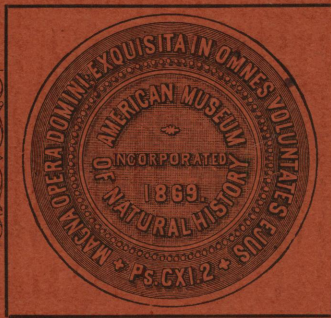


THE
American Museum of Natural History

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 1890-91.

PRINTED FOR THE MUSEUM.

THE
AMERICAN MUSEUM OF NATURAL
HISTORY,

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NEW YORK:
PRINTED FOR THE MUSEUM.

1891.

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

BOARD OF TRUSTEES,

1891.

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Department of Entomology.

A. WOODWARD, Ph.D.,
Librarian.

WILLIAM WALLACE,
Superintendent of Building.

JOHN H. WINSER,
Assistant Secretary.

TWENTY-SECOND ANNUAL REPORT.

To the Trustees, Patrons, Fellows and Members of the American Museum of Natural History.

In presenting the Twenty-second Annual Report of the work of the Museum I may justly assert that the past year has been one of marked growth and prosperity.

The much desired Endowment Fund, which has often been brought to your attention, has been secured, and the total subscriptions amount to \$301,500. The income accruing from this fund will greatly assist in providing valuable additions to the collections for all future time, and it is earnestly hoped that the augmentation of this fund will keep pace with the growth of the institution.

Briefly stated, the report of the Treasurer for the year past shows the receipts to have been \$57,168.68, of which amount \$3,157.66 was a balance from 1889. The expenditures have been \$56,105.77, of which sum \$13,800.90 have been used for the improvement and enlargement of the collections. The maintenance of the Museum has cost \$42,304.87. Of this amount the city contributed \$25,000, and our members \$17,304.87.

The lectures by Professor Bickmore have been carried on during the past fall at a cost of \$2000 in excess of the estimate. This resulted from the failure of the Governor to sign the bill for continuing the lectures beyond October 1st, last.

A subscription of \$1000 was made in aid of the "Carl Lumholtz Expedition" to Northern Mexico and the Sierra Madre, and I fully expect that the result of this exploration will be of much benefit to our institution.

The removal of the specimens, and their temporary lodgment in other portions of the edifice, has necessarily been the cause of great confusion and annoyance; and this work has added somewhat to the expense of maintenance.

Our increase in membership has added to the roll of Patrons, Messrs. William Waldorf Astor, Henry Seligman, Richard T. Wilson, John E. Parsons, Francis O. Matthiessen, A. J. Forbes-Leith, George Bliss, and the Hon. M. C. D. Borden. Messrs. David Wolfe Bishop, Jr., and Cortlandt Field Bishop have become Fellows. The Museum has also gained nineteen Life Members, and one hundred and seventy-six Annual Members. Messrs. W. W. Cole and George H. Brown have been elected Honorary Life Members; and Mrs. S. Lowell Elliot has been constituted an Honorary Patron by reason of valuable donations.

The provision of the exhibition cases for the fitting up of the new building is a subject upon which has been bestowed the most careful consideration. The experience and advice of those familiar with the needs of a museum has been availed of, in order that no precaution might be omitted that would contribute to the best results. Group cases have caused an outlay of about \$12,000, and will require an additional expenditure of \$6600 for the current year to complete those now in progress.

In this connection, we are indebted to the Hon. Whitelaw Reid, Minister of the United States to France, for his kindness in procuring for us a series of large photographs of the Exhibition Halls of the Natural History Museum in Paris; thanks are also due to Professor G. Brown Goode, of the National Museum of Washington, for full working drawings and plans of completed cases.

A course of eight lectures was given last fall to members and their families by Professor A. S. Bickmore and Dr. Frederick Starr; the former delivered a course of five lectures on Economic Botany and Economic Geology, and the latter gave three lectures on the History and Origin of Dress. The last lectures were illustrated largely from the material in the Ethnological Department.

A free lecture to the public was delivered by Prof. Bickmore on each of the following days: Thanksgiving, Christmas and New Years. These lectures were attended by large audiences.

The amount of the collateral inheritance tax levied upon the bequest of the late Wm. H. Vanderbilt to this Museum, was very generously refunded by Messrs. Cornelius and Wm. K. Vanderbilt;

this amount is not noted in the current receipts and payments, inasmuch as the Treasurer very kindly drew his check to the City Comptroller, and immediately received a refund of the amount. I am much gratified with their kind courtesy, in view of the fact that no obligation existed on the part of the executors.

Notwithstanding the constant interruptions and annoyances suffered by our official staff, the work in the several departments has been carried on without any very material delay. A synopsis of the work of the different divisions, summarized from the reports of the Curators and Chiefs of Departments, furnishes interesting data.

A most notable accession has been made to the Department of Minerals. It has been increased by the magnificent collection of cut and uncut gem material widely known as the "Tiffany Collection of Gems, etc.," which was a special attraction during the late exhibition held in Paris. We are indebted to Mr. J. Pierpont Morgan for this splendid gift. As a special collection of such objects, it is conceded to be without a rival; it will add greatly to the attractions of the Museum. An appropriate case is being constructed in which to exhibit it in the new hall connected with the Geological Department.

The entire accumulation of land shells, containing about 2300 species, comprising the collection of Mr. John J. Croke, of this city, was presented to the Museum during the early portion of the year. This donation will increase the species of the Jay Collection by about fifty-seven per cent., making a most valuable acquisition to the Conchological Collection.

Of mammals, the additions acquired by donation, purchase and exchange show a total of 490. The Bird Collection has been increased from similar sources to the extent of 1570 specimens. The most important gift was received from Mr. W. E. D. Scott, and consists of nearly six hundred mammals and birds from Florida. Among the additions to the Exhibition Series are two fine adult skeletons of the Florida Manatee, several groups of Water Birds, and a large number of birds mounted at the Museum.

The Mammal Collection was removed from the lower hall during the summer and stored in the alcoves of the bird hall to await its transfer to the new wing. The accretion of material in this

division will be found stated in detail in the departmental report.

The Department of Taxidermy has not been obstructed in the performance of its work as have the others. The removal of the mammals from the lower hall made it requisite that many should receive some attention previous to being stored temporarily, and 172 were thus treated. The Indian Rhinoceros (formerly a special attraction in the menagerie of Central Park) is almost ready to be placed on exhibition.

The total number of groups now on exhibition amounts to forty-two; of this number two are mammals and forty are birds. The production of these groups has involved an expenditure of nearly \$21,000, exclusive of the cases, and it can justly be claimed that no other museum in the world possesses a similar exhibit equal in interest. Two mammal and two bird groups are nearly ready for exhibition. After these four groups and the Bison and Moose groups are finished, the work of the department will be the mounting of specimens for the general collection.

The report of the Entomological Department shows that the greater portion of the year has been devoted to the gathering and preparation of the material for the "Jesup Collection of Economic Entomology," the remainder of the time having been spent in making additions to the Study and Exhibition Collections. Thirty-six groups have been added during the past year, of which number five large and twelve small ones are displayed, while forty-four more are nearly completed, among which are included six collected during 1889.

The insect groups above referred to are a feature as yet unattempted by any other institution, and they have evoked the constant praise of visitors. A full description of these groups is appended in the departmental report. Mrs. S. Lowell Elliot has enriched this department by the gift of the fine collection of butterflies, moths, etc., gathered by the late Dr. S. L. Elliot. This collection contains about 6600 specimens of butterflies and moths, and four hundred specimens of wasps, dragonflies and grasshoppers.

The rooms in use for the library have been in a very confused state for a large portion of the year, and are at the present time

crowded far beyond their capacity. Notwithstanding this drawback the department has grown more rapidly than during the previous year; 313 volumes have been bound and 1213 volumes added. During last summer the librarian was instructed by me to make a tour of the several institutions noted in his report, in order to acquire information and plans, to be used in the arrangement of our library. The total number of volumes at the present time is 13,273, and estimated at market prices may be said to be worth nearly \$100,000. The most valuable donations have been received from Mr. George H. Brown, Mrs. Samuel Lawrence, the Geological Survey of New Jersey, Royal Academy of Copenhagen, Provincial Museum of Königsberg, Australian Museum, and the Royal Academy at Amsterdam.

The Departments of Ethnology and Archæology have been for several months under the care of Dr. Frederick Starr, who has been retained to label and arrange the Bishop and the Emmons Collections in the Department of Ethnology. His work has covered the opening, classification, labeling, arranging and cataloguing of the above-noted collections.

The publication of Bulletins has been continued as during the previous year, and has resulted in an increase of exchanges of similar publications from other scientific bodies. Four articles were issued from the Geological Department, embellished with plates, and seven from the Department of Mammalogy and Ornithology.

I have arranged to have the future osteological work performed as far as practicable in the Museum building. The practice has been to have this work done by outside parties, but investigation has convinced me that it would be well to try the experiment of having it done within our own walls.

The record of visitors during the past year is as follows: Day attendance, 232,037, average per day, 740; evening attendance, 25,628, or an average of 244 per night; the attendance at the ten lectures amounted to 4885.

The large centre case in the lower hall has been removed, and the Jesup Collection of Woods placed in the side cases formerly occupied for the exhibition of the mammals. The water colors have been temporarily arranged on the doors outside of the cases.

There have been added to the collection twenty-seven photographs, which are displayed on the wall near to the wood specimens of the same species. This collection contains at the present time, 420 species and twenty-five varieties, dressed and on exhibition. Nine species have yet to be obtained to make this collection absolutely complete; they are very difficult to acquire, inasmuch as they have rarely been seen during recent years.

Two hundred and forty-three water colors have been received, and two hundred and twelve more have yet to be prepared, to complete the whole series. The necessary photographs will be added as rapidly as possible.

This entire collection of woods, water color drawings and photographs have been scientifically arranged under the supervision of Professor Charles S. Sargent, the eminent arboriculturist, in charge of the Arnold Arboretum of Harvard College, Brookline, Mass.

The year just past has been a period of much confusion and consequent expense, involved by the necessary transfer and storage of the specimens. This work has required the use of the entire force of the Superintendent of the building, and additional help often had to be engaged. The progress of the work was regularly reported to me, and a close supervision kept. This plan resulted in securing the utmost economy in outlay, and the best possible returns for the expenditure.

Upon the completion of the new wing there will have been used in the work on the same more than four million brick, two thousand two hundred tons of granite, eleven thousand square feet of glass for lighting, and eighty-five thousand seven hundred and twenty-five cubic feet of rubble work in the construction of the foundation. The foundation of a portion of the east wing was excavated to a depth of more than fifty-two feet. It may be interesting to incorporate these figures in the Annual Report of this year, as they will no doubt be of some statistical interest in the future.

