

THE  
EIGHTH AND NINTH  
ANNUAL REPORTS

OF THE

American Museum of Natural History.

---

JANUARY 1<sup>ST</sup>, 1878.

---

New York:

PRINTED FOR THE MUSEUM.

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MDCCCLXXVIII.



*The following is the number of visitors to the Museum, recorded by the turnstile :*

For week ending	September 18th, 1875,	-	17,082
" " "	" 25th, "	- -	13,327
" " "	October 2d, "	- -	15,204
" " "	" 9th, "	- -	17,778
" " "	" 16th, "	- -	13,385
" " "	" 23d, "	- -	18,328
" " "	" 30th, "	- -	14,936
" " "	November 6th, "	- -	18,904
" " "	" 13th, "	- -	12,525

For week ending	November 20th, 1875,	-	11,101
" " "	" 27th, "	- -	18,030
" " "	December 4th, "	- -	9,413
" " "	" 11th, "	- -	9,125
" " "	" 18th, "	- -	7,425
" " "	" 25th, "	- -	10,605
" " "	January 1st, 1876,	-	17,545
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Total for 16 weeks, -			217,245
Average per week, - -			13,577

Number of Visitors to the British Museum in 1874,	-	-	601,842
Average per week,	-	-	11,574

*The average attendance as indicated above, is 2,000 persons per week more than visit the Natural History, Antiquarian, and all other exhibition halls of the British Museum, and shows that the collections already in their present temporary quarters, attract more people than visit any other similar Institution in the world.*

ALBERT S. BICKMORE, Superintendent.

NEW YORK, January 5th, 1876.



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# American Museum of Natural History.

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## Trustees.

ROBERT L. STUART.  
WILLIAM A. HAINES.  
THEODORE ROOSEVELT.  
HOWARD POTTER.  
ROBERT COLGATE.  
BENJAMIN H. FIELD.  
ADRIAN ISELIN.  
JAMES M. CONSTABLE.  
MORRIS K. JESUP.  
D. JACKSON STEWARD.

J. PIERPONT MORGAN.  
JOSEPH H. CHOATE.  
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JOHN B. TREVOR.  
ANDREW H. GREEN.  
WM. E. DODGE, JR.  
JOSEPH W. DREXEL.  
FREDERICK W. STEVENS.  
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CHARLES LANIER.

HUGH AUCHINCLOSS.

## President.

ROBERT L. STUART.

## Vice-Presidents.

WILLIAM A. HAINES.

THEO. ROOSEVELT.

## Secretary.

D. JACKSON STEWARD.

## Treasurer.

J. PIERPONT MORGAN.

## Executive Committee.

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THEODORE ROOSEVELT.

ANDREW H. GREEN.  
MORRIS K. JESUP.

WM. E. DODGE, JR.

## Finance Committee.

J. PIERPONT MORGAN.

ADRIAN ISELIN.

FREDERICK W. STEVENS.

## Auditing Committee.

ROBERT COLGATE.

THEODORE ROOSEVELT.

JAMES M. CONSTABLE.

PROF. ALBERT S. BICKMORE, *Superintendent.*

DR. J. B. HOLDER, *Assistant Superintendent.*

PROF. R. P. WHITFIELD, *Curator of Geology.*





# Ninth Annual Report.

1877.

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THE Trustees of the American Museum of Natural History have the pleasure of presenting this, their Ninth Annual Report, to the Patrons, Fellows and Members of the Museum.

In 1870, after an Act of Incorporation had been granted by the Legislature, and the Elliot, Maximillian and Verreaux collections had been secured, an agreement was made with the Department of Public Parks, that these attractive specimens should be temporarily exhibited in the Arsenal building, in the Central Park, while the City was erecting a suitable edifice, absolutely fireproof, and part of a general plan to be completed, by the addition from time to time of similar sections, as the increasing collections of the Museum might require more space for public exhibition. This agreement has been fully carried out. In accordance with an Act of the Legislature, passed in 1870, the Department offered the Trustees that portion of the Central Park formerly known as Manhattan Square, as a location. This was accepted, and a building has been erected from plans prepared by the Architects of the Department, and approved by a Committee of our Board, the cases and interior arrangements having been planned, principally, from suggestions by our Superintendent.

Last year the Legislature passed an Act authorizing and directing the Department to make and enter

into a contract with the Museum for the occupation by it of the buildings erected or to be erected on the square, and for transferring thereto and establishing and maintaining therein its museum, library and collections, and carrying out the objects and purposes set forth in its charter. In compliance with the provisions of this law, an agreement has been made with the Department, which is hereto annexed, and provides, among other things, that the Museum shall enjoy the exclusive use of the whole of said building, under rules and regulations contained in the contract; that its exhibition halls shall be open to the public, free of charge, on Wednesday, Thursday, Friday and Saturday of each week, and on Monday and Tuesday to subscribers and students; and that the Trustees may appoint, direct, control and remove all persons employed in the building and the museum, library and collections therein contained.

The directors of the principal museums in America, and a number of scientific gentlemen connected with similar institutions in Europe, have already carefully examined the structure, and pronounce it particularly satisfactory, in respect to light, space, durability, elegance of finish, and every convenience for the visitor and the scientific student.

This edifice was opened to the public, by the President of the United States, on the 22d day of December, in the presence of the Trustees, the Commissioners of Public Parks, the State and City authorities, and a large assemblage of our most prominent citizens, and scientific men of the country. Addresses were delivered on that occasion by ROBERT L. STUART, Esq., President of the Museum; Hon. W. R. MARTIN, President of the Department of Public Parks; President

ELIOT, of Harvard University, and Professor MARSH, President of the American Association for the advancement of Science, which are appended to this report.

The new arrangements, including the selection and removal to this building of a very large part of our collections, hitherto deposited in the Arsenal, and their scientific classification, have required, during the past summer and autumn, the exercise of a great deal of care, labor and thought, on the part of the gentlemen to whom the work has been entrusted by the Board: and here, we would perhaps be considered as having failed in our duty, did we not recognize in an especial manner, the zealous co-operation of Prof. Bickmore, and others, particularly at a period which brings to a definite and satisfactory conclusion, the initial movement in our history, with which they have been so closely identified.

The reptiles, fishes, corals, minerals and duplicates, are still exhibited in the Arsenal, for want of space in the new building, which contains the rarer and more attractive specimens, displayed in cases that suitably show their beautiful forms and colors, and invite critical scientific examination.

The Anthropological department has received the following additions. By donation:—from Mr. John H. Pell, sixty articles of Indian dresses and arms; from Capt. J. H. Mortimer, a series of the implements of the Esquimaux of Alaska; from Mr. H. G. Marquand, over two hundred pieces of Missouri mound pottery; from Mr. D. J. Steward, a collection of rude stone implements from Goshen, N.Y.; from Dr. Jacob Knapp, Louisville, Ky., stone axes and arrow-heads. By purchase:—several lots of Missouri mound pottery, from H. de Mor-

gan; the Bement collection, illustrating the Stone age of Denmark, and the two-thirds purchase of the rare and carefully selected collection of Col. Charles C. Jones, Jr., of Georgia, containing the specimens described and figured in his "Antiquities of the Southern Indians."

The very important collection of implements used by the prehistoric men of the valley of the Somme, in northern France, numbering over three thousand carefully selected specimens, which was brought over by Mr. H. de Morgan, from Amiens, has been purchased and deposited by the President of the Museum. It is stated to be the most complete and valuable series of such objects extant, (that of Boucher de Perthes, at Abbeville, only excepted), and will afford to investigators of that popular branch of Natural Science in America, a means of comparing their specimens with a standard series of the earliest Stone age in Europe.

The purchase of the Hall Collection, has made the Departments of Geology and Palaeontology so important, that the services of a special curator have been required, and Prof. R. P. Whitfield has been employed to take charge of that part of our collections. He has unpacked and placed in the cases of the upper exhibition hall, the types and rarer specimens of the "James Hall" and other collections, and is now preparing a series of maps, to show by different colors the areas of the surface of our continent occupied by the several formations.

Valuable gifts have been made to this department, by Mr. Robert L. Stuart and Professor Hall.

The Wolfe gift of the Jay collection of books on Conchology, is placed in a library specially prepared with cases and shelves of iron. Important works have

been given by the States of New Hampshire, Wisconsin and Minnesota. Dr. Hayden's Geological survey has been received from the Department of the Interior, and the publications of many foreign societies from the Smithsonian Institution.

The very valuable library of Ichthyological and Scientific Books, gathered at great expense and care, by Mr. James C. Brevoort, (unlimited orders having been given for rare works during many years), has been purchased by the President of the Museum, and will soon be deposited in the Library. It is regarded as by far the most extensive collection of works upon Fishes in this country.

The great assemblage on the day of opening the new building, and the large numbers who daily frequent its halls, show that the usefulness of the Museum is constantly increasing, and we confidently appeal to all our public spirited citizens, to unite with the Trustees in sustaining and promoting the prosperity of an institution which exists only as a means of advancing the higher education and increasing the esthetic and scientific attractions of the city in which we live.

