

# American Museum of Natural History

CENTRAL PARK, NEW YORK CITY.

(77th Street and 8th Avenue.)







ANNUAL REPORT OF THE TRUSTEES,

ACT OF INCORPORATION,

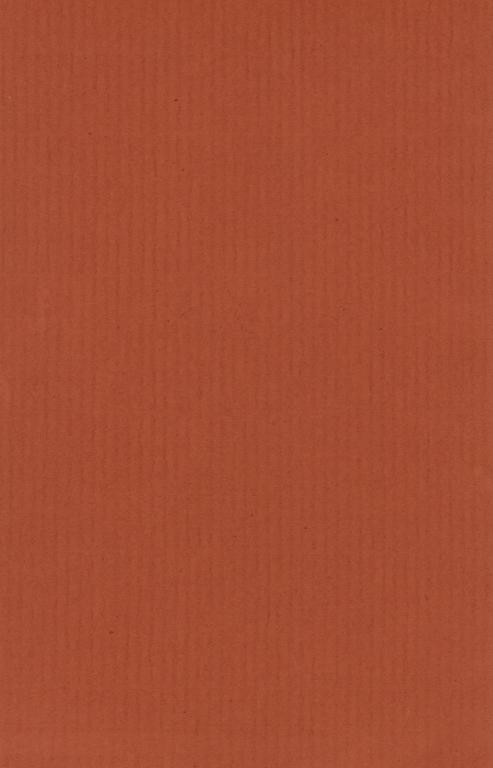
CONSTITUTION, BY-LAWS AND LIST OF MEMBERS

FOR THE YEAR 1889-90.

PRINTED FOR THE MUSEUM







#### THE

## AMERICAN MUSEUM OF NATURAL HISTORY,

CENTRAL PARK, NEW YORK CITY.

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# ANNUAL REPORT OF THE TRUSTEES, ACT OF INCORPORATION, CONSTITUTION, BY-LAWS AND LIST OF MEMBERS FOR THE YEAR 1889-90.



NEW YORK: PRINTED FOR THE MUSEUM.

1890.

PRESS OF WM. C. MARTIN, 111 JOHN STREET, NEW YORK.

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FOR 1890.

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#### ANNUAL REPORT OF THE TRUSTEES

FOR THE YEAR 1889.

#### To the Patrons, Fellows and Members of the Museum:

The report of the operations of the Museum for the year 1889 shows the Treasurer's receipts to have been \$53,932.99, and the expenditures \$50,775.33. There has been used for the improvement and enlargement of the collections \$10,104.33, and for maintenance, covering items for salaries, light, coal, fixtures, repairs, labor, etc., the sum of \$40,671. The cost of opening two evenings of the week, as well as thirteen holiday evenings, has materially enhanced our maintenance account. The city has contributed \$25,000 of the total amount.

Eighteen Life Members have been added, and Mr. Edward D. Adams, Miss Phebe Anna Thorne, and Mr. William C. Schermerhorn have become Patrons by the subscription of \$1000 each. Messrs. Phillips Phænix, Lloyd Phænix and Wm. H. Harbeck have, by subscriptions, been added to the roll of Fellows of the Museum. The total income from members amounts to \$12,660, an increase over last year of \$8210. Of this amount, \$2210 represents the gratifying increase in dues of Annual Members.

The accessions in the Geological Department are many. Among the attractive and valuable specimens may be noted: fossil fishes and large specimens of rich gold quartz, from J. M. Constable, Esq.; two large masses of copper ore and block of vein gold quartz, from Mr. J. D. Hague; seven beautiful examples of velvet malachite, from the Copper Queen Consolidated Mine, through Prof. James Douglas; also a very handsome group of quartz crystals by the President.

The rare collection of land shells owned by Mr. John J. Crooke has been donated to the Museum, but not yet received for exhibition.

In the Department of Birds and Mammals the additions have been numerous and valuable; the larger number being donations from Dr. Edgar A. Mearns, Surgeon U. S. A., Messrs. Barnum & Bailey, and the Central Park Menagerie, through Dr. W. A. Conklin. The skeletons of the African elephant "Jumbo" and of the Indian elephant "Samson" have been replaced in the Museum. A collection of birds and eggs from South Africa was presented through the liberality of Messrs. D. Willis James, Cornelius Vanderbilt and Charles S. Smith. The total number of accessions have been 2270 mammals, 5475 birds, 4000 eggs and 60 skeletons.

The Snowden Howland Collection of Eggs of North American birds, numbering near 3000 specimens, has been given to the Museum, through the kind intervention of Mr. Clarence King.

Plaster busts of the Chimpanzee have been prepared and forwarded to various scientific institutions in this country and Europe, as noted in the report of the Taxidermic Department.

The expedition to the Indian Territory for accessories for use in the Buffalo group was successful beyond expectation, as, in addition to the object of the journey, the Museum acquired 325 specimens of birds and mammals, fully equalling in value the cost of the expedition.

Large increase of material has been made in the Insect Department, and in connection therewith is now being prepared for an economic exhibit handsome groups representing all phases of insect life, and its injurious effect upon vegetation, to be exhibited with the Collection of Woods. Twenty-four groups will be prepared, and are well under way. This valuable feature has not been attempted as yet by any other museum, and will prove of educational value to students and the public.

The new halls will afford space for the proper exhibition of the Jesup Collection of Woods, with its accompanying watercolors, representing the foliage, blossoms and fruit.

The more frequent publication of "Bulletins" by the Curators during the past year; the conferences of the American Geological Society and the American Ornithologists' Union, which were held in the new hall, will tend largely to bring the Museum into close relations with the scientific public; and it is a cause for

much gratification that the interest manifested by scientific bodies in regard to the Museum is being largely augmented each successive year.

Thanks are due to the following for courtesies shown in exchanges: the National Museum, Washington; Cambridge Museum; Boston Society of Natural History; and Messrs. Wm. Brewster and Charles B. Cory.

The Library has, like other departments of the Museum, far outgrown its present limits. Its increase for 1889 is 891 bound volumes and 228 pamphlets; the total acquisitions for the year past being 1119. The total number at present is 12,038 volumes and 5783 pamphlets. Coincident with the completion of the new wing, large and valuable additions will probably be made to this department.

The increase in the number of visitors during the past year is extremely gratifying. During the Centennial celebration, on Labor Day and Election Day, the number was nearly 8000 each day. The attendance in the evenings is so great as to cause astonishment that such large numbers should avail themselves of the privilege. It is a most popular feature. The number of visitors the past year has been 383,485, an increase over 1888 of 196,360.

Dr. Robert H. Lamborn has placed in the care of the President two hundred dollars to be given to the authors of the three best essays upon the "Propagation of the Dragon Fly." Several carefully-written articles are now in the hands of Prof. Newberry and Dr. McCook for their decision as judges.

We are indebted to our friend, Mrs. Stuart, for a contribution of \$1367 toward the bird groups during the past year. Several new ones, completed, are awaiting cases; and many exceptionally interesting groups are in preparation by the Taxidermic Department, including the Buffalo group; and the mounting of the large Rhinoceros is well advanced.

The following-named persons have been elected to honorary membership: Dr. Edgar A. Mearns, U. S. A., and Mr. John J. Crooke as Patrons; Mrs. Florence Howland and Prof. James Douglas as Life Members, for their large contributions to the collections. Mr. James Thomson has been constituted a Fellow.

The new lecture hall was prepared for our use last autumn. Hon. A. S. Draper, State Superintendent of Public Instruction, was present at the opening lecture, and made an address, of which the following is an extract:

MR. CHAIRMAN, LADIES AND GENTLEMEN: I feel happy this morning. I feel like congratulating everybody upon this auspicious occasion-for-such it is. I congratulate the Museum, the Board of Management of this Museum, which has been energetic enough, and broad-gauge enough, and vigorous enough, to ask for and plan out this magnificent lecture hall, opening, as it does, the way for the development of a new idea in educational work. I feel like congratulating the City of New York, which has been munificent enough to provide the means with which to erect an extension to this great institution, containing the most magnificent lecture hall upon the continent, if not in the world. I feel like congratulating the cause of education, too, because I believe, and believe sincerely, that we are entering upon a new and more promising phase of educational progress than we have been familiar with. This visual instruction which has been undertaken in this Museum, first upon a very small scale and gradually broadened out and extended until its future prospects appear unlimitable, is doing more for the training of progressive teachers than any other single line of work which is being undertaken by modern educators. I have no doubt about it whatever. It presents educational processes to more than one of the sensesto two of them, to the eye as well as to the ear-and it presents those processes in an attractive way; and not only in an attractive way, but in an impressive way. We sit here and look upon these foreign scenes, and we grow with them. But few of us, comparatively, have had the opportunity of going to foreign lands, and mingling with these monuments of intelligence, the culture and the progress of those lands; but we can sit here, before these sublime views, and learn almost as much of the conditions which obtain in those lands as we can by going there ourselves. You have no idea of the extent to which this experiment has attracted attention. There is scarcely a day in which I do not receive enquiries from other States concerning the visual instruction which has been carried on so successfully at the American Museum of Natural History. This thing is attracting the attention of the authorities at Washington. I have no doubt but that it is to play in the future a most generous, important and effective part in educational work.

We may be pardoned for quoting here an extract of a letter from Hon. John Eaton:

"As United States Commissioner of Education for sixteen years, I had an opportunity of observing the marvelous development of your Museum, and of its instructive work. The change to your present commodious hall and the improved facilities for illustration is gratifying beyond measure. The aim of these lectures; the instruction of the children of the people through the teachers;

the subjects selected; and the methods of instruction employed, have had my hearty commendation, and it has been my hope that other States would imitate this work."

The new lecture room contains 1002 seats, and the average attendance for the ten lectures completely filled the hall.

For the Spring Course over three thousand applications for tickets were received from teachers alone.

The appropriation of \$400,000, authorized by the Legislature, having been granted by the Board of Estimate and Apportionment, the work on the completion of the new wing is now well under progress, and it is expected that the addition will be ready for occupation during the coming fall.

A large and diversified amount of material is in various stages of preparation pending its location in the new exhibition halls.

In the Department of Archæology and Ethnology, Dr. Frederick Starr has been engaged to arrange, label and catalogue the several collections which have heretofore remained unexhibited, and when completed will prove of great interest to the public.

A revised set of rules and regulations for the government of the attaches of the Museum have just been completed, changes having been greatly needed by reason of the rapid growth of our institution.

Details of statistics giving the growth of our institution might go far toward providing reasons for an appeal by the Trustees for an enlarged spread of interest in the work of maintaining the Museum; but we rely largely upon the generosity of our citizens to assist us in making increased collections.

