, 3374, 3394, 3399, 3401, 3422, 3432, 3461, 3502, 3563, 3587.
Montana	3299, 3339, 3373, 3581, 3601, 3618, 3619.
Nebraska	3239, 3247, 3396, 3403, 3571, 3603, 3616, 3661, 3724, 3767, 3771.
Nevada	3375, 3371, 3749.
	3383, 3736, 3761.
New Hampshire	
New Jersey	3424, 3428, 3458, 3472, 3543, 3709.
New Mexico	3252, 3393, 3408, 3444, 3454, 3536, 3660, 3682, 3690, 3716, 3717, 3755, 3768.
New York	3263, 3279, 3290, 3295, 3302, 3309, 3326, 3332, 3334, 3355, 3366, 3367, 3372, 3380, 3387, 3400, 3420, 3439, 3459, 3462, 3465, 3473, 3477, 3487, 3489, 3501, 3503, 3510, 3553, 3590, 3623, 3645, 3675, 3687, 3710, 3753, 3770.
North Carolina	3269, 3288, 3312, 3315, 3362, 3379, 3427, 3507, 3512, 3515, 3564, 3731, 3754.
North Dakota	3720, 3738, 3756, 3766.
Ohio	3282, 3283, 3284, 3307, 3329, 3382, 3402, 3417, 3452, 3492, 3496, 3541, 3584, 3615, 3629, 3649, 3662, 3688, 3697, 3775.
Oklahoma Territory	

Index to list of specimens received for examination and report, etc.—Continued.

Source.	Record number of lots.
North America—Continued.	
United States—Continued.	
Pennsylvania	. 3236, 3271, 3293, 3300, 3319, 3328, 3354, 3378, 3413, 3436, 3437, 3440, 3450, 3479, 3490, 3511, 3514, 3525, 3570, 3592, 3644, 3671, 3674, 3733, 3748, 3750, 3776.
Rhode Island	3304.
South Carolina	3258, 3404, 3421, 3497, 3547, 3582, 3646, 3777.
South Dakota	$\dots 3254, 3298, 3508, 3407, 3433, 3434, 3540, 3764.$
Tennessee	$ = \left[ -3238, 3303, 3305, 3342, 3430, 3445, 3531, 3558, 3559, 3706, 3732. \right. $
Texas	= 3244, 3250, 3260, 3277, 3301, 3324, 3331, 3337, 3398, 3426, 3494, 3495,
	3535, 3556, 3557, 3580, 3622, 3650, 3678, 3684, 3693, 3701, 3725, 3737, 3740.
Utah	3246, 3348, 3456, 3505, 3523, 3528, 3550, 3575, 3583, 3588, 3597, 3605, 3621, 3651, 3653, 3657, 3665, 3683, 3698, 3715, 3726, 3730.
Vermont	
Virginia	
Washington	, , , , ,
Washington	3464, 3488, 3518, 3565, 3589, 3602, 3636, 3639, 3713, 3719, 3763, 3769.
West Virginia	
Wisconsin	
Wyoming	3388, 3585, 3659, 3677.
West Indies	
South America	
Europe	3369, 3476, 3568.
Oceanica	3245, 3345, 3647.

Number of lots of specimens referred to the departments in the Museum for examination and report.

Department.	Number of lots re- ferred.
Mammals	5
Birds	52
Reptiles and batrachians	6
Fishes	3
Mollusks	12
Insects	95
Marine invertebrates	17
Comparative anatomy	7
Paleontology	23
Botany	21
Minerals	1.7
Geology	160
Prehistoric anthropology	43
Ethnology	6
Arts and industries	0.0
	1

#### APPENDIX VII.

#### LECTURES AND MEETINGS OF SOCIETIES.

PAPERS READ AT THE ELEVENTH ANNUAL MEETING OF THE AMERICAN HISTORICAL ASSOCIATION, DECEMBER 26, 27, 1895.

A Defense of Representative Government. Hon. George F. Hoar.

The Critical Methods of Leopold von Ranke. Prof. E. G. Bourne.

Arent Van Curler and his Journal of 1634. General James Grant Wilson.

Raleigh's Colony and its Present Remains. Talcott Williams.

How far was Primeval Man a Modern Savage? Talcott Williams.

A Classification of Colonial Government. Prof. H. L. Osgood.

The Electoral College for the Senate of Maryland. Dr. B. C. Steiner.

The Struggle of Democracy versus Aristocracy in Virginia in 1830. Dr. Jeffrey R. Brackett.

The Political Activity of Massachusetts Towns during the Revolution. H. A. Cushing.

The Land System of Provincial Pennsylvania. William R. Shepherd.

Colonial Structure in North Carolina. Dr. S. B. Weeks.

The Agreement of 1817 Concerning the Reduction of Naval Forces Upon the Great Lakes. J. M. Callahan.

The Political Aspects of the Homestead Law Agitation. Prof. B. S. Terry.

Light on the Underground Railroad. Prof. W. H. Siebert.

Historical Testimony. Dr. James Schouler.

Commodore John Barry. Martin I. J. Griffin.

Part and Place of Governor Edward Winslow in Plymouth Colony. Rev. Dr. W. C. Winslow.

Locating the Capital. Gaillard Hunt.

The Manuscript Journals of the Continental Congress. Dr. Herbert Friedenwald.

A Plea for the Study of the History of Northern Europe. Dr. A. C. Coolidge.

The German Imperial Court. Oswald G. Villard.

The French Revolution as Seen by the Americans of the Eighteenth Century. Prof. Charles D. Hazen.

The French in Mexico and the Monroe Doctrine. Dr. Frederic Bancroft.

PROGRAMME OF THE MEETING OF THE NATIONAL SCIENCE CLUB, JANUARY 3, 1896.

- I. Lake Studies. Mrs. R. S. Eigenmann. (Read by Mrs. Barton W. Evermann.)
- II. Sense Organs of Lumbricus agricola. Miss Fannie E. Langdon.
- III. Fermentation in Bread; Growth of Plants. Miss Katherine E. Golden.
- IV. Geology of Waverly, N. Y. Miss Marian B. Shepard.
- V. Quincy Granite of Massachusetts. Miss A. H. Gardner.
- VI. The Trees, Our Friends. Miss H. B. Bailey. (Read by Mrs. Harriett D. Mitchell.)
- VII. The Beauties and Mysteries of Nature as Revealed by the Microscope. Mrs. M. A. Booth.
- VIII. Yellow-fringed Orchis. Miss E. J. Hasbrouck.
  - IX. Adaptation of Seeds and Fruits for Dissemination. Miss M. F. Boynton.
  - X. Common Orchids of Northwestern Massachusetts. Miss Dora A. Radlo. (Read by Mrs. M. H. Weldon.)

PAPERS ENTERED TO BE READ AT THE MEETING OF THE NATIONAL ACADEMY OF SCIENCES IN APRIL, 1896.