D. JACKSON STEWARD,

*Secretary.*

# PURCHASES.

## Dr. *The American Museum of Natural History* in acc't with J. PIERPONT MORGAN, TREASURER. Cr.

1875.	
Dec. 27, Balance for packing and shipping Hall Collection to Museum...	\$872 77
1876.	
Aug. 1, Paid Commissions .....	212 50
July 6, Paid Prof. Hall, 2d payment on Geological Collection .....	13,750 00
" " Interest on same .....	686 00
" " On account of 3d payment .....	2,500 00
Oct. 25, " " .....	1,250 00
" " Interest on balance due to Oct. 14, 1876 .....	2,889 07
Balance carried forward .....	977 61
<hr/>	
	\$23,087 95

Examined and approved, { ROBERT COLGATE,  
THEODORE ROOSEVELT, } *Auditing Committee.*  
JAMES M. CONSTABLE,

1875.	
Nov. 1, Balance .....	\$7,172 57
" 5, R. L. Kennedy .....	500 00
" 20, Hugh Auchincloss .....	500 00
Dec. 2, John Taylor Johnson .....	1,000 00
" 24, B. H. Field, \$500; W. E. Dodge, Jr., \$500 .....	1,000 00
" 27, Rob't Colgate .....	1,000 00
" 30, A. H. Brown .....	500 00
" 31, Interest 4 % to date .....	65 88
1876.	
Jan. 1, J. B. Colgate .....	1,000 00
" 26, A. H. Brown .....	500 00
Feb. 4, Samuel Willets .....	100 00
" 12, John P. Haines, \$300; W. A. Haines, Jr., \$250 .....	550 00
" 15, Benj. H. Field, \$500; Rob't L. Stuart, \$1,000 .....	1,500 00
April 8, R. E. Halsey .....	500 00
May 6, D. Jackson Steward .....	500 00
" 20, John A. C. Gray .....	250 00
" 22, W. T. Bodgett, (estate of) .....	500 00
" 24, W. E. Dodge, Jr. .....	500 00
" 27, Chas. Lanier .....	500 00
June 5, A. S. Hewitt .....	500 00
" 10, Theo. Roosevelt .....	500 00
" 14, J. Gordon Bennett .....	1,000 00
July 6, Morris K. Jesup .....	500 00
" 11, Jos. H. Choate .....	500 00
Oct. 2, D. Jackson Steward .....	500 00
" 5, Richard T. Haines, \$250; Mrs. W. A. Haines, \$100; Miss E. S. Haines, \$100 .....	450 00
Nov. 8, Rob't L. Stuart .....	1,000 00
	\$23,087 95

[E. & O. E.] New York, November 8th, 1876.

E. P. FABRI, *Treasurer, pro tem.*

# MAINTENANCE.

*Dr. The American Museum of Natural History in acc't with J. PIERPONT MORGAN, TREASURER. Cr.*

1875-6.		1875-6.	
Salaries.....	\$5,416 59	Balance, Nov. 5th, 1875.....	\$889 30
Advanced to Supt. for the payment of petty bills.....	500 00	Robt. Geo. Rensen .....	100 00
Printing and Stationery.....	853 14	A. Jacobi, M. D.....	100 00
Labor.....	1,243 04	R. G. Dun.....	100 00
Small Purchases .....	136 00	Annual subscriptions and moneys to cover Insurance...	9,505 54
Insurance.....	1,393 79		
Sundries.....	901 72		
Balance, Nov. 8th, 1876.....	250 56		
	<u>\$10,694 84</u>		<u>\$10,694 84</u>

Examined and approved, { ROBERT COLGATE,  
THEODORE ROOSEVELT, } *Auditing Committee.*  
JAMES M. CONSTABLE,

[E. & O. E.] New York, November 8th, 1876.

E. P. FABBEL, *Treasurer, pro tem.*

# PURCHASES.

## Dr. *The American Museum of Natural History* in acc't with J. PIERPONT MORGAN, TREASURER. Cr.

1877.

Jan. 30, Paid Prof. James Hall, on acc't of 3d payment on Geological Collection.....	\$3,000 00
April 30, Paid Col. Chas. C. Jones, Jr., on acc't of Archaeological Collection.....	5,000 00
May 18, Paid Prof. Hall, on acc't of 3d payment Geological Collection..	2,500 00
July 26, Paid H. De Morgan, for a Collection of Pottery.....	168 00
Balance December 31, 1877.....	664 61

\$11,827 61

Examined and approved, { ROBERT COLGATE, }  
 { JAMES M. CONSTABLE, } *Auditing Committee.*  
 { THEODORE ROOSEVELT, }

1876.

Nov. 8, Balance brought forward.....	\$977 61
" 10, By Cash from J. B. Trevor.....	1,000 00
" 17, " " A. Iselin.....	500 00
Dec. 8, " " Morris K. Jesup.....	500 00
" 16, " " Robt. Colgate.....	500 00
1877.	
Feb. 23, " " W. E. Dodge, Jr.....	500 00
April 24, " " Robt. L. Stuart.....	500 00
" 24, " " Percy R. Pyne.....	500 00
" 24, " " Jno. A. C. Gray.....	250 00
" 24, " " Jos. W. Drexel.....	250 00
" 24, " " Jas. Knight, M. D.....	100 00
" 24, " " Hugh Auchincloss.....	500 00
" 25, " " Adrian Iselin.....	500 00
" 25, " " Robt. Colgate.....	500 00
" 25, " " Theo. Roosevelt.....	800 00
" 25, " " J. M. Constable.....	400 00
" 28, " " Miss C. L. Wolfe, through H. Potter.....	500 00
May 18, " " Cyrus W. Field.....	1,000 00
" 18, " " C. V. S. Roosevelt, through Theo. Roosevelt.....	100 00
" 18, " " E. G. Snodon.....	100 00
" 18, " " E. Oelbermann, " J. M. Constable.....	100 00
Dec. 27, " " Charles Lanier.....	100 00
" 27, " " Frederick W. Stevens.....	500 00
" 29, " " Samuel Willets.....	100 00
" 31, " " D. Jackson Steward.....	500 00
" 31, " " Jas. M. Constable.....	500 00
	\$11,827 61

[E. & O. E.] New York, December 31st, 1877.

J. PIERPONT MORGAN, *Treasurer.*



# MAINTENANCE.

Dr. *The American Museum of Natural History in acc't with J. PIERPONT MORGAN, TREASURER* Cr.

## 1876-7.

Salaries.....	\$8,747 94
Printing and Stationery.....	592 05
Centennial Expenses.....	838 18
Small Purchases.....	1,005 78
Insurance.....	622 66
Labor.....	1,784 46
Freight and Expressage.....	483 79
Commissions and Traveling Expenses.....	547 29
Postage and Custom House ".....	174 01
Sundries.....	701 71
Coal.....	349 75
Carpenter Work and Fitting.....	894 22
	<u>\$16,741 84</u>

Examined and approved, { ROBERT COLGATE,  
JAMES M. CONSTABLE, } *Auditing Committee.*  
THEODORE ROOSEVELT, }

## 1876-7.

Balance, Nov. 8, 1876.....	\$250 56
By repayment of advance to Supt. for the payment of petty bills.....	500 00
By subscription of John Pondir.....	100 00
Annual subscriptions and money from Department Public Parks.....	14,881 91
Balance due Treasurer, December 31, 1877.....	1,009 37

\$16,741 84

[E. & O. E.] New York, December 31st, 1877.

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.

SEC. 2. Said Corporation shall have power to make and adopt a Constitution and By-Laws, and to make rules and regulations for the admission, suspension, and expulsion of its members, and their government, the number and election of its officers, and to define their duties, and for the safe keeping of its property, and, from time to time, to alter and modify such Constitution, By-Laws, Rules and Regulations. Until an election shall be held pursuant to such Constitution and By-Laws, the persons named in the first section of this Act, shall be, and are hereby declared to be the Trustees and Managers of said Corporation and its property.


SEC. 3. Said Corporation may purchase and hold, or lease any real and personal estate necessary and proper for the purposes of its incorporation, provided they shall not hold real estate which shall exceed one hundred thousand dollars in value.

SEC. 4. Said Corporation shall possess the general powers, and be subject to the restrictions and liabilities prescribed in the Third Title of the Eighteenth Chapter of the First Part of the Revised Statutes.

SEC. 5. This Act shall take effect immediately.

STATE OF NEW YORK,  
OFFICE OF THE SECRETARY OF STATE, } ss.

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

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

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

At a meeting of the Trustees, held at the residence of Theodore Roosevelt, Esq., April 8th, 1869, the above charter was unanimously accepted by a majority of the Trustees.

CONSTITUTION  
OF THE  
*American Museum of Natural History,*  
IN THE CITY OF NEW YORK.

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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 second 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 November, elect the officers and committees for the ensuing year. They shall also meet at any other time to transact special business on a call of the Secretary, who shall issue such call whenever requested so to do, in writing, by five Trustees or by the President, and give written notice to each Trustee of such special meeting, and of the object thereof, at least three days before the meeting is held.

#### ARTICLE IV.

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

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

#### ARTICLE V.

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

The Secretary shall keep a record of the proceedings of the Trustees, of the Executive Committee, and of the Auditing Committee, and shall preserve the seal, archives and correspondence of the Museum, shall issue notices for all 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 five, who 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 two thousand five hundred dollars to the funds of the Museum at one time, shall entitle the person giving the same to be a Patron of the Museum.

The contribution of one thousand dollars, at one time, shall entitle the person giving the same to be a Fellow in Perpetuity.

The contribution of five hundred dollars, at one time, shall entitle the person giving the same to be a Fellow for Life.

Any person may be elected by the Trustees to either of the above degrees, who shall have donated to the Museum Books or Specimens 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 elect Honorary Fellows of the Museum in their discretion.

All persons receiving such degrees and diplomas shall be entitled, at all times, to free admission to the Museum and its Exhibitions, but shall not, by virtue of such degrees or diplomas, become members of the Corporation.

## 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.

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## I.

Patrons giving \$2,500 are each entitled to 10 Complimentary Season Tickets, 1 Subscriber's Ticket, and 10 Tickets for a single admission.

Fellows in Perpetuity giving \$1,000 are each entitled to 5 Complimentary Season Tickets, 1 Subscriber's Ticket, and 10 Tickets for a single admission.

Fellows for Life giving \$500 are each entitled to 4 Complimentary Season Tickets, 1 Subscriber's Ticket, and 10 Tickets for a single admission.

Associate Fellows giving \$250 are each entitled to 3 Complimentary Season Tickets, 1 Subscriber's Ticket, and 10 Tickets for a single admission.

Members giving \$100 are each entitled to 2 Complimentary Season Tickets, 1 Subscriber's Ticket, and 10 Tickets for a single admission.

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

## 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 "Fellow in Perpetuity" 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.



## 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 buildings 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,

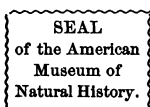
*President Department of Public Parks  
of the City of New York.*

WILLIAM IRWIN,

*Secretary Department of Public Parks  
of the City of New York.*

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.*

## DONATIONS.

Jan. 1st, 1876 to Dec. 31st, 1877.

1876.

*February* 18—HISTORICAL SOCIETY OF STEIERMARK."Beiträge zur Kunde Steiermarkischer Geschichtsquellen."—  
Graz, 1875."Mittheilungen zur Kunde Steiermarkischer Geschichts-  
quellen."—Graz, 1875." 23—AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF  
SCIENCE, through F. W. PUTNAM, Secretary."Memoirs of the American Association for the Advancement  
of Science." No. 1. Salem, Mass.