The thanks of the Trustees are given to those members who have associated themselves with the Museum during the year just past, and we hope for a large increase during the years to come.

#### EXPENDITURES.

To Colonian	<b>.</b>	
To Salaries,	\$17,774 56 8,000 00	
Labor	7,174 77	
Coal,	1,099 74	
Annual Report,	218 10	
General Printing,	305 96	
Supplies,	471 61	
Stationery,	554 92	
Postage,	202 78	
Reception,	15 20	
Car-fare	120 Q2	
Travelling Expenses,	61 Ś7	
Poison,	14 62	
Repairs on Building, etc.,	383 65	
Fixtures,	283 06	
Emergency Account,	500 00	
Expense Account,	3,160 36	
Advertising,	328 88 \$40,671	00
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Endowment.		
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To Geological Account,	\$592 69	
Ornithological Account,	2,885 04	
Ethnological Account,	42 00	
Mammal Account	928 54	
Mineral Account.	111 00	
Entomological Account,	44 06	
Reptiles and Fishes Account,	103 30	
Wolfe "Library Fund,	307 60	
Library Account,	845 92	
Bird Groups,	468 98	
Mammal Groups,	446 99	
Economic Account,	36 oo	
Special Account,	316 00	
Taxidermic Department,	298 96	
Collecting Material, "Indian Territory,"	617 79	
Expressage,	456 29	
Labels,	385 42	
Bulletins,	. 1,217 75 \$10,104	33
	\$50,775	33
Balance brought down from 1889 Account, -	3,157	
	\$53,932	99

Examined ADRIAN ISELIN, Auditing and approved, CHARLES LANIER, Committee.

RECEIPTS.	
	0 03 0 00 0 00 0 00 0 00 0 05
ENDOWMENT.	
From Mrs. R. L. Stuart, for Groups,	1,367 48
From Patrons:	
Edward D. Adams, \$1,000	00
Miss Phebe Anna Thorne, 1,000	
Wm. C. Schermerhorn, 1,000	0 00 3,000 00
From Fellows:	
Phillips Phoenix, \$500	
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From Life Members:	
John L. Cadwalader, \$100	00
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John H. Wyman, 100	00
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James M. Lawton, 100	0 00 1,800 00
	\$53,932 99 =======
Balance from 1889 Account,	- \$3,157 66

[E. & O. E.] NEW YORK, February 10, 1889.

J. PIERPONT MORGAN, Treasurer.

#### DEPARTMENT OF PUBLIC INSTRUCTION.

[Under the charge of Prof. A. S. BICKMORE.]

The following are the subjects of the lectures delivered during the past year under the auspices of the State Superintendent of Public Instruction:

#### SPRING OF 1889.

- 91. The Palisades and Highlands.
- 92. The Catskills and the Adirondacks.
- 93. The White Mountains.
- 94. The Lakes and Glens of New York.
- 95. The Falls of Niagara.
- 96. The St. Lawrence and the Saguenay
- 97. The Mississippi Valley and Gulf States.
- 98. The Stem and the Leaf.
- 99. The Flower and the Fruit. 100. The Forests of America.

#### AUTUMN OF 1889.

- 101. Belgium-Waterloo.
- 102. Holland-Amsterdam.
- 103. Denmark, Sweden and Southern
- 104. The National Yellowstone Park. 109. British Columbia.
- 105. Colorado-Pike's Peak and Monu- 110. Alaska. ment Park.
- 106. The Cañons of the Rocky Mountains.
- 107. The Great Basin and the Sierras.
- 108. California—the Yosemite Valley.

At the closing lecture thirteen hundred were present, and so many were unable to get within the large hall that the lecture was repeated the following week, when seven hundred more were present, making the total number who have listened to this one subject two thousand; and if we had an auditorium which would seat such a great number we have reason to believe that on every fair day it would be full.

#### GEOLOGICAL AND CONCHOLOGICAL DEPARTMENTS.

[Under the charge of Prof. R. P. WHITFIELD.]

PALÆONTOLOGICAL COLLECTIONS.—At the end of 1888, labeling in this collection had progressed to the end of the Class Bryozoa in the Hudson River Group, from which point the work of the present year (1889) is to be counted. The work has now (January 1st, 1890) progressed to the Echinodermata of the Lower Helderberg Group. This comprises the remainder of the Hudson River Group from the Bryozoans; the Medina Sandstone, the Clinton and Niagara Groups, and the commencement of the Lower Helderberg Group to the point above mentioned. Within this area there have been placed 2324 complete labels, of which 600 are either type or figured specimen labels, containing the citations of volume, page, plate and figure in the work in which they were published.

ADDITIONS TO THE PALÆONTOLOGICAL COLLECTIONS.—During March of the past year Mr. James M. Constable purchased and donated to the Museum three very fine fossil fish from the Eocene Beds of Wyoming. But aside from these there have been no additions of value to this collection, aside from those obtained by means of the Wilcox exchanges, which were partly in fossils, but partly also in shells and partly cash. This is rather a poor showing, considering the many very desirable collections of fossils constantly offered to the Museum, which, for want of funds, we have been unable to obtain.

THE HALL DUPLICATE COLLECTIONS.—During the year the four sets of these collections, previously sold to Mr. Joseph Wilcox, of Philadelphia, and Prof. C. H. Hitchcock, of Hanover, New Hampshire, were sent away. The two sold to Prof. Hitchcock have been placed, one in Dartmouth College and the other exchanged for other material, which will enrich the same college collection. Those disposed of to Mr. Wilcox are placed, one in the Wagner Institute in Philadelphia, and the other to be in the Catholic University at Washington, D. C.

The Museum has received for the nine collections of these duplicates already disposed of, the following returns:

From the Smithsonian Institution, for Collection No. 1.—63 species, 165 specimens of fossil plants, with a collection of marine invertebrates yet to come.

Coll. No. 2.—Madison University, cash, \$1750.00.

Coll. No. 3.—Vassar College, cash, \$1200.00.

Coll. No. 4.—University at Munich, Bavaria, 1458 species=4500 specimens of European fossils (all in cabinet).

Coll. No. 5.—Still on hand.

Colls. Nos. 6 & 7.—Dartmouth College, Prof. C. H. Hitchcock: Relief Map of New Hampshire; 13 Geological Sections across Vermont and New Hampshire, represented by the hand blocks of rock to the number of 2143; and a colored diagram of each section, numbered to indicate the exact spot where each rock specimen was obtained. Also, 2000 specimens illustrating the rocks of New Hampshire and classified according to the Geological Reports of that State.

Coll. No 8.—McGill University, Montreal, Canada. For this the Museum received a collection of Devonian and Carboniferous fossil plants, studied and determined by Prof. Sir William Dawson, consisting of 130 specimens, representing 68 species.

Coll. No. 9.—Wagner Free Institute, Philadelphia, Pa., cash, \$112.50, and 168 species; 500 specimens Marine Shells, and 12 specimens; 6 species fossil Ammonites, with \$37.50 in exchange yet to come.

Coll. No. 10.—Catholic University, Washington, D. C., return 35 specimens of Minerals=\$60, and 290 Pliocene fossils from Florida, 89 species, with many others yet to come.

A COLLECTION OF FOSSILS WHICH OUGHT TO BE SECURED.—There is now for sale in Rochester, N. Y., a special collection of Utica Slate fossils, made near Utica, N. Y., a typical locality, which ought to come into the possession of the Museum, or at least a selection from it. It was originally made by Mr. Rust, of Trenton Falls, N. Y., and sold to C. D. Walcott for \$500. It is now in the hands of Mr. Howell, of Rochester, and should be purchased when the means can be obtained.

MINERALOGICAL COLLECTION.—The catalogue of this collection is being transcribed by Mr. Gratacap from the rough notes into a large catalogue book, and is now more than half completed. The additions to this department during the year have been marked by two noted donations. One of Malachites, through Prof. Douglas, President of the Consolidated Copper Queen Mining Company, of Bisbee, Arizona; and the other of the finest group of Quartz Crystals ever obtained from an American locality, from Mr. Morris K. Jesup. Other donations and several good purchases made to this collection will be found noted in the appendix to this report. This collection may be said to have made fair progress during the year, and if the Tiffany Collection of Gem Minerals, and the Kunz Collection of Meteorites could be added to it, it would rank as among the noted collections of this country.

CONCHOLOGICAL COLLECTIONS.—Mr. Sanderson Smith has been employed since the middle of February last on the shell collections. During that time he has worked over the shells of the Bickmore Collections, those of the Haines, Goodwin, Binney and Bland donations, and several miscellaneous lots, the source of They have been specifically identified and which is uncertain. labeled, or the labels with them verified; they have been placed in drawers and partially arranged, those needed for the collection being separated and marked, and are to be provided with labels and incorporated in the collections; while those considered as duplicates will be so arranged as to be available This work is not yet quite complete, but will require as such. some weeks further time. The Binney and Bland Collection has been mostly placed in glass vials or in glass covered boxes, and so arranged as to be comparatively safe from admixture by displacement.

THE JAY COLLECTION.—The work on this collection, contracted for by Mr. Sanderson Smith, is nearly completed; only a few species remaining undetermined.

ECONOMIC COLLECTIONS.—Building and Ornamental Stones, Ores, etc.—The labels for the Jesup Collection of building stones, received from the Smithsonian Institution, have been placed on the blocks provided for these samples, and the collection arranged in cases.

#### DEPARTMENT OF MAMMALS AND BIRDS.

[Under the charge of Prof. J. A. ALLEN.]

MAMMALS.—The additions to the collection of mammals number 2310 specimens, acquired as follows:—By donation: 50 specimens in the flesh; 18 skins and skeletons from South Africa; 20 specimens in alcohol, 332 skins, 518 skulls, and 27 skeletons, from North America. By exchange: 15 skins and 12 skulls, from India and Africa. By purchase: 21 Monkeys, mounted; 28 specimens in the flesh; 70 skins and 96 skulls from Mexico; 5 skins from Brazil; 8 skins from Australia and India; 512 skins, 535 skulls, 11 skeletons, and 33 specimens in alcohol, from North America.

Among the most important donations is the collection of 300 skins, 500 skulls, 26 skeletons, and 20 specimens in alcohol, presented by Dr. Edgar A. Mearns, U. S. A. Messrs. Barnum & Bailey have sent us 15 specimens in the flesh, including an American Bison, 8 Monkeys and several large Carnivores. From the Central Park Menagerie we have received, through Dr. W. A. Conklin, Superintendent, 22 specimens in the flesh, among them the young Hippopotamus recently born in the Menagerie, and other animals of much value. Mr. Frank J. Thompson has presented five Monkeys and a Paradoxure.