It is my sad duty to record the death of our late associate, Mr. Hugh Auchincloss. His relation as a member of the Board of Trustees extended over a period of more than eight years, during which time he held the position of Secretary, from which office

he sought to be relieved on account of declining health ; through his decease the Museum has sustained the loss of a very warm friend. Appropriate resolutions were adopted at the last meeting of the Board, which were entered in full upon the minutes, and engrossed copies of same forwarded to the members of his family.

Mr. John B. Trevor, another zealous friend of this institution, and formerly a Trustee, died December 22d, last. He gave his best efforts to the interests of the Museum for a number of years until business demands compelled his retirement from the Board.

During the first few years of the existence of the Museum, it was maintained solely by the subscriptions of its Trustees and a few zealous friends and members, whose interest in its aims prompted them to assist it. It is fair to assume that the contributions of the Trustees, as included in money and gifts of specimens, from the formation of the institution to the present time, will aggregate nearly nine hundred thousand dollars.

The growth of public interest in the Museum during the past few years has been rapid and widely distributed, and many friends, recognizing the prominence which it has attained, have been prompted to exemplify their interest and appreciation by gifts of money and collections, substantial in amount.

In conclusion, I would tender our hearty thanks to those who have become contributors during the year past, and I cherish the conviction that the coming one will witness an even greater increase in the amount of subscriptions. The history of the formation of endowment funds for public institutions has demonstrated that, after such a result as we have just achieved, a steady increase has followed, and I feel great confidence that we also shall secure ample means to enrich our collections.

MORRIS K. JESUP,

President.

Endowment:

	EXPENDITURES.	
To Geological Department.....		\$196 37
Ornithological "		3,017 33
Ethnological "		2,787 08
Mammal "		1,915 64
Mineral "		230 87
Entomological "		51 70
Reptiles and Fishes.....		63 75
Wolfe Account, Shells.....		138 36
" Library		201 48
Library		1,070 12
Bird Groups Account		222 54
Mammal "		1,038 91
Conchological Department.....		831 42
Skeletons.....		186 00
Special Account.....		273 58
Taxidermist Department.....		279 28
Insect Groups Account.....		1,296 47
		\$13,800 90

Maintenance:

To Salaries	\$16,162 24	
Labor.....	8,983 81	
Repairs	263 39	
Postage.....	470 60	
Fixtures.....	111 38	
Lecture Department.....	7,303 82	
Car Fare.....	91 67	
Advertising.....	100 55	
Supplies.....	728 30	
Travelling Expenses.....	40 20	
Expressage	273 21	
Stationery	415 24	
Annual Reports.....	352 13	
Coal	2,018 79	
Printing	387 85	
Custom House Expenses.....	10 00	
Expense Account....	2,359 99	
Labels.....	820 33	
Bulletins	1,223 79	
Poison.....	18 11	
Interest Dr. Balances (1889 and 1890).....	169 47	42,304 87
Balance brought down to January 1st, 1891.....		1,062 91
		<u>\$57,168 68</u>

Examined { ADRIAN ISELIN, } *Auditing*
and approved, { CHARLES LANIER, } *Committee.*

Endowment :

RECEIPTS.

By Balance from December 31, 1889.....	\$3,157 66	
From Interest on Invested Funds.....	11,853 47	
Sale of "Guides".....	170 60	
Fees from "Collecting Permits".....	27 00	\$15,208 73
		\$15,208 73

PATRONS' ACCOUNT: Subscription of		
Hon. M. C. D. Borden.....		1,000 00

LIFE MEMBERS' ACCOUNT: Subscription		
Theodore K. Gibbs.....	\$100 00	
S. D. Coykendall.....	100 00	
Fred. C. Havemeyer.....	100 00	
George B. DeForest.....	100 00	
Edward J. Farrell.....	100 00	
Spencer Trask.....	100 00	
Norman W. Dodge.....	100 00	
John E. Alexandre.....	100 00	
Thompson Dean.....	100 00	
Henry H. Wotherspoon.....	100 00	
Franklin L. Gunther.....	100 00	
Stephen T. Gordon.....	100 00	
James Cruikshank.....	100 00	
C. H. Odell.....	100 00	
John J. McCook.....	100 00	
Alexander Maitland.....	100 00	
Peter Donald.....	100 00	
Charles L. Colby.....	100 00	
Hugh O'Neill.....	100 00	1,900 00
		\$18,108 73

Maintenance :

Dues from Annual Members.....	\$8,060 00	
State Superintendent Public Instruction.....	5,999 95	
Department of Public Parks.....	25,000 00	39,059 95
		\$57,168 68
Balance from 1890 Account.....		\$1,062 91

[E. & O. E.] NEW YORK, *February 16, 1891.*

J. PIERPONT MORGAN, *Treasurer.*

ENDOWMENT FUND.

The following amounts have been subscribed and paid into the Endowment Fund of the American Museum of Natural History during 1890.

Mrs. ROBERT L. STUART.....	\$50,000
J. PIERPONT MORGAN.....	25,000
PERCY R. PYNE.....	25,000
D. O. MILLS.....	25,000
JAMES M. CONSTABLE.....	25,000
MORRIS K. JESUP.....	25,000
CORNELIUS VANDERBILT.....	25,000
WILLIAM E. DODGE.....	10,000
OSWALD OTTENDORFER.....	5,000
C. P. HUNTINGTON.....	5,000
CHAS. G. LANDON.....	5,000
D. WILLIS JAMES.....	5,000
Miss PHEBE ANNA THORNE.....	5,000
CHAS. LANIER.....	2,500
WILLIAM WALDORF ASTOR.....	1,000
HENRY SELIGMAN.....	1,000
HEBER R. BISHOP.....	1,000
RICHARD T. WILSON.....	1,000
JOHN E. PARSONS.....	1,000
FRANCIS O. MATTHIessen.....	1,000
A. J. FORBES-LEITH.....	1,000
GEORGE BLISS.....	1,000
CORTLANDT FIELD BISHOP.....	500
DAVID WOLFE BISHOP, Jr.....	500
	<hr/>
	\$246,500

DEPARTMENTAL REPORTS.

GEOLOGICAL DEPARTMENT.

(INCLUDING THE MINERALOGICAL AND CONCHOLOGICAL COLLECTIONS.)

PALÆONTOLOGICAL COLLECTIONS.—Owing to the condition of the Museum building during the year, less time was devoted to work on these collections than was desirable. Still all that was not fully taken up by changes and work made necessary by the repairs being made was devoted to it. Up to the first of January, 1891, the work of labeling has been carried forward on the east side of the room to within the Upper Helderberg Group, or into section 13 of Case G, having advanced from the beginning of the Lower Helderberg Group, in section 10, Case F. Within this area there were 1217 complete labels placed during the year, 477 of which are those pertaining to "type" or "figured" specimens, requiring citations and references. In addition to this there were 137 complete labels made for a collection of fossils from Palestine, which are not on exhibition for want of space, and about three hundred others replaced in the collection where the damage by water from roof-leakage had destroyed those previously made. There were also 665 labels reprinted by Mr. Gratacap to replace those first used, printed in *red* ink and now so faded as to be illegible. About 400 more of these yet remain on the east side of the room, and about 200 on the west side. The aggregate of new permanent labels added to the Palæontological collections during the year is 2319. The labels for the Palestine fossils all had to be determined and obtained from books published on this Syrian region, and are not yet complete, as the literature necessary for that purpose is not in our library.

But few of the labels furnished during the year have been mounted on blocks, as the carpenter employed by the Museum has not had time to make them. This necessarily leaves the cases in much confusion, as the collections have to be removed again to insert the blocks, and it makes an unsightly and disagreeable feature which we cannot help, but which ought to be remedied as early as possible, so that it may not interfere with the progress of work.

CATALOGUING.—The Palæontological Collection catalogue has progressed in the hands of Mr. L. P. Gratacap to near the middle of Case D on the east side of the room, including two alcove desk cases.

DONATIONS AND PURCHASES.—Several donations and two quite valuable purchases of fossils were made during the year. One purchase of a collection of Utica Slate fossils, similar but rather more extensive than that asked for in my last annual report, and at a smaller price. The second of two handsome fossil fish from the Twin Creek, Wyoming Eocene bed. One of these formed the basis of an article in the Bulletin. These, with other donations and purchases, will be found recorded in the Appendix.

MINERALOGICAL COLLECTION.—But little work has been done on this collection further than that made necessary by the addition of occasional new material. The catalogue of the collection as it now stands was completed by Mr. Gratacap early in the year.

A number of purchases and donations have been made to this collection during the year. The most noted addition is the donation by one of our Trustees of the "Tiffany Collection of Gems and Gem Material," exhibited by the Tiffany Co. at the late Paris Exposition, which is unquestionably the finest collection of the kind in existence, and will necessarily be an attractive feature of the Museum when it is placed on exhibition. There will, however, be a necessity of frequent additions from time to time as other material is offered. In fact there is at present quite a quantity of such material now in the Tiffany Company's hands, which ought to be secured, and also a remarkably brilliant green and violet Australian opal now owned by the G. L. English Co.

ECONOMIC COLLECTION.—But few additions have been made to this department during the year. Many promises have been made, but with small results. E. Fritsch, Esq., of 515 West Twentieth Street, has furnished the five other blocks of Algerian marbles, thus filling the case, and giving twelve varieties of these marbles. Also a box of ore samples (chiefly gold and silver) was received from D. O. Mills, Esq., forwarded by S. A. Knapp, Esq., of Hawthorn, Nevada, containing 46 lots, with another box on the way. These samples of ores are marked to show the mine whence taken, and the percentage of metal which they yield. The Collection of Building Stones still remains in cases in the attic hallways and on the stairs, the latter subject to defacement and injury. It is to be hoped that a permanent place of rest may soon be found for this collection in the new building.

CONCHOLOGICAL COLLECTIONS.—The accessions to this collection during the year have been quite important and valuable. A series of marine shells, presented by D. Jackson Steward, Esq., Trustee of the Museum, is composed largely of very fine and valuable shells; and is also quite extensive, although not representing all the groups, and could it have been incorporated in the general collection would have improved its appearance very much,

but one of the conditions of the gift is that it shall be arranged separately according to the Lamarckian system of classification, as an historical record of that system. The Crooke Collection of Land and Fresh Water Shells, donated by John J. Crooke, of Staten Island, is also extremely valuable and extensive, and will add very largely to our collections, although not composed of showy specimens. In the four genera, *Helix*, *Cylindrella*, *Partula* and *Succinea*, for instance, it will add 478 species. The entire land shells of the Jay Collection numbers 1600 species, the Crooke Collection 2300; but the proportion of added species is much above this difference, as many in the Jay are not represented in the Crooke Collection.