" 29—D. W. FERGUSON, N. Y.

1 specimen *Spondylus longitudinalis*, Lamk., from Gulf of  
California.

" 29—RUSSELL STURGIS, N. Y.

64 specimens of Birds in skins, from Trinidad, S. A.

*March* 8.—STATE OF NEW JERSEY, through PROF. GEO. H. COOK, New  
Brunswick.

1 Box Geological Specimens.

" 16.—BRYCE M. WRIGHT, London, Eng.

2 specimens of Ammonites, from Lyme Regis and Folke-  
stone.

1 Shark's Tooth, from the Chalk of Kent.

1 *Apiocrinus*, *Parkinsoni*, Bradford, Wilts.

" 22—Through the SMITHSONIAN INSTITUTION, Washington, D. C.

3 packages publications of foreign societies.

" 22—CENTRAL PARK ZOOLOGICAL COLLECTION, N. Y., through  
W. A. CONKLIN, Director.1 Moor Macaque (*Macacus Maurus*). Hab. Borneo.

" 27—D. W. FERGUSON, N. Y.

3 species of Shells.

1 " Sponge.

*April* 4—ALBERT STORER, N. Y.

60 specimens of Shells.

1 Neptune's Cup from Ceylon.

" 15—EDMUND E. CAREY, Hamilton, Bermuda.

1 large specimen Pipe Sponge.

" 20—EDWARD DELAFIELD, N. Y.

1 case of Game Birds (Mounted).

1 large Trilobite.

April 20—JOHN CROSBY BROWN, N. Y.

4 rare Fossils from Phosphate Beds of Charleston, S. C.

May 1—GEORGE N. LAWRENCE, N. Y.

Descriptions of 5 new species of American Birds; also of a new species of Jay, of the genus *Cyanocitta*; also of a supposed new species of the genus *Cyanocorax*—Original papers, illustrated.

" 4—ROBERT L. STUART, N. Y.

600 Birds' Eggs from Norway and Sweden.

" 5—J. B. SNIFFEN, N. Y.

1 Stalactite from Mammoth Cave, Ky.  
Specimens of Lime Stone, from Texas.  
1 specimen Coquina, Southern Florida.

" 10—ALBERT LINDSAY, New Vernon, N. J.

3 Stone Pestles.  
3 " Hatchets.  
5 Arrow Heads.

" 10—ROBERT L. STUART, N. Y.

1 large polished Ammonite, from England.  
1 specimen *Scolopendra Gigas* (Giant Centipede.) Hab. East Indies.

" 16—HOWARD BECK AND MISS M. N. BECK, Sparkill, Rockland Co., N. Y.

Collection of 500 Shells, (general.)

" 16—A. P. MOREWOOD.

Specimen of Tree Fern, from Tamsui, Formosa, China.

" 16—MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Mass.

68 specimens, 61 species of Fishes, collected on the Hassler and Thayer Expeditions.

" 17—DR. MORRILL WYMAN, through DR. J. O. STONE, N. Y.

"Memoir on Fresh-Water Shell Mounds of the St. Johns River," Florida, by Jeffries Wyman.

" 27—W. G. BINNEY.

"Notes on American Land Shells." Vol. II, part IV, by himself.

" 31—DR. J. M. DELGADO, N. Y.

4 Anatomical Specimens: preparations of human arterial venous and nervous systems.  
1 specimen Human Arm.

" 31—E. LEONARD CORNING, Zürich, Switzerland.

1 Model of the Lake Dwellings made under the direction of Dr. Keller.  
1 Vol. English translation, "On the Lake Dwellings," by Dr. Keller.  
305 specimens of the Oeningen fossil flora identified by Prof. Oswald Heer.  
Stone implements, agricultural products, pottery, ornaments, samples of cloth, and "Lake Dwelling" antiquities.

June 1—THOMAS BLAND, N. Y.

"A Descriptive Catalogue of the Scalidæ of the West India Islands," by O. A. L. Mörch, M.D.

" 20—MASTER JOSEPH GREENBAUM, N. Y.

1 slab of Old Red Sandstone containing Fossil Fish.



- June 30*—GEO. A. CRISSON, N. Y.  
Collection of Shells from Turks Island, West Indies.
- " 30—CAROLINE D. MARWEDEL, San Francisco, Cal.  
1 fine specimen of the Bark of the Big Trees of Calaveras Grove, Cal.
- " 30—MRS. JOHN W. THOMSON, N. Y.  
Specimen of Chinese Pheasant.
- " 30—FRANK CARRYL, Franklin, N. J.  
16 Birds' Nests.
- " 30—MRS. THEODORE RILEY, N. Y.  
A collection of minerals, pottery, implements, utensils, ornaments, etc., from various parts of the world.
- " 30—PROF. B. H. WHITFIELD, Clinton, Miss.  
Portions of 5 humeri (human.)  
8 pieces of Pottery, 2 Clay Pipes, 6 Stone Implements, from the Mounds of Madison County, Miss.
- " 30—CHAS. TRAUTMANN, N. Y.  
1 pair Horns of Kudoo, from Zambei, S. A.  
1 " " Gemsbock, " "
- " 30—EDWARD P. SLEVIN, N. Y.  
A collection of Birds and Bird Skins, from Egypt.  
1 Flying Fish.
- " 30—M. H. STAFFORD, N. Y.  
Specimens of Perforated Stones, found in Stafford Creek, Onondaga Co., N. Y.
- July 1*—JOHN E. YOUNGLOVE.  
2 species Fossil Coral, Bowling Green, Ky.  
24 specimens Pentremites.
- " 1—GEN. JOHN P. HATCH, Lt. Col. 4th Cavalry.  
1 Comanche Shield and Bow.  
6 " Arrows.  
2 Cheyenne "  
1 Bone Scraper.
- " 14—LOUIS BISANG.  
1 Diadem Spider.
- " 14—HUGH AUCHINCLOSS, N. Y.  
A monumental mass of Rock Salt.
- August 31*—T. NELSON DALL, JR.  
1 Vol.—"A Study of the Rhætic Strata of the Val di Ledro in the Southern Tyrol," by himself.
- September 3*—G. A. TUTHILL, N. Y.  
Specimen of Petrified Oak, also specimen of Iron Ore, from Timber Brook Mine, N. J.
- " 6—C. W. NEVINS, Towanda, Pa.  
1 specimen Phasma Femoratum ("Walking Stick.")
- " 14—EMANUEL J. ATTINELLI, N. Y.  
Specimens of the Bark and Wood of the Big Trees of California, Minerals, Fossils, etc.
- " 19—ST. JULIEN FILLETTE, N. Y.  
1 Humming-bird's Nest, Americus, Georgia.  
1 Gnat's Nest.  
1 Duck's Egg, peculiarly black, Chester, S. C.

- October 6—STATE OF OHIO, through Hon. H. H. ROBINSON, State Librarian, Columbus, Ohio.  
 Report on the Geological Survey for 1870. Vol. I, 1873.  
 Vol. II, 1874.  
 Palæontology. Vol. 1, 1873. Vol. 2, 1875. And Maps, 1870, 1873, 1874.
- " 9—STATE OF MICHIGAN, through Hon. W. J. BAXTER, Secretary of State, Lansing, Mich.  
 Vol. I and II, 1869 to 1873 and Maps—"Survey of the Upper Peninsula."
- " 12—CHAS. G. SMITH, N. Y.  
 Specimen of Zeus Capillaris (Hair-finned Dory), taken in a seine at Gardner's Bay, L. I.
- " 12—FRANCISCO BAMONTE:  
 Specimens of Clothing from the Huacas, Ancon, Peru.
- " 12—GEO. N. LAWRENCE, N. Y.  
 Bulletin No. 4 of "Natural Museum."
- " 16—CAPT. JOHN H. MORTIMER, N. Y.  
 1 Specimen of Asbestiferous Silicified Wood, Nevada.
- " 17—HON. TOWNSEND HARRIS, N. Y.  
 6 specimens of Glass Rope Sponge.  
 1 Shark's Tooth.
- " 23—STATE OF INDIANA, through DR. G. M. LEVETTE, Indianapolis.  
 Reports on Geological Survey, 1869, '70, '72, '73, '74, and '75.
- " 24—MAJOR BEEBE, Brooklyn, N. Y.  
 A collection of minerals, stone axes, arrow-heads, sharks' teeth, shells, etc.
- November 2—LACKAWANA COAL AND IRON CO.  
 16 specimens Iron Ore, from the mines of N. J.
- " 10—MISS MARY GELSTON, N. Y.  
 Natural Mat of the Roots of the Willow (*Salix Vitellina*).
- " 12—DAVENPORT, Iowa, ACADEMY OF NATURAL SCIENCES.  
 Vol. I, 1867-1876; Proceedings.
- " 15—HENRY F. LYMAN, Cleveland, O.  
 3 pieces of Pink Coral, Operculi of Turbo.
- " 20—DEPARTMENT OF THE INTERIOR, Washington, D. C., through Dr. F. V. HAYDEN, U. S. Geologist.  
 Geological Survey of the Territories, Vol. X  
 " " of Colorado and the Territories, 1874.  
 " " Bulletins Nos. 1, 4, 5 and 6. 2d Series.
- December 2—Through the SMITHSONIAN INSTITUTION, Washington, D. C.  
 3 packages publications of foreign societies.
- " 2—SMITHSONIAN INSTITUTION, Washington.  
 "Contributions to Knowledge,"—Vols. XX and XXI.
- " 2—DR. G. E. MANIGAULT, Charleston, S. C.  
 Skeleton of Turtle (*Emys serrata*).
- " 22—JOHN WILSON, N. Y.  
 1 Indian Pipe, from Yankton, Dakota.
- " 22—ROBERT L. STUART, N. Y.  
 "Catalogue of Shells collected at Panama, with notes, etc.,"  
 by C. B. Adams.

*December 28*—DEPARTMENT OF PUBLIC PARKS, N. Y., through WM. IRWIN,  
Sec'y.

"Third Annual Report,"—May 1st '72 to Dec. 31st, '73.