BIRDS.—The additions to the collection of birds numbers 5474 skins, about 4000 eggs, and 60 skeletons, as follows:—By donation: 1560 skins, many nests, and about 4000 eggs. By exchange: 242 skins, nearly all from South America and mostly representing species new to the collection. By purchase: 30 skins from the Bahamas, 85 from Southern Mexico, 128 from Costa Rica, 405 from South America, and 3024 from North America.

Among the most important donations is a collection of 1200 skins from North America and Northern Europe, and 100 nests and about 1000 eggs from Arizona, presented by Dr. E. A. Mearns. We have also received, through Mr. Clarence King, of this city, the celebrated Snowden Howland Collection of Eggs, well known as one of the largest and most valuable private collections of North American birds' eggs ever brought together. The Museum is also indebted to Messrs. D. Willis James, Charles S. Smith and Cornelius Vanderbilt, for a valuable collection of South African bird skins.

The work of identifying, cataloguing and labeling the collections has advanced steadily and satisfactorily throughout the year. The entire collection of mammals, including both skins and skulls, is now catalogued and labeled, excepting a few of the most recent accessions. About 500 birds in the Exhibition Collection have been provided with exhibition labels, and general or family labels have been prepared for the entire exhibition series of birds. About 12,000 birds in the Study Collection have been catalogued and labeled, including the whole of the Lawrence Collection. Notwithstanding this satisfactory progress, much work remains to be done on both the Study and Exhibition Collections of birds; about 5000 of the latter being still uncatalogued, and about 10,000 of the former. About two-thirds of the uncatalogued material in the Study Collection has only recently come into our possession, including the Mearns Collection, which alone numbers over 5000 specimens.

Much use has been made of our material during the past year by specialists, and the important interchange of specimens for comparison and study between this department and the leading investigators and museums of this country has been continued. The museum is already one of the leading resorts of specialists

engaged in ornithological work.

In the elaboration of new material, and in working up special groups, the Curator and his assistant have contributed thirteen papers, aggregating 204 pages, to the Museum "Bulletin," as a part of the work of the department during the last year.

The following is a list, in the order of publication:

- 1. Notes on a Collection of Birds from Quito, Ecuador. By the Curator. 8 pp. Published March 22, 1889.
- 2. List of Birds Collected in Bolivia by Dr. H. H. Rusby, with Field Notes by the Collector. By the Curator. 46 pp. Published March 22.
- 3. Preliminary Descriptions of two apparently New Species of *Hesperomys* from Florida. By Frank M. Chapman. 1 p. Published June 7.
- 4. Description of a New Sub-species of the Genus Sigmodon. By Frank M. Chapman. 1 p. Published June 7.
- 5. On the Habits of the Round-tailed Muskrat. By Frank M. Chapman. 4 pp. Published June 7.
- 6. On *Cyclorhis viridis* (Vieill.) and its Near Allies, with Remarks on other Species of the Genus *Cyclorhis*. By the Curator. 14 pp. Published June 17.
- 7. Descriptions of New Species of South American Birds, with Remarks on various other little-known Species. By the Curator. 15 pp. Published June 28.

- 8. Revision of the Genus Xyphorhynchus Swainson, with Descriptions of two New Species. By Frank M. Chapman. 8 pp. Published July 5.
- 9. Description of a New Species of Hummingbird of the Genus *Amazilia*. By Frank M. Chapman. 1 p. Published July 10.
- 10. Notes on a Collection of Mammals from Southern Mexico, with Descriptions of New Species of the Genera *Sciurus*, *Tamias* and *Sigmodon*. By the Curator. 18 pp. Published October 21.
- 11. Further Note on Amazilia aneobrunnea. By Frank M. Chapman. 1 p. Published October 21.
- 12. Remarks on Individual and Seasonal Variation in a large series of *Elainea*, from Chapada, Matto Grosso, Brazil, with a Revision of the Species of the Restricted Genus *Elainea*. By the Curator. 25 pp. Published October 31.
- 13. On the Maximilian Types of South American Birds in the American Museum of Natural History. By the Curator. 68 pp. Published November and December.

## DEPARTMENT OF INVERTEBRATE ZOÖLOGY, FISHES AND REPTILES.

[Temporarily under the charge of Prof. J. A. ALLEN.]

The only noteworthy addition to this department during the year is a very full series of the Reptiles, Batrachians and Fishes of Fort Verde, Arizona, collected and presented by Dr. Edgar A. Mearns, U. S. A. These number altogether about 250 specimens, preserved in alcohol.

Owing to the lack of glass jars, for the proper distribution and exhibition of the specimens, no work has been done in this department beyond looking after the safety of the collections. All of the recent accessions remain stored in bulk as originally received.

#### TAXIDERMIC DEPARTMENT.

[Under the charge of Mr. JENNESS RICHARDSON.]

The progress of the work for the past year has been most satisfactory, and much credit is due to each member of the department for his proficiency.

The large number of specimens that have passed through our hands have either been mounted, made into skins, or skeletonized, and by the list below it will be found to be larger than in any previous year.

The greater portion of the month of April was occupied in repairing and placing on a new pedestal the skeleton of the Elephant "Jumbo," kindly loaned to us by Barnum & Bailey.

The most notable specimens that we have received in the flesh, of which plaster casts and careful studies have been made, were a young Chimpanzee, an Ibex, one of the large Dog-faced Apes, the baby Hippopotamus, an Amherst Pheasant, and two Emus. The Pheasant and Emus have been mounted and are now on exhibition.

Early in the year several months were devoted to the preparation of plaster busts of the Chimpanzee "Crowley." Eighteen (18) were made, and seventeen (17) have been delivered as follows: Prof. J. P. Marshall, Tuft's College, College Hill, Mass.; National Museum, San José, Costa Rica; Dr. W. A. Conklin, Central Park Menagerie, New York; Mr. Frank J. Thompson, New York; Mr. H. S. Fuller, New York; Mr. Jacob Cook ("Crowley's" keeper), Central Park, New York; A. Agassiz, Esq., Museum of Comparative Zoölogy, Cambridge, Mass.; Mr. Arthur Erwin Brown, Zoölogical Garden, Philadelphia, Pa.; Prof. G. Brown Goode, U. S. National Museum, Washington, D. C.; Dr. J. S. Billings, U. S. Army, Medical Museum, Washington, D. C.; Mr. W. T. Hornaday, U. S. Zoölogical Garden, Washington, D. C.; Prof. A. Hyatt, Boston Society of Natural History, Boston, Mass.; Dr. P. L. Sclater, London Zoölogical Society, London, England; Prof. A. Ploppoy, Society of Acclimation, Paris, France: Royal Museum, Dresden, Germany; Dr. Chas. Spitzka, New York; S. A. Liautaud, M. D. V. S., New York.

The following five groups have been completed; the Ruffed Grouse, Loon, Woodchuck, Labrador Duck, and Laughing Gull. Work has been delayed in preparing the groups of Opossum, Black Duck, Muskrat, and Pied-billed Grebe, by lack of cases and the making of leaves and plants. During the spring four most interesting groups were collected, and when they are completed they will be the most attractive in the collection. They consist of the Pied-billed Grebe, with four young; the Black Duck, with thirteen young; the common Striped Squirrel, with six young; and the Red Fox, with five young.

With the valuable addition of a fine Buffalo bull, obtained through exchange with the United States National Museum, and the acquisition of the necessary accessories to complete this group, collected during a personal trip to the Buffalo country in the Pan Handle of Texas, in October and November, we are now able to advance with this group until it is completed. The work is fairly begun, and will be finished ready for its case during the summer. This group will comprise one full adult bull and cow; one five-year-old cow, with a six-weeks'-old calf; one yearling cow; one three-year-old cow, and one spike Bull. With these animals will

be represented the real Buffalo grass, with the cactus, soap weed and different prairie flowers found at this time of the year; the same character of accessories and grouping being maintained as in the present bird and mammal groups. This group will represent, as far as possible, this mammal in all its different stages of development, and it is to be hoped that suitable material may be secured to make similar groups of the American Antelope, Moose, Elk, Mountain Sheep, Mountain Goat and some of the Deer, before these animals are exterminated.

The number of birds mounted has been one hundred and thirty-eight (138); number of birds made into skins, for Study Collection, five hundred and eighty-four (584); number of birds collected in the field and made into skins, three hundred and seventy-five (375); number of birds skeletonized, twenty-two (22); number of birds received from Mr. Allen to be mounted, two hundred and seven (207). Total number of birds received in the flesh and prepared, six hundred and forty-one (641).

The number of mammals mounted, thirteen (13); number of mammals made into skins for study, ninety-eight (98); number of mammals skeletonized, fifteen (15); number of mammals collected in the field, one hundred and thirty one (131). Total number of mammals received in the flesh and prepared, two hundred and twenty-five (225); number of mammal skulls cleaned for study, two hundred and two (202).

The number of mammal skins now in antiseptic solution, that require constant attention, and most of which are not in our collection, is three hundred and fifty-six.

#### LIBRARY.

#### [Under the charge of Mr. A. WOODWARD.]

The additions to the Library this year are as usual principally by donations and exchanges. The books and pamphlets received have amounted to: volumes, 600; numbers and parts, 588; pamphlets, 328.

By Application (Librarian) 316 V	ols. 251 No	s. and Parts.	47 Pa	mphlets.
Exchange (Bulletin) 61	" 217	"	108	7.
" (Duplicates) 19	" 8	"	I	"
Donations	" 95	"	105	"
Purchase 116		"	67	"
Total $\overline{600}$	582		328	

Among the additions should be mentioned a few of those in constant use:

Mr. Hugh Auchineloss.—Schoolcraft's History, Condition and Prospects of the Indian Tribes of the United States. Weinmannos Phytanthoza Iconographia. 1737 to 1745. 6

volumes.

C. R. Osten-Sacken (the author), Heidelberg.—17 Pamphlets on Diptera.

Boston Society of Natural History.—Proceedings. Vols. XVIII.—XXIII. (Exchange.)

British Museum.-Guides.

The Australian Museum.

The Indian Museum, Calcutta.

Société Impériale des Naturalistes de Moscou, Russia.—Mémoires and Bulletins. 63 volumes.

Société Royale Hongroise des Sci. Nat.—9 volumes.

Från Kongl. Svenska Vet. Akademien, Stockholm.—29 volumes.