I. The Geological Efficacy of Alkali Carbonate Solutions. E. W. Hilgard.

II. On the Color Relations of Atoms, lons, and Molecules. M. Carey Lea.

III. On the Characters of the Otoccelide. Prof. E. D. Cope.

IV. Exhibition of a Linkage whose Motion Shows the Laws of Refraction of Light. A. M. Mayer.

V. Location in Paris of the Dwelling of Malus, in which he made the Discovery of the Polarization of Light and Reflection. A. M. Mayer.

VI. (1) On Experiments showing that the X-Rays can not be Polarized by passing through Herapathite.

(2) The Density of Herapathite.

(3) Formulæ of Transmission of the X-Rays through Glass, Tourmaline and Herapathite. A. M. Mayer.

VII. On the X-Rays from a Statical Current Produced by a Rapidly Revolving Leather Belt. W. A. Rogers and Frederick Brown.

VIII. Biographical Memoir of James Edward Oliver. G. W. Hill.

IX. Biographical Memoir of Charles Henry Davis. C. H. Davis.

X. Biographical Memoir of George Engelmann. Dr. C. A. White.

XI. Legislation Relating to Standards. T. C. Mendenhall.

XII. On the Determination of the Coefficient of Expansion of Jessop's Steel, between the limits 0° and 64° C., by the Interferential Method. E. W. Morley and W. A. Rogers.

XIII. On the separate Measurement, by the Interferential Method, of the Heating Effect of Pure Radiations and of an Envelope of Heated Air.

W. A. Rogers.

XIV. On the Logic of Quantity. C. S. Peirce.

XV. Judgment in Sensation and Perception. Maj. J. W. Powell.

XVI. The Variability in Fermenting Power of the Colon Bacillus under Different Conditions. A. W. Peckham.

XVII. Experiments on the Reflection of the Röntgen Rays. O. N. Rood.

XVIII. Notes on Röntgen Rays. Prof. H. A. Rowland.

XIX. Some Studies in Chemical Equilibrium. Ira Remsen.

XX. The Decomposition of Diazo-compounds by Alcohol. 1ra Remsen.

XXI. On Double Halides containing Organic Bases. Ira Remsen. XXII. Results of Researches of Forty Binary Stars. T. J. J. See.

XXIII. On a Remarkable New Family of Deep-sea Cephalopoda and its bearing on Molluscan Morphology. Prof. A. E. Verrill.

XXIV. The Question of the Molluscan Archetype, or Archi-mollusk. Prof. A.E. Verrill.

XXV. On some points in the Morphology and Phylogeny of the Gastropoda. Prof. A. E. Verrill.

XXVI. Source of X-Rays. A.A. Michelson and S. W. Stratton.

XXVII. The Relative Permeability of Magnesium and Aluminum to the Röntgen Rays. A. W. Wright.

XXVIII. The State of Carbo-dioxide at the Critical Temperature. C. Barus.

XXIX. The Motion of a Submerged Thread of Mercury. C. Barus.

XXX. On a Method of Obtaining Variable Capillary Apertures of Specified Diameter. C. Barus.

XXXI. On a New Type of Telescope Free from Secondary Color. C. S. Hastings.

XXXII. The Olindiadæ and other Medusæ. W. K. Brooks.

XXXIII. Budding in Perophora. W. K. Brooks and George Lefevre. XXXIV. Anatomy of Yoldia. W. K. Brooks and Gilman Drew.

XXXV. On the *Pithecanthropus erectus* from the Tertiary of Java. Prof. O. C. Marsh.

#### TITLES OF SATURDAY LECTURES FOR 1896.

#### Course 1.

March 21.—The Battle of the Forest. Dr. B. E. Fernow.

March 28.—The Adaptation of Plants to the Desert. F. V. Coville.

April 4.—The Spread of the Rabbit. T. S. Palmer.

April 11.—Insect Mimicry. L. O. Howard.

April 18.—The Persistence of Functionless Structures. F. A. Lucas.

#### Course 2.

- April 25.—Relation of Primitive Peoples to Environment, illustrated by American examples. Maj. J. W. Powell.
- May 2.—The Dependence of Industrial Arts on Environment. Prof. O. T. Mason.
- May 9.—The Japanese Nation—a Typical Product of Environment. Gardiner G. Hubbard.
- May 16.—The Tusayan Ritual: A Study of the Influence of Environment on Aboriginal Cults. Dr. J. Walter Fewkes.
- May 23.—The Relation between Institutions and Environment. W J McGee.

## APPENDIX VIII.

FINANCE, PROPERTY, SUPPLIES, AND ACCOUNTS.

