

# THE AMERICAN MUSEUM OF NATURAL HISTORY

EDUCATION EXPLORATION RESEARCH and PUBLICATION



ANNUAL REPORT FOR THE YEAR 1917

NEW YORK
Issued May 1, 1918



### THE AMERICAN MUSEUM OF NATURAL HISTORY

#### INCORPORATED IN 1869

"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"

#### BY

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. PHELPS DODGE
CHARLES A. DANA
JOSEPH H. CHOATE

HENRY PARISH



#### **MEMBERSHIP**

There are more than four thousand members of the Museum, residents of the United States and other countries, who support its educational and scientific work and enjoy its lectures, publications and other privileges. The number of Members in each class is as follows:

Associate Members		363	Patrons		113
Annual Members .	. 2	2,880	Associate Benefactors		21
Sustaining Members		80	Associate Founders		11
Life Members		717	Benefactors		5
Fellows		41	Founder		1

Full information regarding membership will gladly be furnished by the Secretary.

#### MEMBERSHIP FEES

Associate Members			Life Members .	. \$100
(annually)		\$3	Fellows	. 500
Annual Members			Patrons	
(annually)		10	Associate Benefactors	. 10,000
Sustaining Members			Associate Founders	. 25,000
(annually)		25	Benefactors	. 50,000

#### **ENDOWMENT**

The Endowment Fund was established in 1884. The Trustees especially desire to insure the permanent growth and welfare of the Museum through an increase of the General Endowment Fund.

#### FORM OF GIFT OR BEQUEST

I	do	here	by g	ive	and	bequea	th to	"Ті	HE A	MER	ICAN
Mu	SEU	M OF	NA	TUR	AL .	Histor	Y" o	fthe	City	of	New
Yor	k,										







THE HONORABLE JOSEPH HODGES CHOATE
Founder and Trustee of The American Museum of Natural History 1869-1917

#### FORTY-NINTH ANNUAL REPORT

OF THE

TRUSTEES

OF

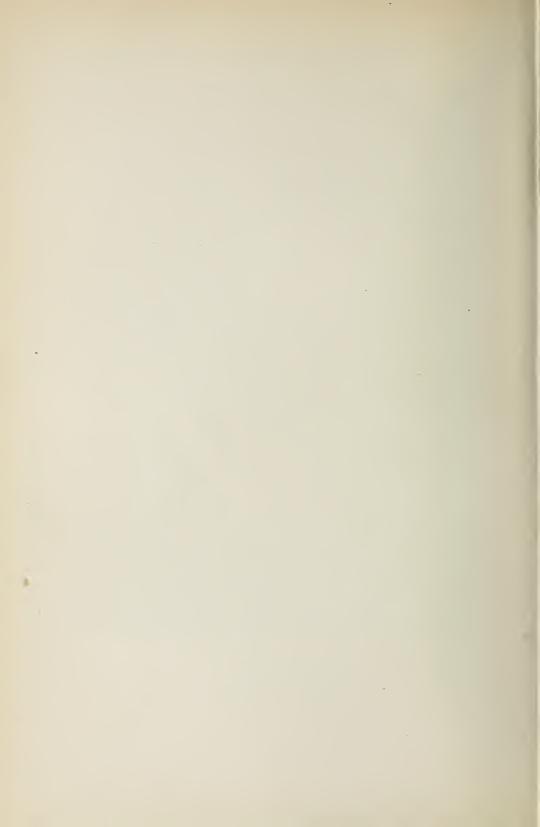
## THE AMERICAN MUSEUM OF NATURAL HISTORY

For the Year 1917.



