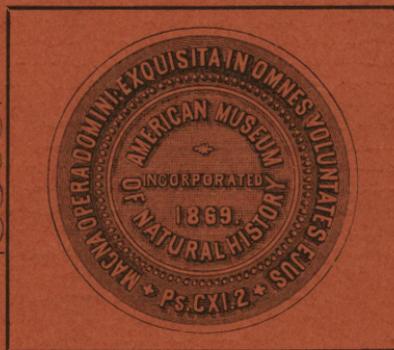


THE
American Museum of Natural History

CENTRAL PARK, NEW YORK CITY.

(77th Street and 8th Avenue.)



ANNUAL REPORT OF THE TRUSTEES,
ACT OF INCORPORATION,
CONTRACT WITH CITY,
BY-LAWS AND LIST OF MEMBERS
FOR THE YEAR 1888-9.

PRINTED FOR THE MUSEUM.

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NEW YORK:
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1889.



HOLT BROTHERS,
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NEW YORK.



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ANNUAL REPORT OF THE TRUSTEES

FOR THE YEAR 1888.

To the Patrons, Fellows and Members of the Museum :

The Treasurer's report for the year ending December 31st, 1888, shows the receipts to have been \$64,225.43, of which amount the city contributed \$15,010.80.

The total expenditures have been \$59,962.60, from which amount \$24,732.46 was used for the procurement of additions to our collections.

The largest and most important addition to the Museum during the past year has been the "Emmons Collection of the Ethnology of Alaska" purchased by the subscriptions of the Trustees, together with those of Messrs. C. P. HUNTINGTON, GEO. W. VANDERBILT, HENRY G. MARQUAND, JOHN T. TERRY, H. MCK. TWOMBLY, JOHN SLOANE, ELLIOTT F. SHEPARD, JOSIAH M. FISKE, SAMUEL THOMAS, JOHN D. ROCKEFELLER, E. C. MOORE.

In the Department of Mammals the collection of Monkeys has been enlarged by the addition of several very rare specimens, including the Chimpanzee "Crowley," from the Central Park Menagerie, presented by the Commissioners through Dr. W. A. Conklin.

Two specimens of the Bison have been donated by Col. W. F. Cody, and two Moose, two Caribou, and other small mammals have been collected by the Museum through Mr. Jenness Richardson, in the northern portion of Maine; also two Manatees, and other valuable specimens obtained by purchase.

The accessions to the Department of Ornithology number 150 mounted specimens and 1370 skins.

The life-like groups of Birds and Mammals mounted by our taxidermist, and presented by Mrs. Robert L. Stuart, form an especially attractive feature of our exhibition, and 18 new ones have been added during the past year, making now 52 groups displayed to the public.

A new illustrated guide of the Collection of Birds has been

prepared and placed on sale at the Museum for the use of visitors.

In the Geological Department the careful scientific labeling of the European Collection has been finished, and the same improvement extended through the Utica Slate and Hudson River formations of the American Series. Dr. Robert H. Lamborn has presented the cast of a very interesting and complete fossil mammal from the Eocene beds of Wyoming.

Two very attractive specimens of Agatized Wood from Arizona have been added to the Collection of Minerals.

The labeling and re-arranging of the Jay Collection of Shells presented by the late Miss Catherine Lorillard Wolfe, which has been in progress during the past four years, is now completed.

An enlarged guide to the Geological Hall, containing many new illustrations, has been issued during the past year.

The Library has received 300 volumes during the year. The total accessions since the last report being 830 volumes, 949 numbers and parts, and 297 pamphlets. In addition to a large number of maps, atlases, and photographs, our library now contains 6,893 bound volumes, 1,940 unbound volumes, 4,618 numbers, and 5,555 pamphlets of leading scientific works.

The Museum has to record the decease of our Curator of Marine Zoölogy, Dr. J. B. Holder, who joined the Museum early in the year 1871, and was connected with the institution until his death. We desire to express our appreciation of his integrity, cultivated bearing, and his untiring devotion to the welfare of our interests for so many years.

The attendance at the Museum upon the illustrated lectures delivered by Prof. Bickmore has crowded the present hall on every clear day, and has attracted general attention throughout the city and State. The importance of this work has led the educational authorities of Pennsylvania to ask the Museum to aid them in establishing a similar system in their State.

In the early part of last month the Commissioners of Education of the State held their 34th annual meeting at the Museum, thus recognizing ours as one of the prominent educational institutions of this Commonwealth. The Convention heartily expressed their gratification at the extent and value of our present collections, and their confident belief in the growth and importance of what the Museum is destined to accomplish in promoting the education of

our people, and providing for the public in this city an elevating, attractive place of enjoyment and instruction.

Our thanks are especially due to the State Superintendent of Public Instruction, Hon. Andrew S. Draper, for the important aid and hearty co-operation he has rendered our institution in maintaining and developing our educational work.*

The increased numbers of our visitors daily has been a marked characteristic of our growth during the past year, more especially on Saturday afternoons and holidays.

The Board of Estimate and Apportionment has provided an additional amount of \$10,000—available during the year 1889—on the condition that the Museum be opened on Sundays, or on two evenings of the week, one of *which should be* Saturday. The Trustees have accepted the proposition, and with the approval of the Department of Public Parks, have decided to adopt the alternative of keeping open until 10 P. M. every Wednesday and Saturday evening, and also on the evenings of all public holidays.

The large numbers that have availed themselves of this opportunity of frequenting our halls has been a genuine surprise.

* In his opening address to the Commissioners, at their annual meeting, he made the following encouraging statement of the results of the advances made in the instruction developed jointly by the Museum and his Department during the past year, in addition to continuing the work that had previously proved so useful in connection with the State Normal Schools:

“ We have availed ourselves of every facility for making these Institutes [of Teachers] aggressive and progressive educational meetings. I need not indicate the different specific things which we have introduced into our Institute work in order to make them interesting and valuable, but two of these things I should hardly be justified in entirely ignoring. One of them is the extension of the educational work originally undertaken by this munificent Institution in whose building (the American Museum of Natural History) we are assembled this morning, by placing before the teachers an illustrated lecture fully portraying the natural scenery and the public buildings and the greater number of the artificial monuments of the State. It is sometimes thought strange that our teachers in the common rural schools have so little idea of the real grandeur and greatness of this imperial commonwealth, so little knowledge of the specific things which contribute to that greatness and grandeur. We have been able to place before them, in magnificent form, illustrations which a few years ago would have been considered marvellous—and which, indeed, may be now—which a few years ago it would have been impossible to present to them. We are showing them the mountains and the lakes and the gorges of the Empire State. We are showing them the great railway bridges that are spanning the North and East rivers and the Niagara; and the great public buildings, the Capitol, and the Normal School buildings, the State prisons, and the asylums, and all the institutions which will endure for generations as monuments to the power, the wealth, and the intelligence of this generation. And we are doing it with an effectiveness and acceptability on all sides—that to say the least, is highly gratifying.”

The necessity of adding new departments, is a subject which has had the careful consideration of the Board, and it was decided to give the first attention to that of a Department of Entomology so soon as the requisite funds could be made available, because illustrations of the life history of our common insects would have a great educational value, and there is a wide interest in those that are injurious to vegetation, particularly to our forest trees, inasmuch as they so seriously affect some of the most important economical interests of our land.

The plans for our new building, matured by the Trustees, have received the approval of the Department of Public Parks, and been concurred in by the Board of Estimate and Apportionment, and all that portion for which money is now provided has been placed under contract. The mild winter has enabled the architect to carry on the work so continuously that we are promised that the new lecture hall, capable of seating at least one thousand persons, will be ready for occupation next fall. To properly place in repair the present building, equip this new structure, and complete its western portion, thus making it a symmetrical whole, together with providing an imposing entrance and grading the surrounding grounds, beside making suitable approaches, the additional sum of four hundred thousand dollars will be required.