Ungarischen Karpathe-Vereins.—15 volumes.

Forty-five (45) volumes added to the Conchological Section, the gift of Miss Catharine Lorillard Wolfe.

The publications of the Museum consist of an Annual Report and Bulletin, the latter used principally for exchange with kindred institutions and societies.

The Museum Exchange List shows that the Library is exchanging publications with one hundred and twenty-five (125) scientists, one hundred and thirty (130) societies, in the United States and Canada. In Europe: twenty-five (25) scientists, one hundred (100) societies.

The Library now contains above twelve thousand (12,000) volumes. The shelves are very much crowded, not showing the books to advantage.

Number of Volumes in Library,	Bound.	Unbound.	Nos. and Parts.	Pamphlets.
January 1st, 1890 Added during the year	6893 133	1940 467	4618 582	5555 228
	7026	2407	5200	5783

Three hundred and fifty-three (353) volumes were bound this year through the generosity of the Trustees and Miss Catharine Lorillard Wolfe.

There is to be found in the Library a fine collection of books on Natural History, comprising the libraries of Dr. John C. Jay, on Shells; James Carson Brevoort, on Fishes, and many other old and rare works. Also, the Elliot Library, on Birds. The leading periodicals and various other scientific works, which the Trustees will be able to have properly exhibited when the new Library room is ready.

#### INCORPORATION.

#### AN ACT

TO INCORPORATE THE

#### AMERICAN MUSEUM OF NATURAL HISTORY,

Passed April 6, 1869.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. John David Wolfe, Robert Colgate, Benjamin H. Field, Robert L. Stuart, Adrian Iselin, Benjamin B. Sherman, William A. Haines, Theodore Roosevelt, Howard Potter, William T. Blodgett, Morris K. Jesup, D. Jackson Steward, J. Pierpont Morgan, A. G. P. Dodge, Charles A. Dana, Joseph H. Choate, and Henry Parish, and such persons as may hereafter become members of the corporation hereby created, are hereby created a body corporate, by the name of "The American Museum of Natural History," to be located in the City of New York, for the purpose of establishing and maintaining in said city a Museum and Library of Natural History; of encouraging and developing the study of Natural Science; of advancing the general knowledge of kindred subjects, and to that end of furnishing popular instruction and recreation.

SEC. 2. Said Corporation shall have power to make and adopt a Constitution and By-Laws, and to make rules and regulations for the admission, suspension, and expulsion of its members, and their government, the number and election of its officers, and to define their duties, and for the safe keeping of its property, and, from time to time, to alter and modify such Constitution, By-Laws, Rules, and Regulations. Until an election shall be held pursuant

to such Constitution and By-Laws, the persons named in the first section of this Act shall be, and are hereby declared to be the Trustees and Managers of said Corporation and its property.

- SEC. 3. Said Corporation may purchase and hold, or lease any real and personal estate necessary and proper for the purposes of its incorporation, provided they shall not hold real estate which shall exceed one hundred thousand dollars in value.
- SEC. 4. Said Corporation shall possess the general powers, and be subject to the restrictions and liabilities prescribed in the Third Title of the Eighteenth Chapter of the First Part of the Revised Statutes.

SEC. 5. This Act shall take effect immediately.

STATE OF NEW YORK, OFFICE OF THE SECRETARY OF STATE. \$ ss.:

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom, and of the whole of said original law.

Given under my hand and seal of office at the City of Albany,

[L. s.] this fourteenth day of April, in the year one thousand eight hundred and sixty-nine.

D. WILLERS, JR., Deputy Secretary of State.

#### CONSTITUTION

OF THE

#### AMERICAN MUSEUM OF NATURAL HISTORY,

IN THE CITY OF NEW YORK.

#### ARTICLE I.

This Corporation shall be styled the American Museum of Natural History.

#### ARTICLE II.

The several persons named in the charter, and such others as they may add to their number, which shall not exceed twenty-five in all at one time, shall be the Trustees to manage the affairs, property, and business of the Corporation, and in case of the death, accepted resignation, or removal from the State of any Trustee, a new Trustee shall be elected to fill his place by the remaining Trustees; but no election of a Trustee shall be held except at a quarterly meeting of the Trustees, on written notice of not less than one week, specifying that such election is to be held, and the vacancy which is to be filled; and every election of Trustees shall be by ballot, and no person shall be deemed to be elected a Trustee unless he shall receive the votes of at least three-fourths of the Trustees present.

#### ARTICLE III.

The Trustees shall meet quarterly, on the third Monday of every February, May, August and November, at an hour and place to be designated, on at least one week's written notice from the Secretary, and shall annually, at the quarterly meeting in February, elect the officers and committees for the ensuing year. They shall also meet at any other time to transact special business

on a call of the Secretary, who shall issue such call whenever requested so to do, in writing, by five Trustees, or by the President, and give written notice to each Trustee of such special meeting, and of the object thereof, at least three days before the meeting is held.

#### ARTICLE IV.

The officers of the said Corporation shall be a President, a First and Second Vice-President, a Secretary, and a Treasurer, an Executive Committee, an Auditing Committee, and a Finance Committee, all to be elected from the Trustees. All these officers shall hold their offices for one year, and until their successors shall be elected.

The election of officers shall be by ballot, and the persons having a majority of the votes cast shall be deemed duly elected.

#### ARTICLE V.

The President, and in his absence the First or Second Vice-President, shall preside at all the meetings of the Museum and of the Trustees.

The Secretary shall keep a record of the proceedings of the Trustees, of the Executive Committee, and of the Auditing Committee, and shall preserve the seal, archives, and correspondence of the Museum, shall issue notices for all the meetings of the Trustees, and attend the same.

The Treasurer shall receive and disburse the funds of the Museum. He shall keep the accounts of the Museum in books belonging to it, which shall be at all times open to the inspection of the Trustees. He shall report in writing, at each quarterly meeting of the Trustees, the balance of money on hand, and the outstanding obligations of the Museum, as far as practicable; and shall make a full report at the annual meeting of the receipts and disbursements of the past year, with such suggestions as to the financial management of the Museum as he may deem proper.

#### ARTICLE VI.

The Executive Committee shall consist of seven, of whom the President and Secretary shall be two. The five members of the

Executive Committee elected in February, 1887, shall forthwith draw lots for terms of one, two, three, four and five years, respectively, and the terms for which those drawing the two, three, four and five years, respectively, were elected, are hereby extended to cover those periods; and hereafter at each annual election one member of the Executive Committee shall be elected to serve for five years. They shall have the control and regulation of the Collections, Library, and other property of the Museum; and shall have power to purchase, sell, and exchange specimens and books. to employ agents, to regulate the manner and terms of exhibiting the Museum to the public, and generally to carry out in detail the directions of the Trustees; but the Executive Committee shall not incur any expense or liability for the Museum exceeding two thousand dollars at one time, or exceeding, in all, ten thousand dollars, in the interval between the quarterly meetings of the Trustees, without the express sanction of the Trustees.

#### ARTICLE VII.

The Auditing Committee shall consist of three, and it shall be their duty to examine and certify all bills presented against the Corporation; and no bills shall be paid unless first approved in writing by at least two members of this Committee.

#### ARTICLE VIII.

The Finance Committee shall consist of three, including the Treasurer, and it shall be their duty to take charge of and invest the funds of the Museum in its name, and to take all proper measures to provide means for its support.

#### ARTICLE IX.

A majority of the Trustees for the time being shall constitute a quorum for the transaction of business, but five Trustees meeting may adjourn and transact current business, subject to the subsequent approval of a meeting at which a quorum shall be present.

#### ARTICLE X.

By-Laws may from time to time be made by the Trustees, providing for the care and management of the property of the Corporation; and for the government of its affairs.

Such By-Laws, when once adopted, may be amended at any meeting of the Trustees, by a vote of a majority of those present, after a month's notice in writing of such proposed amendment.

#### ARTICLE XI.

The contribution of \$1000 or more to the funds of the Museum, at any one time, shall entitle the person giving the same to be a Patron of the Museum, who shall have the right in perpetuity to appoint the successor in such patronship.

The contribution of \$500, at one time, shall entitle the person giving the same to be a Fellow, who shall have the right to appoint one successor in such fellowship.

No appointment of a successor shall be valid unless the same shall be in writing, endorsed on the certificate, or by last will and testament.

The contribution of \$100, at one time, shall entitle the person giving the same to be a Life Member.

Any person may be elected by the Trustees to either of the above degrees, who shall have given to the Museum books or specimens, which shall have been accepted by the Executive Committee, to the value of twice the amount in money requisite to his admission to the same degree, and the President and Secretary shall issue diplomas accordingly under the seal of the Museum.

The Trustees may also elect Honorary Fellows of the Museum in their discretion.

#### ARTICLE XII.

No alterations shall be made in this Constitution, unless at a regular quarterly meeting of the Trustees; nor by the votes of less than two-thirds of all the Trustees; nor without notice in writing of the proposed alteration, embodying the amendment proposed to be made, having been given at a regular meeting.

#### BY-LAWS.

T.

Patrons giving \$1000 are each entitled to 1 Subscriber's Ticket, 5 Complimentary Season Tickets, and 10 Tickets for a single admission.

Fellows, giving \$500, are each entitled to 1 Subscriber's Ticket, and 10 Tickets for a single admission.

Life Members, giving \$100, are each entitled to 1 Subscriber's Ticket, and 5 Tickets for a single admission.

Annual Members, paying \$10 yearly, are each entitled to 1 Subscriber's Ticket, and 2 Tickets for a single admission.

[Note.—A Subscriber's Ticket admits two persons to the Museum every day except Sunday, and to all Receptions and Special Exhibitions, and may be used by any member of the Subscriber's family.

The Single Admission Tickets admit the bearers to the Museum on reserve days (Mondays and Tuesdays) and are issued to Subscribers for distribution among friends and visitors.]

II.

Any Trustee who shall fail to attend three consecutive Regular Quarterly Meetings of the Board, shall cease to be a Trustee, unless excused by the Board.

III.

No gentleman shall hereafter be eligible to the position of a Trustee who shall not be a "Patron" of the Museum, unless by a unanimous vote of a quorum of the Board—excepting Trustees ex-officio—nor be eligible unless his name shall be presented by the nominating committee at a Regular Quarterly Meeting prior to the meeting at which said election shall take place.

#### IV.

No indebtedness shall (except for current expenses) be incurred by the Trustees of the Museum, nor by any of its committees, officers, or employees, unless there are at the time sufficient moneys in the Treasury to pay the same.