Accessions to the Geological Department.

BY DONATION.

GEO. ASHMAN, New York City.

Eight specimens of Lower Helderberg Limestone, carrying *Leperditia* and *Beyrichia*, from Chepachet, Herkimer Co., N. Y.

H. BOOTH, Poughkeepsie, N. Y.

One hundred specimens of Copal, inclosing insects; cut and polished; principally from Zanzibar, Africa.

BOOTH, GARRETT & BLAIR, Philadelphia, Pa.

A small collection of fossils comprising representatives from Europe and America, and formerly the property of Prof. Booth, of Philadelphia, Pa.

One set of Dr. Jacob Green's models of the originals of *Trilobites* described in his Monograph of the *Trilobites* of North America.

J. E. COE, New York City.

Fossil Gasteropods from the coal shale at Danville, Ill., and specimens of fossils from the Hudson River Group, Wilmington, Will Co., Ill.

E. CUDLICH, Stockton, Pa.

Core of Boring, by diamond drill, through coarse sandstone of the Coal Measures at Stockton, Pa.

SUMNER T. DURHAM, New York City.

Vertebrate fossil remains, from the Marl Pits at Malvern Hills, Virginia.

WM. DUTCHER, New York City.

Specimen of Chemung Sandstone with fossils, from Stamford, Delaware Co., N. Y.

PROF. W. B. DWIGHT, Poughkeepsie, N. Y.

Twenty-one specimens of Primordial Fossils, from the Potsdam sandstone, shale, and limestone at Stissing Mt., and at Schodack Landing, N. Y.

J. HADDAEUS, Sing Sing, N. Y.

A number of specimens of detached bones, teeth, etc., with phosphatic nodules, from the mines near St. Projet, Caylus, France.

A. H. JOCELYN, N. Y., and O. C. BROWNELL, Tionesta, Pa.

Specimen of *Stigmara* in oil-bearing sandstone, Tionesta Creek, Alleghany River, Forest Co., Pa.

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

One *Septaria*, Onondaga Co., N. Y.

- W. A. F. KELCH, New York City.
Specimens of Oriskany, Schoharie, Lower Helderberg, and Hamilton Fossils, found loose at Black Head and Cairo, Round Top, Catskills, Greene Co., N. Y.
- CLARENCE LOWN, Poughkeepsie, N. Y.
One hundred specimens of Copal, carrying insects; principally from Zanzibar, Africa. These specimens are cut and polished.
- W. MILLER, New York City.
Granite fold in Mica-schist, from West End Avenue, N. Y. City.
- Miss E. S. MINTURN, New York City.
Handsome specimen of Copal tree showing gum filling cavities in the trunk.
- H. P. PARMELEE, Hillsdale, Michigan.
A few fossils from Hillsdale, Michigan.
- PETER J. STEINER, N. Y.
Specimen of Pecoeris? from Coal Measures on Boundary Line of Styria, Carinthia and Salzburg, Austria, 7000 ft. elevation.
- Miss MARY E. SARTWELL, Brooklyn, L. I.
Two blocks of Chazy Limestone filled with Orthis. Found loose, 12 miles from Plattsburg, N. Y.
- Miss M. O. SEYMOUR, Brooklyn, L. I.
Clay Concretions, from Willet's Point, L. I.
- Miss J. TERRY, New Haven, Conn.
One specimen of *Maclurea magna*, from Basin Harbor, Lake Champlain, Vt.
- J. TERRY, New Haven, Conn.
One clay Concretion, Southampton, L. I.
- PROF. R. P. WHITFIELD, New York City.
A collection of Syrian Fossils, from Palestine.
- J. WILCOX, Philadelphia, Pa.
Eocene fossils from Florida and Virginia. Three specimens of a rare Pliocene species of Gasteropod (*Solenosteira mengeana*), Caloosahatchie, Florida.

BY EXCHANGE.

The Exchange with the Wagner Free Institute of Science, Philadelphia, Pa., has been completed by the receipt of more than 52 specimens of Lamelibranchs, and over 170 specimens of Gasteropods, from the Miocene of Maryland; and over 70 specimens of Mollusca from the Miocene of Virginia.

BY PURCHASE.

- From J. DAVISON, Hams Forks, Wyoming.
One specimen of a fossil fish *Dapedoglossus testis*, from Twin Creek, Wyoming.
- From H. A. PRIDE, Holland Patent, N. Y.
A collection of Utica Slate Fossils, comprising about 200 specimens, from Rome, Marcy, Floyd, Trenton and Holland Patent, N. Y.

Accessions to the Mineralogical Department.

BY DONATION.

- PROF. A. S. BICKMORE, New York City.
Two pieces of Pyritiferous Ore in Feldspar and Calcite from the Treadwell Mine, Douglass Island, Alaska.

- VICTOR F. ALLIEN, New York City.
One specimen of Elaterite, a peculiar Mineral Rubber, from Utah.
- N. A. BIBIKOV, Albuquerque, N. M.
Three specimens of Aragonite, from near Albuquerque, N. M.
- MESSRS. BOOTH, GARRETT & BLAIR, Philadelphia, Pa.
Three specimens of Zaratite on Chromite. Two specimens Brucite, from Wood's Mine, Texas, Lancaster, Co., Pa. One specimen of Carbonate of Copper and Lead on Oxide of Cobalt in iron gangue, Mine La Motte, Missouri.
- R. A. CUNNINGHAM, New York City.
Two specimens of Arsenopyrite (Mispickel), from ten miles west of Littleton, N. H. The specimens represent paying ore.
- J. L. DAVIDSON, Lockport, N. Y.
Five specimens of Niagara Limestone, enclosing geodes of Calcite and Dolomite, from Lockport, Niagara Co., N. Y.
- S. D. DILL, New York City.
One specimen of Pyrolusite, Walton, Nova Scotia.
- MRS. S. LOWELL ELLIOT, Brooklyn, L. I.
Some pieces of Graphite from near Union, Massachusetts.
- J. M. HALLOVAS, New York City.
Eleven specimens of Silver Ore (Cerargyrite and Argentite with copper salts), from Mine San Agustine, Huantajaya, Chili, S. A.
- J. HUNTINGTON, Inwood, N. Y.
One ball of concretionary Pyrite, from Millersburg, Va.
- F. B. JONES, Brooklyn, L. I.
One cut and polished sphere of Smoky Quartz.
- J. S. McLAURY, Yonkers, N. Y.
Aragonite from Wilcox Quarry, near Fayetteville, Onondaga Co., N. Y.
- GEORGE MEREDITH, New York City.
The Gold from his first pan of washings on entering the Placer diggings at Pleasant Creek, Ararat, Ripon Co., Victoria, Australia.
- MISS E. S. MINTURN, New York City.
One handsome specimen of Gold Quartz.
One fragment of cut dish of Fluorite.
Two specimens of Lava with implanted coin.
One specimen of polished Norite (Au Sable Granite).
- J. PIERPONT MORGAN, New York City.
A very valuable and extensive collection of American gems and gem stones in the rough, and also many cut gems of foreign countries. This collection has been known as the Tiffany Collection of Gems and Gem Material, and is that which they exhibited at the Paris (France) Exposition of 1889.
- W. NIVEN, New York City.
One specimen of *Nivenite* from Llano Co., Texas.
One specimen cubical Pyrite, large, coarsely striated, from Gilpin Co., Colorado.
- REV. RICHARD B. POST, N. Y.
Specimens of volcanic lava and sulphur; Kilauea, Hawaii, Sandwich Islands.
- JENNESS RICHARDSON, Yonkers, N. Y.
Three specimens of compact Garnet and Colophonite, from Minerva, near Schroon Lake, Adirondacks, N. Y.

- PROF. F. STARR, New York City.
 Specimens of Galenite, Mine La Motte, Mo.
 " Wulfenite, Einstein Mine, Mo.
 " Lepidolite, Mo.
- J. B. TAYLOR, New Mexico.
 Specimen of Moss, in part mineralized by a deposit of Carbonate of Lime, from hot springs of Hermosa, New Mexico.
- TIFFANY & CO., New York City.
 A large specimen of Rhodonite, from Cunningham, Mass., and a large mass of compact transparent Quartz, with broad terminal crystal planes, from Ash Co., N. C.
- J. E. UNDERHILL, Brooklyn, L. I.
 A group of limonitic concretions (12 specimens), from Ridgewood, L. I.
- CH. W. WARREN, Middletown, N. Y.
 One specimen of Brucite, Hoboken, N. J.
 Two specimens of Seed Garnet, from 10th Avenue and 86th Street, N. Y.
 Four specimens of Stilbite, from 56th Street and 9th Avenue, N. Y.

BY EXCHANGE.

- F. B. JONES, Brooklyn, L. I.
 One crystal of Troostite, Franklin, N. Y.
 Topaz Pebble?, New Zealand.
 Cube of agatized wood, Apache Co., Arizona.
 Precious Opal, Mexico.
 Star Mica.

BY PURCHASE.

- WM. NIVEN, New York City.
 One specimen of Descloizite, Georgetown, Grant Co., N. M.
 " " Vanadinite, " "
 " " Chrysocolla, Bisbee, Arizona.

Accessions to the Economic Department.

BY DONATION.

- E. FRITSCH, New York City.
 Five slabs of Algerian Marbles, from Djebel, Mount Orouse, Algeria.
- D. O. MILLS, N. Y.
 Forty-six lots of samples of Ores, gold and silver, with specimens of Borates and Natron, from Hawthorne Mining District, Esmeralda Co., Nevada and Ingo Co., Cal.

Accessions to the Conchological Department.

BY DONATION.

- JOHN J. CROOKE, N. Y.
 A large collection of land and fresh water shells, with a few marine, comprising about 3000 species.
- Miss COLLINS, N. Y.
 Specimen of *Helix desertorum*.
- A. F. GRAY, Yonkers, N. Y.
 Lot of shells, *Strophia iostoma* Pfr., from Inagua (Bahamas).
- FRANZ KINZEL, Upper Matacombe, Florida.
 Specimen of *Bulimulus elongatus*, Menke, and two specimens of *Helix*, Menke, from Upper Metacombe, Florida.

MERCANTILE LIBRARY ASSOCIATION.

A small collection of miscellaneous marine shells.

MISS MINTURN, N. Y.

A lot of shells, mostly West Indian.