A bill prepared by our Board, and approved by the city authorities, has already been introduced into both branches of the Legislature, and will probably soon become a law.

When this liberal sum shall have been supplied by our city, but one thing more will be needed to place our Museum in the very foremost rank of similar institutions in our land, and that requirement is a proper *Endowment Fund*, the interest of which may be used to steadily add new collections, and to improve all opportunities of making favorable purchases of rare specimens.

To assist the Trustees in creating such a fund, we confidently appeal to the public-spirited citizens of our metropolis.

Reference is made to the contract between the Museum and the city, in order that the Members and Fellows of the Museum, and the public, may understand the relations now existing between the two parties.

In closing this report we deeply regret the loss the Museum has sustained in the death of one of its most devoted Trustees and

Patrons, Mr. Joseph W. Drexel. He became a trustee in the year 1872, and from that time until his decease his interest in the Museum never faltered. He not only gave his time but has always contributed liberally to the support of the institution.

ETHNOLOGICAL DEPARTMENT.

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

REPORT FOR THE YEAR 1888.

The additions made to this department during the past year have been greater than those received in the same length of time since the Museum was founded.

First in extent and importance is the collection gathered during five years residence in Alaska, by Lieut. G. F. Emmons, who enjoyed remarkable opportunities for gaining the confidence and helpful coöperation of the natives in obtaining the rare, and frequently, unique handiwork of their ancestors. The collection contains nearly thirteen hundred very carefully selected specimens, and is exhibited in one long and two short, upright cases, and in a part of the railing case on the the southwest portion of the gallery floor. Each specimen was obtained by the Lieutenant himself, who kept a full record regarding it, and from such authentic data he has prepared an elaborate catalogue, with full notes on the use made by the natives of each kind of object. Many implements of stone and highly ornamented carvings on ivory are found in the series, which is probably more complete and authentic than any similar collection ever made in that portion of our continent, and now that the natives are rapidly adopting the weapons and dresses of civilized nations, the specimens of ancient times have already become exceedingly rare, and few more will ever be found. It is, therefore, gratifying to know that the workmanship of the aborigines of that land will be safely preserved for the benefit of investigators for all time.

An interesting addition to the valuable Powell collection, presented by Mr. H. R. Bishop, has been made during the past summer, by the purchase of a series of specimens gathered by Dr. Frans Boas, who has been studying the habits of the Indians living in the Rocky Mountains south of the route of the Canadian Pacific Railway, for the British Association for the Advancement of Science.

A set of casts of the Pueblos and ancient ruins of New Mexico and Arizona, originally prepared by the Ethnological Bureau at Washington under Major J. W. Powell, have been likewise added to the important collections of Ethnology the Museum already possesses. A small collection from the Soudan has been presented by Mr. C. Psomades, of this city.

DEPARTMENT OF PUBLIC INSTRUCTION.

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

In pursuance of the contract between the State Department of Public Instruction and the Museum, I have lectured at each of the Normal Schools of the State, and prepared and delivered at the Museum twenty lectures to the teachers of New York city and vicinity upon the following subjects:

SPRING OF 1888.

ARTICLES OF FOOD.

- | | |
|---------------------|---------------------|
| 71. Wheat and Rice. | 72. Sugar and Salt. |
|---------------------|---------------------|

ZOOLOGY.

Mammals.

- | | |
|-------------------------------|-------------------------------|
| 73. The Whales and Manatees. | 76. Lions and Tigers. |
| 74. The Horse and Rhinoceros. | 77. Monkeys of the New World. |
| 75. Dogs and Seals. | 78. Monkeys of the Old World. |

ABORIGINES OF NORTH AMERICA.

- | | |
|------------------------------------|-----------------------------------|
| 79. Eskimos and Indians in Alaska. | 80. Indians in the United States. |
|------------------------------------|-----------------------------------|

AUTUMN OF 1888.

INTRODUCTORY.

- | | |
|---|------------------|
| 81. The Theory of Laplace—Nebulae and Comets. | 82. The Planets. |
| | 83. The Sun. |
| 84. The Moon and the Tides. | |

GEOLOGY AND ZOOLOGY.

The Earth.

- | | |
|--|---|
| 85. The Azoic Age, and the Age of Invertebrates. | 86. The Age of Fishes, and the Age of Plants. |
| 87. The Age of Reptiles, and the Age of Mammals. | |

GEOGRAPHY AND ZOOLOGY.

- | | |
|--------------------------------------|---|
| 88. The Atlantic Ocean—The Bermudas. | 89. The Pacific Ocean—The Sandwich Islands and New Zealand. |
| 90. The Indian Ocean—Mauritus. | |

To prepare for the spring course of 1889 I have made the following journeys at my own personal expense. In the spring I travelled down the St. Lawrence from Lake Ontario to the mouth of the Saguenay and up that majestic river to the head of tide-water, and into that primitive portion of the province of Quebec. In the early autumn I continued my studies of the geography and geology of the White Mountains and the Catskills, and visited the various lakes of our own State from Lake George to Chautauqua.

The comparison in geological structure and scenic attractions of the various parts of our own and other lands, which such personal observations enable me to give in our lectures, add a remarkable zest to these studies of nature.

The attendance has been most gratifying, and during the autumn course was frequently larger than our present lecture room would contain, and we are anxiously waiting for the completion of our new large hall, where the teachers who may come, not only from our city, but from any part of our State, may find ample accommodation, and we shall have the space and the apparatus we need in order to present our subjects in a manner so much more impressive and attractive, as to make this visual method of conveying instruction almost new, when compared with what we have already accomplished.

EXTRACT OF REPORT OF CURATOR OF THE GEOLOGICAL DEPARTMENT.

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

PALÆONTOLOGICAL COLLECTIONS.—During the past year labels of a permanent character were furnished for that part of the European collection still unlabelled at the close of 1887. Also for the collections of the Jurassic, Triassic, Cretaceous and Palæozoic foreign collections, amounting to 1,425 complete permanent labels. In the Utica Slate and Hudson River Groups of the American series, about 420 new labels were added; these being largely for type and figured specimens, requiring citations from books where published, giving volume, page, plate and figure, require much extra time and labor.

Of those labelled in the European collections, many were from the old collections received from the Park Department, the labels for which had been lost while at the Arsenal building. These it was necessary to identify newly from various European publications, and entailed much additional labor and time. Most of the above mentioned collections have been arranged and classified, and the species separated by colored strips of wood.

There have been two important purchases for this department during the year, namely: that of Palestine fossils from the Rev. Dr. William Bird, of Abeih, Syria; and that of Dr. Klippart, of Columbus, Ohio, from Dr. A. E. Foote, of Philadelphia.

One donation of note, a cast of a fossil quadruped, *Phenacodus Primævus*, by Dr. Robert H. Lamborn, deserves notice here. Other donations and additions are mentioned in the appendix to this report.

MINERALOGICAL COLLECTION.—There has been provided for this collection a series of between three and four hundred composition labels, which are intended to enable the student to under-

stand the chemical composition of the different mineral species in the collection. These labels are not all in place yet, but will be in a few weeks.

The addition of the two sections of fossilized wood, and a large mass of Zinc ore, Calamine, and a few other large, showy specimens, have added much to the appearance of the collection; but many more are needed in order to have it meet the requirements of a large public collection.

CONCHOLOGICAL COLLECTION. WOLFE COLLECTION.—The labeling and numbering of this collection is now nearly completed, and will be finished early in the coming year. It now presents quite an attractive appearance, and is rapidly becoming a very useful collection, if one can judge of it by the number of people who use it for the identification of specimens. There are many additional specimens of shells belonging to the Museum, which will be incorporated in the collection.