#### V.

All bequests or legacies, not especially designated, shall hereafter be applied to the *Permanent Endowment Fund*, the interest only of which shall be applied to the use of the Museum, as the Board shall direct.

### List of Accessions, 1889.

#### DONATIONS.

#### LIBRARY.

Through the late MISS CATHARINE LORILLARD WOLFE.
Bielz, E. A. Fauna der Land und Süsswasser Mollusken, Sieben-
burgens. 2d edition. 1867.
Bofili, A. Catalogo de los Moluscos Testaceos terrestres del Llano de
Barcelona. 1879.
Bourguignat, J. R. Mollusques nouveaux litigieux ou peu Connus. 2 vols. 1863-70.
Brito-Capello.—Description de quelques espèces du genre Galateia.
1878.
Bouchon-Brandely, M. G. Rapport sur la fécondation artificielle et la génération des Huitres. 1884.
Bucquoy et Dautzenberg.—Mollusques Marins du Roussillon. Parts 4-16. 1883-1889.
Cox, J. A. Monograph of Australian Land Shells. 1868.
Godwin and Austin.—Land and Fresh-water Mollusca of India. 2 vols. 1882–1888.
Hartman.—A Catalogue of the Genus (Partula). 1881.
Kiener.—Iconographie des coquilles Vivantes. 3 vols.
Pauly, A. Ueber die Wasserathmung der Limnaeiden. 1877.
Semper, C. Reisen in Archipel der Philippinen.
Strobel, P. Materiali per una malacostatitica di terra e di acqua dolce dell Argentinia. 1874.
Martini and Chemnitz (Küster). Parts 361-371.
Rossmässler's Iconographie. Kobelt's continuation. N. S. Vol. IV,
I-4. Trinchese, S. Æolididæ e Famiglie affini del Porto di Genova. 1877–
1881.
Bullettino Malacologico Italiano, 1883, 1884, 1885, 1886, 1888.
Journal de Conchyliologie. 1886–1889.
Malakozoologische Blätter, Neue Folge. 1885.
Jahrbücher der Deutschen Malakozoologischen Gesellschaft. 1885– 1887.
Nachrichtsblatt d. Deutschen Malakozoologischen Gesellschaft, 1883- 1888.
Quarterly Journal of Conchology. 1888.
HUGH AUCHINCLOSS, New York City.
History, Conditions and Prospects of the Indian Tribes of the United States. Vols. I-IV. 1853-1857. By H. R. Schoolcraft.
Phytanthoza Iconographia. Vols. I–IV (in six). 1737–1745. By J.

Weinmanno.

MORRIS K. JESUP, New York City.

List of Institutions in the United States receiving Publications of the Smithsonian.

History of the Smithsonian Exchanges.

List of Foreign Correspondents of the Smithsonian Institution.

Additions and Corrections to the List of Foreign Correspondents. Smithsonian Institution.

Systematic Arrangement of the List of Foreign Correspondents. Smithsonian Institution.

Hon. A. S. HEWITT, New York City.

Official Gazette of the United States Patent Office. Vols. XLVI, XLVII, XLVIII, XLXIX. 1888, 1889.

Index. Vol. XLIII. 1888. Annual Report Commissioners of Patents. 1888.

Alphabetical List of Patentees and Inventions. 1889.

Hon. R. P. FLOWER, New York City. War of the Rebellion. Series I-Vols. XXII, XXIII, XXIV, XXV. 1888, 1889.

WM. A. CONKLIN, Ph. D., New York City.

The Journal, Comparative Medicine and Surgery. Vol. X. 1889.

The Anatomical Uses of the Cat. By B. G. Wilder.

The Brain of the Cat. By B. G. Wilder.

Contributions to the Comparative Myology of the Chimpanzee. By B. G. Wilder.

On the Brain of Chimæra monstrosa. By B. G. Wilder.

La Pathologie compareè. By O. Larcher.

Ueber den Bau der Nase der Antilope Saiga, Pall. By L. Glitsch. Zur Kenntniss der Lahnformel für die Gattung Sus. By R. Hensel. Uber die Entwickelung und den Bau des Säugethierzahns. By A. Hannover.

Resectionen und Amputationen. By J. F. Heyfelder.

"Mikrographie der Mitteldarmdrüse (Leber) der Mollusken." By J. Frenzel.

"Chaitophorus." By H. F. Kessler.

Speicheldrüsen von Blatta. By B. Hofer.

Photogramme zur Ontogenie der Vögel.—Kupffer and Benecke. "Die Mallophagen." By O. Taschenberg.

Beitrag zur Entwickelungs-und-Lebensweise der Aphiden. By H. F. Kessler.

Beiträge zur vergleichenden Anatomie und Entwickelungs geschichte des unteren Kehlkopfes der Vögel. By L. Wunderlich.

Beitrag zur Kenntniss der Pferdegebisses. By M. Wilckens.

Gewichts bestimmungen zur Entwickelung des Muskelsystems und des Skelettes beim Menschen. By F. W. Theile.

Leopoldina. Nos. XVI-XXIII. 1880-1887. Sitzungsberichte der mathematisch—physikalischen classe K. b. Akademie der Wissenschaften zu München. 1880-1888.

Report of the Central Park Menagerie. 1888.

DANIEL DRAPER, Ph. D., Director, New York Meteorological Observatory. Annual Report, 1889.

A. W. VOGDES, Fort Hamilton.

"Fossil Shells the Tertiary Formation. N. A. Conrad."

W. DANMAR, Brooklyn, N. Y. "The Tail of the Earth."

JOHN A. BRITTANJ, New York City.

Weiber Kranckheit. By Carolus Musitani. 1711.

WM. BEUTENMULLER, New York City.

"On North American Tineidæ" (the author).

Chambers' corrections to his paper on the Illustrations of the Wings of American Tineidæ (the author).

Descriptions of some Lepidopterous Larvæ (the author). Two New Species of Tineidæ from the Aleutian Islands (the author). Bulletin of the Historical and Natural Science. No. 7. By. C. S. Rafinesque.

Bulletin of the Philadelphia Land Company, founded by Charles Wetherill and C. S. Rafinesque.

Scientific Expedition to the Rocky Mountains. Preliminary Report, by J. W. Powell.

Report of the Surgeon-General of the Navy. Vol. VI. 1882.

Bureau of Education. Circulars of Information. Nos. 1-7, 1880; I-6, 1881; 4-5, 1884; I, 1885. A Manual of the Common Native Trees, U. S.

Planting Trees in School Grounds.

Annual Report of the U. S. Life-Saving Service. Annual Report of the U. S. Treasury. 1876. 1877.

Twentieth Annual Report Indian Commissioners. 1888.

Botanical Reports of the Pacific R. R. Survey.

WALDEMAR KELCH, New York City.

Lehrbuch der Bergbaukunde. By G. Köhler.

Technologisches Wörterbuch. By W. K. Karmarsch.

GEO. N. LAWRENCE (the author), New York City.

"Breeding Habits of Puffinus auduboni in the Island of Grenada." "Remarks upon abnormal coloring of plumage in several species of

"A new name for the species of Sporophila from Texas, generally known as S. morelleti."

"An account of the former abundance of some species of Birds on New York Island, at the time of their migration to the South."

D. G. ELLIOT, New York City.

"Descrizione di alcune species nuove o poco Onoscinte di Uccelli, etc." By T. Salvadori.

"Elenco degli Scritti."

On the Birds collected by Prof. J. B. Steere in Philippine Archipelago. By R. B. Sharp.

Rapport sur quelques acquisitions nouvelles faites par la Galerie Ornithologique du Muséum. By M. M. Edwards.

Falco Labradorus. By H. E. Dresser.

Rapport sur Diverses Collections Envoyées au Muséum. By M. M.

Bulletin D'Acclimatation Sociéte. Vols. II-VI. 1865-69. (Not complete.)

J. A. ALLEN, New York City.

Jahresberichte (1887) der Ornithologischen Beobachtung-stationen im Königreich Sachsen. Meyer and Helm.

MUNN & CO., New York City.

Scientific American Supplement. 1889.

SANDERSON SMITH (the author), New York City.

List of Dredging Stations in North American Waters. 1867–1877.

A. E. DOUGLASS (the author), New York City.
"A Portrait Pipe from Central America."

De Soto in Florida. His Route from Tampa Bay. By J. Westcott.

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"The Decay of the Building Stones of N. Y. City."

"On the Geology at Great Barrington, Mass."

"Notes on the Glaciation of the Shawangunk Mountain, N. Y."

"The Genesis of the Crystalline Iron-Ores."

- "The Dunyte-Beds of North Carolina." "The Sealed Flasks of Crystal."
- "The Microscopical Structure of the Iron Pyrites."
- G. F. KUNZ (the author), New York City.
  - "Meteoric Iron from Arkansas." 1886.
  - "On two new Masses of Meteoric Iron."
  - "Mineralogical Notes."
  - "Precious Stones."
  - "Precious Stones, Gems and Decorative Stones in Canada and British
  - "Catalogue of a Collection of Precious and Ornamental Stones of North America."
- PROF. J. A. LINTNER (the author), Albany, N. Y.

Report for 1887.

Fifth Report on the Injurious and other Insects. N. Y.

"The White Grub of the May Beetle."

"Cut-Worms.

Prof. C. H. PECK, Albany, N. Y.
Annual Report of the State Botanist. 1887.

"Boleti of the United States."

E. N. DICKERSON (the author), N. Y. Joseph Henry and the Magnetic Telegraph.

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"Notes on the Jaw and Lingual Dentition of Pulmonate Mollusks."

C. E. BEECHER (the author), New Haven, Conn.

"Brachiospongidæ. Memoir on a Group of Silurian Sponges."
"Notes on the fossil Spider Arthrolycosa Antiqua."

B. SMITH LYMAN, Mass.

A Geological and Topographical Map of the New Boston and Morea Coal Lands.

E. M. HOLMES (the author), Boston, Mass.

"Morphology of the carinæ upon the septa of Rugose Corals."

- C. H. HITCHCOCK (the author), Hanover, N. H. "Recent Progress in Ichnology."
- J. W. FEWKES (the author), Boston, Mass.

Report on the Medusæ collected by the U.S. Fish Commission, Steamer Albatross. 1885-86.

F. B. WEBSTER (the editor), Boston, Mass.

Ornithologist and Oologist. Vols. XII, XIII, XIV. 1887-1880.

- E. M. STILWELL, Commissioner of Fisheries and Game, Augusta, Maine. Reports. 1882, 1883, 1884, 1886, 1888.
- J. EYERMAN (the author).