# FOR THE FREE EDUCATION OF THE PEOPLE FOR EXPLORATION, RESEARCH AND PUBLICATION

NEW YORK
Issued May 1, 1918



#### CONTENTS

						P	AGE
Membership							3
Membership Fees							3
Endowment							3
Form of Gift or Bequest							3
BOARD OF TRUSTEES	٠						12
COMMITTEES OF THE BOARD OF TRUSTEES							13
Administrative Officers of the Museum							14
SCIENTIFIC STAFF							15
Report of the President							17
Additional Endowment Needed							18
Cost of School Work							19
Patriotism and Public Education							19
Service of Joseph H. Choate							20
The Tax on Education							20
War Service of Staff							24
National Service	Ċ		Ċ			Ċ	24
Liberty Field Hospital Unit Model							26
Exploration and Research							26
Arctic America			Ċ	Ċ			26
North America and Antilles		,					27
South America							28
Asia							29
Africa							30
African Hall							31
Polynesia and the Philippines							3 I
Membership and Staff							32
Service of Joseph H. Choate							32
Service of Anson W. Hard							34
Service of Louis P. Gratacap							34
Appointments and Promotions	٠						35
Public Activities of the Staff							37
Welfare of Employees							39
Liberty Loan Subscriptions							39
Hospitality to Societies							40

#### Contents

					PAGE
Building and Equipment					42
Case Construction and Equipment			•		42
Special Gifts and Acknowledgments					42
C M					
		•	•		45
-					45
					45
New Exhibits					46
Printing and Labeling					47
					47
Care of Building and Equipment					48
Attendance					48
Statistics of Numbers Reached by the Museum	and	Its	Exter	ision	
Educational System					49
The state of the s					
REPORTS OF THE CURATORS					51
Public Education in the Museum and in the Schools					51
Y. M. C. A. War Work					52
Circulating Collections					53
Public Health Charts					
Comparative Statistics Relating to the Circulating	Coll	ectio			
Past Seven Years					
PR					
Lending of Lantern Slides					
Lectures to School Children					56
0 "					
Docent Service					
					_
					-
Changes in Staff					
Acknowledgments					
					33
Geology, Geography and Past Life on the Earth .					59
Work in the Arctic					59
To the state To the state of th					60
Plan of Arrangement of Exhibits					60
Exhibition Hall					60
D					61
Grand Canyon Model					61
Card Catalogue					61
Meteorite Collection					61
Important Accessions					
Fifth Floor Extension					

	Ca	m	ten	ts											9
Winnest and Com-															AGE
Minerals and Gems Biographical Sketch of Louis															62 62
Annual Report of Curator C		-			-										64
Timual Report of Garator C	n a ta	ıcaı	,	•	•	•	•	•	•	•	•	٠	•	•	04
Woods and Forestry			•	•		•			•	٠	•	٠	٠	•	67
Murals	•	•	•		•	•	•	٠	٠	٠	٠	٠	٠	٠	67
Exhibits						•	٠	٠	٠	٠	٠	٠	٠	٠	67
Staff			•	•	•		•		٠	٠	٠	٠	٠	٠	68
Existing Invertebrates															68
															68
Research and Publication															68
Shell Collections										·					69
General Invertebrate Colle		ns													-
Insects and Spiders													Ĭ.		71
Accessions												·			71
												•	•	•	/ -
Recent and Extinct Fishes; Ex	istin	g I	Rep	iles	an	d ]	Batı	acl	iiar	ıs		٠	٠	٠	72
Fishes		•	•	•		•		•	٠	•		٠		٠	72
Fishes						•					٠		٠		72
Study Collections													٠	٠	73
Field Work															73
Research and Publication															73
Economic Ichthyology .															74
Reptiles and Amphibians .															75
Accessions and Exchanges															75
Research and Publication															76
Exhibition															77
Mammals and Birds															80
Accessions	٠	•	•	•	•	•	•	•	٠	٠	•	٠	•	•	80
	•	•	•	•	•	•	•	•	•	٠	٠	•	•	•	81
_		•	•	•	•	•	•		٠	•	•	٠	٠		
Study Collections		•		•	•	•	•	•	٠	•	٠	٠	٠		83
	•		•	•	•	•	•	٠	•	٠	٠	٠	٠		83
Research and Publication	•	•	•	•	•	•	•	•	•	٠	٠	٠	٠	•	84
Extinct Vertebrates															86
New Dinosaur Exhibits .															86
Moropus Skeleton										`.					87
Fossil Camels															87
Skeleton of a Glyptodont															87
Mural Paintings															87
A New Mastodon Skeleton	n														88
The Oldest Tertiary Man	ımal	s													88
Research Work															88
															0 -
Existing and Extinct Races of									•	•			٠		-
Acquisitions											٠				_
Exhibition and Study Col											•			•	-
Habitat Groups and Mura	IS	•				•			•	•		•		•	91