REV. RICHARD B. POST, Hoboken.

A collection of shells, mostly from Pacific Islands and West Coast of America.

GEO. H. RAGSDALE, Gainesville, Texas.

Specimens of *Buliminus Ragsdalei* Pillsbury, from Cook Co., Texas.

BY PURCHASE.

PROF. HENRY A. WARD.

One specimen of *Voluta Junonia* for exchange.

DEPARTMENT OF MAMMALS AND BIRDS.

MAMMALS.—The additions number ~~40~~ skins, 500 skulls, and about 25 skeletons, obtained as follows:—*By donation*: 86 specimens in the flesh; 120 skins and 115 skulls, mostly from Florida. *By exchange*: 126 skins and 120 skulls, mostly North American. *By purchase*: 214 skins and 230 skulls, mostly from Mexico.

During the summer the Exhibition Collection was removed from the lower hall to the bird floor, where it is temporarily stored, awaiting the completion of the new Mammal Hall. The Study Collection, including both skins and skulls, is now entirely labeled and catalogued, and arranged for convenient use. Several hundred skulls have been cleaned during the year, and the smaller ones placed in vials, safe from dust and perfectly accessible for reference.

The chief additions to the exhibition series made during the year are the skeleton of the Indian Elephant "Samson"; two adult very fine skeletons of the Manatee, and also various smaller skeletons, and a few mounted Monkeys. The principal additions to the Study Collection are the Buller Collections from Mexico, and several large accessions from Florida. Many valuable specimens have also been received in the flesh from the Central Park Menagerie. The Museum is also indebted to Mr. George R. McKenzie, of Glen Spey, N. Y., for a very fine buck Elk, kindly presented by him for one of the contemplated groups of North American Mammals.

BIRDS.—The additions are 1570 skins, and a small number of nests and eggs, obtained as follows:—*By donation*: 644 skins, mostly North American, of which 440 were presented by Mr. W. E. D. Scott. *By exchange*: 175 skins, mostly exotic, including many of great interest. *By purchase*: 751 skins, mostly from Mexico and Central America.

About a hundred birds, mounted at the Museum, have been added to the Exhibition Collection during the year. Also several fine groups of Water Birds, including the Labrador Duck group. To the Study Collection have been added nearly 750 specimens from tropical America, and about 600 from Florida. The principal gift to this department has been received from Mr. W. E. D. Scott, as noted above.

During the year about 2000 labels for the South American mounted birds have been prepared and printed; about 1200 Old World mounted birds have been carefully identified and catalogued, preparatory to labeling. The additions made to the Study Collection during the year have also been identified, labeled and catalogued; the Mearn's Collection, received last year, numbering some 4000 specimens, is nearly catalogued.

The exchange of duplicates gives us not only much new material, but we are able in this way to secure many valuable specimens not otherwise obtainable.

The use of our collections by specialists is steadily increasing, and the pleasant reciprocal relations between this Museum and the leading investigators and museums of this country, mentioned in the report for last year, still continue.

As an outcome of the scientific investigation of the Museum collections during the year, the Curator and his Assistant have prepared the following papers, printed in No. 1, Vol. III, of the Museum Bulletin, aggregating 178 pages:

1. On Seasonal Variation in Color in *Sciurus hudsonius*. By the Curator. 4 pp. Published June, 1890.

2. A Review of some of the North American Ground Squirrels of the Genus *Tamias*. By the Curator. 72 pp. Published June, 1890.

3. On a Collection of Birds made by Mr. Clark P. Streater in British Columbia, with Field Notes by the Collector. By Frank M. Chapman. 36 pp. Published October 8, 1890.

4. Descriptions of a New Species and a New Subspecies of the Genus *Lepus*. By the Curator. 2 pp. Published October, 1890.

5. List of Mammals collected by Mr. Clark P. Streater in British Columbia, with Descriptions of two New Subspecies of *Sciurus*. By the Curator. 8 pp. Published November 14, 1890.

6. Notes on a Small Collection of West Indian Bats, with Description of an apparently New Species. By the Curator. 5 pp. Published November 14, 1890.

7. Notes on Collections of Mammals made in Central and Southern Mexico, by Dr. Audley C. Buller, with Descriptions of New Species of the Genera *Vespertilio*, *Sciurus*, and *Lepus*. By the Curator. 20 pp. Published December 10, 1890.

The following paper, published during the year in the Museum Bulletin, was also based on the material of this department.

8. Descriptions of supposed New Species and Subspecies of Mammals from Arizona. By Edgar A. Mearns, Assistant Surgeon U. S. A. 31 pp. Published February 21, 1890.

Accessions to the Department of Mammals.

BY DONATION.

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

1 Sun Bear, 2 Harbor Seals.

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

26 monkeys, including the Chimpanzee "Kitty"; 3 young Lions; 2 South American Panthers; 2 Ocelots; 1 Spotted Hyena; 3 Black Bears; 1 Badger; 1 Otter; 1 Raccoon; 1 Cacomistle; 2 Coatomondis; 2 Kinkajous; 1 Coyote; 1 Black-backed Jackal; 1 Red Fox; 1 Black Fox; 1 Yucatan Deer; 1 Virginian Deer; 1 Hog Deer; 1 Reindeer; 1 Indian Antelope; 1 American Bison and 1 Bison head; 1 young Indian Buffalo; 3 young Angora Goats; 1 young Camel; 1 Woodchuck; 2 Sloths; 2 Pouched Rats; 1 Rat Kangaroo. Total, 78-specimens, received in the flesh.

CHARLES B. CORY, Boston, Mass.

2 West Indian Bats.

W. J. HUMMER, Morrison, Iowa.

1 Red Bat.

STEWART LEWIS, Newton, N. J.

3 Squirrels and 1 Woodchuck.

GEORGE R. MCKENZIE, Glen Spey, N. Y.

1 fine male Elk.

MRS. MALLISON, New York City.

1 Humboldt Monkey.

DR. EDGAR A. MEARNNS, U. S. A., Fort Snelling, Minn.

3 Jackass Hares.

DR. JOHN I. NORTHROP, School of Mines, Columbia College, New York City.

1 Large-eared Bat, from the Bahamas.

JAMES RICALTON, Maplewood, N. J.

1 Manx Cat.

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

1 skull of Babiroussa; 2 Moles.

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

4 Ground Squirrels.

CLARENCE B. RIKER, Maplewood, N. J.

5 skins of Brazilian Bats.

JOHN ROWLEY, JR., Hastings, N. Y.

5 Squirrels, 1 Mouse and 2 Hares.

MRS. D. W. STERRELL, New York City.

1 Angora Cat.

W. E. D. SCOTT, New York City.

55 skins, with skulls, mostly from Florida; 1 Brown Bat, New York.

CLARENCE A. SMITH, New York City.
28 skins, with skulls, from Florida, Connecticut, and New York.

DR. F. TUCKERMAN, Amherst, Mass.
2 Monkeys.

WILLIAM WALLACE, Am. Mus. Nat. Hist., New York City.
13 House Rats.

BY EXCHANGE.

WILLIAM DUTCHER, New York City.
6 Squirrels and 2 Field Mice.

GUSTAVE KOHN, New Orleans, La.
32 skins, with skulls, of Hares, Squirrels and Field Mice, from Louisiana.

LOUIS MOLNARE, Hungary.
5 skins, from Europe.

MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Mass.
12 skins of Squirrels, from various localities.

JOHN ROWLEY, JR., Hastings, N. Y.
21 skins and 21 skulls, of Squirrels and Hares.

CLARENCE A. SMITH, New York City.
27 skins and 25 skulls, chiefly from Florida and New York.

ERNEST E. THOMPSON, Toronto, Canada.
5 skins and 3 skulls of Hares.

UNITED STATES NATIONAL MUSEUM, Washington, D. C.
6 skins and 2 skulls of Ground Squirrels.

BY PURCHASE.

THROUGH DEPARTMENT OF TAXIDERMY.
7 skins and skulls.

THROUGH MUSEUM EXPEDITIONS.
48 skins and 50 skulls, mostly from Florida.

BY DIRECT PURCHASE.

3 Monkeys, mounted ; 60 skins, with skulls, of North American species, mostly from California ; 168 skins and 180 skulls, from Mexico. Also the following, purchased in the flesh, and prepared in the Department of Taxidermy : 24 Monkeys ; 6 Fruit Bats ; 1 Polar Bear ; 2 young Black Bears ; 1 Lioness ; 3 Pumas ; 1 young Otter ; 1 Binturong ; 1 Red Fox ; 1 Mexican Deer ; 1 Pronghorn Antelope ; 1 Capromys ; 4 Varying Hares ; 1 European Hedgehog.

Accessions to the Department of Birds.

BY DONATION.

C. F. ADAMS, Champaign, Ill.
47 skins, from Borneo.

WESTLEY AUSTIN, Rutland, Vt.
1 Snowbird.

MORRIS BARNETT, New York City.
Collection of Eggs, from Connecticut.

J. CARTER BEARD, New York City.
1 albino Scaup Duck.

L. BELDING, Stockton, Cal.
7 skins, from California.

- C. L. BROWNELL, New York City.
1 Acadian Flycatcher.
- GEORGE C. CANTWELL, Lake Mills, Wis.
1 Leconte's Sparrow.
- CHARLES B. CORY, Boston, Mass.
12 skins from the West Indies.
- J. J. DALGLEISH, Edinburgh, Scotland.
9 skins from Arctic America.
- DEPARTMENT OF PUBLIC PARKS, New York City, through Dr. W. A. Conklin, Superintendent of the Central Park Menagerie.
1 Chinese Thrush; 1 Blackbird; 1 Toucan; 1 Cockatoo; 1 Blue Macaw; 5 Hawks; 1 Peacock; 2 Pheasants; 6 Rails; 1 European Plover; 1 Golden Trumpeter; 1 Canada Goose; 1 Brown Pelican; 5 Herons. Total, 22 specimens, received in the flesh.
- WILLIAM DUTCHER, New York City.
1 Blue Heron.
- W. H. EDWARDS, Amagansett, L. I.
2 Sharp-shinned Hawks; 1 Red-breasted Merganser.
- MRS. P. FULLER, New York City.
2 mounted Owls, from Niagara, N. Y.
- MRS. F. P. GILBERT, New York City.
1 Mexican Parrot.
- F. M. GILBERT, Evansville, Ind.
3 White Fan-tailed Pigeons.
- CHARLES J. HAYNES, Tarrytown, N. Y.
1 skin of Flamingo.
- GEORGE N. LAWRENCE, New York City.
1 albino Ruffed Grouse.
- LEVERETT M. LOOMIS, Chester, S. C.
42 skins from South Carolina.
- D. G. NEWELL, New York City.
4 Carrier Pigeons and 7 Barbs; 1 Turkey.
- D. E. NEWELL, New York City.
4 Bronzed Turkeys; 2 Black Barb Pigeons; 1 Dun Barb Pigeon; 4 Black Carrier Pigeons; 1 Dun Carrier Pigeon.
- DR. JOHN I. NORTHROP, School of Mines, Columbia College, New York City.
5 specimens of *Icterus northropi*, including the types of the species, from Andros Island, Bahamas.
- G. ARTHUR PALMER, New York City.
1 living Carolina Rail.
- JENNESS RICHARDSON, Am. Mus. Nat. Hist., New York City.
2 South American Hummingbirds, and 6 North American birds.
- JOHN ROWLEY, JR., Hastings, New York.
17 skins, from New York.
- W. E. D. SCOTT, New York City.
440 skins, nearly all from Florida.
- GEORGE B. SENNETT, Erie, Pa.
1 Fulvous Tree Duck; 2 Massena Quails, and 2 Bronzed Grackles.
- CLARENCE A. SMITH, New York City.
3 Coots; 1 Wren.