- 29—UNION IRON CO., Buffalo, N. Y.  
75 specimens of Iron Ore.
- 29—DR. H. G. PIFFARD, N. Y.  
129 Vols. of "Buffon's Natural History."
- 29—STATE OF NEW JERSEY, through GEO. H. COOK, State Geologist, New Brunswick.  
"Geology of N. J.," 1 Vol. and Atlas, 1868.  
" " Annual Reports, 1870 to 1875.
- 29—ISAAC JOHNSON, Spuyten Duyvel, N. Y.  
1 large specimen Asbestos, found on land of the donor.
- 29—REV. CHARLES P. BUSH, N. Y.  
Annual Reports of the American Board of Commissioners for Foreign Missions, from 1838 to 1876.
- 29—TRABER & AUBERY, Cincinnati, O.  
A large series of Ores from the "Hanging Rock Iron Region," Ky., including specimens from the Hecla Iron and Mining Co. and the Etna Iron Works.
- 29—EASTERN KENTUCKY R. R., through H. W. BATES, Vice Pres't, Cincinnati, O.  
Specimens of Iron Ore from the "Hanging Rock Iron Region," Ky.
- 29—CENTRAL PACIFIC R. R., through J. R. SCUPHAM, San Francisco.  
14 boxes Geological Specimens, Ores and Building Stones.
- 29—SOUTH AND NORTH ALABAMA R. R., through PROF. GESNER.  
Geological Sections and Ores.
- 29—M. S. MEPHAM & BRO., St. Louis, Mo.  
7 boxes Minerals.
- 29—HUSSEY & HOWE MINING CO., through HERMAN VEEDER, Agent, Plattsburgh, N. Y.  
3 specimens Iron Ores, from the Arnold Iron Mine.
- 29—WOODWARD'S GARDENS, San Francisco.  
300 Bird Skins.
- 29—ARGENTINE REPUBLIC, through E. OLDENDORFF, Commissioner to the Centennial Exhibition.  
2 Silver Ornaments worn by the Natives of San Luis.
- 29—GOVERNMENT OF JAMAICA, through ROBT. THOMPSON, Director of the Botanical Gardens, Kingston.  
58 boxes of Woods and Agricultural Products, illustrating the industrial wealth of Jamaica.
- 29—GOVERNMENT OF BERMUDA, through MAJOR-GEN'L LEFROY, Governor.  
6 boxes of Woods and Agricultural Products.
- 29—GOVERNMENT OF CANADA, through A. R. C. SELWYN, F. R. S., Director Geological Survey.  
6 boxes Ores and Building Stones.
- 29—GOVERNMENTS OF GERMANY, SPAIN, PORTUGAL, BRAZIL, MEXICO, TURKEY, NEW ZEALAND, SANDWICH ISLANDS, HAWAIIAN ISLANDS, BAHAMA ISLANDS, TASMANIA AND TRINIDAD.  
Specimens illustrating the mineral, agricultural and economic wealth of their respective countries.

1877.  
*January 1*—Through the SMITHSONIAN INSTITUTION, Washington, D. C.  
 11 packages of the publications of foreign societies.
- February 12*— "The Archæological Collection of the U. S. Museum,"  
 CHAS. RAU, 1876.
- " 14—HISTORICAL SOCIETY OF STEIERMARK.  
 "Mittheilungen & Beiträge für 1876."
- " 14—CONSUL OF PERU, N. Y.  
 "El Peru." Tomo I. Lima, 1874.
- " 14—BUREAU OF EDUCATION, Washington, D. C.  
 Through GEN'L JOHN EATON, Commissioner.  
 Reports for 1875 and 1876.
- " 27—D. JACKSON STEWARD, N. Y.  
 5 Wooden Fish-Hooks with Lines.  
 1 pair Antelope Horns.  
 1 Shell Ornament.
- " 27—JOHN O'BRIEN.  
 Wooden Image of Alligator found at Clifton, S. I.
- " 27—MISS H. E. WIER.  
 Stone Pestle from Ferrisburg, Vt.
- " 27—BODWELL GRANITE CO, Vinalhaven, Me.  
 1 Slab of Granite with Glacial Markings.
- March 3*—MRS. REV. M. S. CULBERTSON, Brooklyn.  
 Wearing Apparel of the natives of the Sandwich Islands,  
 Foochow and China.
- " 7—STATE OF VERMONT, through Hon. H. A. HUSE, State Librarian,  
 Montpelier.  
 2 vols. Reports on the Geological Survey of the State.
- " 7—D. JACKSON STEWARD, N. Y.  
 1 Terra Cotta Vase from Peru.
- " 12—PROF. ALBERT S. BICKMORE, N. Y.  
 Catalogue of the Library of the Royal Geographical Society,  
 London, 1865—1871.
- " 13—CAPT. JOHN H. MORTIMER, N. Y.  
 Implements and Utensils from the Aleutian Islands.
- " 15—MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Mass.  
 Report for the year 1876.
- " 23—SIR JOHN EVANS, London, England.  
 "Note on International Code of Archæological Symbols."
- " 23—DR. JAMES KNAPP, Louisville, Ky.  
 A collection of Arrow and Spear Heads and Stone Imple-  
 ments.
- " 23—PROF. D. S. MARTIN, N. Y.  
 Bow and Arrows from the Cherokee Country.
- " 26—WM. A. CONKLIN, N. Y.  
 1 Papoose Cradle.  
 1 Indian Arrow, iron point.

- March 26—E. A. HOYT, N. Y.  
Specimen of the *Monocanthus Massachusettssesis*.
- " 28—C. B. BILYIEU, N. Y.  
1 Skin of Crow.  
1 Skin of Scarlet Tanager.
- April 3—FRANKLIN C. HILL, Princeton, N. J.  
2 Photograph Drawings of the *Harpalus Caliginosus*.
- " 3—CHARLES MANN.  
"Memorial of J. A. Lapham."
- " 6—Miss ELIZABETH SWANSON.  
7 Birds Eggs from Caithnessshire, Scotland.
- " 6—DEPARTMENT OF THE INTERIOR, Washington, D. C.  
9 vols. Publications.  
Mounted Map of the U. S.
- " 10—BODWELL GRANITE CO.  
2 Blocks of Polished Granite.
- " 11—ALBERT STORER, N. Y.  
Collection of Shells.
- " 28—DR. J. V. MANSFIELD, N. Y.  
Specimen of the Boa Constrictor, Centipede and Vampire,  
in alcohol.
- " 28—WISCONSIN ACADEMY OF SCIENCES, ARTS AND LETTERS,  
through JOHN E. DAVIES, Sec'y, Madison.  
Vol. III of "Transactions," 1875-6.
- " 30—JOHN F. BURNS.  
2 Arrows from the Desolate Is., South Pacific.
- " 30—GOVERNMENT OF JAMAICA, through ROBERT THOMPSON, Esq.,  
Director Botanical Gardens, Kingston.  
"Report on the Jamaica Exhibit at the Centennial."
- May 1—GEN'L JOHN H. PELL, N. Y.  
Implements and Utensils of the Sioux, Cheyennes and  
Arrapahoes Indians, captured by Gen. Sully's Expedition,  
1863 and 1864.
- " 2—DEPARTMENT OF THE INTERIOR, Ottawa, Canada, through  
HON. E. A. MEREDITH, Deputy Minister.  
Annual Reports for 1874, 1875 and 1876.
- " 3—SOCIETY OF NATURAL SCIENCES, Buffalo.  
Bulletin No. 4. Vol. III, 1877.
- " 3—DEPARTMENT OF THE INTERIOR, Washington, D. C.  
Notes on a collection of Noctuid Moths, A. R. GROTE.
- " 11—  
Hayden's Reports, 1867 to 1874.  
9 vols. Publications.
- " 12—FRANKLIN C. HILL, Princeton, N. J.  
Photograph of Mosquito Eggs.
- " 12—GEOLOGICAL COMMISSION OF BRAZIL.  
"Archivos do Museu Nacional do Rio de Janiero." Vol. I,  
1876.
- " 12—W. A. CONKLIN, N. Y.  
Fossil Calamite Stem, New Jersey Stone Gauge.
- " 16—AMERICAN ETHNOLOGICAL SOCIETY.  
Vol. I and II. Transactions of.

*May* 19—GEO. W. GILBERT, Pilot Town, Fla.  
12 pieces Plain and Ornamented Pottery from Botten  
Island, Fla.

" 19—BARON C. R. OSTEN-SACKEN, Cambridge, Mass.  
Pamphlets on "Western Diptera."

" 22—DEPARTMENT OF THE INTERIOR, Washington.  
6 vols. Publications.

*June* 6—PROF. J. S. NEWBERRY.  
A collection of Lepidoptera from Ecuador, S. A.

" 16—DR. O. FINSCH, Bremen.  
"Catalog der Ausstellung Ethnographischer und Natura-  
wissenschaftlicher Sammlungen, Bremen, 1877.

" 16—R. W. MERCER, Cincinnati, O.  
Wax Cast of Stone Image.

" 25—WM. HOWLAND PELL, Flushing, N. Y.  
"Medicine Man's" Pipe, from Miss.

" 26—ALBERT K. FISHER.  
8 Bird's Nests, with Eggs.

" 27—H. G. MARQUAND, N. Y.  
Skulls and Fragments from the Mounds at New Madrid, Mo.

" 29—DR. T. CLEANNEY, Cincinnati, O.  
1 box Stone Implements.

*July* 14—W. L. GRAY, Newark, N. J.  
Corundum from Shaft at Mineral Hill, Pa.

" 15—WARD M. GASLAY.  
2 Stone Pestles, found at Port Jervis, N. Y.

*August* 8—Through the SMITHSONIAN INSTITUTION, Washington, D. C.  
6 packages of Publications of Foreign Societies.

*September* 5—W. R. STERLING, Philadelphia, Pa.  
Specimens of Magnetite Ore.

" 27—DEPARTMENT OF THE INTERIOR, Washington.  
10 vols. Publications.

*October* 5— 1 vol. "N. A. Rodentia."

" 5—A. P. BICKMORE, Norwalk, O.  
2 specimens Spherical Concretions.

" 5—ROBERT HOWELL, Nichols, N. Y.  
1 box Fossils.

" 20—H. G. MARQUAND, N. Y.  
5 barrels of Pottery from the Mounds of New Madrid, Mo.