10 Contents

															I	AGE
	Field Research															92
	Research in the Museum															93
	Public Lectures															93
	Publications															93
A	natomy and Physiology .															94
Р	ublic Health															05
	General War Activities .															
	Other Services of Staff i															96
	Present Status and Futu															_
	Insect Exhibit															97
	Need for Exhibition Spa															98
	Bacteriological Museum															
<i>(</i> 1)																
1	he Library	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	99
P	ublications															101
	Technical Publications .															101
	Popular Publications .															101
Gene	RAL SUMMARY															105
E	wana Marampara yan Er	TD 01			_											
LINA	NCES, MAINTENANCE, E	וטעוי	V 1VI	- T	L 2		•	•		•	•	•	٠	٠	•	107
	Establishment of Morris															
	Comparison of Receipts															107
	Receipt by Check Endor															107
	Endowment and Investm															
	City Maintenance Accou												•			109
	Trustees' General Accou															109
	Special Funds Account .										٠					
	Crocker Land Expeditio										٠					
	Corporate Stock Accoun															
	Museum Building Fund															
	Pension Fund Account.	•	•	٠	٠	•	٠	٠	٠	٠	•	•	•	٠	٠	III
F	inancial Statement		٠	٠	٠	•	٠	٠	•	٠	٠	٠	•	٠		113
Мем	BERSHIP															131
	Privileges of Members .															131
	Lectures to Members .															131
	Lectures for the Children															
	Special Lectures															133
	Status of Membership .															
	New Members															
	Deceased Trustees and I															
	_ could a rustees and r				·	•	•	•		i	i	•		i		- 50
T ran	OF TRUSTEES AND TERM		- C													
LIST	OF TRUSTEES AND TERM	SOL	. 3	ERV	CE											T 27

				C	on	ter	ıts											11
I tor of	Members																	AGE
LIST OF	Founders	•	•	•	•		•				•	•	•	•	•	•		139
	Benefactors			٠	•		•		•	•	•	•	٠		٠	•		139
	Associate Founders							•	•	٠	•	٠	•	٠	•	•		139
	Associate Benefacto			•					•	٠		٠	٠	•	•	•		140
	-					•	٠	٠	•	•	•	٠	٠	•	٠	٠		140
	- ·		•	•	•		٠		•	٠	٠	٠	•	٠	•	•		-
	Fellows Honorary Fellows			•	•		•	•	•	٠	•		•	•	•	•		143 144
	Life Members .		•	•	•	•	•	٠	٠	•	•	•	٠		٠	•		
	Sustaining Member		•	•	•	•	•	•	•	٠	٠	٠	•	•	•	•		144
	Annual Members	S	•	•	•	•	٠	•	•	•	•	•	•	٠	•	•		156
		•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠		157
	Associate Members		•	•	•	•	•	٠	•	٠	٠	•	٠	٠	٠	•	•	180
List of	Accessions .																	185
	Public Education	•		i	Ċ				•	·		·	Ī	·		Ċ		185
	Geology and Invert				eon				•	•	•	·			·	Ċ		186
	Mineralogy										·	·			·	·		186
	Woods and Forestr									Ċ		Ċ	Ċ					188
	Invertebrate Zoölog									•				•	•	•		188
	Ichthyology and He											·						192
	Mammalogy and O	_													·			194
	Vertebrate Palæont											·	·		•			198
	Anthropology .	_									•	٠	·		·			198
	T **										•	•	•		•			201
	Tubic Health .	٠	•	•	•	•	•	•	٠	٠	•	•	•	٠	•	٠	•	201
Аст оғ	INCORPORATION																	203
																		_
Contra	CT WITH THE DE	PAR?	ΓМ	EN.	0.	F F	AR	KS										205
~																		
Consti	TUTION						•			٠	٠			٠			٠	211
By-Lav	I.C																	
DY-LA	ns		•	•	•	•	•	•	•	٠	•	•	•	•	•	•	٠	217
LEGISLA	ATION														:			220
	•								•									
Fifth .	ANNUAL REPORT	F 1	H	P	EN	SIO	n I	30 <i>A</i>	RD									223
	Financial Statement	of	the	Pe	nsi	on	Fur	h										235