- E. W. SMITH, Orange, N. Y.
 1 Red-breasted Nuthatch; 1 Yellow-bellied Woodpecker.
- ERNEST E. THOMPSON, Toronto, Canada.
 4 Bank Swallows.
- LOUIS WEISMANN, New York City.
 3 bird's nests.

BY EXCHANGE.

- GUSTAVE KOHN, New Orleans, La.
 43 skins, from Louisiana.
- LOUIS MOLNARE, Hungary.
 81 European birds.
- DR. JOHN I. NORTHROP, School of Mines, Columbia College, New York City.
 27 specimens, from Andros Island, Bahamas.
- CLARENCE A. SMITH, New York City.
 1 Ward's Heron and 1 Brown Crane, from Florida.
- ERNEST E. THOMPSON, Toronto, Canada.
 32 specimens from near Toronto.
- UNITED STATES NATIONAL MUSEUM, Washington, D. C.
 25 specimens, mostly from tropical America.
- JOHN WHITEHEAD, London, England.
 8 specimens from Borneo.

BY PURCHASE.

- THROUGH MUSEUM EXPEDITIONS.
 181 specimens, mostly from Florida, collected by Frank M. Chapman.
- THROUGH DEPARTMENT OF TAXIDERMY.
 13 specimens, received in the flesh.
- BY DIRECT PURCHASE.
 76 specimens from Louisiana; 228 specimens from Mexico; 133 specimens from Costa Rica; 120 specimens from various localities in South America.

Accessions to the Department of Reptiles, Fishes and Invertebrates.

BY DONATION.

- J. P. H. BELL, Gainesville, Fla.
 Collection of Reptiles from Florida.
- WILLIAM BEUTENMÜLLER, Am. Mus. Nat. Hist., New York City.
 1 Snake, from Venezuela; 1 Embryo Shark.
- A. J. CONSTANTINE, New York City.
 1 Sawfish Saw.
- DEPARTMENT OF PUBLIC PARKS, through Dr. W. A. Conklin, Superintendent of the Central Park Menagerie.
 8 Pythons; 3 Iguanas; 2 Alligators; 1 African Snake.
- JOHN C. KLINE, New York City.
 Specimens of West Indian Corals.
- CLARENCE A. SMITH, New York City.
 20 Reptiles, in alcohol, from Florida.

BY PURCHASE.

THROUGH MUSEUM EXPEDITIONS.

24 Reptiles from Florida, collected by Frank M. Chapman.

BY DIRECT PURCHASE.

1 Boa Constrictor; 2 young Alligators; 3 Pythons; collection of Reptiles from Florida.

DEPARTMENT OF TAXIDERMY.

The most notable piece of work done during the past year was the mounting of the great Indian Rhinoceros "Bomby." The skin when removed from the animal weighed 750 pounds. After immersion for four years in an antiseptic solution it was removed, and found to be perfectly preserved. In preparing it for mounting, the skin was thinned down to an even thickness of a quarter of an inch, this operation requiring the labor of two men for two months. In mounting, a wooden manikin was used, made to represent as nearly as possible the natural shape of the animal, upon which the folds and ridges were moulded in clay. Over this completed model the skin was then drawn, and the mounting finished in a highly satisfactory manner.

Of the 149 mammals received in the flesh a few have been mounted, 55 others prepared for mounting, and 89 made up as skins or skeletons for the Study Collection. Of many of the more important specimens plaster casts were taken while still in the flesh, as a guide in mounting the specimens later; these casts also afford to artists valuable material for studies. Among those mounted from fresh specimens is the young Hippopotamus received from the Central Park Menagerie.

A Muskrat group has been prepared and placed on exhibition during the year. It is designed to illustrate the habits of this peculiar species, and represents a section of a river bank showing a burrow and its interior construction. A winter house, built in the water, of grass and other vegetable matter, is also shown. It has been cut down on one side to exhibit the nest within.

During the summer the Mammal Collection was removed from the lower hall to the bird floor for temporary storage during the completion of the new mammal hall. Although in general, the collection is in a good state of preservation, 172 specimens were found in need of more or less repair, and were placed in good order. Repairs have also been made on many of the skeletons, including the Mastodon and the Elephant Jumbo, which is now again on exhibition at the Museum. The Irish Elk, which for many years has been in bad condition, has been entirely remounted, and the few missing parts artificially restored. Also 644 skulls of small mammals have been prepared for the Study Collection.

Of birds, 89 specimens have been mounted and placed on exhibition, and 48 made into skins for the Study Collection, and skeletons made of six others. The mounted birds include a Cassowary and various European and South American species. Work on the Bird Groups has been continued and a number of them completed, including those illustrating the Pied-billed Grebe, the Laughing Gull, the Ruffed Grouse, and the Labrador Duck. The latter is a winter study made on Long Island, where this now supposed extinct species was formerly a more or less common winter migrant.

DEPARTMENT OF ENTOMOLOGY.

Most of the time during the year has been devoted to the preparation and gathering of specimens for the "Jesup Collection of Economic Entomology," and the Study and Exhibition Collections of Insects. In both these collections much progress has been made; to the Economic Collection, thirty-six groups have been added, and to the Study and Exhibition Collections, about two thousand five hundred specimens have been added. Five large and twelve small Economic Insect Groups have been completed and placed on exhibition, and forty-four groups are in progress (including those collected in 1889), and are expected to be finished and ready for exhibition before the summer. These groups will be exhibited with the "Jesup Collection of Woods"; they represent the life histories and other phases of insects injurious to forest and shade trees, and are illustrated by their food-plants, made in wax, showing the injury done to the trees by the insects. This feature will not only prove useful to practical foresters, but also will be of educational value to students of entomology and the public.

During the latter part of the year the collection of insects of the late Dr. S. Lowell Elliot was generously presented to the Museum by Mrs. Margeritha Schuyler Elliot. The collection is a very fine one, and consists of one hundred and forty-five cases, 14 x 24 inches, containing about six thousand six hundred specimens of Butterflies and Moths, in absolutely perfect condition, and fifteen cases containing about four hundred specimens of insects of various orders. Almost all the Butterflies and Moths of this collection are bred specimens, and many of our rarer *Lepidoptera* are represented by entire broods, showing the variation and intergradation of the species. The suites of *Datanas* and *Limacodes* are probably the largest and finest that have ever been brought together. Almost all the specimens in this collection have been collected in New York City and vicinity.

Notwithstanding the satisfactory progress that has been made, much yet remains to be done to bring the Museum Collection of

insects up to the proper standard of completeness. Additional collections of North American Butterflies and Moths, Beetles and insects of various other orders, would be of great help and importance to the department, and it is hoped that this may be taken into consideration by friends of the Museum, and the deficiency remedied.

Accessions to the Department of Entomology.

THROUGH MUSEUM EXPEDITIONS.

About 2500 specimens of insects of various orders from New York City and vicinity.

BY DONATION.

Mrs. MARGERITHA SCHUYLER ELLIOT, Brooklyn, New York.

About 6600 Butterflies and Moths, and about 400 insects of various orders, collected by the late Dr. S. L. Elliot.

OSCAR THORN, New York City.

1 specimen of Hickory destroyed by the *Cyllene picta*.

TUDER JENKS, Bryn Mawr, Yonkers, N. Y.

20 specimens of insects.

N. W. NOCK, Mappsville, Va.

1 Mole Cricket.

G. B. SENNETT.

A few Butterflies from Texas.

A. WOODWARD, New York City.

About 200 specimens of insects from Mass.

IRVIN CADMUS.

1 Living Bird Spider from Baracoa, W. I.

JAMES ANGUS, West Farms, New York City.

10 specimens of *Lepidoptera*.

DEPARTMENT OF ARCHÆOLOGY AND ETHNOLOGY.

WORK DONE UPON THE COLLECTIONS.—In the last Annual Report it was stated that Dr. Frederick Starr had been engaged to arrange, label and catalogue the several collections in this department. He has been at work during the greater part of the year. The collections have all been carefully examined. The duplicate material has been laid aside, and the remainder has been provided with permanent numbers. The special catalogues of the collections, some seventeen in number, have been transcribed into large volumes, three of which are nearly filled. By this numbering and recording the collection is insured against loss and confusion when it shall be transferred to the new building. A system of card labels has been adopted. These are well printed in bold type. Some of them are already in the cases with specimens, but most of them will not be used until the collections are located in new cases. To increase the interest of the specimens, and to make them more readily understood, a number of pen and ink

sketches have been made, covered with glass, and neatly bound. These will be laid alongside the specimens in their final arrangement on exhibition.

DONATIONS.—From time to time, for several years past, the Museum has received donations to this department from individuals. Some of these have not been acknowledged in the Annual Reports. A list of such gifts is appended to this report, and the thanks of the Museum are given to the various donors. In the same list are also included gifts from individuals received during the year.

THE MEARNS COLLECTION FROM ARIZONA.—Dr. Edgar A. Mearns has given to the Museum a large and interesting collection of specimens from the Cliff Dwellings and old Pueblo ruins of the Verde Valley, Arizona. The series includes objects of stone, bone and shell, pottery vessels, materials used in the construction of the Cliff Dwellings, articles of apparel, cords, fabrics, etc., etc., and a great amount of food materials, both vegetable and animal, found in these interesting ruins. Dr. Mearns made a large number of photographic negatives of these old dwelling places, and has consented to the Museum having a set of prints made from them. These pictures will add greatly to the interest of this collection.