ECONOMIC COLLECTION.—JESUP COLLECTION of Ornamental and Building Stone. Much labor has been done on this collection during the year. Black-walnut blocks have been furnished for the Stones, and for holding the labels; when these latter shall have been put in proper shape for placing on them, they will be put in position. A catalogue of this collection was prepared and printed in the journal *Stone*. The geological position of the specimens was added from information obtained by this office.

GUIDES.—A new and enlarged edition of the Guide to this department was prepared during the autumn, which contains about eighteen pages of new matter. Copies of this were placed on sale in the building during the holidays.

DEPARTMENT OF MAMMALS AND BIRDS.

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

MAMMALS.—The additions to the collection of Mammals include 15 mounted specimens, 14 of which are Monkeys, all but one acquired by purchase; 165 skins and 180 skulls, mostly purchased; 37 specimens received in the flesh, seven of which were presented by Mr. Frank J. Thompson, six were purchased, and the remaining 24 were received from the Central Park Menagerie, through Dr. W. A. Conklin, Superintendent. The specially noteworthy additions are the Chimpanzee ("Crowley") from the Central Park Menagerie; two Bison skins and a head, purchased; two full-grown Florida Manatees (male and female), purchased; two group pieces, representing the Flying Squirrel and the Red Squirrel, presented by Mrs. Robert L. Stuart. Much material has also been gathered for future groups of Mammals.

The remounting of the Bats has been finished, and about fifty small Mammals, formerly stored in the curator's room, have been remounted and placed on exhibition. The Study Collection of North American Mammals has steadily increased, but to a less extent than was hoped.

BIRDS.—The additions comprise several small collections of considerable importance, including two from South America, one from the islands of Behrings Sea, and a small collection from Lower California. The accessions comprise about 150 mounted birds (mostly North American), 1,370 skins, and a small number of nests and eggs. The most important of these additions is a collection of about 400 Bolivian birds, collected by Dr. H. H. Rusby, which not only added many species to the collection, but several new to science. The thanks of the Museum are due to Mrs. F. M. Bumstead for a collection of 150 mounted birds, mainly from Massachusetts and Florida. About 100 mounted birds, previously stored, have been put on new stands and placed on exhibition. A second series of bird groups, 18 in number, has been placed in the Bird Hall, making 47 in all, for which the Museum is indebted to the liberality of Mrs. R. L. Stuart.

Little has been done during the past year for the increase of the Study Collection of North American Birds, which still remains in a very unsatisfactory and inefficient state.

Excellent progress has been made in getting the collection into proper order, the reception of a large number of insect-proof storage cabinets providing the means for placing the entire collection of skins in a condition of perfect safety and accessibility. The mounted collection has been almost entirely re-arranged, the Old World birds having been placed in a continuous systematic series. A new "Visitors' Guide to the Collection of Birds" has also been prepared and issued, consisting of sixty-eight pages of text and eighteen illustrations.

A great advance has been made in cataloguing and labeling the collection, all of the North American mounted birds being now provided with exhibition labels, while the South American mounted birds have been catalogued and a part of them labeled. Also upward of 10,000 specimens in the Study Collection have been catalogued and labeled. Grateful acknowledgments are due Mr. Charles L. Brownell and Mr. E. G. Lewis, both of this city, for much assistance gratuitously rendered, Mr. Lewis having devoted two months consecutively to the work of this department. Mr. D. G. Elliot has also rendered invaluable aid in cataloguing the Elliot Collection of Hummingbirds, in addition to which he has revised several families of the Old World birds, which he has in former years made the subject of special study.

The use of our material by specialists is steadily increasing, several of whom have visited the Museum especially for this purpose,

while in other cases specimens have been loaned for examination and study. Among those who have thus made use of our material are Messrs. William Brewster of Cambridge, Charles B. Cory of Boston, D. G. Elliot, George N. Lawrence and George B. Sennett of this city, and Robert Ridgway and Dr. L. Stejneger of Washington. On the other hand, the curator has been greatly aided in his work by similar favors on the part of several of the gentlemen above named, and by the loan of material from other Museums, as the National Museum at Washington, the Cambridge Museum of Comparative Zoölogy, and the Museum of the Boston Society of Natural History.

Under the State law for the protection of birds the Museum has continued to issue permits, to properly accredited persons, for collecting birds for scientific purposes. The first permits were issued in July, 1886, since which time permits have been granted to thirty-five persons, sixteen of whom have allowed them to lapse, fourteen have renewed them once, and four others twice.

DEPARTMENTS OF INVERTEBRATE ZOOLOGY, FISHES AND REPTILES.

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

The additions to this department include a valuable collection of Frogs and Turtles from New Jersey, presented by Mr. M. S. Crane; a small collection of Snakes from Florida, presented by Mr. Arnold Kunth; a large and important collection of Reptiles and Batrachians from Arizona, presented by Dr. E. A. Mearns, U. S. A.; two rare Gopher Turtles from Arizona, presented by Mr. Herbert Brown; a case of East Indian Starfishes, from an unknown source; a very large, finely mounted Florida Tarpon (*Megalops thrissoides*), presented by Mr. John G. Heckscher, of this city, and about 100 Bolivian Snakes and Lizards, purchased.

Little work has been done upon the collections, beyond caring for their safety, since the lamented death of the former curator, Dr. J. B. Holder. The collections prove to be in excellent order, the alcoholic portions having been all catalogued and conveniently arranged. The Reptiles number 494 entries, the Batrachians 164 entries, and the Fishes 407 entries. The cataloguing of the Invertebrates had not been reached at the time of Dr. Holder's death. The collection remains about as reported last year, the dry specimens being arranged for exhibition on the first floor, and the alcohols remaining stored in the curator's room and in cases along the corridor of the fifth floor.

TAXIDERMIC DEPARTMENT.

[Under the charge of JENNESS RICHARDSON.]

Since the removal of this department from the small room in the attic to the large work rooms in the building provided by the Trustees, all of the accumulated specimens to be repaired and placed on new pedestals has been disposed of and new material is now beginning to be reached.

Of the Mammals in the flesh that are constantly arriving we find about one-fourth desirable for exhibition purposes and study. All specimens that are sent to us in the flesh are put to some use, either as skeletons, exhibition specimens or for study. The number of Mammal skins now in antiseptic solution reaches over three hundred; of this number fifty-six are not in our present mounted collection, and space should be provided for their exhibition, as well as skillful hands to mount them.

The Buffalo bones collected on the Montana expedition have all been carefully assorted and made available for study.

The number of birds mounted for the general collection has been six; number of bird skins made, one hundred and twenty-two. But one Mammal has been mounted—the Central Park Chimpanzee (Crowley), presented through the kindness of Dr. W. A. Conklin. The number of Mammal skins made has been twenty-three.

Much time has been devoted to the preparation of Bird and Mammal Groups. Twenty-five studies were made and material collected to complete the work. Of this number seventeen have been completed and placed on exhibition; there still remain seven on which work is progressing rapidly, as follows: Woodchuck, Muskrat, Raccoon, Opossum, Loon, or Great Northern Diver, Ruffed Grouse, and Labrador Duck.

Most of the skins for a Buffalo Group have been collected, but no studies have yet been made or accessories collected.

The collecting of Moose in Maine for thirty days was a success. Two bull Moose, two Caribou, and a number of birds and small Mammals were secured. Careful studies were made while in the Moose country for the contemplated Group, but no accessories taken.

LIBRARY.

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

The additions to the Library this year are principally by donations and exchanges. The books and pamphlets received have amounted to: volumes, 832; numbers and parts, 949; pamphlets, 297.