### BOARD OF TRUSTEES FOR 1918

#### President

#### HENRY FAIRFIELD OSBORN

First Vice-President
CLEVELAND H. DODGE

Second Vice-President J. P. MORGAN

Treasurer
HENRY P. DAVISON

Secretary ADRIAN ISELIN

#### **EX-OFFICIO**

JOHN F. HYLAN
MAYOR OF THE CITY OF NEW YORK

CHARLES L. CRAIG COMPTROLLER OF THE CITY OF NEW YORK

WILLIAM F. GRELL PRESIDENT OF THE DEPARTMENT OF PARKS

#### ELECTIVE

#### Class of 1918

A. D. JUILLIARD ARCHER M. HUNTINGTON CLEVELAND H. DODGE FELIX M. WARBURG HENRY C. FRICK

Class of 1919

HENRY FAIRFIELD OSBORN JAMES DOUGLAS GEORGE F. BAKER

#### Class of 1920

PERCY R. PYNE J. P. MORGAN ARTHUR CURTISS JAMES JOHN B. TREVOR WALTER B. JAMES

#### Class of 1921

CHARLES LANIER R. FULTON CUTTING FREDERICK F. BREWSTER WILLIAM AVERELL HARRIMAN

#### Class of 1922

ADRIAN ISELIN OGDEN MILLS
THOMAS DEWITT CUYLER MADISON GRANT
HENRY P. DAVISON

## COMMITTEES OF THE BOARD OF TRUSTEES FOR 1918

#### **Executive Committee**

J. P. MORGAN, Chairman
HENRY FAIRFIELD OSBORN, Ex-officio
FREDERICK F. BREWSTER ADRIAN ISELIN
HENRY P. DAVISON ARTHUR CURTISS JAMES
CLEVELAND H. DODGE A. D. JUILLIARD
OGDEN MILLS

#### **Auditing Committee**

FELIX M. WARBURG, Chairman THOMAS DEWITT CUYLER WILLIAM AVERELL HARRIMAN

#### Finance Committee

HENRY P. DAVISON, *Chairman*GEORGE F. BAKER R. FULTON CUTTING
HENRY C. FRICK

#### Nominating Committee

PERCY R. PYNE, *Chairman*R. FULTON CUTTING MADISON GRANT

#### Committee on Building and Plans

PERCY R. PYNE, Chairman
HENRY FAIRFIELD OSBORN, Ex-officio
MADISON GRANT FELIX M. WARBURG
WALTER B. JAMES WILLIAM F. GRELL, Commissioner of Parks

#### Committee on Pensions

FELIX M. WARBURG, Chairman
ADRIAN ISELIN WALTER B. JAMES
PERCY R. PYNE

Advisory Committee on Mural Painting, Decoration, Sculpture and Architecture

EDWIN H. BLASHFIELD DANIEL C. FRENCH BRECK TROWBRIDGE

## ADMINISTRATIVE OFFICERS OF THE MUSEUM

FOR 1918

Director

FREDERIC A. LUCAS

Assistant Secretary
GEORGE H. SHERWOOD

Assistant Treasurer
UNITED STATES TRUST COMPANY OF NEW YORK

Bursar FREDERICK H. SMYTH

Superintendent of Building

J. B. FOULKE

Chief of Construction
H. F. BEERS

Registrar

GEORGE N. PINDAR

Chief Engineer

H. J. LANGHAM

#### SCIENTIFIC STAFF

FOR 1918

#### DIRECTOR

Frederic A. Lucas, Sc.D.