CARD CATALOGUE.—As an experiment a card catalogue is being prepared of the Emmons and Bishop Collections from Alaska and British Columbia. Such a catalogue it is believed is of greater value and more permanence than any book record. It will also be of great assistance in the preparation of a bulletin of the department, relative to the Alaska series. No publication work has yet been done in connection with the Department of Archæology and Ethnology. It is, however, greatly to be desired.

LECTURES.—Two courses of three lectures each have been delivered during the year by Dr. Starr. The first course upon The Stone Age, considered the several topics: (a) The Man of the Stone Age; (b) The Mounds and their Builders; (c) Mammoth, Mastodon and Man. The second course was upon the subject: Dress. (a) Deformations; (b) Dress—its Origin and Development; (c) Ornament and Religious Dress. These lectures were illustrated with stereopticon views, largely taken from objects in the collections of the department. They were intended for the members of the Museum and their friends.

AN ARMENIAN COLLECTION is at present offered for sale in this city at a moderate sum. It illustrates the late Bronze and early Iron Ages in Russian Armenia, and would valuably supplement the Stuart Collections (deMorgan and Feuarent), which finely represent the early and late Stone Ages and the Age of Bronze

in western Europe. It is a property which the Museum should own.

CONDITION.—The cases are overcrowded, and thousands of specimens are stored away in boxes and trays. These all need frequent examination to prevent loss and damage from moths, etc. The crowded condition of the cases do not admit of proper display of the specimens. Plans for the permanent arrangement of the collections have been submitted to the management, and it is hoped that the whole series may soon be removed to commodious quarters, where the specimens may be suitably mounted and effectively displayed.

List of Specimens donated to the Department of Archaeology and Ethnology, but not acknowledged in preceding Annual Reports, and of Specimens donated in 1890.

- ABBOTT, ABIEL. 4 Australian Spears.
 ABBOTT, C. C. Palæolithic Implements, N. J.
 AUCHINCLOSS, HUGH. Model of Chinese Tomb. Ethnological Collections, Canada, etc.
 AYXERE, LOUIS H. Lining of Egyptian Tomb.
 BACHELER, O. R. Sacred Books, India.
 BAKER, F. Stone Spearhead.
 BARCLAY & CO. Jivaro's Head.
 BARLOW, MRS. S. L. M. 2 Stone Axes.
 BELL, MRS. Package Poisoned Arrows for Blowgun.
 BOOTH, HENRY. Woven Jar, Arizona.
 COBB, CARLOS. Stone Implements, Northern New York.
 CONKLIN, W. A. Boomerang, Australia.
 CONSTABLE, JAS. M. 10 War Clubs, Sioux.
 DALRYMPLE, Dr. E. A. Pottery of Virginia Indians.
 DAVIS, H. Celt, etc., 2 specimens.
 DAVIS, J. P. Carved Wooden Figure, Peru.
 ELLIOT, D. G. Skull, Socorro, N. M.
 FIZZLEMESY, HON. PHILIP. Canoe, Brit. Guiana.
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 PYNE, PERCY R. Brantz-Mayer Collection.
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 SCUPHAM, J. R. Mortar and Pestle.
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 WILSON, C. H. Indian Pouch.
 WOOD, WALTER. 1 Spearhead, 1 Gorget, N. Y.

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 George H. Brown, New York City.—Elliot's Birds of North America.

Elliot's Monograph of the Pittidæ and Supplement.

“ “ “ Tetraoninæ, or the Family of the Grouse.

Mrs. Samuel Lawrence, New York City.—14 volumes.

Waldemar Kelck, New York City.—8 volumes.

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Sir J. W. Dawson, Montreal, Canada.—Set of his writings.

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Institute Royal Géologique de Suède.

Entomologiska Föreningen.

Deutschen Geol. Gesellschaft.

The Australian Museum.

See list for other numerous and generous contributions, etc.

A number of very rare and valuable books were obtained for the Library at the auction sales of the S. L. M. Barlow and J. Carson Brevoort Libraries.

Seventy-nine (79) volumes added to the Conchological Section, the gift of Miss Catharine Lorillard Wolfe.

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- Martin, D. S. Geological Map of New City and Vicinity. 1888.
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- Nebraska. " " 1879, 1880.
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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.

[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.*

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 office 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.

I.

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 gentlemen 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.

PATRONS.

By the Payment of One Thousand Dollars.

MORRIS K. JESUP.
 ROBERT L. STUART.*
 Miss C. L. WOLFE.*
 ROBERT COLGATE.*
 FREDERIC W. STEVENS.
 PERCY R. PYNE.
 JAMES M. CONSTABLE.
 JOHN B. TREVOR.*
 ADRIAN ISELIN.
 HUGH AUCHINCLOSS.*
 JOSEPH W. DREXEL.*
 WILLIAM E. DODGE, JR.
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 ABRAM S. HEWITT.
 C. VANDERBILT.
 J. PIERPONT MORGAN.
 CHARLES LANIER.
 D. JACKSON STEWARD.
 EDWARD CLARK.*
 A. G. PHELPS DODGE.
 JAMES BROWN.*
 A. T. STEWART.*
 S. WHITNEY PHOENIX.*
 BENJAMIN H. FIELD.
 WILLIAM T. BLODGETT.*
 OLIVER HARRIMAN.
 ROBERT BONNER.
 JAMES B. COLGATE.
 ALEXANDER STUART.*
 WILLIAM A. HAINES.*
 BENJAMIN AYMAR.*
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 JOSEPH H. CHOATE.
 JONATHAN THORNE.*
 Miss PHEBE ANNA THORNE.
 D. O. MILLS.
 JOHN A. C. GRAY.
 HEBER R. BISHOP.
 CHAS. G. LONDON.
 WILLIAM E. DODGE.*

PETER COOPER.*
 WILLIAM H. ASPINWALL.*
 B. H. HUTTON.*
 J. TAYLOR JOHNSTON.
 D. N. BARNEY.*
 I. N. PHELPS.
 JAMES STOKES.*
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 GEO. W. VANDERBILT.
 EDWARD D. ADAMS.
 WILLIAM C. SCHERMERHORN.
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 M. C. D. BORDEN.
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 GEORGE C. COOPER.

Honorary Patrons,

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 MRS. S. LOWELL ELLIOT.

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By the Payment of Five Hundred Dollars.

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Honorary Fellow,

JAMES THOMSON.

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 MISS E. S. HAINES.
 MRS. W. A. HAINES.
 WILLIAM M. HALSTED.
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 ALFRED M. HOYT.
 THEO. D. HOWELL.
 WILSON G. HUNT.
 C. P. HUNTINGTON.

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 RUDOLPH KEPPLER.
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 GEO. F. KUNZ.
 JOSEPH LAROCQUE.
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 STEPHEN R. LESHER.
 JAMES LOW.
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 Dr. HENRY F. WALKER.
 BENJAMIN WELLES.
 FREDERICK B. WENDT.
 LOOMIS L. WHITE.

* Deceased.

ED. KIRK WILLARD.
S. C. WILLIAMS.
JOHN T. WILLETS.
HON. BENJAMIN A. WILLIS.
EDWARD WINSLOW.

JOHN WOLFE.
HENRY H. WOTHERSPOON.
JOHN H. WYMAN.
MRS. JOHN J. WYSONG.

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GEORGE H. BROWN. PROF. JAMES DOUGLAS.
W. W. COLE. MRS. FLORENCE HOWLAND.
HOFRATH A. B. MEYER.

ANNUAL MEMBERS.

By the Payment of Ten Dollars Yearly.

Abbott, Frank, M.D.	Auchincloss, Mrs. E.	Beer, Julius
Abegg, Henry	Auchincloss, E. S.	Beers, M. H.
Agnew, Alex. McL.	Auchmuty, R. T.	Bell, Hon. Isaac
Agnew, Hon. John T.	Austin, William	Benedict, James H.
Aitken, John W.	Aufhauser, Samuel	Bend, George H.
Aldrich, Mrs. H. D.		Benjamin, John
Alexander, Henry M.	Babcock, Samuel D.	Bentley, Charles E.
Alexander, Jas. W.	Bailey, N. P.	Bentley, Norman S.
Alexander, John F.	Baird, John	Berdell, Theodore
Allen, Calvin H.	Baldwin, C. C.	Bernheim, Abram C.
Allen, Chas. S., M.D.	Baldwin, Edward	Bernheimer, Adolph
Amend, Bernard G.	Baldwin, J. G., M.D.	Bernheimer, Isaac
Amsinck, Gustave	Baldwin, O. D.	Bernheimer, Simon
Amy, H.	Baldwin, W. D.	Berrian, Charles M.
Anderson, Arthur A.	Baldwin, William	Bianchi, F.
Anderson, E. Ellery	Ballin, Gustav	Bien, Julius
Anderson, Henry H.	Bangs, L. Bolton, M.D.	Billings, O. P. C.
Andreini, J. M.	Banta, C. V.	Bissinger, Philip
Appleton, Daniel	Banyer, Goldsborough	Blagden, George
Appleton, W. W.	Barnard, Horace	Blakeman, Birdseye
Appleton, Wm. H.	Barnes, E. W.	Blanchard, G. R.
Archbold, John D.	Barnes, John S.	Bliss, George
Armour, H. O.	Barnes, Theo. M.	Bliss, George T.
Arnold, E. S. F., M.D.	Barney, Chas. T.	Bloodgood, John H.
Arnold, John H. V.	Barron, John C., M.D.	Bogert, Albert G.
Arnoux, William H.	Beckel, Joseph	Bogert, Henry A.
Aronson, Rudolph	Beebe, Chas. E.	Bogert, Stephen G.
Atterbury, J. T.	Beekman, Gerard	Bond, Frank S.

- Bonn, William B.
 Booss, Frederick
 Borg, Simon
 Boskowitz, I.
 Boulton, Wm. G.
 Bouvier, John V.
 Bowdoin, G. S.
 Bradley, S. R.
 Bradley, William H.
 Braker, Conrad, Jr.
 Brandon, Edward
 Breslin, James H.
 Brinckerhoff, Daniel D.
 Bristol, John I. D.
 Bristow, Hon. B. H.
 Brookway, A. N., M.D.
 Brookfield, Wm.
 Brown, Miss E. W.
 Brown, Mrs. James M.
 Brown, J. Crosby
 Brown, R. C.
 Browning, John H.B., M.D.
 Bruce, Col. S. D.
 Bryce, William
 Buckham, George
 Burden, James A.
 Burden, Henry, 2d
 Burr, Louis H.
 Burrill, John E.
 Butler, Charles
 Butler, Prescott Hall
 Butler, Wm. Allen
 Byrd, George H.