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A collection of Stone Implements, Ornaments, Pottery and  
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lected at Goshen, Orange Co., N. Y.

October 17—D. MINTHORN, N. Y.

7 specimens Minerals.

" 25—ROBERT L. STUART, N. Y.

Specimens of Fossils, Fishes and Tracks from the Triassic of the Connecticut Valley.

140 specimens of Minerals illustrating the Geology of Mount Blanc.

1 Cameo Shell.

1 Robe made of the Entrails of the Seal.

Minerals, Utensils, Ornaments, etc., from various parts of the world.

November 10—DR. C. T. MITCHELL, Canandaigua, N. Y.

Stone Implements.

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Specimens of Bone and Stone Implements, Charcoal, Pottery, Woven Tissue, Grains and Fruit from Ancient Lake-Dwellings, Robenhausen, Switzerland.

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Second and Fourth Annual Reports of the Geological Survey of Minnesota.

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"A Review of the Birds of Connecticut."

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"Mittheilungen" and "Beiträge" for 1877.

December 3—MISS SARAH P. MONKS, Cold Spring, N. Y.

15 species of Pleiocene and Post Pleiocene Fossils.

Minerals from Santa Barbara and elsewhere in California.

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4 packages of Publications of Foreign Societies.

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 Olmstead, Dwight H.  
 Olmsted, Fred. Law  
 Olyphant, R. M.  
 Olyphant, Robert  
 Opdyke, W. S.  
 Orton, William  
 Ostrander, C. V. B.

Otis, F. N., M. D.  
 Ottendorfer, Dr. Oswald  
 Paddock, Eugene H.  
 Pancoast, George  
 Parish, Henry  
 Parsons, Arthur W.  
 Parsons, George W.  
 Parsons, John E.  
 Patterson, Thomas C.  
 Peabody, Arthur J.  
 Peaslee, E. R., M. D.  
 Peckham, Walton H., M. D.  
 Peet, William E.  
 Pell, John H.  
 Pell, Robt. L.  
 Penfold, Edmund  
 Penfold, Wm. Hall  
 Perkins, C. L.  
 Perley, Joseph L.  
 Perry, Myron  
 Peters, Geo. A., M. D.  
 Phelps, Hon. Benj. K.  
 Phelps, Chas. Harris  
 Phelps, Geo. D.  
 Phelps, Royal  
 Phillips, J. C.  
 Phoenix, Phillips  
 Pinkney, J. H.  
 Pinkus, F. S.  
 Platt, John R.  
 Platt, Sam'l R.  
 Popham, Wm. H.  
 Porter, Hon. John K.  
 Post, Alfred C., M. D.  
 Potter, Miss Grace H.  
 Potter, Rev. H. C., D. D.  
 Potter, Howard  
 Potter, Miss Lizzie  
 Potter, Miss M. N.  
 Powers, Geo. W.  
 Powers, Thomas J.  
 Powers, Wm. P.  
 Preston, Wm. I.  
 Prime, Frederick  
 Prime, Rufus  
 Prince, J. D.  
 Purdon, James  
 Purdy, Wm. Macneven  
 Purssell, James  
 Pyne, M. Taylor  
 Pyne, Percy R.  
 Pyne, Percy R., Jr.  
 Quintard, E. A.  
 Ramsay, C. G.  
 Ray, Robert  
 Raynolds, C. T.  
 Redfield, Amasa A.  
 Rees, Norman I.  
 Reid, Whitelaw  
 Renwick, W. R.

Requa, J. M.  
 Riker, D. S.  
 Riker, John L.  
 Riker, Wm. J.  
 Riley, Chas. V.  
 Robb, J. Hampden  
 Robbins, George A.  
 Robinson, George B.  
 Robertson, R. A.  
 Robertson, Touro  
 Roelker, Bernard  
 Rogers, Chas. H.  
 Rogers, John  
 Rollins, Hon. Dan'l G., Jr.  
 Roosa, D. B. St. J., M. D.  
 Roosevelt, Jas. A.  
 Roosevelt, Theodore, Jr.  
 Roosevelt, W. E.  
 Rosenbaum, A. S.  
 Rosenfeld, L.  
 Ross, William B.  
 Routh, Henry de B.  
 Rusch, Adolph  
 Russell, Charles H.  
 Rutler, Thomas  
 Rütten, August  
 Ryan, Columbus  
 Rylance, Rev. J. H., D. D.  
 Sabine, G. A., M. D.  
 Sandford, Rollin  
 Sands, Joseph  
 Sands, Samuel S.  
 Sanford, Hon. Charles F.  
 Satterlee, S. R.  
 Sayre, Lewis A., M. D.  
 Schafer, Samuel M.  
 Schafer, Simon  
 Schaus, Wm.  
 Schermerhorn, C. A.  
 Schmidt, Oscar E.  
 Scholle, A.  
 Scholle, J.  
 Schuyler, Philip  
 Schwendler, Fred.  
 Shaler, Gen. Alexander  
 Shaw, Francis Geo.  
 Shea, Hon. George  
 Sheafe, J. F.  
 Shearman, Wm. Pitt  
 Shethar, Samuel  
 Shoards, Joseph F.  
 Sinclair, John  
 Sistare, George K.  
 Skidmore, Samuel T.  
 Skidmore, William L.  
 Slawson, J. B.  
 Sloan, Samuel  
 Sloane, William  
 Sloane, Wm. D.  
 Slocovich, G.

Smith, Charles S.  
 Smith, Edward F.  
 Smith, Geo. W.  
 Smith, Hanbury, M. D.  
 Smith, H. Erskine  
 Smith, L. Bayard  
 Smith, Roswell  
 Smith, Rev. Cornelius B.  
 Smith, Samuel M.  
 Smith, Wm. Alex.  
 Smith, Wm. Henry  
 Soutter, Mrs. J. F.  
 Spier, Hon. Gilbert M.  
 Spies, A. W.  
 Spencer, Hon. James C.  
 Squires, Robert  
 Starin, Hon. John H.  
 Steers, Henry  
 Stengel, Prof. Frederick  
 Sterling, A. F.  
 Stevens, A. O.  
 Stevenson, V. K.  
 Steward, Campbell  
 Stewart, David  
 Stewart, Mrs. Lispenard  
 Stone, David M.  
 Storer, Albert  
 Strange, A. B.  
 Strong, Charles E.  
 Strong, W. L.  
 Stuart, Alexander  
 Stuart, Mrs. R. L.  
 Stuart, Robert L.  
 Stuart, Homer H.  
 Sturgis, Appleton  
 Sturgis, Miss Margaret B.  
 Sturgis, Miss Russell  
 Stuyvesant, A. V. H.  
 Stymus, W. Pierre  
 Sutherland, John  
 Sutherland, John L.  
 Sutherland, Hon. Josiah  
 Suydam, D. Lydig  
 Swords, Henry O.  
 Tailor, Edward N., Jr.  
 Taintor, Chas. M.  
 Talcott, James  
 Tappan, Hon. J. Nelson  
 Taylor, Aug. C.  
 Tefft, Charles G.  
 Terbell, H. S.  
 Thompson, S. C.  
 Thompson, W. Prall  
 Thomson, James  
 Thomson, Wm. H., M. D.  
 Thurber, F. B.  
 Thurber, H. K.  
 Tiemann, Peter C.  
 Tillotson, L. G.  
 Titus, James H.

Tobias, Samuel I.  
 Todd, A. J.  
 Todd, Wm. James  
 Tomes, Francis  
 Toucey, J. M.  
 Tousey, Sinclair  
 Townsend, John P.  
 Townsend, R. W.  
 Tracy, Chas.  
 Tracy, J. Evarts  
 Trevor, H. G.  
 Trevor, John B.  
 Trevor, Mrs. John B.  
 Trotter, George  
 Troup, Miss Louisa  
 Trowbridge, Edwin L.  
 Tuck, Edward  
 Valentine, Lawson  
 Van Dusen, Samuel B.  
 Van Nostrand, David  
 Van Winkle, Hon. E. S.  
 Varnum, James M.  
 Vermilye, J. D.

Vermilye, Wm. M.  
 Von Post, Herman C.  
 Von Volkenburgh, P.  
 Waite, Chas. C.  
 Wales, Hon. Salem H.  
 Walker, Evan T.  
 Walker, Francis T.  
 Wall, Charles  
 Wall, Michael W.  
 Wallach Adolph  
 Wallack Lester  
 Ward, Mrs. M. H.  
 Watson, Col. B. F.  
 Webb, Gen. Alex. S.  
 Webb, Mrs. Gen. A. S.  
 Weber, John  
 Webster, Sidney  
 Weed, Hon. Thurlow  
 Weeks, Francis H.  
 Weeks, John A.  
 Wenman, Hon. James F.  
 Wheeler, J. W.

Wheelock, Geo. G., M. D.  
 White, Norman  
 Whitney, Alfred R.  
 Wickham, Hon. W. H.  
 Wiechers, W. A.  
 Wiley, W. H.  
 Williamson, Hon. David B.  
 Wilson, John  
 Winston, F. S.  
 Winthrop, Robert  
 Witherbee, S. H.  
 Wood, Hon. Fernando  
 Wood, Isaac F.  
 Wood, John D.  
 Wood, Mrs. John D.  
 Work, John C.  
 Wotherspoon, Henry H.  
 Wright, Charles L.  
 Wright, Samuel V.  
 Wright, Wm. Woolsey  
 Wyckoff, J. F.  
 Young, Mason

## ADDRESSES

AT THE

OPENING OF THE NEW BUILDING, DEC. 22, 1877.



PRAYER BY REV. WM. ADAMS, D. D.

Almighty God, our Father in heaven, taught to acknowledge Thee in all our ways, we would begin, continue, and end these services with worshipping Thee as the maker of the heavens and the earth. The heavens declare Thy glory, and the firmament showeth Thy handiwork. Day unto day uttereth speech, and night unto night showeth knowledge; though their testimony concerning Thee is not in audible language, yet their line is gone out through all the earth, and their words unto the end of the world.

While sun, moon, and stars proclaim thine eternal wisdom and power, we bless Thee for the more explicit revelation Thou hast given of Thyself, in Thy word, and in the person of Thy Son, Jesus Christ. With all this light shining upon us, we thank Thee that Thou hast endowed us with rational faculties, capable of studying Thy word and thy works, promising to us the spirit of wisdom and revelation in the knowledge of Thyself.