#### GEOLOGY AND INVERTEBRATE PALÆONTOLOGY

EDMUND OTIS HOVEY, Ph.D., Curator CHESTER A. REEDS, Ph.D., Associate Curator of Invertebrate Palæontology

#### MINERALOGY

Curatorship vacant

#### WOODS AND FORESTRY

MARY CYNTHIA DICKERSON, B.S., Curator BARRINGTON MOORE, M.F., Associate Curator

#### INVERTEBRATE ZOÖLOGY

W. M. Wheeler, Ph.D., Honorary Curator Henry E. Crampton, Ph.D., Curator Roy W. Miner, A.B., Associate Curator Frank E. Lutz, Ph.D., Associate Curator A. J. Mutchler, Assistant Willard G. Van Name, Ph.D., Assistant Frank E. Watson, B.S., Assistant

#### ICHTHYOLOGY AND HERPETOLOGY

Bashford Dean, Ph.D., Honorary Curator John T. Nichols, A.B., Assistant Curator of Recent Fishes Mary Cynthia Dickerson, B.S., Associate Curator of Herpetology

#### MAMMALOGY AND ORNITHOLOGY

J. A. Allen, Ph.D., Curator
Frank M. Chapman, Sc.D., Curator of Ornithology
Roy C. Andrews, A.M., Associate Curator of Mammalogy
W. DeW. Miller, Associate Curator of Ornithology
H. E. Anthony, B.S., Assistant in Mammalogy
Herbert Lang, Assistant in Mammalogy
James P. Chapin, A.M., Assistant in Ornithology
Leo E. Miller, Assistant in Ornithology

#### SCIENTIFIC STAFF FOR 1918—Continued

#### VERTEBRATE PALÆONTOLOGY

HENRY FAIRFIELD OSBORN, Sc.D., LL.D., D.Sc., Honorary Curator W. D. Matthew, Ph.D., Curator Walter Granger, Associate Curator of Fossil Mammals Barnum Brown, A.B., Associate Curator of Fossil Reptiles William K. Gregory, Ph.D., Associate in Palæontology

#### ANTHROPOLOGY

CLARK WISSLER, Ph.D., Curator
PLINY E. GODDARD, Ph.D., Curator of Ethnology
ROBERT H. LOWIE, Ph.D., Associate Curator
HERBERT J. SPINDEN, Ph.D., Assistant Curator
N. C. NELSON, M.L., Assistant Curator
CHARLES W. MEAD, Assistant Curator
LOUIS R. SULLIVAN, A.M., Assistant Curator
LESLIE SPIER, B.S., Assistant
HERMAN K. HAEBERLIN, Ph.D., Assistant

#### ANATOMY AND PHYSIOLOGY

RALPH W. Tower, Ph.D., Curator Charles F. Herm, Assistant

#### PUBLIC HEALTH

CHARLES-EDWARD A. WINSLOW, M.S., M.A., Curator THOMAS G. HULL, Ph.D., Assistant

#### PUBLIC EDUCATION

GEORGE H. SHERWOOD, A.M., Curator G. CLYDE FISHER, PH.D., Associate Curator ANN E. THOMAS, PH.B., Assistant

#### BOOKS AND PUBLICATIONS

RALPH W. TOWER, Ph.D., Curator IDA RICHARDSON HOOD, A.B., Assistant Librarian

#### RESEARCH ASSOCIATES

M. D. C. Crawford, Textiles, Anthropology
Charles R. Eastman, Ph.D., Vertebrate Palæontology
W. Elmer Ekblaw, A.M., Geology
Alessandro Fabbri, Physiology
Geo. Bird Grinnell, Ph.D., Ethnology
George F. Kunz, Ph.D., Mineralogy
Charles W. Leng, B.S., Coleoptera
J. Howard McGregor, Ph.D., Anthropology
A. L. Treadwell, Ph.D., Annulata