 Cahn, Leopold
 Cameron, Edward M.
 Cammann, H. H.
 Campbell, George W.
 Camp, Hugh N.
 Camp, W. A.
 Cannon, H. W.
 Cary, Alanson
 Cassard, William J.
 Cathcart, George R.
 Chamberlain, Mrs. J. F.
 Cheever, John H.

 Chesebrough, Robert A.
 Childs, H. C.
 Church, E. Dwight
 Clark, Bernard S.
 Clark, Cyrus
 Clark, George C.
 Clarke, Charles C.
 Clarke, Mrs. Sarah L.
 Clarkson, Frederick
 Cochrane, John W.
 Coffin, Chas. H.
 Coffin, Edmund, Jr.
 Coffin, William Edward
 Cohen, Samuel M.
 Cole, Mrs. A. K.
 Coles, Mrs. W. F.
 Colgate, Abner W.
 Colgate, Robert
 Colgate, R. R.
 Colgate, Samuel
 Colgate, Mrs. Samuel
 Colgate, Samuel J.
 Collins, Benjamin
 Collins, Miss Ellen
 Collins, Miss M. M.
 Combe, William
 Compton, A. T.
 Comstock, Frederick H.
 Conger, Henry C.
 Conklin, William B.
 Conkling, Rev. N. W.
 Conover, Alonzo E.
 Constable, Frederick A.
 Constable, James M.
 Constantine, A. J.
 Contencin, Louis
 Contoit, Chas. H.
 Cook, John C.
 Cooper, Geo. C.
 Cooper, John
 Cotheal, Alex. J.
 Cox, Allyn
 Cranitch, William I. A.
 Crawford, R. L.
 Crimmins, Hon. J. D.
 Crocker, George Aug.

 Crosby, Rev. Howard, D. D.
 Cross, Richard J.
 Cruger, S. V. R.
 Cullum, Gen. Geo. W.
 Cummings, Richard
 Curtiss, Frank
 Cutting, Robt. Fulton
 Cutting, W. Bayard

 Daly, Hon. Chas. P.
 Davies, William G.
 Davis, George S.
 Davis, Theodore M.
 Davison, C. A.
 Day, Henry
 Day, Henry M.
 Day, Rev. Henry S.
 Decker, Joseph S.
 de Forest, Robert W.
 de Groot, Mrs. William
 de Rham, Charles
 DeCoppet, Henry
 DeForest, Chas. T.
 De Grauw, Walter N., Jr.
 DeKlyn, B. F.
 De Ruyter, John
 De Vinne, Theo. L.
 Delafield, Maturin L.
 Delaney, Arthur J.
 Dewitt, William G.
 Dickie, E. P.
 Dickey, Charles D.
 Dickey, Hugh T.
 Dieterich, Chas. F.
 Dimock, Henry F.
 Dithridge, George W.
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 Dodge, Cleveland H.
 Dodge, George E.
 Dodge, Miss Grace H.
 Dodge, Mrs. Wm. E., Jr.
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 Dolbear, Miss L. H.
 Dummerich, L. F.
 Doudge, James R.
 Dougherty, A.

- Dow, John Melmoth, F.Z. S.
 Dowd, Hon. Wm.
 Dowd, Prof. Daniel L.
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 Draper, Frank E.
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 Dryden, John F.
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 Du Bois, Katharine
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 Duncan, John P.
 Dunham, G. H.
 Dunlap, Robert
 Dyett, A. R.
- Earle, Wm. P.
 Ehret, George
 Eidlitz, Leopold
 Eidlitz, Marc
 Eimer, August
 Einstein, David L.
 Einstein, Emanuel
 Elkins, Stephen B.
 Ellis, John W.
 Ely, Richard S.
 Eno, Amos F.
 Eno, Amos R.
 Enos, Alanson T.
 Ettlinger, Louis
 Evans, William T.
 Ewart, James M.
- Fahnestock, H. C.
 Fargo, James C.
 Farnham, Mrs. Horace P.
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 Ferris, Frank A.
 Findlay, Andrew
 Fish, Hon. Hamilton
 Fleet, Oliver S.
 Fletcher, Andrew
 Flint, Miss Helena
 Flower, A. R.
 Floyd, James R.
- Foote, C. B.
 Ford, John R.
 Fosdick, Chas. B.
 Foster, Scott
 Fraser, George S.
 Freeborn, G. C., M.D.
 Froment, Frank L.
 Frost, Isaac T.
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- Gade, Henry
 Garland, James A.
 Gautier, J. H.
 Georger, Louis F.
 Gibb, John
 Gilberg, Charles A.
 Gilbert, Clinton
 Gillis, Chas. J.
 Goddard, Mrs. C. F.
 Goddard, F. N.
 Godwin, Parke
 Godfrey, Chas. H.
 Godkin, Edwin L.
 Goelet, Ogden
 Goldenberg, Simon
 Goodridge, Frederick
 Goodwin, James J.
 Gordon, George
 Gordon, John J.
 Gossler, G. H.
 Gotthold, Fred.
 Graack, John E. W.
 Grace, Hon. Wm. R.
 Gracie, J. K.
 Graham, Malcolm
 Greacen, Thomas E.
 Greenwood, Isaac J.
 Gregory, Chas. E.
 Griswold, Chester
 Guggenheimer, Randolph
 Gulliver, William C.
 Gunther, F. Frederick
 Gurnee, W. S.
- Hague, James D.
 Hahlo, Hermann
- Hall, Fred J.
 Hall, John H.
 Halls, William, Jr.
 Halsted, Jacob
 Halsted, Robert
 Hamilton, Edmond H.
 Hammond, E. A.
 Harbeck, Mrs. Eliza D.
 Hardt, William A.
 Harris, Robert
 Hart, Rev. A. B.
 Hartley, Marcellus
 Hartt, James C.
 Haskins, C. W.
 Havemeyer, J. C.
 Havemeyer, Theo. A.
 Haviland, Edwin
 Hawley, Edwin
 Hawley, Henry E.
 Hayden, Brace
 Haynes, A. E.
 Haxtun, William
 Hendricks, Edmund
 Hendricks, Joshua
 Heroy, Mrs. James H.
 Hill, Geo. H. B.
 Hill, Sylvester C.
 Hillhouse, Hon. Thos.
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 Hinman, W. K.
 Hinrichs, Chas. F. A.
 Hinton, J. H., M.D.
 Hitchcock, Hiram
 Hitchcock, Miss S. M.
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 Hoag, Daniel T.
 Hodgman, Geo. F.
 Hoe, Peter S.
 Hoffman, Paul
 Hoffman, Miss Susan O.
 Hoffman, Rev. E.A., D.D.
 Hogg, T. Egenton
 Holden, E. R.
 Holt, Charles L.
 Holt, Henry
 Holt, R. S.

- Homans, E. C.
 Hone, Robert S.
 Horton, Burrett W.
 Houghton, Rev. G. H.
 Hoyt, Reuben
 Hubbard, Gen. T. H.
 Hunter, Mrs. M. L.
 Huntington, G. S., M.D.
 Hüpfel J. Chr. G.
 Hyde, Samuel T.

 Inman, John H.
 Inslee, Samuel
 Ireland, John B.
 Iselin, Adrian, Jr.
 Iselin, C. Oliver
 Iselin, Mrs. Adrian
 Iselin, Wm. E.
 Isham, W. B.

 Jackson, Charles A.
 Jackson, Geo. T., M.D.
 Jackson, John B.
 Jackson, Wm. H.
 Jackson, Wm. H., M.D.
 Jacobus, John S.
 Jacques, David R.
 Jaffray, E. S.
 Jaffray, Robert
 Jenkins, Wm. L.
 Jesup, Jas. R., Jr.
 Johnston, William M.
 Jones, Walter R. T.
 Jordan, John J.
 Juilliard, A. D.

 Kaskel, Albert
 Kellogg, Charles
 Kelly, Eugene
 Kemp, Edward
 Kendall, Edward H.
 Kennedy, John S.
 Kent, Charles N.
 Kerbs, Adolf
 Kerner, Charles H.
 Kerwin, Andrew J.

 Ketcham, E.
 Ketchum, A. P.
 Kevan, William
 King, William F.
 Kinnicutt, Dr. F. P.
 Kinsman, Frank W.
 Kissam, Philip
 Knapp, H., M.D.
 Knickerbacker, H.
 Knox, Alexander
 Kohns, L.
 Kraus, Prof. John
 Kraus, William
 Kuttroff, Adolph

 Labaree, Joseph H.
 Laidlaw, Henry B.
 Langdon, Woodbury G.
 Lange, Dr. F.
 Lange, J. D.
 Lapham, S. V.
 Lathers, Richard
 Lawrence, George N.
 Layng, James D.
 Leale, Charles A., M.D.
 Leavitt, Henry S.
 Le Brun, Michael M.
 Le Comte, Joseph
 Lee, William H.
 Lefferts, Frederick R.
 Lehman, E.
 Lehman, M.
 Lehmann, Frederick L.
 Leshner, Stephen R.
 Lewis, James F.
 Lewis, Richard V.
 Liautard, A.F., M.D. V.S.
 Lichtenstadter, Samuel
 Linde, Frederick C.
 Lipman, Julius
 Livingston, Edward
 Livingston, Robert J.
 Livingston, William S.
 Livingston, Wm. S., Jr.
 Lockhart, Robert
 Loeb, S.

 Lorbacher, Edmund
 Lord, Benjamin
 Lord, D. D.
 Lounsbery, R. P.
 Lounsberry, James S.
 Lovell, John W.
 Low, C. Adolphe
 Low, Josiah O.
 Lowry, John
 Ludington, C. H.
 Lueder, A.
 Lummis, Wm.
 Lusk, William T., M.D.
 Lyon, Theodore E.