APPROPRIATIONS FOR THE FISCAL YEAR ENDING		
	JUNE 30, 1896	5.
The stimulation of the appropriate and increases		
For continuing the preservation, exhibition, and increase		
tions from surveying and exploring expeditions of the Gov	ernment and	1
from other sources, including salaries or compensation of a		
For cases, furniture, fixtures, and appliances required for t	lie exhibitioi	1
and safekeeping of the collections of the National Museu	m, including	o.
salaries or compensation of all necessary employees		
For expense of heating, lighting, electrical, telegraphic, as	nd telephoni	е
service for the National Museum		
For postage stamps and foreign postal cards for the Nation		
For repairs to buildings, shops, and sheds, National Museu		
all necessary labor and material		
For rent of workshops for the National Museum		900
For the Smithsonian Institution, for printing labels and b		
the Bulletins and annual volumes of the Proceedings of		
Museum, and binding scientific books and pamphlets pre		
acquired by the National Museum library	Cl., 242	. 12,000
For expense of constructing four additional fire plugs in the	Smithsoniai	n
grounds for the better protection of the Smithsonian	Institution	ι,
National Museum, and Astro-Physical Observatory, and		
of necessary fire hose.		_ 800
FUNDS TO THE CREDIT OF THE MUSEUM JUI		
Appropriation for 1894 (balance), \$236.12; app	ropriation	for 1895
(balance), \$7,159.21; appropriation for 1896, \$18	8.925.00: n	naking a
total of \$194,320.33. This amount was divided as	followers	
total of \$194,520.55. This amount was divided as	ionows.	
Preservation of collections:		
1894	\$235, 27	
1895	4, 950, 88	
1896		
	143, 225, 00	148, 411, 15
Furniture and fixtures:	143, 225, 00	148, 411, 15
Furniture and fixtures:	143, 225, 00	148, 411. 15
Furniture and fixtures:	143, 225.00	148, 411, 15
Furniture and fixtures:  1894  1895	143, 225. 00 . 09 . 697, 43	148, 411. 15
Furniture and fixtures:	143, 225, 00 . 09 . 697, 43 12, 500, 00	
Furniture and fixtures:  1894  1895  1896	143, 225. 00 . 09 . 697, 43	148, 411, 15 13, 197, 52
Furniture and fixtures:  1894 1895 1896  Heating and lighting:	.09 697, 43 12, 500, 00	
Furniture and fixtures:  1894 1895 1896 Heating and lighting: 1894	$ \begin{array}{r} 149,225,00 \\  & .09 \\ 697,43 \\ 12,500,00 \end{array} $	
Furniture and fixtures:  1894 1896 Heating and lighting: 1894 1895	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
Furniture and fixtures:  1894 1895 1896 Heating and lighting: 1894	$ \begin{array}{r} 149,225,00 \\  & .09 \\ 697,43 \\ 12,500,00 \end{array} $	13, 197, 52
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs:	\$ \$ 097, 48 12, 500, 00 \$ \$ 1, 445, 07 13, 000, 00	13, 197, 52
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896	\$ \$ 097, 48 12, 500, 00 \$ 13, 29	13, 197, 52
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs:	\$ \$ 097, 48 12, 500, 00 \$ \$ 1, 445, 07 13, 000, 00	13, 197, 52
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896	\$ \$ 097, 48 12, 500, 00 \$ 13, 29	13, 197, 52
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896  Rent of workshops:	\$ \$ 097, 48 12, 500, 00 \$ 13, 29	13, 197, 52 14, 445, 83
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896	\$ \$ 097, 48 12, 500, 00 \$ 13, 29	13, 197, 52 14, 445, 83
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896  Rent of workshops: 1895	\$ .09 .09 .09 .09 .09 .12,500.00 .76 1,445.07 13,000.00 .13,29 4,000.00	13, 197, 52 14, 445, 83
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896  Rent of workshops: 1895 1896	\$\\ \begin{align*} \ 143, 225, 00 \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	13, 197, 52 14, 445, 83
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896  Rent of workshops: 1895 1896	\$\\ \begin{align*} \ 143, 225, 00 \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	13, 197, 52 14, 445, 83 4, 013, 29
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896  Rent of workshops: 1895 1896  Fire protection, 1896	\$\\ \begin{align*} \ 143, 225, 00 \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	13, 197, 52 14, 445, 83 4, 013, 29 952, 54 800, 00
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896  Rent of workshops: 1895 1896  Fire protection, 1896 Postage, 1896	\$\\ \begin{align*} \ 143, 225, 00 \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	13, 197, 52 14, 445, 83 4, 013, 29 952, 54 800, 00 500, 00
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896  Rent of workshops: 1895 1896  Fire protection, 1896	\$\\ \begin{align*} \ 143, 225, 00 \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	13, 197, 52 14, 445, 83 4, 013, 29 952, 54 800, 00
Furniture and fixtures:  1894 1895 1896  Heating and lighting: 1894 1895 1896  Building repairs: 1895 1896  Rent of workshops: 1895 1896  Fire protection, 1896 Postage, 1896	143, 225, 00 .09 .097, 43 12, 500, 00 76 1, 445, 07 13, 000, 00 4, 000, 00 52, 54 900, 00	13, 197, 52 14, 445, 83 4, 013, 29 952, 54 800, 00 500, 00 12, 000, 00

271

DISBURSEMENTS FROM UNEXPENDED BALANCES OF APPROPRIATIONS FOR 1894 AND 1895.

Appropriation for 1894.—Preservation of collections, \$227.87. No other claim having been presented against this appropriation, the balance remaining (\$7.40), together with the balances of the appropriations for furniture and fixtures (\$0.09), and heating and lighting (\$0.76)—in all, \$8.25, will revert into the Treasury, to be carried to the credit of the surplus fund, under the provisions of section 3690 of the Revised Statutes.

Appropriation for 1895.—Preservation of collections, \$4,908.57; furniture and fixtures, \$696.90; heating and lighting, \$1,443.92; building repairs, \$8.51; rent of workshops, \$40.

## DISBURSEMENTS UNDER THE APPROPRIATIONS FOR THE FISCAL YEAR ENDING JUNE 30, 1896.

Preservation of collections	\$140, 378, 47
Furniture and fixtures.	11, 184. 91
Heating and lighting	12,052.67
Postage	500.00
Repairs to buildings	3,070.49
Rent of workshops	825, 00
Fire protection	798.29

#### UNEXPENDED BALANCES REMAINING ON HAND JUNE 30, 1896.

The expenditures from the appropriations for the fiscal years ending June 30, 1895 and 1896, respectively, leave the following unexpended balances, which will be applied to the liquidation of outstanding indebtedness created within those years: Fiscal year 1895, \$61.31; fiscal year 1896, \$6,115.17.

These balances are divided as follows:

Appropriation for 1895.—Preservation of collections, \$42.31; furniture and fixtures, \$0.53; heating and lighting, \$1.15; building repairs, \$4.78; rent of workshops, \$12.54; total, \$61.31.

Appropriation for 1896.—Preservation of collections, \$2,846.53; furniture and fixtures, \$1,315.09; heating and lighting, \$947.33; repairs to buildings, \$929.51; rent of workshops, \$75; fire protection, \$1.71; total, \$6,115.17.

The disbursements under the appropriation for printing and binding aggregated \$11,947.29, leaving an unexpended balance of \$52.71.

#### APPENDIX IX.

STATEMENT OF THE DISTRIBUTION OF SPECIMENS DURING THE YEAR ENDING JUNE 30, 1896.

#### AMERICA.

#### NORTH AMERICA.

Canada.

#### NEW BRUNSWICK:

Natural History Society of New Brunswick, St. Johns: Casts of prehistoric stone implements (106 specimens. set 55). Gift. (D.10009.)

#### ONTARIO:

- Billings, Walter R., Ottawa: Fossils (51 specimens). Exchange. (D. 9937.)
- Brooks, W. E.. Mount Forest: Warblers (42 specimens): birds' skins (3 specimens). Lent for study. (D. 9288, 9597.)
- Currie, Hector, Thedford: Fossils (39 specimens). Exchange. (D. 9520.)
- Grant, C. C., Hamilton: Fossils and shells (493 specimens). Exchange. (D. 9536.)
- Howard, S. W., Hagersville: Fossils (59 specimens). Exchange. (D. 9223.)
- Kearney, N. J., Thedford: Fossils (31 specimens). Exchange. (D. 9521.)
- Kernahan, George, Thedford: Fossils (32 specimens). Exchange. (D. 9522.)

#### QUEBEC:

Dawson, Sir William, Montreal: Fossil sponges (3 specimens). Exchange. (D. 9859.)

#### United States.

#### ALABAMA:

Polytechnic College and Ladies' Institute. Cullman: Rocks and ores (96 specimens, set 91). Gift. (D. 9386.)

#### ARKANSAS:

Arkansas Industrial University, Fayetteville: Set alcoholic fishes (229 specimens); set alcoholic fishes (1,176 specimens). Gift. (D. 9930, 9485.)

#### ARKANSAS-Continued.

McNeill. Jerome. Fayetteville: Acridide (24 specimens). Lent for study. (D. 9596.)