#### FORTY-NINTH ANNUAL REPORT

To the Trustees and Members of The American Museum of Natural History, and to the Municipal Authorities of the City of New York:

The President has the honor to submit his eleventh Annual Report, the forty-ninth in the history of the Museum, in what he trusts will prove to be a new and more interesting form. It is important to emphasize the fact that the Museum is primarily an educational institution, local and national, and that all exhibition, study, research and exploration, as well as the accumulation of specimens and collections and of books in our library, are contributory to this chief end—the diffusion of light and learning for the advancement of true civilization.

The plan set forth last year, that the fiftieth anniversary of the foundation of the Museum, April 6, 1919, should be celebrated by the opening of two new buildings, the Court of Ocean Life and the Southeast Wing, facing Central Park, is deferred because of the new conditions of economy and of national service created by the war for liberty.

In view of the stringency of the city's finances, several Trustees and other friends of the Museum\* had offered to contribute \$618,008 for these new buildings; in fact, the building plan was announced (November 5, 1916), but on the declaration of war with Germany (April 6, 1917), it was deemed wise to postpone building until the conclusion of the war.

With the same patriotic purpose, the scientific staff of the Museum voted (February 19, 1917) to suspend all the explorations planned for the year and to organize the Museum immediately for national service. The entire scientific

<sup>\*</sup> Mr. George F. Baker, Mr. R. Fulton Cutting, Mr. Cleveland H. Dodge, Dr. James Douglas, Mr. George B. Hopkins, Mr. Archer M. Huntington, Mr. Adrian Iselin, Mr. Arthur Curtiss James, Mr. A. D. Juilliard, Estate of Helen C. Juilliard, Mr. Ogden Mills.

and administrative staffs, from the President down, at once enrolled and offered such service in expert advice, in scientific research and publication, and in personal enlistment as might forward the great cause. The activities of the year have thus been greatly modified: funds appropriated for exploration have been only partly used; research and publication have been increased on the part of the older men, and all the younger men have enlisted in some branch of national service, either in this country, in South and Central America, or in France. The best idea of the year's activities may perhaps be gained by the distribution of expenditures, which has been approximately as follows:

For maintenance, repair and care of the building and collections	\$305,000
For education in the public schools, high schools, colleges and in the Museum	15,250
For arctic exploration (rescue of the Crocker Land party)	72,000
For exploration (America), field salaries and expenses	40,000
For researches and studies on previous explorations and collections of the Museum	58,000
North America (birds, mammals and fishes) Antillean region (Porto Rico, Cuba, Lesser Antilles) South America (especially Colombia, Venezuela, Peru, Ecuador, Chile, Paraguay, Argentina and Brazil) Africa, especially the Congo region (birds, mammals, fishes) Polynesia and the Philippines	
For publications (scientific and popular) Bulletin, Memoirs, Journal, Handbooks, Annual Report	53,500
For exhibition and preparation for exhibition halls, salaries and materials	98,700

At the beginning of the year 1917, there was an estimated deficiency in the maintenance of the Museum of nearly \$60,000, due to the insufficiency of the City's appropriation.

Additional Endowment Needed Trustees. To place the Museum on a secure financial foundation, at least \$1,000,000 additional endowment is needed for its annual operating and educational expenses.

An appropriation by the City of not less than \$15,000 annually is also needed to cover the large and increasing cost of public school educational work by the Cost of Museum. Between the years 1886 and 1904, School Work sums varying from \$18,000 to \$38,000 were appropriated annually by the State for similar work by the The Museum is at present carrying on much Museum. of the natural history work with the public schools and libraries of Greater New York; it has in circulation 712 loan collections which were distributed among 446 schools and were studied during the year by 1,075,076 school children. In connection with our natural history lectures in the schools, 63,111 lantern slides have been loaned to 84 schools, while 79,323 public school children have attended 103 lectures given for them by members of the Museum staff. With the aid of the Thorne Fund, instruction for the blind has included 31 lessons for blind children from the public schools. The Museum is prepared to provide the schools of New York from its unequaled collections of photographs, taken by its explorers in all parts of the world, which now number 46.565 negatives and 63,818 photographs. There is no large city in the world which offers such advantages to its school children in the study of the geography of land and sea, of insects, fishes, birds and mammals, and of all matters pertaining to public health.