We thank Thee for the Institution in whose interest we are now assembled, designed to collect those objects which reflect upon us the proof of Thy creative wisdom, in forms which awaken delight and devotion; the cedar which groweth on Lebanon, and the hyssop which springeth out of the wall, the beasts of the field, the fowls of the air, all creeping things, the treasures hid in the sand, and whatsoever passeth through the paths of the sea. May these halls be consecrated not to vain show and idle curiosity, but to true science and a devout study of the works and ways of God.

Thanking Thee for all which is done for the external decoration of the City in which we dwell, may its inhabitants

cultivate those Christian virtues of integrity, honesty, industry, the spirit of knowledge, and the fear of the Lord which are at once our ornament and our protection.

Bless this city of our habitation, our whole country, the President of these United States and all magistrates, that we may lead quiet and peaceable lives in all honesty and godliness, knowing that this is acceptable unto Thee through Jesus Christ. Thus by all methods of our education here on the earth, prepare us for an abundant entrance into that city not made with hands, eternal in the heavens, where no longer with dim and imperfect vision, but with open face, we shall behold the glory of the Lord, and changed into his image shall be with him and like him forever. All which we ask in the name of Jesus Christ, to whom be all glory forever. Amen.

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ADDRESS by ROBERT L. STUART, *President of the Museum,*  
*in behalf of the Trustees.*

LADIES AND GENTLEMEN :

We have assembled for the purpose of opening to the public, the collections of our Museum, and the Building which the city has erected for their preservation and exhibition.

This day, when our collections are displayed for the first time, begins a new and most important era in our history—and it will be proper on this occasion, to review briefly the generous efforts put forth by our municipality, and its citizens, in this way, for the public good, and to indicate some of the fields of usefulness which this Institution is evidently destined to occupy.

For many years, those of our people who were privileged to travel abroad, were constantly reminded of the fact, that in our own wealthy and influential metropolis there were no such institutions for the higher cultivation of the people, and their instruction and recreation, as the Museums existing not only in the capitals of Europe, but even in places of moderate population. Many of the students of natural science, who grew up in our midst, moved away to the neighboring cities, which possessed such attractions, and New York came to be regarded as so given over to the accumulation of wealth, as to be too sterile a soil for the cultivation of the higher branches of education.



At the close of the year 1868 an unexampled opportunity presented itself, for securing the nucleus of a Museum of Natural History. Edward Verreaux of Paris, the largest collector of such specimens in the world, died; and his whole collection was offered for sale. It was at once determined, that at last, an earnest effort should be made, to secure a part of these specimens, and our citizens responded so liberally, that not only were the means obtained to purchase the choicest specimens of the Verreaux collection, but also the Elliot collection of the Birds of North America, and the entire Museum of Prince Maximilian, of Neuwied, Germany. With this ample proof of the interest taken by our citizens in this branch of Natural Science, the State Legislature, on April 6th, 1869, passed a special Act, creating such of the principal subscribers as were willing to serve, a body corporate by the name of the American Museum of Natural History, for the purpose of establishing and maintaining in said city, a Museum and library of Natural History, 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.

Negotiations were then opened with the city, represented by the Commissioners of the Central Park, who had nearly completed our elegant public pleasure ground, and were ready to add to its attractions, such means for the further instruction of our people as would be afforded by such an Institution.

The agreement made with the Park Department, was to the effect that the Arsenal building should be fitted up with cases, as a temporary place for exhibiting a part of our specimens, until a suitable fire-proof structure could be completed.

A petition, signed by many of our most prominent citizens, was presented to the Legislature, who authorized the Department of Public Parks to expend a sum sufficient for such a building, and to set aside as much of the public lands under their charge as they should deem necessary, for a site for such structure, and its future extensions. By virtue of this law, this square of  $18\frac{1}{4}$  acres was offered by the Department, and accepted by the Trustees of the Museum, and plans were pre-

pared by the Architects of the Department, for a building to be completed in sections, of which this is one.

On June 2d, 1874, in the presence of the Governor of the State, the Mayor of the City, the Commissioners of the Department of Public Parks, the Trustees of the Museum, and many distinguished guests, President Grant laid the corner stone of this edifice.

Soon after the Museum was opened to the public in the Arsenal, applications were received from many of our ablest naturalists, desiring to examine our specimens, and in this way we were confirmed in our judgment, that a series of rooms should be provided in the new building for the use of those, who with such facilities could enlarge the boundaries of Science, by their original investigations.

Accordingly, the Legislature was petitioned for an additional sum, which they promptly granted, for equipping and furnishing the building; and so judiciously and carefully has this fund been expended, that the structure stands completed as you behold it to-day (within the appropriation).

Curators of similar institutions in this country, and prominent scientific gentlemen from abroad, have carefully examined this edifice, and pronounce it, both in the conception of the whole plan, and in execution of the portion completed, comparing favorably with any building heretofore constructed.

Its durability, abundance and perfect diffusion of light, and elegance of finish are evident to all. It is in all respects adapted to our wants, for the preservation, exhibition, and investigation of the collections therein contained.

While the Building has been progressing, the Museum has been constantly receiving large and choice collections.

The daughter of the first President and liberal friend of the Museum has presented as a memorial of her father, the Jay collection of shells, and library of rare Conchological and other scientific works.

We consider it also a matter in which the Museum is to be congratulated, that the Trustees and a few of its friends, have secured to this city, by purchase, the great Geological and Palaeontological collection of Prof. James Hall, of Albany,

for New York has by far excelled all her sister states, in the liberal amounts she has continuously appropriated for her geological survey, and the importance of this scientific work is recognized by the whole world, in adopting the nomenclature her geologists have proposed.

Our great upper hall is nearly filled with the types and choice specimens of this one collection.

Two-thirds of the sum necessary for the Museum to possess this property is already subscribed.

Almost daily, some rare specimens, not previously in the Museum, are brought to the building, until our collections not only fill this great edifice, but also the Arsenal, and every year the additions have been steadily increasing, until even at our present rate of growth, specimens would be accumulated sufficient to fill three buildings like this, before they could be completed, if begun this day.

The course pursued by the Museum in securing the typical collection of Prof. Hall, and placing it here where it will ever be safe from all possibility of injury by fire and accessible to all, indicates our wishes to aid original investigators in science, and this purpose is further shown by the suite of rooms in the Mansard story prepared for those whose labors will not only help to develop the great natural resources of our own land, but will add to the present knowledge of the most learned in all parts of the world.

Our desire is to aid in the creation, even more than in the diffusion of knowledge.

The structure which we here dedicate, is one of the largest buildings devoted solely to Natural History, yet completed in any land; but it forms only a small fraction of the whole great plan, and we cordially invite the generous co-operation of all our citizens, being encouraged to hope for the full realization of our plans, by the presence of this distinguished assembly—the Commissioners of the Park, and his honor the Mayor, representing the City—by a communication from his Excellency the Governor representing the State, and by the presence of the President of the United States, in testimony of the interest taken by the whole nation in our efforts to promote the public good.

ADDRESS *by* HON. WM. R. MARTIN, *President of the Department of Public Parks.*

MR. PRESIDENT, LADIES AND GENTLEMEN :

To-day the promises of the past four years are performed. You are in a completed building, its six stories filled with treasures. Yet it is the opening only to a great future.

As you approached, you saw that the building is but a section of an unfinished whole. It is bordered by avenues unregulated, by excavations for future foundations, by sub-graded park work, and yet, within, it is a royal abode for science. The collections, complete as they seem, when you listen to the men who are making them, are but their beginnings royal though they be. The satisfaction we all feel, this day, is supported by the promise of that which is to come. All that is not behind us is before us, and the future is better than the past.

I think I interpret the feelings of all, when I say that the strong impression made here is, that we stand in the presence of something which shall endure. At the moment, the scenes we have left outside seem transitory; the spectacle in which we participate becomes sublime. It is because we are in the presence of Science—of nature, whose history and whose mysteries the hand of man has discovered and unveiled. The breadth of her dominion is opened to us. The lines of her history are written in these rocks, her beauty gleams in the plumage of these birds. The whole earth is filled with her glory—how much more this house which we have made.

It is needless for us to say whether the great teacher makes the great University, or whether the great opportunity produces the great teacher. It is enough that they live together. It is the pride of the great city of New York that it has created the Central Park for the health and enjoyment of the people, and in doing so, has made it by the adornment of Art as beautiful as it could be made. But this is not all; it has led to an appreciation of Art and of Science. As you traversed the Park you saw the beginning of a Meteorological Observatory, a place for History, and on either hand, two tem-

ples erected by the people ; to-day, this one opened to Science, and a few months hence another to Art.

Beyond this thorough appreciation the next step must be creative. With such aids as are here afforded the human mind will be aroused. Men will gather here to study and to teach ; to explore and to discover. I record it as the supreme satisfaction of this day that it is to this purpose that all the plans are fitted. The idea on which Talleyrand justified the French revolution is sometimes true of education—"what principles can not do, a man must." It is not for curiosity, not for instruction alone, but to awaken here the great teacher, to encourage here the great discoverer—that glorious possibility which we proudly name man.

By the authority of the People of the State the people of the city have erected this building. The Department I have the honor to represent have been charged with the design and construction. While from all other forms of human work we gather to give honor to the men of Science, I ask you to remember Mr. OLMSTED. I call you to witness the fidelity and ability of the architects, Mr. VAUX, and Mr. MUNCKWITZ, and the skill and patience of the artisan, the mechanic and the laborer.

On behalf of the city, Mr. PRESIDENT, we welcome you to this Museum, in which you and we are henceforth associated for the advancement of true science among the people.

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ADDRESS of CHARLES W. ELIOT, *President of Harvard University.*

In whose honor are the chief personages of the nation, state, and city, here assembled ? Whose palace is this ? What divinity is worshipped in this place ? We are assembled here to own with gratitude the beneficent power of natural science ; to praise and thank its votaries, and to dedicate this splendid structure to its service. The power to which we here do homage is the accumulated intelligence of our race applied generation after generation to the study of Nature ; and this palace is the storehouse of the elaborated materials which that intelligence has garnered, ordered, and illuminated. What has natural science done for mankind that it should be

thus honored? In the brief moments allotted to me I can but mention three pregnant results of the scientific study of Nature.