#### California:

- Crowfoot. Miss Jessie, San Miguel: Atlantic coast marine shells (161 specimens). Exchange. (D. 9236.)
- Falls, H. C., Pomona: Specimens of insects. Lent for study. (D. 9711.)
- Gilbert, C. H.. Stanford University: One specimen of *Lavinus breviceps*. Lent for study. (D. 9918.)
- Leland Stanford Junior University, Stanford University: Collection of alcoholic fishes (1.539 specimens); specimen of *Chasmistes liorus*; collection of alcoholic fishes (81 specimens). Gift. (D. 9487, 9698, 9932.)
- Matthiessen, A. H., San Diego: Fossils (67 specimens). Exchange. (D. 9848.)
- State University of California. Berkeley: Fossils (4 specimens). Gift. (D. 9806.)
- Stephens, F., Witch Creek: Bird's skin. Lent for study. (D. 9215.)
- Van Denburgh, John, San Francisco: Specimen of reptile. Lent for study. (D. 9684.)

#### COLORADO:

- Baker, Carl F., Fort Collins: Jassidæ (1,476 specimens). Lent for study. (D. 9831, 9881.)
- Gillette, C. P., Fort Collins: Specimens of Cynipidæ. Exchange. Typhlocybini (273 specimens). Lent for study. (D. 9539, 9584.)
- University of Denver, University Park: Marine invertebrates (464 specimens, set 42, Series V). Gift. (D. 9781.)

#### CONNECTICUT:

Peabody Museum, New Haven: Starfishes (88 specimens). Exchange. Starfishes (306 specimens). Lent for study. (D. 9941.)

#### DAKOTA:

North Dakota Agricultural College, Fargo, N. Dak.: Alcoholic fishes (81 specimens). Gift. (D. 9713.)

### DISTRICT OF COLUMBIA:

Academy of the Sacred Heart of Mary, Washington: Casts of prehistoric implements (106 specimens, set 48): rocks and ores (96 specimens, set 87); minerals (60 specimens). Gift. (D. 9372, 9424, 9969.)

Central High School, Washington: Fragments of rocks and ores. Gift. (D. 9464.)

Columbian University, Washington: Collection of rocks and ores. Gift. (D. 10004.)

Hornung, J., Washington: Birds' skins (68 specimens). Exchange. (D. 9333.)

Karlsive, W. J., Washington: Specimens of Amblychila cylindriformis.Exchange. (D. 9825.)

Matthews, Washington, Washington: Skin of Kit Fox. Lent for study. Brass plate from Morocco. Exchange. (D. 9404, 9615.)

Stevenson, Mrs. M. C., Washington: Birds' skins (96 specimens). Exchange. (D. 10046.)

Stone, George W., Washington: Cretaceous fossils (21 specimens). Exchange. (D. 9448.)

#### GEORGIA:

Demorest Normal School, Demorest: Rocks and ores (93 specimens, set 93). Gift. (D.9368.)

Gordon Institute, Barnesville: Rocks and ores (98 specimens, set 79). Gift. (D. 9732.)

Lucy Cobb Institute, Athens: Rocks and ores (set 81.) Gift. (D. 9714.)

Rogan, Mrs. J. P., Cartersville: Specimens of Indian pottery. Exchange. (D. 9803.)

Spellman Seminary, Atlanta: Corals and crabs (41 specimens). Gift. (D.10033.)

#### IDAHO:

State University of Idaho, Moscow: Alcoholic fishes (207 specimens); collection of rocks (92 specimens, set 97); marine invertebrates (540 specimens, set 200, Series IV). Gift. (D. 9218.)

#### Illinois:

Barnes, W., Decatur: Lepidoptera (121 specimens). Exchange. (D. 9591.)

Field Columbian Museum, Chicago Birds' skins (7 specimens). Lent for study. Set of alcoholic fishes (106 specimens). Exchange. (D. 9377, 9532, 9942.)

Holmes, Samuel J., Chicago: Two specimens of *Dermaturus mandti*. Exchange. (D. 9547).

University of Chicago, Chicago: Rocks. Exchange. (D. 9961.)

#### INDIANA:

City High School, Terre Haute: Set of alcoholic fishes (153 specimens). Gift. (D. 9933.)

High School, Washington: Rocks and ores (93 specimens, set 94). Gift. (D. 9251.)

Indiana University, Bloomington:
Fishes collected by the U. S.
Fish Commission (1,270 specimens).
Fishes from the North Pacific collected by the U.S. Fish Commission steamer Albatross (226 specimens).
Gift. (D. 9479, 9891.)

#### Iowa:

Amity College, College Springs: Marine invertebrates (500 specimens, set 38, Series V). Gift. (D. 9630.)

Buena Vista College, Storm Lake: Rocks and ores (98 specimens, set 75). Gift. (D. 9979.)

Calhoun County Normal School, Rockwell City: Rocks and ores (98 specimens, set 84). Gift. (D. 9655.)

Historical Department of Iowa, Des Moines: Set of alcoholic fishes (100 specimens). Gift. (D. 9239.)

Iowa University, Iowa City: Alcoholic fishes collected by the U. S. Fish Commission (652 specimens). Gift. (D. 9481.)

#### Iowa-Continued.

- Public schools, Fonda: Rocks and ores (98 specimens, set 78). Gift. (D. 9856.)
- Public schools, Spencer: Minerals (57 specimens, set 187). Gift. (D. 9607.)
- St. Xavier's Academy, Manchester: Rocks and ores (96 specimens, set 86): minerals (57 specimens, set 186). Gift. (D. 9588.)
- Upper Iowa University, Fayette: Set of alcoholic fishes (111 specimens); rocks and ores (98 specimens, set 74); casts of prehistoric implements (106 specimens, set 56); minerals (57 specimens, set 189); marine invertebrates (436 specimens, set 53). Gift. (D. 10042.)

#### KANSAS:

- Crevecœur, F. F., Onaga: Shells (32 specimens). Exchange. Insects (4 specimens). Lent for study. (D. 9757, 9646.)
- Kansas State Agricultural College, Manhattan: Rocks and ores (98 specimens, set 80). Gift. (D. 9725.)
- Washburn College, Topeka: Rocks andores (98 specimens, set 76). Gift. (D. 9980.)

#### KENTUCKY:

Ulrich, E. O., Newport: Collection of fossils. Lent for study. (D. 9441.)

#### Louisiana:

Frierson, Lorraine S., Frierson's Mill: Unios (20 specimens). Exchange. (D. 9647.)

#### MAINE:

- Allen, Pardon, Auburn: Ethnological material (18 specimens); stone implements (38 specimens); specimen of wood carving, from Indians of southeast Alaska. Exchange. (D. 9356, 9503.)
- Damon. W. P., West Auburn: Minerals and ores (46 specimens); stone implements and pottery (34 specimens). Exchange. (D. 9670.)
- Westbrook Society of Natural History: Marine invertebrates (428 specimens, set 54, series V). Gift. (D. 9681.)