By Application (Librarian) . . .	119	Vols.	227	Nos. and Parts.	11	Pamp.
“ Exchange (Bulletin).....	43	“	322	“	117	“
“ “ (Duplicates).....	30	“	“	“	“	“
“ Donations	231	“	10	“	163	“
“ Purchase	409	“	284	“	4	“
	<hr/>		<hr/>		<hr/>	
Total.....	832		949		297	

Among the acquisitions, special mention of the following are made:

J. Wilcox, Esq., Philadelphia, Pa., donated a full set of the Second Geological Survey of Pennsylvania, 89 volumes, and several atlases.

Prof. A. S. Bickmore very generously presented his copy of Prince Maximilian's Beiträge zur Naturgeschichte von Brasilien, 4 volumes, Weimar, 1825-1832—a very rare and valuable work, especially to the Museum, as it has a large portion of the Maximilian collection.

Prof. J. A. Allen presented 67 volumes of Proceedings, Transactions and books relating to Ornithology.

The Société Royal de Zoologie, Amsterdam, donated Max Furbringer's Untersuchungen zur Morphologie und Systematik der Vögel, zugleich ein Beitrag zur Anatomie der Stützund Bewegungsgorgane, 2 volumes.

Philadelphia Academy of Sciences, Proceedings and Transactions, 14 volumes (exchange.)

Purchased from William A. Conklin, 107 volumes, 39 numbers, among the collection a complete set of the Proceedings of the Natural History Society of Glasgow. Le Naturaliste Canadien, volumes i-xiv, out of print. Also a very rare work, Bewick's History of Quadrupeds, 1791; this copy was at one time the property of Sir William Jerningham, Bart.

One hundred and seventy-eight volumes (178) added to the Conchological Section, the gift of Miss Catharine Lorillard Wolfe.

The Library this year shows a steady and sure progress. There is no room in the present cases for the increase of 1889.

The number of volumes in	Bound.	Unbound.	Nos. and Parts.	Pamp.
Library, January 1, 1889.....	6,405	1,596	3,669	5,258
Added during the year.....	488	344	949	297
	<hr/>	<hr/>	<hr/>	<hr/>
Total.....	6,893	1,940	4,618	5,555

Four hundred and thirteen (413) volumes were bound this year through the generosity of the Trustees and Miss C. L. Wolfe.

With the additions for the past four or five years, the Library has a magnificent start for a collection of periodical and other scientific literature not to be equaled in the city; there are libraries much larger, but they are made up of miscellaneous subjects, while that of the Museum is strictly natural sciences.

Maintenance.

EXPENDITURES 1888.

To Salaries, - - - - -	\$14,352 15	
" Lecture Department, as per State contract -	8,000 00	
Labor, - - - - -	5,822 04	
Coal, - - - - -	825 65	
Printing Annual Report, - - - - -	270 00	
" (general), - - - - -	88 35	
Supplies, - - - - -	467 01	
Stationery, - - - - -	90 00	
Postage, - - - - -	285 00	
Expressage, - - - - -	222 47	
Reception, - - - - -	402 32	
Labels, - - - - -	529 57	
Car-fare, - - - - -	96 38	
Traveling Expenses, - - - - -	43 98	
Custom House Expenses, - - - - -	15 05	
Sundries, - - - - -	50 31	
Poison, - - - - -	4 20	
Repairs, - - - - -	452 86	
Guides, (Fossils and Birds), - - - - -	848 47	
Fixtures, - - - - -	1,205 08	
" Shops, - - - - -	958 00	
Bulletin, - - - - -	2 25	
Interest on "Dr." Balances, - - - - -	199 00	\$35,230 14

ENDOWMENT.

Wolfe Fund for Books, - - - - -	\$ 786 49	
" " Shells, - - - - -	100 00	
Library Department, - - - - -	919 12	
Geological " - - - - -	635 00	
Mineral " - - - - -	514 50	
Ethnological " - - - - -	658 40	
" (Emmons Collection), - - - - -	12,000 00	
Mammal Department, - - - - -	2,646 14	
Bird " - - - - -	1,150 93	
Insect " - - - - -	23 12	
Fish and Reptile " - - - - -	162 13	
Coral Account, - - - - -	2 00	
Bird Groups, - - - - -	1,861 74	
Mammal Groups, - - - - -	1,081 89	
George N. Lawrence, for Birds, - - - - -	1,800 00	
Ward's Contracts, - - - - -	391 00	\$24,732 46

\$59,962 60

By Balance brought down from 1888 Account, 4,262 83

Examined	} CHARLES LANIER, }	Auditing	\$64,225 43
and approved,			

Maintenance.

RECEIPTS 1888.

Balance from 1887 Account,	-	-	-	-	\$ 2,456 07	
From the Department of Public Parks,	-	-	-	-	15,000 00	
“ “ “ “ “ Balance from 1887,					10 80	
“ State Supt. “ “ Instruction,	-	-	-	-	8,000 00	
“ Collecting Permits,	-	-	-	-	21 00	
“ Sale of Guides,	-	-	-	-	243 40	
“ Dues of Annual Members,	-	-	-	-	4,150 00	
“ Doctor Boaz, (returned),	-	-	-	-	7 00	
“ Interest on Invested Funds :						
Dodge Bequest,	-	-	-	-	300 00	
Vanderbilt “	-	-	-	-	2,000 00	
“ Sale of Hall Duplicate Collection,	-	-	-	-	1,312 50	\$33,500 77

ENDOWMENT.

Mrs. R. L. Stuart, for Groups,	-	-	-	-		\$4,257 93
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FOR THE “EMMONS COLLECTION.”

SUBSCRIBED AS PER LIST BELOW.

D. O. Mills,	-	-	\$1,000 00	George W. Vanderbilt,	\$1,000 00	
C. Vanderbilt,	-	-	1,000 00	C. P. Huntington,	-	1,000 00
J. Pierpont Morgan,	-	-	1,000 00	Elliot F. Shepard,	-	500 00
Percy R. Pyne,	-	-	500 00	Josiah M. Fiske,	-	500 00
James M. Constable,	-	-	500 00	J. D. Rockefeller,	-	500 00
H. R. Bishop,	-	-	500 00	H. G. Marquand,	-	500 00
Adrian Iselin,	-	-	500 00	J. T. Terry,	-	500 00
Charles Lanier,	-	-	500 00	H. McK. Twombly,	-	500 00
Joseph W. Drexel,	-	-	250 00	John Sloan,	-	500 00
O. Harriman,	-	-	200 00	E. C. Moore,	-	200 00
C. G. Landon,	-	-	150 00	Samuel Thomas,	-	200 00
						\$12,000 00

From Miss Ellen Collins, Life Member Account,	-	-	-	-	200 00	
Charles S. Schultz, “ “ “	-	-	-	-	100 00	300 00
M. K. Jesup, Special Fund,	-	-	-	-	708 36	
J. M. Constable, “ “ “	-	-	-	-	708 37	1,416 73

From the TRUSTEES :

Morris K. Jesup,	-	-	-	-	\$1,000 00	
D O Mills,	-	-	-	-	1,000 00	
Wm E. Dodge,	-	-	-	-	1,000 00	
H. R. Bishop,	-	-	-	-	1,000 00	
James M Constable,	-	-	-	-	1,000 00	
C. Vanderbilt,	-	-	-	-	1,000 00	
Percy R. Pyne,	-	-	-	-	1,000 00	
Adrian Iselin,	-	-	-	-	1,000 00	
J. Pierpont Morgan,	-	-	-	-	1,000 00	
Estate of Jos. W. Drexel,	-	-	-	-	1,000 00	
Oliver Harriman,	-	-	-	-	500 00	
Charles Lanier,	-	-	-	-	500 00	
Charles G. Landon,	-	-	-	-	500 00	
Oswald Ottendorfer,	-	-	-	-	500 00	
Abram S. Hewitt,	-	-	-	-	500 00	
Hugh Auchincloss,	-	-	-	-	250 00	\$12,750 00

\$64,225 43

By balance brought down from 1888 account, \$4,262 83

[E. & O. E.]