In the first place, natural science has engendered a peculiar kind of human mind—the searching, open, humble mind, which, knowing that it cannot attain unto all truth, or even to much new truth, is yet patiently and enthusiastically devoted to the pursuit of such little new truth as is within its grasp, having no other end than to learn, prizing above all things accuracy, thoroughness, and candor in research, proud and happy not in its own single strength, but in the might of that host of students, whose past conquests make up the wondrous sum of present knowledge, whose sure future triumphs each humblest worker in imagination shares. Within the last four hundred years this typical scientific mind has gradually come to be the kind of philosophic mind most admired by the educated class; indeed, it has come to be the only kind of mind, except the poetic, which commands the respect of scholars, whatever their department of learning. In every field of study, in history, philology, philosophy, and theology, as well as in natural history and physics, it is now the scientific spirit, the scientific method, which prevails. The substitution in the esteem of reasonable men of this receptive, fore-reaching mind for the dogmatic, overbearing, closed mind, which assumes that it already possesses all essential truth, and is entitled to the exclusive interpretation of it, is a most beneficent result of the study of natural history and physics. It is an achievement which has had much to do with the modern increase of liberty in human society, liberty individual, political and religious; it is an achievement of the highest promise for the future of the race.

The second result which I wish to specify is the stupendous doctrine of hereditary transmission, which during the past thirty years, or within the lifetime of most of those who hear me, natural science has developed and enforced by observations and comparisons covering the whole field of organized life. This conception is far from being a new one. Our race has long practised, though fitfully and empirically, upon some crude and fragmentary forms of this idea. Tribes, clans,

castes, orders of nobility, and reigning families, are familiar illustrations of the sway of this idea; in killing, banishing, and confining criminals mankind has in all ages been defending itself, blindly, to be sure, but with effect, against evils which incidentally flow from hereditary transmission; but it has been reserved for natural science in this generation to demonstrate the universality of this principle, and its controlling influence upon the families, nations, and races of men, as well as upon all lower orders of animate beings. It is fitting that natural history should have given this demonstration to the world; for the basis of systematic natural history is the idea of species, and the idea of species is itself founded upon the sureness of hereditary transmission—upon the ultimate fact that individual characteristics are inheritable. As the knowledge of heredity, recently acquired by science, permeates society, it will profoundly affect social customs, public legislation, and governmental action. It will throw additional safeguards around the domestic relations; enhance the natural interest in vigorous family stocks; guide wisely the charitable action of the community; give a rational basis for penal legislation; and promote both the occasional production of illustrious men and the gradual improvement of the masses of mankind. These moral benefits will surely flow from our generation's study of heredity.

Finally, modern science has discovered and set forth the magnificent idea of the continuity of creation. It has proved that the development of the universe has been a progress from good to better, a progress not without reactions and catastrophes, but still a benign advance toward ever higher forms of life with ever greater capacities for ever finer enjoyments. It has laid a firm foundation for man's instinctive faith in his own future. From the sight and touch of what the eternal past has wrought, it deduces a sure trust in what the eternal future has in store.

"And present gratitude  
Insures the future's good;  
And for the things I see  
I trust the things to be."

It has thus exalted the idea of God—the greatest service which can be rendered to humanity. "Each age must wor-

ship its own thought of God," and each age may be judged by the worthiness of that thought. In displaying the uniform, continuous action of unrepenting Nature in its march from good to better, science has inevitably directed the attention of men to the most glorious attributes of that Divine intelligence which acts through Nature with the patience of eternity and the fixity of all-foreseeing wisdom. Verily, the infinite, present Creator is worshipped in this place. A hundred life-times ago a Hebrew seer gave utterance to one of the grandest thoughts that ever mind of man conceived, but applied it only to his own little nation, and coupled it with barbarous denunciation of that nation's enemies. This thought, tender and consoling toward human weakness and insignificance as a mother's embrace, but sublime also as the starry heights and majestic as the onward sweep of ages, science utters as the sum of all its teachings, as the supreme result of all its searching and its meditation, and applies alike to the whole universe and to its last atom—"the eternal God is thy refuge, and underneath are the everlasting arms."

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ADDRESS *by* PROFESSOR O. C. MARSH, *President of the American Association for the Advancement of Science.*

The opening of this Museum to-day is an important event in the annals of American Science, and one from which great results are sure to follow. We see around us, here, already, treasures of nature from every land, and representing all periods of the earth's history. Not merely a few typical specimens, as in most new museums, but rich series, illustrating the marvellous diversity of Nature, both in the present and in the past. Such treasures, arranged with system, and to the best advantage, as here, arrest the attention of every observer, and invite study. This alone is a grand work accomplished, and yet we are told, this is but the beginning.

The great Museums of the world are in the great cities; and it is fitting that New York, one of the few great centers of culture, should at last take her proper place in Science, and found a Museum, worthy of herself, for the diffusion of knowledge among her citizens. But there is something higher



than the diffusion of knowledge to strive for here, and that is the increase of knowledge. The old idea of a Museum was a show-room; the modern idea makes it a workshop, as well. If this institution is to hold high rank in Science, as we hope, it will not be in consequence of the spacious halls before us, crowded though they be with the rarest of Nature's products: but, rather, it will come through the small workrooms in the attic, where the naturalist, with microscope or scalpel, has patiently worked out discoveries that add to the sum of human knowledge. This Museum will fail of its highest good, fail even to achieve more than a local influence, unless the workrooms above are made the most important feature of the whole. These vast collections will spread the elements of Natural Science among the people of New York, and the surrounding region; but the quiet workers in the attic, who pursue Science for its own sake, will bring the Museum renown throughout the world.

There is yet a more important reason for making this institution a center for original research. The science of to-day stands face to face with great problems. The antiquity of Man; the origin of the human race; and even the origin of Life itself, are among the questions which the present age submits to science, and to which it demands an answer. If these problems are to be solved by Science, America must do her full share of the work, for the materials are here. In all that pertains to ancient life, the Western Continent possesses countless treasures, unknown in other lands. These, as I believe, are to unlock many mysteries in Biology, and render important aid toward the solution of the profounder questions I have named. American Science can thus repay its debt to the Old World, where science began, and gathering new facts, from broader and richer fields within her own borders, carry forward, with the vigor and enthusiasm of youth, the never-ending search for Truth.

If the American Museum of Natural History, opened to-day under such favorable auspices, does not take a prominent part in this great work, it will not do justice to its founders, or to its opportunities. But with such a foundation as we have

here, and such resources as wait to unfold their secrets within walls yet to be reared on this commanding site, I venture to predict for Natural Science in America greater triumphs than have hitherto been won in any land.

## APPENDIX.

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### Eighth Annual Report, 1876.

The Hall Collection, which was purchased last year, has all been safely received and is now securely stored in the new building, in a room specially prepared for this purpose by the Department of Public Parks. The locality and geological formation of each individual specimen were carefully identified by Prof. Hall. The whole collection had been so distinctly labelled when it was gathered, and had been preserved with such scrupulous care that this great labor progressed rapidly notwithstanding its magnitude.

The donations to the Museum during the past year have been numerous, and of especial value. The principal nations of the world, and most of our own States, displayed at the International Exhibition, at Philadelphia, collections illustrating their mineral wealth and other natural resources. The central location of our institution, at the commercial metropolis of the nation caused these exhibitors to be desirous that their specimens, gathered at great labor and expense, should be displayed in New York, where they would be placed on exhibition, and always seen by the great number of visitors who frequent our halls from all parts of our own country and from foreign lands.

The following Governments and States have presented portions of their exhibits: *Jamaica*, her entire exhibit containing a rich display of her tropical woods; *Bermuda*, her woods; a part of the woods of *Brazil*, the *Argentine Republic*, *Mexico*, the *Hawaiian Islands*, and *Turkey*; minerals from the Governments of *Canada*, *Spain*, *Brazil*, *Tasmania*, and *New Zealand*. Minerals and building stones from

the following States: Maine, Pennsylvania, Ohio, Kentucky, Indiana, Michigan, Tennessee, Virginia, and California; 21 boxes of iron ores from the Hanging Rock region, through Messrs. Traber & Aubrey, Cincinnati; a series of the iron ores smelted by the Lackawanna Coal and Iron Co.; a specially selected collection of the minerals of Missouri, from M. S. Mephram & Bro., St. Louis; three cases, 10 feet high, displaying the coal and iron wealth of the lands along the route of the South and North Alabama R. R. Co., through Prof. Gesner, and 300 carefully prepared skins of the birds of the Pacific Coast, from the Woodward Gardens, San Francisco. From *Japan* has been received all her exhibit of building stones, rocks, ores, and clays, and one-half of her woods in exchange for duplicates of our Mammals.

A series of the fishes collected by Prof. Agassiz, on the Hassler Expedition, has been received from the Museum of Comparative Zoology, Cambridge. The Anthropological Department has been presented with an important series of pottery and stone implements from the mounds of Mississippi, by Prof. Whitfield, of Clinton.

To the Library has been added by donation the Reports of the Geological Surveys of Michigan, Indiana, and Ohio, and through the Smithsonian Institution the publications of many foreign societies.

## ARRANGEMENT OF THE COLLECTIONS

### Exhibited at the Opening of the New Building.

December 22d, 1877.

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#### THE BUILDING.

The building now completed is one section of a plan that can be extended until it occupies the entire area of Manhattan Square, which contains  $18\frac{1}{4}$  acres. A photographic copy of the ground plan is displayed on the right hand side entrance, showing that marginal park-like areas border the structure upon the outside, and within are four open courts; also a map indicating the relative position of the square to the Central Park, and the approaches proposed, in order to make it accessible from the region of the Lake.

This building has been erected by the City, and the collections displayed are purchased by private subscriptions, and are the property of the Museum.

Each hall is 170 feet long by 60 wide, inside the walls. The lowest story is 18 feet high; the second, or principal story, including the gallery, is 30 feet; the upper story 22 feet, and the mansard story 16 feet in height.

On the left hand side of the entrance are plans of the new Museum of Natural History, now in process of erection by Her Majesty's Government at South Kensington, London, and beneath it a plan of the British Museum, the red line indicating the boundary of our square on the same scale.