#### MARYLAND:

- Donell-Smith, J., Baltimore: Guate-malan plants (377 specimens). Lent for study. (D. 10043.)
- Murray, N., Baltimore: Astrolabe. Lent for study. (D. 9653.)
- School for Blind Children, Baltimore: Mounted mammals (10 specimens). Gift. (D. 9960.)
- Shriver, Howard, Cumberland: Fossils (227 specimens). Exchange. (D. 9531.)
- Woman's College, Frederick: Small collection of Foraminifera, lobsters and one crab. (D. 9405.)

#### Massachusetts:

- Bangs, Outram, Cambridge: Five specimens of *Putorius*. Lent for study. (D. 9577.)
- City Library Association, Springfield: Casts of prehistoric implements (106 specimens, set 54). Gift. (D. 10008).
- Dale, T. Nelson, Williamstown: Rock sections from New York and Vermont (67 specimens). Lent for study. (D. 9412.)
- Faxon, Walter, Cambridge: Weasels (187 skins and 37 skulls); Cambarus pellucidus testii (3 specimens). Lent for study. (D. 9298, 9327.)
- Hyatt, Alpheus, Cambridge: Fossils (10 specimens). Lent for study. (D. 9695.)
- Jackson, Robert T., Cambridge: Fossils (3 species). Lent for study. (D. 9524.)
- Massachusetts Institute of Technology, Boston: Geological material (91 specimens). Exchange. (D. 9694.)
- Museum of Comparative Zoology, Cambridge: Fishes collected by the U. S. Fish Commission (1,636 specimens). Gift. Set of fishes from the North Pacific, collected by the U. S. Fish Commission steamer Albatross. Exchange. (D. 9684, 9878.)
- Robinson, Wirt, Cambridge: Birds' skins (3 specimens). Exchange. (D. 9750.)
- Samson, Albert A., West Medford: Pottery (7 specimens). Exchange. (D. 9798.)

Massachusetts-Continued.

Scudder, S. H., Cambridge: Orthoptera (25 specimens). Exchange. (D. 9667.)

Sturtevant, E. Lewis, South Birmingham: Specimens of charred corn. Lent for study. (D. 9576.)

#### MICHIGAN:

Arnold, Edward. Battlecreek: Birds' eggs (21 specimens). Exchange. (D. 9642.)

Davis, G. C., Agricultural College Post-Office: Tryphominæ (138 specimens). Lent for study. (D. 9938.)

Hope College, Holland: Casts of prehistoric implements (106 specimens, set 52). Gift. (D. 9780.)

St. Mary's Academy, Monroe: Casts of prehistoric implements (106 specimens, set 51). Gift. (D. 9756.)

#### MINNESOTA:

Central High School, Duluth: Fishes collected by the U. S. Fish Commission (616 specimens). Set of alcoholic fishes (136 specimens). Gift. (D. 9483, 9927.)

High School, Winona: Rocks and ores (96 specimens, set 90). Gift. (D. 9385.)

State Normal School, Mankato: Collection of alcoholic fishes (1,327 specimens). Set of alcoholic fishes (146 specimens). Gift. (D. 9480, 9931.)

#### MISSOURI:

University of Missouri, Columbia: Collection of fishes (95 specimens, set 101). Gift. (D. 9243.)

#### MONTANA:

Montana Academy of Agriculture and Mechanic Arts, Bozeman: Fishes (77 specimens, set 107); minerals (57 specimens, set 185). Gift. (D. 9490.)

University of Montana, Missoula: Duplicate fishes (85 specimens, set 105). Gift. (D. 9275.)

#### NEBRASKA:

Gates College, Neligh: Rocks and ores (96 specimens, set 89). Gift. (D. 9384.)

State University, Lincoln: Collection of alcoholic fishes (730 specimens). Gift. (D. 9482.)

NEW JERSEY:

Smith, John B., New Brunswick: Two specimens representing the genus Agrotis; Noctuids (175 specimens). Lent for study. (D. 9493, 9659.)

#### NEW MEXICO:

Cockerell. T. D. A., Lascruces: Insects (45 specimens). Lent for study. (D. 9805.)

#### NEW YORK:

Allen, J. A., New York: Birds' skins (70 specimens). Exchange. (D. 9526.)

Beutenmuller, William, New York City: Insects (16 specimens). Lent for study. (D. 9804, 9976.)

Bishop, H. R., New York: Fragment of febrolite hatchet from Brittany. Exchange. Stone implements (3 specimens). Lent for study. (D. 9535, 9765.)

Boas, Franz, New York: Ten human skulls. Lent for study. (D. 9707.)

Brown, Mrs. M. E., New York: Nine musical instruments. Exchange. (D. 9627, 9723.)

Chapman, Frank M., New York: Birdş' skins (49 specimens). Lent for study. (D. 9561, 9568.)

Clarke, J. M., Albany: Cephalopods (139 specimens). Lent for study. (D. 9693.)

Cook, O. F., Huntington, L. I.: Myriapods (100 specimens). Lent for study. (D. 9902.)

Elmira College, Elmira: Foraminifera. Gift. (D. 9440.)

Farley, Thomas J., New York: Stone implements (17 specimens). (D. 9608.) For study.

Franklin, T. W., New York: Skin of elephant; pair of bison horns. Exchange. (D. 9925, 9963.)

Glen Island Museum, Glen Island: Ethnological specimens, including 1 blanket and 5 pairs of Chinese sandals. Exchange. (D. 9518, 9832.)

Harris, G. D., Ithaca: Collection of Midway fossils. Lent for study. (D. 9426).

Hatcher, J. B., New York: Five skulls of mammals. Lent for study. (D. 9611.)

- NEW YORK-Continued.
  - Osborn, Henry F., New York: Fossils (18 specimens). Lent for study. (D. 9644).
  - Phillips, Barnett, Brooklyn: Two pieces of pottery. Exchange. (D. 9827.)
  - St. Bernard Seminary, Rochester: Plants (104 specimens); rocks and ores (98 specimens, set 83). Gift. (D. 9712).
  - Schuyler, E. O., New York: Baskets obtained from the North American Indians and the natives of Polynesia (10 specimens). Exchange. (D. 9896, 9990, 10032.)
  - Teachers' College, Riverside Heights: Piece of Samoan cloth, and an ornamented inat from Africa. Gift. (D. 9676.)
  - Ward's Natural Science Establishment, Rochester: Trilobites (366 specimens). Exchange. (D. 9898.)
  - White, Theodore G., New York: Twenty-five rock sections. Lent for study. (D. 9409.)
  - Williamsburg Scientific Society, Brooklyn: Minerals (7 specimens). Exchange. (D. 9820).
  - Woodward, A., New York: Fossil Foraminifera. Lentforstudy. (D. 9682.)
  - Workingmen's School, New York City: Casts of prehistoric implements (100 specimens, set 47); ethnologica (90 specimens); pottery (12 specimens). Exchange. (D. 9334, 9562).
  - Wortman, J. L., New York: Skull of Dendrohyrax validus. Lent for study. (D. 9688.)