 Macdonald, Charles
 Mack, J. W.
 MacRae, Charles
 Mackenzie, Duncan E.
 Mackey, Oscar T.
 Macklin, John J.
 Macy, I. Augustus
 Maillard, Henry
 Maitland, Robert L.
 Mali, Charles
 Man, Albon P.
 Mansfield, Howard
 Manwaring, David W.
 Markoe, Dr. Thos. M.
 Marling, Alfred E.
 Marsh, Caleb P.
 Martin, Mrs. C. D.
 Martin, Oswald J.
 Martin, William C.
 McAlpin, D. H.
 McComb, J. Jennings
 McCracken, W. V.
 McCready, Mrs. Caroline A.
 McCurdy, Richard A.
 McDonald, John E.
 McIntyre, Ewen
 McKee, Russell W.
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 McKibbin, Gilbert H.
 McKim, Rev. Haslett, Jr.
 Mehler, Eugene

- Merrall, William J.
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 Meyer, Oscar R.
 Meyer, Thomas C.
 Middleton, A. D.
 Milhau, Gen. J. J., M.D.
 Miller, D. S.
 Milmine, George
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 Mitchell, John J.
 Mitchell, Mrs. S. L.
 Mitchell, W. R.
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 Moller, Peter, Jr.
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 Moore, Mrs. W. D.
 Moore, W. H. H.
 Morgan, Geo. D.
 Morgan, Mrs. P. A.
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 Morse, Waldo G.
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 Mumford, T. J.
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 Munro, George
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 Nesslage, J. H. H.
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 Niles, Nathaniel
 Nisbet, William F.
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 Noyes, Wm. C.

 Odell, Jonathan
 O'Donoghue, Joseph J.
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 Olmstead, Dwight H.
- Olyphant, R. M.
 Olyphant, Robert
 Osgood, Mrs. Sarah R.
 Ostrander, Charles F.
 Otis, F. N., M.D.
 Owen, Mrs. Thomas J.
 Owens, Wm. W.

 Packard, S. S.
 Paddock, Eugene H.
 Palmer, S. S.
 Palmer, William J.
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 Parker, Dr. Willard
 Parsell, Henry V.
 Parsons, W. H.
 Patten, John
 Patterson, Hon. Edward
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 Pell, John H.
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 Penfold, Wm. Hall
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 Peters, George A., M.D.
 Pettus, James T.
 Peyser, Frederick M.
 Phelps, William Walter
 Pierrepoint, Edwards
 Pinkus, F. S.
 Platt, John R.
 Poillon, Richard
 Pool, Frank J.
 Potter, Howard
 Powell, Wilson M.
 Powell, William R.
 Powers, George W.
 Powers, William P.
 Purdy, Wm. Macneven
 Putnam, George L.

 Ranger, Louis
 Read, Daniel P.
 Reamer, Job M.
 Redding, Mrs. Josephine
- Remsen, William
 Renwick, Edward S.
 Rhinelander, Chas. E.
 Rhoades, J. Harsen
 Rice, W. M.
 Richard, Auguste
 Riker, John L.
 Riker, Wm. J.
 Robbins, Rowland A.
 Robbins, S. Howland
 Roberts, Miss Mary M.
 Rogers, Henry H.
 Rolston, Roswell G.
 Romaine, Benjamin F.
 Rosenbaum, A. S.
 Rothschild, Hugo
 Rothschild, J.
 Rothschild, V. Henry
 Russell, Henry E.
 Rütten, August
 Rutter, Thomas

 Sabine, G. A., M.D.
 Sage, Russell
 Sage, Warren
 Saltonstall, Francis G.
 Sampson, Henry
 Sands, Andrew H.
 Sands, Samuel S.
 Satterlee, S. K.
 Sayre, Lewis A., M.D.
 Schafer, Samuel N.
 Schafer, Simon
 Schaus, Wm.
 Scheitlin, Edward
 Schell, Edward
 Schlemmer, William
 Schley, Dr. J. M.
 Schmid, Mrs. August
 Scholle, Jacob
 Schultze, John S.
 Schumacher, Theodore
 Schuyler, Philip
 Schuyler, S. D.
 Scott, George S.
 Scudder, Hewlett

- Seligman, David J.
 Seligman, I. J.
 Seligman, Isaac N.
 Sellow, T. G.
 Sennett, George B.
 Sharp, W. W.
 Sherman, Charles A.
 Shethar, Samuel
 Sidenberg, Gustavus
 Sill, Charles
 Sinclair, John
 Skidmore, Mrs. Jos. R.
 Skidmore, William L.
 Sloan, Samuel
 Smith, Adon
 Smith, Alfred H.
 Smith, Charles S.
 Smith, Geo. W.
 Smith, James B.
 Smith, John Jewell
 Smith, James Rufus
 Smith, Rev. Cornelius B.
 Smith, Roswell
 Smith, Thomas C.
 Smith, William Alex.
 Sneckner, William H.
 Snow, Edward L.
 Snow, Elbridge G., Jr.
 Soutter, Mrs. J. F.
 Spencer, Hon. James C.
 Spicer, Elihu
 Splint, Thomas G.
 Starin, Hon. John H.
 Stearns, John Noble
 Stebbins, Jas. H.
 Steers, Edward P.
 Steers, Henry
 Stechert, Gustav E.
 Stephens, Benjamin
 Stern, Benjamin
 Sterry, Geo. E.
 Stetson, Geo. W.
 Stevenson, Preston
 Stewart, Asa B.
 Stewart, David
 Stewart, Lisenard
- Stewart, William R.
 Stiehl, Gustav H.
 St. John, William P
 Stone, Mrs. Catherine C.
 Stone, David M.
 Stone, Edwin
 Stone, Mrs. Georgiana C.
 Stone, Mason A.
 Stone, Sumner R.
 Storm, George
 Strong, Charles E.
 Strong, W. L.
 Sturgis, Appleton
 Sutherland, John
 Sutherland, John L.
 Sutton, Effingham B.
 Swain, George F.
 Swords, Albert S.

 Tailer, Edward N.
 Taintor, Charles M.
 Talcott, James
 Talmadge, Henry
 Taylor, Aug. C.
 Taylor, Mrs. C. A.
 Taylor, Stevenson
 Tefft, F. Griswold
 Tefft, Wm. E.
 Terbell, H. S.
 Thieriot, A.
 Thomas, T. G., M.D.
 Thompson, John C.
 Thompson, W. Prall
 Thomson, Eugene
 Thomson, Giraud F.
 Thorne, William K.
 Thurber, H. K.
 Tiemann, Peter C.
 Tiffany, Louis C.
 Tilford, Charles E.
 Tillinghast, W. H.
 Timmerman, John H.
 Tonnelé, John L.
 Toothe, William
 Toucey, J. M.
 Townsend, R. W.
- Tracy, J. Evarts
 Trevor, H. G.
 Trevor, Mrs. John B.
 Tucker, John C.
 Turnure, Lawrence
 Twombly, H. McK.
 Twombly, Horatio N.

 Ulmann, S. B.

 Valentine, Lawson,
 Van Brunt, Hon. C. H.
 Van Brunt, Cornelius
 Van Norden, Warner
 Van Rensselear, Kiliaen
 Van Slyck, W. H.
 Van Wickle, A. S.
 VanWinkle, Miss E. S.
 Van Winkle, Edgar B.
 Vantine, Mrs. Harriet M.
 Vandervoort, W. L.
 Veit, Richard C.
 Vermilye, J. D.
 Voorhis, Wm. W. L.

 Wales, Hon. Salem H.
 Walker, William I.
 Wallace, James
 Wallach, Anthony
 Ward, Lebbeus B.
 Warren, Miss M. W.
 Watson, John
 Watson, Walter
 Weatherbee, Mrs. E. H.
 Webb, W. H.
 Weed, Benjamin
 Weekes, John A.
 Weekes, Francis H.
 Weissman, L.
 Welch, Peter A.
 Welling, W. M.
 Wellington, A. H.
 Wells, Wm. Henry
 Wetherbee, Gardner
 Wetmore, Dr. John McE
 Wheelock, Geo. G., M.D.

Wheelock, Wm. A.	Whitney, Alfred R.	Wynkoop, Francis S.
Wheelock, Dr. W. E.	Willets, J. T.	
White, Horace	Wilson, John	Youmans, Daniel D.
Whitely, James	Wing, John D.	Young, Jas. H.
Whyland, A. E.	Winthrop, Robert	Young, Mason
Wicke, William	Worthen, W. E.	
Wickes, Edward A.	Wray, Mrs. Cornelia S.	Zabriskie, Andrew C.
Wickham, Delos O.	Wright, Benjamin	Zickel, S.
Wiebusch, Chas. F.		

DECEASED MEMBERS

1890.

Appleton, D. S.	Goddard, J. W.	Simpson, John B.
Auchincloss, Hugh	Herriman, John	Sloane, Thomas C.
Beadleston, E.	Hoguet, Henry L.	Storm, Thomas
Belknap, Mrs. A. B.	Kuhne, Frederick	Tappen, T. B.
Dows, David	Patterson, Thos. C.	Titus, Erastus
Ferguson, Edward	Riker, D. S.	Trevor, John B.
Foulke, Thomas		

In Memoriam.

At the Quarterly Meeting of the BOARD OF TRUSTEES of the AMERICAN MUSEUM OF NATURAL HISTORY, held November 17th, 1890, the following minutes, in regard to the death of

Mr. HUGH AUCHINCLOSS,

were unanimously adopted, ordered to be recorded in full, and that a copy be sent to the family of the deceased.

Since our last Quarterly Meeting, one of those associated with us in the Trusteeship of this Institution, has passed from the scene of life's duties.

Mr. HUGH AUCHINCLOSS died on June 8th, 1890. He became a Fellow of the A. M. N. H. in 1871; was elected Secretary in 1879, and remained as such for a period of eight years, until compelled to resign the office by reason of failing health.

In associating himself with us, Mr. AUCHINCLOSS was not prompted by any peculiar interest in any special branch of science, but by the larger view of affording support and encouragement to an enterprise embracing a wide field; designed to aid in freeing his native city from something like scientific aridity; and to establish a centre of scientific interest and entertainment in the midst of the manifold life of a great metropolis.

Mr. AUCHINCLOSS had passed the appointed bounds of human life; the three score years and ten allotted to man.

Born in this city when the population, enterprise and business activities were confined chiefly to the lower end of the island, his life covered that period of phenomenal growth which has been one of the characteristic features of modern history, and not only of growth, but also of change from a condition of somewhat primitive simplicity to one which by contrast, while marked by enormous energy, may be characterized in part as artificial, tawdry and pretentious; yet astonishing when comprised within the limits of a single human life.

Our departed friend was fortunate in having placed before him in the family life an example of the highest probity in one whose paternal name he bore. His training in strict business ideas and habits touched the highest standard of commercial integrity, and doubly contributed to the formation of some of the best elements of his character. Simple and unpretentious in his habits of life, Mr. AUCHINCLOSS possessed solid qualities which entitled him to the just consideration and confidence of his associates.

His relations in business, in financial institutions and religious trusts, are satisfactory proofs of this.

He inherited the old Scotch loyalty to family traditions and relations; his kindly and genial qualities were recognized by all, and his associates recall these marked features of his character with tender regret to his memory.