NEW YORK, February 11th, 1889.

J. PIERPONT MORGAN, *Treasurer.*

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.

§ 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.

§ 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.

§ 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.

§ 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.

[L. s.] Given under my hand and seal of office at the city of Albany, this fourteenth day of April, in the year one thousand eight hundred and sixty-nine.

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

CONTRACT

WITH THE DEPARTMENT OF PUBLIC PARKS

FOR THE OCCUPATION OF THE NEW BUILDING.

THIS AGREEMENT, made and concluded on the twenty-second day of December, in the year one thousand eight hundred and seventy-seven, between the DEPARTMENT OF PUBLIC PARKS OF THE CITY OF NEW YORK, the party of the first part, and the AMERICAN MUSEUM OF NATURAL HISTORY, party of the second part, Witnesseth :

Whereas, by an Act of the Legislature of the State of New York, passed April 22d, 1876, entitled "An Act in relation to the powers and duties of the Board of Commissioners of the Department of Public Parks, in connection with the American Museum of Natural History, and the Metropolitan Museum of Art," the said party of the first part is authorized and directed to enter into a contract with the said party of the second part, for the occupation by it of the buildings erected or to be erected on that portion of the Central Park in the City of New York, known as Manhattan Square, and for transferring thereto and establishing and maintaining therein its museum, library and collections, and carrying out the objects and purposes of said party of the second part ; and

Whereas, a building contemplated by said act has now been erected and nearly completed and equipped in a manner suitable for the purposes of said Museum, as provided in the first section of the Act of May 15, 1875, known as Chapter 351, of the Laws of 1875, for the purpose of establishing and maintaining therein the said museum, as provided by the said last-named act, and by the Act of April 5, 1871, known as Chapter 290, of the Laws of 1871 ; and,

Whereas, it is desired as well by the said party of the first part, as by the said party of the second part, that, immediately upon the completion and equipment of said building, the said party of the second part should be established therein, and should transfer thereto its Museum, Library and Collections, and carry out the objects and purposes of the said party of the second part.

Now, therefore, it is agreed by and between the said parties as follows, namely :

First.—That the said party of the first part has granted and demised and let, and doth, by these presents, grant, demise and let, unto the said party of the second part, the said building and the appurtenances thereunto belonging, to have and to hold the same so long as the said party of the second part shall continue to carry out the objects and purposes defined in its charter ; or such other objects and purposes as by any future amendment of said charter may be authorized ; and shall faithfully keep, perform, and observe the covenants and conditions herein contained on its part to be kept, performed and observed, or until the said building shall be surrendered by the said party of the second part, as hereinafter provided.

Secondly.—That neither the party of the first part, its successor or successors, nor the Mayor, Aldermen and Commonalty of the City of New York, shall be in any manner chargeable or liable for the preservation of the said building or the property of the party of the second part which may be placed therein, against fire, or for any damage or injury that may be caused by fire to the said property ; but it is agreed that, damages as aforesaid excepted, the said party of the first part will keep said building, from time to time, in repair.

Thirdly.—That as soon after the completion and equipment of said building as practicable, said party of the second part shall transfer to, and place and arrange in, said building, its museum, library, and collections, or such portion thereof as can be properly displayed to the public therein, and shall have and enjoy the exclusive use of the whole of said building, subject to the provisions herein contained, and the rules and regulations herein prescribed, during the continuance of the term hereby granted, or until a surrender thereof, as herein provided.

Fourthly.—That the exhibition halls of said building shall, on Wednesday, Thursday, Friday and Saturday of each week, and on all legal or public holidays, except Sundays, be kept open and accessible to the public, free of charge, from nine o'clock A. M. until half an hour before sunset, under such rules and regulations as the party of the second part shall, from time to time, prescribe; but on the remaining days of the week the same shall be only open for exhibition to such persons, upon such terms as the said party of the second part shall from time to time direct. But all professors and teachers of public schools of the City of New York, or other institutions of learning in said city, in which instruction is given free of charge, shall be admitted to all the advantages afforded by the said party of the second part, through its Museum, Library, apparatus, and collections, or otherwise, for study, research and investigation, free of any charge therefor, and to the same extent and on the same terms and conditions as any other persons are admitted to such advantages, as aforesaid.

Fifthly.—That the Museum, Library and collections, and all other property of the said party of the second part, which shall or may be placed in said building, shall continue to be and remain absolutely the property of said party of the second part, and neither the said party of the first part nor the said the Mayor, Aldermen and Commonalty, shall by reason of said property being placed in said building, or continuing therein, have any right, title, property or interest therein; nor shall the said party of the second part, by reason of its occupation and use of said building under this agreement, acquire, or be deemed to have any right, title, property or interest in said building, except so far as expressly granted by this agreement.

Sixthly.—That the said party of the second part shall, on or before the first day of May, in every year, during the continuance of this agreement, submit to the said party of the first part, its successor or successors, a detailed printed report of the operations and transactions of the said party of the second part, and all its receipts and payments, for the year ending with the 31st day of December next preceding.

Seventhly.—That said party of the first part shall have, at all times, access to every part of said building for general visitation and supervision, and also for the purpose of the performance of

the duties devolved upon it by the laws of the State of New York, or of the City of New York. That the police powers and supervision of said party of the first part shall extend in, through and about said building. That the said party of the second part may appoint, direct, control and remove all persons employed within said building, and in and about the care of said building, and the museum, library and collections therein contained.

Eighthly.—That said party of the second part may, at any time, after the expiration of three, and before the expiration of six months from the date of the service of a notice in writing to said party of the first part, its successor or successors, or to the Mayor of the City of New York, of its intention so to do, quit and surrender the said premises and remove all its property therefrom; and upon and after such notice, the said party of the second part shall and will, at the expiration of the said six months, quietly and peaceably yield up and surrender unto the said party of the first part and its successors all and singular the aforesaid and demised premises. And it is expressly understood and agreed by and between the parties hereto that if the said party of the second part shall omit to do, perform, fulfill or keep any or either of the covenants, articles, clauses and agreements, matters and things herein contained, which on its part are to be done, performed, fulfilled or kept, according to the true intent and meaning of these presents, then and from thenceforth this grant and demise shall be utterly null and void. And in such case it shall and may be lawful for said Department to serve or cause to be served on the said party of the second part a notice in writing declaring that the said grant hereinbefore made has become utterly null and void, and thereupon the said party of the first part, its successor or successors (ninety days time being first given to the said party of the second part to remove its property therefrom), may re-enter, and shall again have, repossess and enjoy the premises aforementioned, the same as in their first and former estate, and in like manner as though these presents had never been made, without let or hindrance of the said party of the second part, anything herein contained to the contrary notwithstanding.

Ninthly.—And it is further expressly understood and agreed, by, and between the parties hereto, that this agreement may be wholly cancelled and annulled, or, from time to time, altered, or

modified, as may be agreed, in writing, between the said parties, or their successors, anything herein contained to the contrary in anywise notwithstanding.

In witness whereof, the party of the first part hath caused this agreement to be executed by their President and Secretary, pursuant to a resolution of the Board of Commissioners of said Department, adopted at a meeting held on the thirtieth day of January, A. D. 1878, and the said party of the second part hath caused the same to be executed by their President, and their official seal affixed thereto, pursuant to a resolution of the Trustees of the American Museum of Natural History adopted at a meeting held on the twelfth day of February, A. D. 1877.