#### COLLECTIONS EXHIBITED IN THE LOWER STORY.

The desk cases ranged through the middle of the lower hall are filled with the Jay collection of Shells, presented by Miss C. L. WOLFE, as a memorial of her father, the first President of the Museum. Passing to the northern end of the room, we come to a group mounted by Prof. WARD, of Rochester, consisting of a Camel from Armenia, a Moose from Nova Scotia, and a Wapiti from the Rocky Mountains.

## ECONOMIC DEPARTMENT.

*On each side of the northern door, three cases being an actual geological section along the route of the South and North Alabama Railway Company.*

**Case A.** contains Building Stones from Japan, and Marbles from Ireland, Italy, and Vermont. The desk-case next in order is filled with exquisite Wax Fruits from the Iowa Horticultural Society.

**Case C.** (Panels 1 to 10): Woods from Japan. (11-13): Woods from Bermuda.

**Case D.** (1-3): Woods from Bermuda. (4-10): Woods from Jamaica. (11-13): Woods from America.

## MAMMALS.

**Case F.** (2): Wild Buffalo from the forests of the Czar in Lithuania. (6-8): Seals and Manatee.

**Case F.** Male, Female, and Young of American Buffalo, mounted by WARD.

**Case G.** (2): Llama from Peru. (6 and 7): Big Horn Sheep from Rocky Mountains. (8): Ram from Morocco.

**Case H.** (1 and 3): Caribou or American Reindeer. (7): Albino Deer, Alps. (8): Fallow Deer, Europe.

**Case F.** (2): Chamois, Alps. (6-10): Antelopes, Africa.

**Case F.** (1-4): Larger Deer from Siam. In front, African Antelopes.

**Case L.** Old World Monkeys.

**Case M.** New World Monkeys.

**Case N.** The Cat Family. (3): Siberian Tiger. (6-8): Lion from Barbary. This and most of the Animals in the hall were mounted by EDWARD VERREAUX, of Paris.

**Case O.** (1 and 2): Civet Cats. (3): Ichneumons. (6 and 8): Grizzly Bear, formerly kept alive in the Park Menagerie. (11): Coatimundis. (12 and 13): Skunks and Weasels.

**Case P.** (1 and 2): Sloths and Armadillos. (3): Otters. (4-8): Dogs and Wolves. (10-13): Bats.

**Case Q.** (1): Rats and Mice. (2): Rabbits, and on lower shelf, Chinchillas. (4): Marmots. (6-8): Upper shelves, Flying Squirrels; lower shelves, Porcupines. (10-13). Squirrels.

**Case R.** Marsupials.

**Case T.** Pigs; and in center, Malay Tapir.

## SECOND FLOOR OR PRINCIPAL HALL.

### BIRDS.

**Case A and Case B.** (1-4): Systematic collection of Birds and their skeletons illustrating the Families and Sub-Families of the classification adopted (that of Professor LILLJEBORG, of Upsala, Sweden), from the Thrush to the Penguin.

**Case B.** (6) Commence ELLIOT collection of North American Birds, the Sub-Family genus and species, and its common names are shown on the labels. This collection fills also Cases C, D, E, and F.

**Case G.** Humming Birds, nearly all from Central and South America.

**Case H.** Commences Birds of South and Central America. Verreaux and Maximilian collections fills Cases H, I, J, K, and L.

**Case H.** (7): Lower shelf, Cock of the Rock. (8): Middle and lower shelves, Chatterers and Bell Birds. (10): Middle shelf, Umbrella Birds.

**Case I.** (1): Lower, and (2): Top, Great Macaws of Brazil and Amazon Valley. (3 and 4): Toucans. (6): The Trogons, with plumage of green and gold and scarlet, and below Jacmars, in bronze tints. (10): Night Hawks.

**Case J.** (4): Condors from Andes.

**Case K.** (1 and 2): Curasows.

**Case L.** (2): Middle shelf, Spur-Winged Screamer. (3): Scarlet Ibises.

**Case M.** Commences Birds of Europe and Asia, which fills N, O, P, and Q.

**Case N.** (8-13): Pheasants.

**Case O.** (1 and 2): Pheasants and Peacocks.

**Case P.** (7): Lower shelf, Hornbills.

**Case Q.** (8): Two-Tailed Starlings. (12): Pittas.

**Case R.** Birds of Africa; also in S and F.

**Case R.** (7): Adjutant Storks.

**Case S.** (4): Bee-eaters. (5 and 6): Plantain-eaters. (7): Hornbills.

## GALLERY.

## ARCHÆOLOGICAL DEPARTMENT.

**Cases A, B, C and D.** Collection of the Implements of the Pacific Islanders, deposited by Mrs. E. E. STURGIS.

**Case A.** Spears and Lances.

**Case B.** Masks from Solomon Islands, used in religious ceremonies.

**Case C.** Elegantly carved War Clubs.

**Case F. and G.** Indian Dresses and Weapons.

**Case H.** Porto Rico Collars and Stone Axes, and Peruvian Antiquities and Pottery.

**Case I.** (1 and 2): Mexican. (3 and 4): Georgia Pottery.

**Case J.** Skulls from Maryland, Skeleton from Cave in Kentucky, and rude stone implements from Goshen, N. Y., presented by D. J. STEWART, Esq.

**Cases K, L, M, N and O.** Skeletons.

**Cases P, Q, R, S and T.** Birds from Australia and Pacific Islands.

**Case T.** (3): Birds of Paradise.

**RAILING CASE.** North and most of west side, DE MORGAN collection of Stone Implements from the Valley of the Somme, in the northern part of France. This collection, which is deposited by the President of the Museum, is regarded as the most complete of its kind, except that of BOUCHER DE PERTHES at Abbeville. Then follow on the west side collections from the "Swiss Lake Dwellings," the BEMENT series, representing the Stone Age of Denmark, and specimens from various parts of our own country. South side, SQUIER & DAVIS' collections from the Mississippi Valley. On the east side, specimens from Porto Rico, South Carolina, part of the DE HAAS collection, deposited by Mr. D. J. STEWARD, and the large and choice collection made by Col. CHAS. C. JONES, Jr., of Georgia, described and figured in his "Antiquities of the Southern Indians."



## UPPER OR THIRD FLOOR.

## JAMES HALL COLLECTION.

**Case A.** (3 and 4): Geological Map of New York State, and illustrating the classification generally adopted. Below are volumes published by the State Survey, and most of the specimens figured in them are on exhibition in the Hall, and are indicated by green tickets, as an illustration of the scientific importance of this collection.

**Case B.** (1-4): And adjoining Table Case contains 200 out of about 250 existing types of the Potsdam in America. The Cases are filled with specimens illustrating the various formations, as follows:

**Case B.** (6 and 7): Calciferous. (8-10): Canadian. (11-13): Birds-Eye, Black River.

**Case C.** (1-7): New York Trenton. (8-13): Western Trenton.

**Case D.** (1-2): Utica, State. (3): New York, Hudson River. (4-10): Western, Hudson River. (11): Medina Sandstone. (12 and 13): Clinton.

**Case E.** (1 and part of 2): Clinton. (2-9): The New York Niagara. (10): Coraline. (11-13): Niagara of Indiana.

**Case F.** (1-6): Western Niagara. (7 and 8): Guelph and Onondaga Salt. (10-13): Lower Helderberg.

**Case G.** (1 and 2): Remainder of Lower Helderberg. (3 and 4): Oriskany Sandstone of New York. (5 and 7): Oriskany Sandstone of Maryland. (8-10): Schoharie Grit. (11-13): Corals of the Upper Helderberg.

**Case H.** (1-10): Upper Helderberg. (11-12): Marcellus Shales. (13): Hamilton Plants.

**Cases I, J, and K** contains Fossils of the New York Hamilton group.

**Case L.** (1 and 2): Western Hamilton. (3): Tully Limestone. (4): Genesee Slate. (5-7): Portage. (8-13): Chemung.

**Case M.** (1-7): Chemung. (8-10): Catskill. (11-13): Waverly.

**Case N.** (1): Waverly. (2 and 3): Burlington Division of the Lower Carboniferous. (4-11): Keokuk Division. (12-13): Warsaw Division.

**Case O.** (1): St. Louis Division. (2 and 3): Chester Division. (4-13): Plants of the Coal Period.

**Case P.** (1-3): Other Fossils of the Coal Period. (4): Fishes of the Triassic Rocks of the Connecticut Valley, presented by President R. L. STUART.

(5-9): Fishes from the same, from HALL's collection. (10): Fossil Tracks, presented by R. L. STUART, Esq. (11-13): Cretaceans from the Atlantic States.

**Case Q.** (1 and 2): Cretaceans from the Upper Missouri region, collected by MEEK and HAYDEN. (3-12): Eocene Tertiary, from various localities. (13): Miocene.

**Case R.** (1-6): Vertebrate remains from the Upper Missouri. (7): Post Pleiocene, from Lake Champlain. (8-13): Collection of European Fossils, embracing Primordial to Carboniferous.

**Case S.** (1-2): Saurian remains from the Liassic of England. (2-3): Jurassic and Cretaceous Fossils, from Europe. (4): Cretaceous and Tertiary Collections, from various sources. (5-9): Pleiocene and Post Pleiocene collection of South Carolina (HOLMES' collection), containing many types and figured specimens forming the basis of Tuomey and Holmes' on South Carolina. (10): Cretaceous and Liassic Fossils, containing some large Ammonites. (12-13): Eocene Fossils, from the Paris Basin Beds of France. (18): Plants of the Miocene Formation of Switzerland.

**Case T.** Fossil Birds from New Zealand, and a collection of Fossils and Minerals, illustrating the geology of Yesso, Japan. The Table Cases contain Fossils from the various formations represented in the Upright Cases, near which they are placed, except the two and a half on the west side, and near the north end, the first of which is filled with Vertebrate remains from HOLMES' collection, and the others with a special collection of Brachiopoda, from various formations in Europe.

## THE ATTIC STORY.

The attic story is divided into a series of work-rooms for scientific men, who are carrying on original researches. The first room on the right is the Library, and contains the conchological works gathered by Dr. JOHN C. JAY, and presented to the Museum by Miss C. L. WOLFE.