"On the Mineralogy of the French Creek Mines, Pa."
"The Mineralogy of Pennsylvania. Part I." 1889.

Notes on Geology and Mineralogy.

W. D. AVERELL, Mt. Airy, Philadelphia, Pa. The Nautilus. Vol. III, 1, 2, 3, 4, 5, 6-1889.

Prof. E. D. COPE (the author), Philadelphia, Pa. "The Proboscidia."

- "The Horned Dinosauria of the Laramie."
- "On the Mammalia obtained by the Naturalist Expedition to Southern
- D. L. JAMES, Cincinnati, Ohio.

"Memorial. Uriah Pierson James."

DAVID OLIVER (the author), Columbus, Ohio. Nest and Eggs of North American Birds.

A. S. TIFFANY (the author).

"Geology of Scott County, Iowa, and Rock Island Co., Ill."

"Rev. Dr. Barris, the Critic, Reviewed."

C. R. KEYS (the author).

5 Pamphlets.
"An Annotated Catalogue of the Mollusca of Iowa."

G. B. GOODE (the author), Washington, D. C. "Museum-History and Museums of History."

C. D. WALCOTT (the author), Washington, D. C. "Description of a new Genus and Species of inarticulate Brachiopod from the Trenton Limestone."

"Descriptive Notes of New Genera and Species from the lower Cambrian or Olenellus, etc."

"A Fossil Lingula preserving the cast of the Peduncle."

"Descriptive of the genera and species of Fossils from the Middle Cambrian."

"Stratigraphic position of the Olenellus Fauna in the North America and Europe."

- G. P. MERRILL (the author), Washington, D. C. "On the Ophiolite of Thurman, Warren Co."

  - "On the Serpentine of Montville, New Jersey."

"On Nephrite and Jadeite."

"On a peridotite from Little Deer Isle in Penobscott Bay."

"On the San Emigdio Meteorite."

A. HAGUE (the author), Washington, D. C. "Soaping Geysers."

W. H. WEED (the author), Washington, D. C.

"A Deadly Gas Spring in the Yellowstone Nat. Park."

"On the Formation of Silicious Sinter by vegetation of the thermal Springs."

"The Diatom marshes and diatom beds of the Yellowstone National Park."

J. P. IDDINGS (the author), Washington, D. C.

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5 and Supp.; XIV, 1, 2, 3, 4; XV, 1, 2, 4, 5.

Bulletin. 1829, 4-11; 1830, 1, 2. 1832, 1, 2, 3. 1837, 1-8. 1838, 1-5. 1839, 1, 2, 3. 1840, 1841, 1842, 2, 3, 4. 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850–1855, 1857, 2, 3, 4. 1859, 3, 4. 1860, 1861, 1, 2, 4, 1862, 1863, 1, 2, 4, 1864, 2, 4, 1865, 1, 2, 3, 4, 1866, 2, 1867–1868, 1869, 2, 3, 1870, 2, 3, 4, 1871, 1872, 2, 3, 4. 1873-1883, 1888, 3, 4. 1889, 1.

SOCIÉTÉ DES NATURALISTES DE LA NOUVELLE-RUSSIE, Odessa.

Mémoires. Tome XIII, 1; XIV, 1. 1889.

### DEPARTMENT OF MAMMALS.

S. A. BALL, New York City. 1 Porcupine.

P. T. BARNUM and J. A. BAILEY, Bridgeport, Conn.

Skeleton of the African Elephant "Jumbo." Also I Bear, I Lion, 8 Monkeys, 2 Coatis, I Sacred Cow, and I American Bison, received in the flesh.

LEBBEUS CHAPMAN, Englewood, N. J. I Bat (Vespertilio noctivagans).

ANDREW CHICHESTER, Amityville, Long Island, N. Y. I Malformed Kitten.

CHAS. B. CORY, Boston, Mass. 2 West Indian Bats.

DEPARTMENT OF PUBLIC PARKS, New York City, through Dr. W. A. Conklin, Superintendent of the Menagerie.

2 Monkeys, 2 Llamas, 2 Civet Cats, 1 Ichneumon, 1 Ocelot, 1 young Lion, I Coati, 2 Kangaroos, I young Hippopotamus, I Philippine Island Deer, I Barbary Sheep, I young Indian Buffalo, I young Hog Deer, I Pronghorn, I Indian Antelope, I Armadillo, I Beaver, all received in the flesh.

A. H. HELME, Miller's Place, Long Island, N. Y. Skeleton of a Hoary Bat.

MRS. M. E. HUGHS, New York City. I Pointer Dog.

GOTTFRIED HÜMMER, New York City. Skull of a Wolf, from a cave in West Tennessee.

DR. EDGAR A. MEARNS, U. S. A., Fort Snelling, Minn. 300 skins, 500 skulls, and 20 specimens in alcohol, chiefly from Arizona.

- MRS. C. C. HUNT, New York City. I Mexican Hairless Dog, mounted.
- D. WILLIS JAMES, CHARLES S. SMITH, and CORNELIUS VAN-DERBILT, New York City.
  - 18 skins and skeletons of Antelopes and other Mammals from South Africa.
- C. J. JONES, Garden City, Kans. 1 adult male American Bison.
- E. E. OLCOTT, New York City. I Tayra (Golictis barbara), skin and skull.
- NICOLAS PIKE, Brooklyn, N. Y. I Opossum and I Raccoon, from Long Island, N. Y.
- H. RAY, New York City. I Bat.
- JENNESS RICHARDSON, Am. Mus. Nat. Hist. I Blackfish skull.
- GEORGE B. SENNETT, New York City.
  - 2 Peccaries, I Wolf, I Armadillo, I Coati, from Texas and Eastern Mexico; I Badger, from Minnesota.
- S. P. SLATER, New York City. 1 St. Bernhard Dog.
- ERNEST E. THOMPSON, Toronto, Canada. 15 skins, 15 skulls, from Canada.
- FRANK J. THOMPSON, New York City. I Paradoxure, I Lemur, 4 Monkeys, received in the flesh.
- W. J. WARD, Elmsford, N. Y. 2 Minks.
- L. A. ZEREGA, M.D., New York City. I skin and I skull of Otter.

### DEPARTMENT OF BIRDS.

- E. T. ADNEY, New York City. 4 nests, with eggs, from New Brunswick.
- CHARLES B. CORY, Boston, Mass. 32 skins, from the West Indies.
- J. L. DAVISON, Lockport, N. Y. 2 Horned Larks, 4 Cerulean Warblers.
- W. H. EDWARDS, Amagansett, Long Island, N. Y. 2 Razor-billed Auks, in the flesh.
- DEPARTMENT OF PUBLIC PARKS, New York City, through Dr. W. A. Conklin, Superintendent Central Park Menagerie. 2 Pheasants, 8 Parrots, 2 Owls, 2 Toucans, 1 Crowned Crane, 2 White
  - Egrets, I Great Blue Heron, 2 Flamingos, 2 Ducks, 2 Geese, I Gannet, received in the flesh.
- MRS. JOHN A. DOUGHERTY, New York City. I Purple-capped Lory.
- WILLIAM DUTCHER, New York City. I Gull.
- JONATHAN DWIGHT, Jr., New York City. 13 Maryland Yellow-throats, in the flesh.

MAJ. JOSEPH DELAFIELD and GEORGE N. LAWRENCE, New York City.
40 skins from Japan.

40 skins from Japan

- THOMAS T. ECKERT, Vice-President and General Manager Western Union Telegraph Co.
  - Section of a telegraph pole, from near Phoenix, Oregon, illustrating the storage of acorns by the California Woodpecker.
- Rev. T. W. GULICH, Kyoto, Japan (through George N. Lawrence, Esq.).
  Small collection of skins from the Caroline Islands.
- A. H. HELME, Miller's Place, Long Island, N. Y. I Gull.
- D. WILLIS JAMES, CHARLES S. SMITH, and CORNELIUS VANDERBILT, New York City.

174 skins, and a small collection of nests and eggs, from South Africa, collected by Dr. B. N. Bridgman.

- CLARENCE KING, Esq., New York City.

  The Snowden Howland Collection of North American Birds' eggs, numbering about 3000 specimens.
- E. G. LEWIS, New York City.

  1 Manakin, 1 albino Song Sparrow.
- LEVERETT M. LOOMIS, Chester, S. C. I Leconte's Sparrow.
- Dr. EDGAR A. MEARNS, U. S. A., Fort Snelling, Minn.
  400 skins of European birds, 800 skins of North American birds, and
  100 nests and about 1000 eggs.
- E. E. OLCOTT, New York City. I Toucan.
- REV. R. B. POST, Orange, N. J. 2 Gulls, 2 Loon's eggs.
- JENNESS RICHARDSON, Am. Mus. Nat. Hist. 2 mounted birds, and 8 skins.
- W. B. RICHARDSON, Am. Mus. Nat. Hist: 1 Indigo Bird.
- R. H. ROBERTSON, New York City.

  1 mounted European Widgeon, from Currituck Sound, N. C.
- J. ROWLEY, JR., Am. Mus. Nat. Hist.
  1 Glaucous Gull, 1 Warbler, 1 Woodpecker.
- CLARENCE A. SMITH, New York City. 2 Bobwhites.
- W. B. SHERRY, Stoney Brook, N. Y. 1 skin of Brown Pelican.
- MISS ELIZABETH TAYLOR, New York City. 3 Snow Buntings, in the flesh.

#### GEOLOGICAL DEPARTMENT.

RAPHAEL BENJAMIN, New York City.

Two lots of fossils from the Cincinnati Group. The fossils represented were Bryozoans and Brachiopods from Price Hill and Bold Face Creek, Ohio.

J. M. CONSTABLE, New York City.

Three specimens of Fossil Fish from the Green River Beds, Twin Creeks, Wyoming. Mioplosus labracoides Cope. Mioplosus sauvageanus Cope. Priscacara serrata Cope.

BOYD ELIOT, New York City.

One specimen of Spirifera from Four Mile Creek, Prebble Co., Ohio.

INSTITUTE OF MINING ENGINEERS, San Francisco, Cal.

Specimens of Brachiopods, Lamellibranchs and Gasteropods from California, New Mexico, Nevada and Oregon.

One cast of fossil jaw of camel (original found in the lava beds of Calaveras Co., Cal.).

R. D. LACOE, Pittston, Pa.

Specimens of Fossil Fruits from the Coal Measures, Washington Co., Arkansas. Cardiocarpus bicuspidatus Sternb. Sphenopteris inequilateralis, Lesqr. Cones of Astrophyllites gracilis, Lesqr. Whittlesia microphylla, Newberry.