In presence of
D. PORTER LORD,

JAMES F. WENMAN,
*President Department of Public Parks
of the City of New York.*

WILLIAM IRWIN,
*Secretary Department of Public Parks
of the City of New York.*

SEAL
of the American
Museum of
Natural History.

ROBERT L. STUART,
*President American Museum of Nat-
ural History.*

STATE OF NEW YORK, }
City and County of New York, } ss:

On this 12th day of February, in the year 1878, before me personally came James F. Wenman, President of the Department of Public Parks of the City of New York, and William Irwin, Secretary of the said Department of Public Parks, with both of whom I am personally acquainted, and both of whom being by me duly sworn, said that they reside in the City and County of New York, that the said James F. Wenman is the President, and the said William Irwin is the Secretary of the said Department of Public Parks, and that they signed their names to the foregoing agreement by order of the "Board of Commissioners" of the said Department of Public Parks, as such President and Secretary.

W. C. BESSON,

[SEAL.]

(73) *Notary Public N. Y. Co.*

STATE OF NEW YORK, }
 City and County of New York, } ss:

On this 12th day of February, in the year 1878, before me personally came Robert L. Stuart, the President of the American Museum of Natural History, with whom I am personally acquainted, who being by me duly sworn, said that he resides in the City and County of New York, that he is the President of the "American Museum of Natural History," and that he knows the corporate seal of said museum, that the seal affixed to the foregoing agreement is such corporate seal, that it is affixed thereto by order of the "Board of Trustees" of said American Museum of Natural History, and that he signed his name thereto by the like order, as President of said Museum.

W. C. BESSON,

[SEAL.]

(73) *Notary Public, N. Y. Co.*

Recorded in the office of the Register of the City and County of New York in Liber. 1426 of Cons., page 402, February 16, A. D. 1878, at 9 o'clock A. M., and examined.

Witness my hand and official seal,

FREDERICK W. LOEW,

[Seal.]

Register.

BY-LAWS.

I.

Patrons, giving \$1,000, 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 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, 1888.

DONATIONS.

LIBRARY.

Through the late Miss CATHARINE LORILLARD WOLFE.

- Aradas, A. and Benoit, C. L. *Conchigliologia Vivente Marina della Sicilia*. 1870.
- Arango, R. *Contribucion a la Fauna Malacologica Cubana*. 1878.
- Betta and Martinati. *Catalogo dei Molluschi Terrestri e Fluviatili*. 1855.
- Bourguignat, J. R. *Mollusques de San-Julia de Loria*. 1863.
- Bourguignat, J. R. *Mollusques de L'Égypte, de L'Abyssinie, de Zanzibar, du Sénégal*. 1879.
- Bourguignat, J. R. *Histoire Malacologique de la Régence de Tunis*. 1868.
- Bourguignat, J. R. *Description du nouveau genre Gallandia*. 1880.
- Bourguignat, J. R. *Histoire Malacologique de L'Abyssinie*. 1883.
- Cattaneo, G. *La Morfologia dei Molluschi*. 1882.
- Clément, C. *Catalogue des Mollusques Marins du Gard*. 1875.
- Fischer, P. et Crosse, H. *Mollusques Terrestres et Fluviatiles du Mexique et L'Amérique Centrale*. 1872—1878.
- Fischer, P. *Manuel de Conchyliologie et de Paléontologie*. 1887.
- Gassies, J. B. *Faune Conchyliologique de la Nouvelle Calédonie*. 1863—1880.
- Gundlach, J. *La Fauna Puerto-Riqueña*. 1883.
- Heude, R. P. *Conchyliologie Fluviale de la Province de Nan-king*. 1881.
- Heude, R. P. *Notes sur les Mollusques Terrestres de la Vallée du Fleuve Bleu*. 1882—1885.
- Hutton, F. W. *Catalogue of the Marine Mollusca of New Zealand*. 1873.
- Issel, A. *Molluschi Borneensi*. 1874.
- Kobelt, W. *Synopsis. Molluscorum Viventium Testaceorum*. 1878—1881.
- Locard, A. *Malacologie Lyonnaise ou description des Mollusques*. 1877.
- Locard, A. *Catalogue des Mollusques vivants de France*. 1882.
- Lovén, S. *Bidrag till kännedomen om utvecklingen af Mollusca Acephala Lamellibranchiata*. 1848.
- Martini and Chemnitz (Küster.) *Parts 327—360*.
- Martens, E. v. *Ueber Vorderasiatische Conchylien*. 1872.
- Meyer, H. A. and Möbius, K. *Fauna der Kieler Bucht*. 2 vols. 1865, 1872.

- Mitchell, J. Catalogue of the Mollusca in the collection of the Government Central Museum, Madras. 1877.
- Monterosato. Nuova rivista Conchiglie Mediterranee. 1875-1879.
- Mousson, A. Révision de la Faune Malacologique des Canaries.
- Morelet, A. Mollusques Terrestres et Fluviales D'Angola et de Benguella. 1868.
- Nevill, G. Catalogue of Mollusca in the Indian Museum, Calcutta. 1877.
- Nevill, G. Hand List of Mollusca in the Indian Museum, Calcutta. 2 vols. 1878, 1884.
- Paetel, F. Familien-und Gattungsnamen der Mollusken. 1875.
- Pagenstecher, H. A. Mollusken des Rothen Meeres. 1877.
- Pfeffer, G. Lungenschnecken. Nanininen.
- Rossmässler's Iconographie. Kobelt's continuation. N. S. vol. II, 1-5. III, 1-5.
- Sars, M. Bidrag til Kundskab om Christiania Fjordens Fauna. 1868-1873.
- Schrenck, L. v. Mollusken des Amur-Landes und des Nordjapanischen Meers. 1867.
- Semper, C. Reisen in Archipel der Philippinen.
- Servain, G. Étude sur les Mollusques recueillis en Espagne et en Portugal. 1880.
- Servain, G. Catalogue des Coquilles Marines recueillies a L'Ile D'Yeu. 1880.
- Shuttleworth. Notitiae Malacologicae. 1856.
- Spinelli, G. B. Catalogo dei Molluschi Terrestri e Fluviali viventi in Venezia. 1869.
- Strobel, P. Giornale di Malacologia. 1853.
- Tryon's Manual of Conchology. Vols. VIII, IX, X. New Series. Vols. I-IV.
- Van Bemmelen, J. F. Brachiopoden en Chitonen. 1882.
- Weinkauff, H. C. Die Conchylien des Mittelmeeres. 2 volumes. 1867, 1868.
- Westerlund, C. G. Sveriges, Norges och Danmarks Land-och Sötvatten-Mollusken. 1873.
- Westerlund, C. A. Sibiriens Land-och Sötvatten-Mollusker. 1877.
- Westerlund, C. A. Monographia Clausiliarum in Regione Palæarctica viventium. 1878.
- Annales de Malacologie. 1870-'84.
- Annales des Sciences Naturelles. 1874-1885. 21 volumes.
- Bullettino Malacologico Italiano. 1868-1882.
- Journal de Conchyliologie. 1862-1885.
- Malakozologische Blätter. 1865-1878.
do Neue Folge. 1879-1883.
- Jahrbücher der Deutschen Malakozologischen Gesellschaft. 1874-1884.
- Nachrichtsblatt d. Deutschen Malakozologischen Gesellschaft. 1869-1882.
- Pfeiffer's Monographia Heliceorum viventium. Vol. VIII. 1877.
- J. WILCOX, Philadelphia, Pa.
Second Geological Survey of Pennsylvania. 88 vols. and 5 Atlases.
- HON. A. S. HEWITT, New York City.
Official Gazette of the United States Patent Office. Vols. XLI, 13; XLII, XLIII, XLIV, XLV. 1887, 1888.
Index. Vols. XL, XLI, XLII. 1887, 1888.
Annual Report Commissioners of Patents. 1887.
Alphabetical List of Patentees and Inventions. 1887, 1888.