#### Оню:

- Adelbert College, Cleveland: Alcoholic fishes (94 specimens, set 94). Gift. (D. 9244.)
- Case School of Applied Sciences, Cleveland: Marine invertebrates (222 specimens). Gift. (D. 9754.)
- Case, H. B., Loudenville: Fossils (12 specimens). Exchange. (D. 9760.)
- Oberlin College, Oberlin: Collection of alcoholic fishes (443 specimens). Gift. (D. 9486.)

- OHIO—Continued.
  - Ohio State University, Columbus: Rocks and ores (92 specimens, set 95). Gift. (D. 9229.)
  - Ohio Wesleyan University, Delaware: 12 vials of Foraminifera. Lent for study. (D. 9478.)
  - St. Mary's of the Springs, Shepard: Birds' skins (93 specimens). Gift. (D. 9204.)
  - Vickers, E. W., Ellsworth: Skin of field mouse. Exchange. (D. 9676.)

#### OREGON:

Oregon State University, Eugene: Alcoholic fishes (215 specimens); marine invertebrates (464 specimens, set 41, Series V). Gift. (D. 9928, 9755.)

#### PENNSYLVANIA:

- Clapp, George H., Pittsburg: Unios (3 species). Exchange. (D. 9369.)
- Converse, G. G., South Bethlehem: Collection of deep-sea soundings, made by the U. S. Fish Commission steamer Albatross in the North Atlantic. Lent for study. (D. 9793.)
- Eakins, Thomas, Philadelphia: Shield, quiver, bow, and lance. Lent for study. (D. 9413.)
- Fox, William J., Philadelphia: Collection of *Monedula* (98 specimens); collection of wasps. Lent for study. (D. 9234, 9396.)
- Holland, W. J.: Lepidoptera (412 specimens). Lent for study. African Lepidoptera (6 specimens). Exchange. (D. 9599, 9818.)
- Johnson, J. R., Pittsburg: Collection of stone implements, shell beads, and plaster casts. Exchange. (D. 9906.)
- Klages, Henry G., Jeannette: Coleoptera (100 specimens). Exchange. (D. 9762.)
- Lacoe, R. D., Pittston: Unios (21 specimens). Exchange. (D. 9702.)
- Philadelphia Normal School, Philadelphia: Marine invertebrates (988 specimens, sets 39 and 40, Series V); minerals (57 specimens, set 188). Gift. (D. 9705.)
- Randall, F. A., Warren: Fossils and shells (25 specimens). Exchange. (D. 9880.)

PENNSYLVANIA—Continued.

Rhoads, S. N., Philadelphia: Skins and skulls of hares. Lent for study. (D. 9605, 9654.)

Skinner, Henry, Philadelphia: Butter-flies (3 specimens). Exchange. (D.

9518.)

Stone, Witmer, Philadelphia: Birds' skins (75 specimens). Lent for study. (D. 9501, 9649.)

The Philadelphia Museum, City Hall, Philadelphia: Fishes (86 specimens, set 104). Gift. (D. 9276.)

Wagner Free Institute, Philadelphia: Fossil fishes (12 specimens). Exchange. (D. 9761.)

#### RHODE ISLAND:

Brown University, Providence: Model of Archæopteryx. Gift. (D. 9541.)

Carr, Silas, Jamestown: Minerals (6 specimens; arrowheads and spearheads (16 specimens). Exchange. (D. 9657, 9889.)

#### SOUTH CAROLINA:

Mazyck, W. G., Charleston: Shells (18 specimens). Exchange. (D. 9851).

Wayne, Arthur T., Mount Pleasant: Birds'skins, Exchange. (D. 9609.)

## TEXAS:

Grayson College, Whitewright: Minerals (57 specimens, set 184); rocks and ores (96 specimens, set 88). Gift. (D. 9414.)

#### VIRGINIA:

Hutchinson. W. F., Winchester: Birds'skins. Exchange. (D. 9993.)

Virginia Normal and Collegiate Institute, Petersburg: Rocks and ores (92 specimens). Gift. (D. 9230.)

#### WASHINGTON:

Dennison, George W., Friday Harbor, San Juan Island: Bones of Great Auk. Exchange. (D. 9425.)

Fuller, William H., Fairhaven: Rocks (12 specimens). Exchange. (D. 10028.)

Olds, Fred. W., Wenatchee: Specimen of cryolite. Exchange. (D. 9312.) University of Washington, Seattle: Collection of alcoholic fishes from the North Pacific (202 specimens); rocks and ores (98 specimens, set 77); set of alcoholic fishes (306 specimens). Gift. (D. 9877, 9879, 9934.)

#### Wisconsin:

Lewis, C. H., Brodhead: Specimen of stone ax. Exchange. (D. 9726.)

Sacred Heart Academy, Madison: Rocks and ores (94 specimens, set 93); prehistoric implements (106 specimens, set 48). Gift. (D. 9371.)

Sparta High School, Sparta: Rocks and ores (98 specimens, set 85). Gift. (D. 9715.)

West Side High School, Milwaukee: Rocks and ores (98 specimens, set 85.) Gift. (D. 9618).

#### SOUTH AMERICA.

#### Argentina.

La Plata Museum, La Plata: Alcoholic fishes (101 specimens, set 103); casts of prehistoric implements (106 specimens, set 46). Exchange. (D. 9264.)

#### Brazil.

Foetterle, J. G., Petropolis: Central and South American butterflies (78 specimens). Exchange. (D. 9975.)

Museo Paulista, São Paulo: Nine ethnological specimens. Exchange. (D. 9911.)

#### Chile.

Reed, Edwyn C., Rancagua: Butterflies (50 specimens). Exchange. (D. 9622.)

#### WEST INDIES.

#### lamaica.

Jarvis, P. W., Kingston: Specimens of crabs. Exchange. (D. 9709.)

#### EUROPE.

#### Austria.

Imperial Royal Natural History Museum, Vienna: Plants (400 specimens). Exchange. (D. 9463.)

Royal Zoological Museum, Vienna: Collection of alcoholic fishes (121 specimens); collection of alcoholic fishes from the North Pacific (234 specimens). Exchange. (D. 9554, 9953.)

#### Belgium.

Botanical Gardens, Brussels: Collection of herbarium specimens. Lent for study. (D. 9904.)

#### Denmark.

Royal Zoological Museum. Copenhagen: Collection of alcoholic fishes (111 specimens). Exchange. (D. 9555.)

Berg, R., Copenhagen: Mollnsks (5 specimens). Exchange. (D. 9830.)