J. S. McLAURY, Yonkers, N. Y.

Fossil Sponge from Onondaga Valley, N. Y. Stromatopora sp? Upper Helderberg.

J. TERRY, New York City.

Six fossils from Lake Champlain, Vt. Calciferous and Chazy.

PHILIP R. UHLER, Baltimore, Md.

Two specimens of Ostrea compressirostra, Say. Fort Washington Peninsula, Md.

Three impressions in green sand of the same species, Crownsville, Md.

DR. E. A. MEARNS, U. S. Army.

Specimens of minerals and fossils from Arizona, embracing Devonian and Carboniferous Brachiopods and Corals.

Dr. J. M. SILVA CONTINHO, Rio Janerio, through Mr. G. F. Kunz. Specimens of Quaternary fossil plant impressions found on the shore of the Bay of Bahia, Brazil.

### MINERALOGICAL DEPARTMENT.

ANACONDA MINING CO., through James D. Hague, M. E.

Two large masses of Chalcocite, weighing 125 and 245 lbs., from Anaconda Mine, Butte, Montana.

A. D. CAMPBELL, New York City.

Nodule of Garnet Vein in gneiss from 83d Street and 10th Avenue, New York City.

JAMES M. CONSTABLE, New York City.

Large quartz mass from vein, carrying "rich gold," from Lumpkin Co., Georgia.

S. D. DILL, Nova Scotia.

Two specimens of Pyrolusite from Walton, Nova Scotia.

PROF. J. DOUGLAS, New York City.

Three large and beautiful masses of Plumose or Velvet Malachite, and two large masses of Botryoidal and solid Malachite. One specimen of pale green Malachite. One specimen of Chalcanthite.

HARRY W. FOELLER, New York City.

Seven handsome specimens of Pyrite, Ashland, Pa. from the Tunnel mines.

GOTTFRIED HÜMMER, New York City.

Large ball of Pyrite Crystals from Cerro Gorda, West Tenn.

J. D. HAGUE, M. E.

One large block of Vein Quartz carrying Gold, from the Empire Mine, Grass Valley, Nevada, Co., Cal.

F. HILLE, Canada.

Leaf Silver from Silver Mt., Port Arthur Dist., Canada. Native Silver in gangue, Silver Islet, Lake Superior, Canada. Argentite with gangue, Port Arthur Dist., Canada.

MASTER SIDNEY HOFFMAN, New York City.

Specimen of Clay thrown up by the Charlestown earthquake, Aug. 31, 1886.

MRS. MYRON HUME, Brooklyn, through Mr. Calkins.

An example of salt precipitation and crystallization from Salt Lake,

Utah.

INSTITUTE OF MINING ENGINEERS, San Francisco, Cal.

Specimens of Aragonite, Anabergite, Colemannite, Borickite, Chromite,
Cassiterite, Garnet, Linarite, Massive Pectolite, Saponite, &c.,
from Alaska, California, Dakota, Oregon and Utah.

W. W. JEFFERIS, Philadelphia, Pa.

Many specimens from various localities, comprising Amazon Stone (Orthoclase), Brucite, Calcite, Cyanite, Corundum, Fowlerite (Rhodonite), Moscovite, Magnetite, Moonstone (Oligoclase), Quartz, Selenite, Smithsonite, Staurolite, Stilbite.

MORRIS K. JESUP, New York City.

Large and very handsome group of Quartz Crystals from Hot Springs,

Arkansas.

J. S. McLAURY, Yonkers, N. Y. Specimens of Aragonite from Wilcox Quarry, Fayetteville, N. Y.

H. G. MARQUAND, New York City. One chalcedony "Water-Pocket" Hydrolite from Brazil.

MRS. NICOL, New York City.

Two blocks of Red Sandstone (Potsdam) from the Prentice Brownstone Co., Ashland, Wis.

W. NIVEN, New York City.
 Handsome polished cabochon of Opal from Queretaro, Mexico.
 One large Calcite rhomb, Lampasas, Texas.
 One large slab of Itacolumyte, Burke Co., N. C.

JOHN PROUT, through W. E. Dodge, New York City.

Specimen of vein matter from Hale and Norcross Mine, Virginia City,

Nevada.

Section of compressed wood from the lower workings of Consolidated Virginia Mine, Va. City, Nevada.

E. SCHERNIKOW, New York City.

Two specimens of Pyromorphite and Wulfenite on sandstone from Sing Sing, N. Y.

E. STAHL, New York City. Specimen of Vanadinite, nine miles from Prescott, Arizona.

GILMAN S. STANTON, New York City.
One specimen of Brucite from Hoboken, N. J.

W. S. TEATOR, New York City.
Four lumps of Hematite from Dover Plains, found in friable sandstone.

MISS KATE TISE, Jersey City. Several blocks of Zinc Ores. CH. W. WARREN, New York City.

Two specimens of Peacock Coal from Cumberland, Md.

One large block Dolomite with seam of Calcite with Pyrite and Pynholite from Kings Bridge, New York Island.

Specimen of Tourmaline in Granite, Garnet, Chlorite and Quartz, New York Island.

One specimen of Hydro-Magnesite, and one specimen of brown Aragonite, both on Serpentine, Hoboken, N. J.

Three specimens of Pectolite (pink and brown), and two specimens of Datolite from Paterson, N. J.

Prof. R. P. WHITFIELD.

Four specimens of Obsidian, Yellowstone Park, Wy.

Twelve "pistolites" from Mammoth Hot Springs, Yellowstone Park, Wy.

Three Orthoclase Crystals, Monterey, California.

A. WOODWARD, N. Y.

Large slab of Vein Quartz from Harlem Heights, New York Island.

C. E. SNOW, C. E.

One specimen of soft Helmatite (iridescent, "blue ore"), Iron Mt., Mich.

### CONCHOLOGICAL DEPARTMENT.

MRS. J. RAMSEY, Jersey City. Several specimens of Pinna.

A small collection of land shells from Pueblo de Baños, Ambato, Ecuador, S. America.

A. BAILEY, Chepachet, N. Y.

Two specimens of Helix Sayii and two of Helix dentifera from Litchfield, Herkimer Co., N. Y.

W. G. BINNEY, New Jersey.
22 Species and varieties of American land shells for the Binney and Bland Collection.

MR. ETHERIDGE, Australia.

Small collection of shells (38 species) from Australia.

W. S. TEATOR, Poughkeepsie, N. Y.

Eight very large specimens of Succinea obliqua from Barrytown on the Hudson, and four specimens of Succinea vermeta from Fort Washington, N. Y.

E. W. WARD.

Two specimens of Pholas castata, from Punta Rassa, Florida.

ABBÉ VATHELET, French Warship Aréthuse.

In exchange. Thirty-eight species of shells mostly from the West Indies.

WAGNER FREE INSTITUTE, Philadelphia, Pa.

Collection of 168 species in partial exchange for fossil duplicate collections.

### ENTOMOLOGICAL DEPARTMENT.

MR. O. DIETZ, New York City. 300 specimens of Beetles.

MR. LUDWIG RIEDERER, New York City. 17 specimens of Libellula.

Mr. FRANK M. CHAPMAN, Englewood, N. J. 20 specimens of *Lepidoptera*, from New Jersey.

Mr. S. V. LIPPINCOTT, New York.

1 Benacus griseus, Say.

2 Calosoma scrutator, F.

MR. A. WOODWARD, New York City. 200 specimens of Coleoptera, from Penn.

MR. WM. BEUTENMÜLLER, New York City. 300 specimens of *Coleoptera*, *Lepidoptera*, etc.

Mr. CHARLES PALM, New York City. 140 specimens of Lepidoptera.

MISS BELLA LEVY, Mt. Salus, N. Y.

A small collection of Insects from Jamaica.

Mr. E. E. OLCOTT, New York City. 135 specimens of Insects from U. S. Columbia.

MR. JOSE C. ZALEDON, Costa Rica.
I Gigantic Locust.

MR. GUSTAV BEYER, New York City.
67 specimens of Beetles from New York and Europe.
25 "Wasps from New York.

THE JAPANESE FAN CO., New York City.
51 bottles of Silkworms, containing about 2000 specimens from Japan.

Mr. J. B. BAILEY, Orange, N. J. 64 specimens of Beetles from California.

MR. T. BERENDSOHN, New York. 15 specimens of Luna Moths.

Dr. A. S. PACKARD. Providence, R. I. 36 specimens of Insects of various orders.

MR. GEORGE J. ROGERS, Tremont, N. Y. I pair Cecropia Moths.

MISS KATE TISE, Jersey City.
2 Hornets' Nests, 3 Cecropia Cocoons and 2 Cicadas.

2 Hornets' Nests, 3 Cecropia Cocoons and 2 Cicadas Dr. EDGAR MEARNS.

A small collection of Beetles from Arizona,

I vial containing alcoholic specimens of Cattle Ticks and Dipterous
Parasites of the Mule Deer.

Mr. C. NIXON, Barnegat, N. J. I Hornets Nest.

Mr. D. P. B. CONKLIN, New York, N. Y.
A small collection of Butterflies and Moths from England.

# DEPARTMENT OF REPTILES, BATRACHIANS AND FISHES.

HERBERT BROWN, Tucson, Arizona.
3 living Gopher Turtles (Xerobates) from Arizona.

Dr. H. E. DAVIDSON, Boston, Mass. I Bass, mounted.

F. S DOUGLASS, Long Branch N. J. 1 skull of Ray.

- Hon. J. FRANCESCO ECHÉVERIA, Costa Rica. I Boa skin.
- DR. EDGAR A. MEARNS, U. S. A., Fort Snelling, Minnesota. 34 Lizards and Horned Toads; 35 Snakes, 20 Toads and Frogs, and 162 Fishes.
- J. A. ROBERTSON, Gainesville, Fla. I living Moccasin, from Florida.
- E. A. SWENSON, New York City. I Horned Toad, from Texas.

#### MARINE INVERTEBRATES.

J. W. ATKINS, Key West, Fla. I Crayfish, from Florida.

FRANK D. BEAN, M.D., New York City. I Crab, from Cape Breton, N. S.

MLLE. GODART DE BLOSSIERE, New York City. I Sea-fan.

D. INGRAHAM, Syracuse, N. Y. I Crab (Dromia lator), from Nassau, Providence.

MISS TISE, Jersey City. Collection of Sea-fans and other Radiates.

# EXCHANGES.

### LIBRARY.

C. R. RADCLIFF, New York City. Goldsmith's Animated Nature. 2 Vols. 1857.

A. W. VOGDES, Fort Hamilton, N. Y.

Jackson, C. T. First Annual Report on the Geology of New Hamp-

shire. 1841.