- HON. R. P. FLOWER, New York City.
 War of the Rebellion, Series I—Vols. XX, XXI. 1887-1888.
 Tenth Census of the United States. Vol. XII. Vital Statistics.
 Part I, and Atlas. 1886.
 “ “ “ “ “ Vol. XVII. Water Power.
 Part II. 1887.
 “ “ “ “ “ Vol. XIX. Social Statistics of
 Cities. Part II. 1887.
 “ “ “ “ “ Vol. XXI. Defective, De-
 pendent and Delinquent
 Classes. 1888.
 “ “ “ “ “ Vol. XXII, Power and Ma-
 chinery employed in
 Manufactures. 1888.
- PROF. A. S. BICKMORE, New York City.
 Princeton Review. 4 vols. 1883, 1884.
 The Swiss Cross. Vols. I, II, 1, 2, 4-6.
 Recent Important Discoveries in Vital Science. By R. Welter.
 A Manual of Managing Bees. By J. M. Weeks.
 Nature Studies. No. 91. By R. A. Proctor.
 Manual for Amateur Anglers. By F. Forrester.
 Versuch Systematik der Neu-Guinea Pfeile-Serrurier.
 Bibliotheca Americana. 1878. By Clarke & Co.
 Antiquités Celtiques et Antédiluviennes. 3 vols. By M. Boucher
 De Perthes.
 Diagnoses breves plantarum novarum Japoniæ et Mandshuriæ. By
 C. J. Maximowicz.
 Tabular Statements from 1840 to 1870 of the Agricultural Products
 of the States and Territories. Ruggles.
 Pselaphidarum Monographiæ. By L. W. Schaufuss.
 Beiträge zur Naturgeschichte von Brasilien. 4 vols. By Maximilian.
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- GEO. N. LAWRENCE (the author), New York City.
 “Description of a new species of Bird of the Genus Catharus, from
 Ecuador.”
 “Description of a new species of Wren from the Island of Tobago,
 West Indies.”
 “Additional specimens of Bachman's and Swainson's Warblers.”
- W. A. CONKLIN, Ph.D., New York City.
 The Journal, Comparative Medicine and Surgery. Vol. IX. 1888.
- DANIEL DRAPER, Ph.D., Director, New York Meteorological Observatory.
 Annual Report. 1888.
- WM. BEUTENMULLER (the author), New York City.
 “Description of new species of N. A Tineidæ.”
 “ “ “ the preparatory stage of *Datana Drexellii*. H. Edw.
 “On North American Tineidæ.”
 “Food-Plants of Lepidoptera.” 8-11.
 Report U. S. Commissioner of Education. 1885-1886.
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- J. A. ALLEN, New York City.
 Naumannia. Journal für die Ornithologie. 4 vols. 1855-1858.
 Popular Science Monthly. Vols. I-IX. 1872-1876.
 Adams and Gray. Elements of Geology. 1859.
 Lyell. Principles of Geology. Sixth Edition. 1840.

- Guyot, A. The Earth and Man. 1853.
 Dadd, G. H. The Diseases of Cattle. 1859.
 Rüttimeyer, L. Die fossilen Schildkröten von Solothurn. 1873.
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 The Trade List Annual. 1873.
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 Bulletin Scientifique. Nos. 1-12. Paris. 1880.
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 VIII-XV. 1873-1880.
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 X. Part I. 1868-1873.
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 Archæological Collection of the U. S. Museum, by C. Rau.
 Schlegel. La Physionomie des Serpens. Atlas.
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MAMMALS.

MRS. FREEMAN J. BUMSTEAD, New York City, (through John T. Metcalfe, M.D).

Several North American Squirrels, mounted.

DR. F. BOAS, New York City.

1 skull of Wolf, 1 skull of Hooded Seal.

FRANK M. CHAPMAN, Am. Mus. Nat. Hist., New York City.

1 Bat.

CENTRAL PARK MENAGERIE, New York City, (through Dr. W. A. Conklin, Superintendent).

1 Chimpanzee ("Crowley"), 3 small Monkeys, 1 Lioness, 1 Kangaroo, 2 Armadillos, 1 Tiger Cat, 1 Hyena, 1 Black Bear, 1 Weasel, 1 Sacred Calf, 1 Prussian Sheep.

HON. W. F. CODY, ("Buffalo Bill").

2 Bisons, (cow and calf).

LORENZO DANIELS, New York City.

The celebrated St. Bernard Dog "Apollo."

WILLIAM DUTCHER, New York City.

1 Shrew and 1 Field Mouse, from Long Island, N. Y.

MISS E. HUBBELL, New York City.

The fine Newfoundland Dog "Belinda."

J. E. MORSE, Hartsdale, N. Y.

2 young Raccoons.

J. RICHARDSON, Am. Mus. Nat. Hist., New York City.

7 young Muskrats.

W. M. RICHARDSON, Am. Mus. Nat. Hist., New York City.

4 Red Squirrels.

J. ROWLEY, Hastings-on-Hudson, N. Y.

2 young Raccoons, and 4 young Woodchucks, for use in the Mammal groups.

A. A. SMITH, Brooklyn, N. Y.

1 Brazilian Porcupine.

MRS. ROBERT L. STUART, New York City.

2 groups of Squirrels, mounted with their nests and young.

E. E. THOMPSON, Toronto, Canada.

15 skins and 13 skulls of small Canadian Mammals.

F. J. THOMPSON, New York City.
 1 Jaguar, 1 Monkey, and 1 Armadillo.

BIRDS.

- HERBERT BROWN, Tucson, Arizona.
 1 Massena Quail.
- MRS. FREEMAN J. BUMSTEAD, New York City, (through John T. Metcalfe, M.D).
 140 mounted birds, chiefly from Massachusetts and Florida.
- FRANK M. CHAPMAN, Am. Mus. Nat. Hist., New York City.
 11 small birds from New Jersey.
- J. L. DAVISON, Lockport, N. Y.
 2 Cerulean Warblers.
- DEPARTMENT OF PUBLIC PARKS, New York City, (through Dr. W. A. Conklin, Superintendent Central Park Menagerie.)
 19 birds, mostly large, received in the flesh from the menagerie.
- LIEUT. G. F. EMMONS, U.S.N.
 2 skins of the Crested Auk.
- A. K. FISHER, M.D., Washington, D. C.
 13 small birds from Sing Sing, N. Y.
- COL. N. S. GOSS, Topeka, Kans.
 2 eggs of the Mississippi Kite, 1 egg of Tropic Bird, 2 eggs of Brewster's Gannet, 1 egg of Blue-footed Gannet.
- MISS A. B. HAWLEY, New York City.
 1 skin of a South American Tanager.
- IGNATZ HOFF, New York City.
 1 Cock of the Rock, in the flesh.
- MRS. J. B. HOLDER, New York City.
 1 Canary Bird, mounted.
- JAMES KNIGHT, M.D., New York City.
 15 skins of South American birds.
- EBEN E. OLCOTT, E. M., New York City.
 4 Humming-birds from Ecuador.
- REV. R. B. POST, Orange, New Jersey.
 2 Loons, with their nest and eggs.
- PAULIST FATHERS, New York City.
 8 skins of North American birds.
- JENNESS RICHARDSON, Am. Mus. Nat. Hist., New York City.
 1 Australian Finch.
- J. ROWLEY, New York City.
 7 small birds.
- L. SÖDERSTRÖM, Quito, Peru.
 2 Cocks of the Rock, and 2 Trogons, from Quito.
- MRS. R. L. STUART, New York City.
 19 groups of mounted birds, with their nests and eggs; 45 skins of birds taken near New York City, in gathering material for the groups.
- C. G. VOORHEES, New York City.
 1 Blackburnian Warbler.
- WILLIAM WALLACE, Am. Mus. Nat. Hist., New York City.
 4 small birds, received in the flesh.