#### England.

- British Museum of Natural History, London: Collection of alcoholic fishes (115 specimens): collection of alcoholic fishes from the North Pacific (258 specimens); specimens of *Typhlomolze rathbuni*. Exchange. (D. 9552, 9952, 9995.
- Chaster, G. W., Southport: Pyramidellidæ (39 specimens). Exchange. (D. 9565.)
- Hewlett, S. G., Eastbourne: Arrowheads and spearheads (22 specimens). Exchange. (D. 9190.)
- Mason, George E., London: Insects from the Mammoth Cave, Kentucky. Exchange. (D. 10029.)
- Masters, Maxwell T., London: Plants (6 specimens). Exchange. (D. 9940.)
- Norman, A. M., Burnmoor Rectory, Fence House, Durham: Crabs (39 specimens). Exchange. (D. 9572.)
- Salford Borough Royal Museum and Library, near Manchester: Casts of prehistoric implements (106 specimens). Exchange. (D. 9958.)
- Stebbing, T. R. R., Tunbridge Wells: Amphipods (2 specimens). Exchange. Amphipods (3 specimens). Lent for study. (D. 10047.)
- Tring Museum, Tring: Birds' skins (2 specimens). Exchange. One bird skin. Lent for study. (D. 9973.)
- University Museum of Zoology, Cambridge: Collection of Termites. Exchange. (D. 9355.)

#### France.

- Crossman, M., Paris: Cretaceous Gastropods (6 specimens). Lent for study. (D. 9734.)
- Koehler, R., Lyons: Luidia elegans (one specimen). Lent for study. (D. 9227.)

- Museum of Natural History, Paris: Collection of alcoholic fishes (111 specimens); collection of alcoholic fishes from the North Pacific (211 specimens). Exchange. (D. 9551, 9951.)
- Vignal, L., Paris: Tertiary fossils (75 specimens). Exchange. (D.9544.)

#### Germany.

- Fürbringer, Max, Jena: Specimen of Polistotrena dombeyi. Lent for study. (D. 9556.)
- Jaekel, Otto, Berlin: Fossils (142 specimens). Lent for study. (D. 9810.)
- Royal Botanic Gardens, Berlin: Dried plants (318 specimens). Lent for study. Dried plants (318 specimens). Exchange. (D. 9558.)
- Royal Zoological Museum, Berlin: Set of duplicate fishes, mostly deep sea forms, from the Atlantic and Pacific Oceans (109 specimens); set of alcoholic fishes from the North Pacific Ocean (240 specimens). Exchange. (D. 9550, 9950.)

#### Hungary.

Chernelháza, Stefan Chernel von, Köszeg: Three birds'skins. Exchange.
Three birds'skins. Lent for study.
(D. 9418.)

#### Italy.

- Bomes, O., Fortici: Herbarium material (134 specimens). Lent for study. (D. 9241.)
- Royal Zoological Museum, Florence: One specimen of *Mytillus catifornicus*; alcoholic bats (250 specimens); two skins of *Neŭrotrichus*, with skulls. Exchange. (D. 9968.)
- University of Pisa, Pisa: Collection of American fishes (93 specimens); specimen of *Pentacrinus decorus*; alcoholic fishes (122 specimens); specimens of crinoids. Exchange. (D. 9321, 9769.)
- Zoological Museum, Turin: Crustaceans (25 specimens). Exchange. (D. 9736.)

Norway.

Royal Zoological Museum, Christiania: Collection of alcoholic fishes (107 specimens); collection of alcoholic fishes from the North Pacific. (279 specimens.) Exchange. (D. 9553, 9954.)

#### Russia.

University of Moscow, Moscow: Cretaceous fossils (29 specimens). Exchange. (D. 9779.)

#### Scotland.

Nicholson, H. A., Aberdeen: Graptolites (24 specimens). Exchange. (D. 9557.)

#### Sweden.

- Tornquist, S. L., Lund: Graptolites (60 specimens). Exchange. (D. 5940.)
- University of Stockholm, Stockholm: Specimens of *Pentacrinus decorus* and *P. mülleri*. Exchange. (D. 9735.)

#### ASIA.

China.

St. John's College, Shanghai: Casts of prehistoric implements (106 specimens, set 50); plants (120 specimens). Exchange. (D. 9582.)

#### OCEANICA.

#### Australia.

NEW SOUTH WALES:

Australian Museum, Sydney: Mounted skin and rough skeleton of opossum; 53 photographs of shells collected by the Wilkes Exploring Expedition; 2 skeletons of turtles. Exchange. (D. 9606, 9716, 9800.)

Carney, Joseph J.: Petroleum, rocks, and sands (21 specimens). Exchange. (D. 9564.)

SOUTH AUSTRALIA:

Bradley, Edgar J., Happy Valley Water Works: Specimens of *Rhab-dammina abyssorum* and Foraminifera. Exchange. (D. 9897.)

New Zealand.

Canterbury Museum, Christchurch: Pueblo pottery (31 specimens). Exchange. (D. 9763.)

#### APPENDIX X.

#### THE WORK OF THE MECHANICS AND LABORERS.

The following is an abstract of the report of the superintendent of buildings, Mr. Henry Horan, so far as it relates to the work of the mechanics and laborers.

1895.

July.—Repairs were made in the south tower and in other portions of the Smithsonian building. Several crates of cases were brought from storage and packed for shipment to the Cotton States and International Exposition at Atlanta. Exhibits from the departments of minerals and paleontology were shipped to the Exposition during the month. In the room adjoining the dynamo room the floor was lowered and a large brick column removed.

August.—The cases containing material for the Atlanta Exposition were placed in the storage sheds south of the Smithsonian building as soon as packed, to await shipment, and later 117 boxes and crates were forwarded. A number of push buttons, connected with the annunciator in the telephone room, were placed at different points in the Museum building. The collection of the section of physical apparatus was removed from the cases on the first floor of the south tower of the Smithsonian building, and a portion of the instruments placed on exhibition in the east hall of the Museum. Workmen were engaged for several days in taking the boats from the ceiling in the hall where they are exhibited, measuring them, and returning them to their former positions.

September.—The work of shipping exhibits to the Atlanta Exposition was completed early in the month. The lecture hall was thoroughly cleaned, new matting laid, etc. The sheds in the rear of the Smithsonian Institution were painted. New book-cases were made and placed in the office of the Assistant Secretary. In many places the worn-out floors of the Museum were taken up and replaced with new material. All the large cases were moved from the rotunda, and small ones containing models of cliff-dwellings placed therein. Several new fire-plugs were placed in the grounds near the buildings. A chimney-flue was constructed from the second floor to the roof of the northwest pavilion.

October.—The floors in the offices of the Assistant Secretary and chief clerk were planed and cleaned. Wires were run to connect a signal bell in the department of materia medica with the telephone room, and the wires running from the Museum to the Department of Agriculture were overhauled. The top of the old well south of the Smithsonian Institution was arched over with brick. A new telephone instrument was put up in the office of the superintendent. The doorway leading from the vestibule to the stairway on the first floor of the northwest pavilion was altered, the opening being enlarged to a wide archway. Steam pipes were run from the boilers in the Smithsonian building to the east end of the shed just outside. The telephone wires were disconnected from the overhead cable and connected to the underground cable. The vestibule of the northwest entrance was wainscoated.