Jackson, C. T. Report on the Geological and Agricultural Survey of Rhode Island. 1840.

Barrande, J. Wiederscheinung der Gattung Arethusina. Jackson, C. T. Third Annual Report on the Geology of the State of

Maine. 1839. Stephenson, M. F. Geology and Mineralogy of Georgia. 1871.

SOCIETY OF NATURAL HISTORY, Boston, Mass.

Proceeding. Vols. XVIII-XXIII, 1877, 1888. XXIV, Part I, II, 188q.

Memoires. Volume II, Part III, 2, 5. IV, Nos. 2, 3, 4, 5, 6. Historical Notes on the Earthquakes of New England. 1638-69.

DEPARTMENT OF THE INTERIOR, Washington, D. C. Report of the Commissioner of Education. 1871, 1872. Compendium of the Ninth Census of the U.S. 1870. Annual Report Supt., of the Coast Survey. 1851. Reports of the Coast Survey. 1857, 1861, 1864.

### DEPARTMENT OF MAMMALS.

A. B. BAKER, Trego, Kans. Skins and skulls, from Trego, Kans.

BRITISH MUSEUM.

I skull, 12 skins, from various localities.

### DEPARTMENT OF BIRDS.

BROWN UNIVERSITY, Providence, R. I. 38 skins of South American Birds.

F. O. JOHNSON, Riverside, Cal. 158 skins of California Birds.

MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge Mass. 22 skins of South American Birds.

U. S. NATIONAL MUSEUM, Washington, D. C. 24 skins of mostly rare North American Birds.

### GEOLOGICAL DEPARTMENT.

DR. A. S. TIFFANY, Davenport, Iowa,

Sixty specimens of fossils, comprising Brachoipods, Lamellibranchs, Gasteropods, Corals and Bryozans, from the Devonion and Lower Carboniferous Rocks of Iowa and Illinois.

### MINERALOGICAL DEPARTMENT.

J. BJENIGARD, New York City.

Six specimens of White Pyroxene (Malacolite) from New York Island.

J. COHN, New York City.

Group and single crytals of Zircon from El Paso Co., Colorado.

H. G. HANKS, (for Bulletins.)

Many handsome specimens of Borax, Hanksite, Glauberite, Livingstonite and Ulexite from California, Nevada and Mexico.

E. CLEVELAND, San Diego, Cal.

Four pieces of Beryllonite from Stoneham, Maine.

F. JONES, Brooklyn, N. Y.

One block of curved Mica (Muscovite) from Branchville, Conn. Crystals and specimens of Willemite (Troostite and Canary Yellow variety) from Franklin, N. J.

Specimen of Pyroxene (Jeffersonite) and specimen of Franklinite, Franklin, N. J.

Two small cylinders of Russian Malachite.

JOSEPH WILCOX, Philadelphia, Pa.

Thirty fine specimens of thirteen species, including Apatite, Brucite, Corundum, Galenite, Orthoclase, Phlogopite, Pyroxene, Prophyllite, Quartz, Rutile, Staurolite, Wernerite, and Zircon.

#### MARINE INVERTEBRATES.

U. S. NATIONAL MUSEUM, Washington, D. C. 2 specimens of *Pseudemys troosti*.

# PURCHASES.

### LIBRARY.

Report of the Challenger. Vols. XXVII-XXIX. 1888. Zoology.
'' Vols. XXX-XXXII. 1889. Zoology.
Catalogue of the Birds in the British Museum. Vol. XIII.
Biologia Centrali-Americana. Nos. 74-79.

Trow's New York City Directory. 188q.

Metropolitan Directory. 1890.

Maximilian (Prinzen von Wied). Abbildungen zur Naturgeschichte Brasiliens.

1822-31. Maximilian.—Reise nach Brasilien in den Jahren 1815 bis 1817. 2 vols. 1820-21.

Maximilian.—Reise in das Innere Nord-America in den Jahren 1832 bis 1834.

2 vols. 1839–1841. Lichtenstein, H. Verzichniss Verzichniss d. Doubletten d. Zool. Museum zu Berlin. 1823. Spix, J. B. de. Avium species novae in itin p. Brasilian. Vol. I.

Azara, F. de. Apuntamientos para la Hist. Nat. de los Páxaros del Paragüay y Rio de la Plata. 3 Vols. 1802–1805.

Edward's Butterflies of North America. 2 Vols. 8 Nos. 1868-1889.

Kuhl, H. Conspectus Psittacorum.

Cabanis and Heine. Museum Heineanum. 1863.

American Journal of Science and Art. 1889.

American Naturalist. 1889.

Science, 1880.

Garden and Forest. Vols. 1, 2.

Forest and Stream. 1889.

The Book Mart. 1889. The City Record. 1889.

The Publishers' Weekly. 1889.

The Ibis. 1889.

The Zoologist. 1880.

Nature. 1889.

Annals and Magazine of Natural History. 1889. Cabanis's Journal für Ornithologie. 1889.

Science News.

Scientific and Literary Gossip.

Entomological Society of Ontario. Report 1872.

Agassiz Companion.

Hoosier Naturalist.

Oologist Exchange.

Papilio. Vol. IV.

Popular Science Monthly.

Kansas City Review.

Transactions of the Hertfordshire Natural History Society and Field Club. Vol. I.

Torrey Botanical Club. Bulletin. 1870-1880.

Zoologischer Angeiger. Register Jahrgang I-X. 1889.

Palæontograpical Society. Vol. XLI. 1888.

Palæontographica. 1888–1880.

Neues Jahrbuch Mineralogie, Geologie und Palæontologie. 1889.

WM. A. CONKLIN, Ph. D., New York City.

Wood, J. G. White's Natural History of Selborne. 1853. Hawker, P. Instructions to Young Sportsmen in all that relates to Guns and Shooting. 1830.

Hamet, H. Cours Pratique D'Apiculture. 1866.

Brehm. Gefangene Vögel. 1872.

Gentry, T. G. Nests and Eggs of the United States. 1882.

Chadburne, P. A. Instinct in Animals and Men. 1872. Hooker, W. Natural History. 1873. Gray, J. E. Catalogue of the Shield Reptiles in the Collection of the British Museum. Part I. 1855.

Gray, J. E. Catalogue of the Shield Reptiles in the Collection of the British Museum. Supplement. 1870.

Gray, J. E. Catalogue of the Shield Reptiles in the Collection of the British Museum. 1873.

Dorner, H. Die Papageien-Ausstellung des Zoologischen Garten zu

Hamburg. 1872. Forbes, S. A. The Food of Birds. Rodrigue, J. J. Catalogo de los Génerosy Especies de los Animales que se encuentran en Guatemala. 1885.

Zeledon, S. J. Catalogo de las Aves de Costa-Rica. 1882. Lombardini, L. Osservazion Anatomiche.

Baraldi. Esperimenti intorno alla Saturnia Pernyi. 1872.

Comba. Sulla Moria dei Cervi comuni daini Caprioli Antilopi. 1873. Langdon, F. W. A Catalogue of the Birds of the Vicinity of Cincinnati. 1877.
Spitzka, E. A. The Peduncular Tracts of the Anthropoid Ape. 1879.

### DEPARTMENT OF MAMMALS.

THROUGH DEPARTMENT OF TAXIDERMY. 54 skins, 54 skulls, from various localities.

### THROUGH MUSEUM EXPEDITIONS.

190 skins, 190 skulls, 3 skeletons, from Florida; 13 skins, 13 skulls, from Little Gull Island and Englewood, N. J., collected by Frank M. Chapman.

94 skins, 94 skulls, 5 specimens in alcohol, from Indian Territory and Northern Texas, collected by Jenness Richardson and John Rowley, Jr.

#### BY DIRECT PURCHASE.

21 mounted Monkeys; 24 Monkeys in the flesh; I Tapir, I Jaguar, I Ibex, I Antelope, in the flesh; 20 skins and 20 skulls from North Carolina; 15 skins and 15 skulls from Montana; 23 skins and 23 skulls from California; 23 skins and 27 skulls from Long Island, N. Y.; 3 skins from Ecuador; 42 skins and 75 skulls from Ohio; 34 skins and 28 skulls from near New York City; 85 skins and 85 skulls from British Columbia; 70 skins and 96 skulls from Southern Mexico.

### DEPARTMENT OF BIRDS.

THROUGH DEPARTMENT OF TAXIDERMY. 202 skins, mostly from vicinity of New York City.

### THROUGH MUSEUM EXPEDITIONS.

188 skins, 3 skeletons, from Florida; 34 skins from Little Gull Island, N. Y., and Englewood, N. J., collected by Frank M. Chapman. 128 skins from Indian Territory and Northern Texas, collected by Jenness Richardson and John Rowley, Jr.

### BY DIRECT PURCHASE.

405 skins from South America; 30 skins from the Bahamas; 1412 skins from various North American localities; 968 skins from British Columbia; 85 skins from Southern Mexico; 128 skins from Costa Rica.

# MINERALOGICAL DEPARTMENT.

Large specimen of Fluorite, pale green, in a cubical group, from near Macomb, St. Lawrence Co., N. Y.

One specimen of Albite, Amelia Court House, Va.

Tabular Calcite on quartz, Guanajuato, Mexico.

Twinned flat combinations of Calcite, Guanajuato, Mexico.

Calcite on Amethyst, Guanajuato, Mexico.

Scalenohedron of Calcite with Quartz, Guanajuato, Mexico.

Interrupted scalenohedra of Calcite,

One specimen of Garnet, Alaska.
"Heulandite, Westchester Co., N. Y.

" " Hyalite, New York Island.

" Itacolumyte (flexible sandstone), Linnville Gap, N. C.

Nine pieces of Opal in trachyte, Queretaro, Mexico. One specimen Picrolite (Serpentine), North Carolina.

Quartz (fascicled opaque crystal) from Guanajuato, Mexico.

Three groups of Topaz from Queretaro, Mexico. One specimen Tourmaline, Essex Co., N. Y.

Ten colored Transparencies of Western Scenery.

### MARINE INVERTEBRATES.

13 living specimens of Chrysemys reticulata; a series of embryos, in various stages of developement, of the Loggerhead Turtle.

FROM MUSEUM EXPEDITIONS.

Rowley, Jr.

6 Snakes, 6 species, from Florida, collected by Frank M. Chapman. I Turtle, 2 Lizards, I Toad, 6 Snakes, from Indian Territory and Northern Texas, collected by Jenness Richardson and John

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