GEOLOGICAL DEPARTMENT.

- T. F. KENNEDY, N. Y.
One limestone pebble showing effects of solution. Cayuga Lake, N. Y.
- F. A. SAMPSON, Sedalia, Mo.
Three Conostegites from Coal Conglomerate, E. of Ft. Smith, Sebastian Co. Mo.
- I. F. MARKY, N. Y.
One Fulgurite from Forest of Fontainebleau, France.
- J. DAVISON, Hams Forks, Wy.
Scale of *Dapedoglossus testis*.
Tooth of *Crocodylus affinis*.
Insects on stone; all from Green River, Wy.
- H. BOOTH, Poughkeepsie, N. Y.
Two specimens of *Gryphaea Pitcheri*, Morton, from Weatherford, near Dallas, Texas.
- S. DILL, Nova Scotia.
"Infusorial" earth from beds of marl, at Oakley, Cooper River, Charleston, S. C.
- H. HERTZER, Ohio.
Four specimens of Fucoids, Erie Shale, Cleveland, Ohio.
Two specimens of Shale, showing Sporangia, Bedford Shale, E. Cleveland, Ohio.
- MR. ASHMAN, N. Y.
Slab of western Niagara Limestone containing *Illenus Ixion*, from near Chicago, Ills.
- J. S. McLAURY, Yonkers, N. Y.
One specimen of Stromatopora from the Upper Helderberg Limestone at Cliff's quarry, S. of Syracuse, N. Y.
- W. T. L. TRAVERS, New Zealand.
Five sand-worn pebbles from boulder bank of glacial clay between Lyell's and Evan's Bays, Wittington Harbor, New Zealand.
- E. KEPPLER, N. Y.
Two slabs of new species of fossil plant from the Red Catskill beds at Griffins' Corners, Middletown, Del. Co., N. Y.
One specimen of Fern. Same locality.
- DR. W. CLARK, Berea, Ohio.
Two palatal teeth of *Mesodus Kepleri* Newb. from the Cuyahoga shale.
One Coprolite with fish teeth, Cuyahoga shale; Berea, Ohio.
- R. D. LACOE, Pittston, Pa.
Two specimens of *Trigonocarpus Dawesi*, L. & H.
" " " " *Schultzianus*, G. & B.
Four " " " *Adamsi*, Lx.
All from Middle Coal Measures, Stark Co., Ills.
- J. TERRY, N. Y.
A collection of Concretions (clay-dogs) from Button Bay, Lake Champlain, Vt.
A collection of Trenton Limestone fossils from Button Bay Island, S. of Otter Creek, Lake Champlain, Vt.

MINERALOGICAL DEPARTMENT.

- J. RICHARDSON, N. Y.
One specimen of Quartz crystals, Bird Mt., Vt.
- F. A. SAMPSON, Sedalia, Mo.
One specimen of Barite. Sedalia, Mo.
- HON. S. P. ROMANS, Deadwood, Dak.
Seven specimens of Tin Ore (Cassiterite) from Northern Black Hills
Dist., Nigger Hill, Dak.
Four specimens of Tin Ore (Cassiterite) from Southern Black Hills
Dist., Harney's Peak, Dak.
- D. HAMILTON, N. Y.
One specimen of Red Serpentine. Lizards Pt., Cornwall, Eng.
One specimen of Rhodochrosite with Blende and Pyrite. Colorado.
- GILMAN S. STANTON, N. Y.
One specimen of N. Y. Island Garnet.
" " " " " " Mica.
- MR. A. P. MINEAR, N. Y.
Specimens of Native Silver, Argentite, Chalcopyrite, and Galenite
from the Amador Mine, Col.
- MR. FULLER, Jacksonville, Fla.
Beautiful Sphere of Iron Pyrite. Madison Co., Fla.
- J. W. KIME, Ia.
Large block of Gypsum from Fort Dodge, Iowa. Trias or Cretaceous.
- F. L. CISCO, N. Y.
Five specimens of Staten Island Serpentine. Stapleton, St. Is., N. Y.
- E. A. HUTCHINS, N. Y.
One specimen of Smaragdite from Cullakenee Mine, Clay Co., N. C.
- SANDERSON SMITH, N. Y.
One specimen of Nephrite (Amphibole) Chestnut Hill, Easton, Pa.
- T. A. MARSHALL, Ogdensburg, N. J.
One specimen of Chalcophanite. Ogdensburg, Sussex Co., N. J.

CONCHOLOGICAL DEPARTMENT.

- W. T. L. TRAVERS, New Zealand.
One specimen of Helix Hochstetter, New Zealand.

EXCHANGES.

LIBRARY.

- PHILADELPHIA ACADEMY OF SCIENCES.
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V, No. 1.

BIRDS.

- WILLIAM BREWSTER, Cambridge, Mass.
140 skins of North American birds, many of them very rare.
- F. O. JOHNSON, Riverside, Cal.
62 specimens from near Riverside, Cal.

GEOLOGICAL DEPARTMENT.

- MR. ETHERIDGE, Queensland, Australia.
Permo-Carboniferous Fossils from Bowen River Beds, Queensland, Australia.
- MR. ASHMAN, N. Y.
Specimens of *Orthis*. Watertown, N. Y.
- J. WILCOX, Philadelphia, Pa.
Through the Wagner Institute a set of Pliocene and Post Pliocene fossils from Florida.

MINERALOGICAL DEPARTMENT.

- DR. H. J. JOHNSTON, Lavis.
A collection of rock and mineral specimens from the eruptive series of Southern Italy.
- J. WILCOX, Philadelphia, Pa.
Specimens of Green Quartz from Delaware Co., Pa.

CONCHOLOGICAL DEPARTMENT.

- MR. ETHERIDGE, Queensland, Australia.
A collection of recent shells, including 15 genera and 96 specimens.

PURCHASES.

LIBRARY.

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" " " Vol. XXI. 1887. Zoology.
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 Zoophytes, etc., of the Wm. Barents Expedition.
 Bryozoa, etc., " " " "
 Sponges, etc., " " " "
 Lamellibranchs. " " " "

MAMMALS.

- 1 American Tapir; 3 skins and one head of the American Bison; 2 full-grown Florida Manatees, male and female; 1 Fisher, mounted; 13 Monkeys, mounted; 150 skins and 162 skulls of small North American Mammals, for the study collection.

FROM THE MUSEUM EXHIBITION.

- 2 Moose, 2 Caribou, 9 Red Squirrels, 6 Muskrats, 2 Hares, 1 Field Mouse.

BIRDS.

800 skins, mostly South American.

GEOLOGICAL DEPARTMENT.

DR. A. E. FOOTE, Philadelphia, Pa.

The Klippart Collection of Fossils, representing for the most part Upper Helderberg forms.

REV. W. BIRD, Abeih, Syria.

Collection of Syrian Fossils, mostly cretaceous.

MINERALOGICAL DEPARTMENT.

C. H. PENNYPACKER, West Chester, Pa.

One specimen Calcite, Cornwall, Eng.

" " " " Weardale, Durham, Eng.

W. NIVEN, N. Y.

One large group of Smoky Quartz Crystals. Alexander Co., N. C.

DRAKE CO., St. Paul, Minn.

Two large polished sections of Agatized Wood. Chalcedony Park, Apache Co., Arizona.

T. A. MARSHALL, Ogdensburg, N. J.

One large specimen of Calamine from Ogdensburg, Sussex Co., N. J.

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