Norember.—Two radiators were placed in one of the sheds, and the pipe coils altered and improved. Water pipes were also placed in the same shed and a sink constructed. The lecture hall was put in readiness for the meeting of the American Ornithologists' Union. A radiator was placed in one of the rooms adjoining

the east balcony. A workroom was fitted up for the plumber and pipe fitter. Incandescent electric lamps were put up in the coal vault and other cellars of the Museum. The work of painting the outside of the Museum building was commenced.

December.—Incandescent electric lamps were put up in the library. All the locks on the doors in the Museum were put in order, keys refitted, new ones made where necessary, and the records revised to correspond with the alterations and additions. The exhibition cases in the mineral hall were rearranged and four additional cases placed therein. The work of painting the outside of the Museum was continued; the walls in the east hall were also painted. The exhibition cases in the fisheries hall were rearranged. Two iron hitching-posts were placed at the east entrance of the Museum. A platform for the exhibition of certain large specimens was constructed in the east hall, and a heavy base for the serpent column of Delphi was made and set up.

#### 1896.

January.—The lecture hall was put in order for the meeting of the National Science Club. An excavation was made in the basement of the Smithsonian building, and the space thus obtained, after having the floor and sides bricked up, was used for the reception of a small heating boiler. Six fire extinguishers were placed in different parts of the Museum building. Some additional cases were set up in the north hall. The fisheries hall was screened off for the reception of the exhibits returned from the Atlanta Exposition. The erection of a small gallery, to be used for storage cases for the herbarium, was commenced.

February.—Much time was spent during this month in receiving, making space for, unpacking, and setting up in their proper departments the exhibits returned from the Atlanta Exposition. The three cases containing the Copp collection of New England historical and domestic objects were removed from the north hall to the lecture hall, to be photographed. The work of putting up the gallery for the herbarium was completed, and work commenced on the cases to be placed thereon. A large group belonging to the department of ethnology was installed in a case and placed in the rotunda of the Museum. The skeleton of Zeuglodon was hung from the ceiling of the southeast court. In the departments of minerals and comparative anatomy workmen were engaged in putting down concrete bases upon which to erect wall cases.

March.—In addition to the large amount of work required of the laborers in connection with the arrangement and installation of the material returned from the Atlanta Exposition, much other work was performed. The old Mexican cart was suspended from the ceiling of the east hall, and the platform on which it formerly rested was removed. All the material from the Third-street annex was transferred to the new storage house on Ninth street. The model of the locomotive exhibited on the platform over one of the windows in the east hall was taken down, and the platform removed. The Siamese cart was suspended from the ceiling, opposite the Mexican cart. All the material stored in the lecture hall was removed, and the hall cleaned and put in complete order for the regular course of Saturday afternoon lectures. Several of the pier screens in the mineral hall were lowered to conform with the others. Wires were placed under the floor of the lecture hall, from the desk to the stand used by the lantern operator.

April.—Material from the osteological and other work rooms was removed to the Ninth street annex. The plaster casts of the winged bull and lion were placed in position at the entrance to the east hall, and two large wooden idols were taken off their bases and placed on the balconies west of the rotunda. The three large railroad maps which were mounted on the south wall of the east hall were taken down and placed on the front of east balcony. All the cases were removed from

the rotunda. In anticipation of the meeting of the National Academy of Sciences, the lecture hall was cleaned. The work of taking down and remounting the cases in the east-south range, preparatory to laying an artificial stone floor, was commenced. The exhibition cases in the boat hall were removed to the fisheries hall to make room for the rearrangement of the boats on the walls and ceiling. The work of constructing new mahogany wall cases in the east hall was completed and the cases painted. The large arch screen at the east entrance to the Museum was altered.

May.—One of the large wall screens in the east hall was strengthened, with a view to mounting the Hittite casts thereon. A large Indian war canoe was suspended from the ceiling of the boat hall. Painters commenced work on the storage sheds at the armory. The models of the locomotives "Arabian" and "Tom Thumb" were mounted on floor cases in the east hall.

June.—The idols from Easter Island were moved from the vestibule and placed outside the north entrance to the Museum. The storm doors at the north entrance were removed, certain woodwork cut away, and the top step reset. The old floor inside the north entrance was taken up, and other preliminary matters attended to preparatory to commencing work on the proposed improvements in the vestibule. A section of gallery was put up in the hall of geology and a case placed thereon, to test the appearance and effect of the galleries under contemplation. The seats along the wall of north hall were cleaned and oiled.

In addition to the work of the mechanics, already mentioned, there were constructed in the shops of the Museum 38 moth-proof quarter-unit cases, 8 pine quarter-unit cases, 2 special unit cases, 2 oak and 3 pine book-cases, 3 pine catalogue-cases, 1 pine shelf-case, 5 pine storage-cases, 3 cases of drawers, 4 pine cases for lay figures, 1 pine case for holding papers, 3 cupboards, 2 closets, 192 unit drawers, 2 case drawers, 4 pier-screens, 2 floor-screens and 2 arch-screens, 4 step-ladders and 2 tables, besides many other articles.

The following is a partial list of cases, furniture, fittings, etc., repaired and altered: Six book-cases, 1 card catalogue-case, 1 key case, 9 pine bases, 5 oak bases, 12 unit boxes, 3 exhibition cases, 2 storage cases, 35 chairs, 4 case doors, 22 other doors, 462 unit drawers, 4 case drawers, 1,000 label-holders, 9 window sash, 20 floor, arch, and window screens, 60 shelves for cases, and 2 tables.

Other incidental work included the following items: Cases painted, 10; fire buckets lettered, 29; fire buckets lined with tin, 21; exhibition blocks made, 5,523; exhibition blocks painted, 5,469; exhibition blocks ebonized, 74; unit boxes painted, 14; unit boxes mounted on screens, 69; unit boxes fitted to cases, 140; door-screen eases, etc., painted, 18; doors painted, 9; unit drawers fitted to cases, 462; doors of cases, etc., glazed, 59; locks put on cases, etc., 80; case shelves painted, 107; storage-shelf racks put up, 15; sheds put up, 1; sheds painted, 3; transparencies lettered, 32; transparencies mounted, 31; ventilators put on windows, 12.

A large amount of work has been accomplished under the direction of the engineer. The covering of the steam pipes in the trenches has been removed and replaced with new material. The pipe dies used by the steam fitter have received attention, and are now in perfect

condition. The height of the exhaust pipe of the gas engine in the Museum carpenter shop was increased, in order to carry the exhaust above the windows in the main building. A number of electric lights were installed, as indicated above, and several changes were made in the location of steam radiators. The time and watch clocks received careful attention, and have given good results during the year. The furnaces were repaired, and new grate bars provided. Automatic oil feeders were placed upon the pumps. The boiler rooms and vaults of both buildings were painted and whitewashed.