#### PATRIOTISM AND PUBLIC EDUCATION

Two events of the year, wholly different in kind, have reminded us of the close connection between American patriotism and public education. The first is the death of that staunch supporter and exponent of public education, Joseph Hodges Choate; the second is the unprecedented action of Congress in putting a very heavy burden on education through taxing inheritances and bequests for educational purposes.

Our beloved and honored founder, Joseph Hodges Choate, bequeathed to us the inspiration of a life of intelligence, of fortitude and of patriotism, crowned by a final week of eloquent and forceful enunciation of the principles that should guide our country in this turning point in the world's history.\* In his distinguished service of forty-eight years to the Museum,

from its foundation in 1869, Mr. Choate has Service of left an enduring monument, through his sa-Joseph H. Choate gacity as a lawyer, his persuasive power with the State and City authorities, his broad-minded view of the influence of the Museum in education, his belief in Sunday opening, his power as a writer, and as a speaker on all the historic occasions of the first half century of the Museum's history. Intelligence, education, the diffusion of light and learning among the people, and confidence in the uplifting power of the teachings of nature were the guiding principles of Mr. Choate's life as a Trustee of the Museum. From the period of his interview with William M. Tweed in Albany, in 1869, which resulted in the incorporation of the Museum, to his masterful argument† of 1909 for freedom from political control, we find him as one of the four guiding spirits of the institution, the others being Albert S. Bickmore, J. Pierpont Morgan, and, above all, Morris K. Jesup.

Free public education has always been a distinctive feature of American civilization. The only education which is really *free* is that which comes from endowment and the voluntary contributions of citizens. All *public education*, so called, is by taxation of certain classes for the benefit of others.

On September 8, 1916, the Congress of the United States passed a law‡ taxing all bequests, legacies, devises and gifts for education, philanthropy and religion in equal measure with expenditures for industry and for luxury. This tax is without precedent in federal legislation, for a law imposing a similar tax during the Spanish-American War was almost immediately amended to exempt such bequests and gifts. Moreover, thirty-eight of the leading States of the Union have exempted educa-

<sup>\*</sup> Mr. Choate was chosen as the principal orator and spokesman of the United States and of the municipality at the various meetings and banquets with which the Commissioners of Great Britain and of France were received and welcomed by the municipality of New York, in May, 1917. A fuller notice of his great service to the Museum is presented in subsequent pages of this report and is embodied in the Memorial Volume written by the President and printed by order of the Trustees.

<sup>†</sup> This legal brief was prepared with very great care on January 18, 1909. It affects the management not only of the American Museum but of its sister institutions.

<sup>‡</sup> Amended March 3, 1917.

tion, philanthropy and religion, both from direct tax and from taxation on legacies, bequests and gifts. The existing federal tax law, to use the language of the President of one of our southern colleges, is a "staggering blow" aimed at the life of our educational institutions. The very first response in this country to the new world conditions created by the war came from the students and staffs of the great endowed institutions of education and science. Museums, universities, colleges, technological schools, technical schools, medical schools, training schools for nurses, and laboratories, all built up during the past two centuries by private bequests, legacies, devises and gifts, hastened to service in response to the call of President Wilson, giving the brains and energies of their best experts and offering the bodily service of their youth for actual warfare. It is no exaggeration to say that without this scientific knowledge and training, the high expert knowledge of chemistry, physics, mechanics and technology which the men trained in these great endowed institutions have been able to offer the country, America would have no chance whatever of materially affecting the outcome of this war. This war is eighty-five per cent. science and fifteen per cent. human courage and endurance.

By action of the Trustees of the American Museum, at a special meeting held May 22, 1917, the President was authorized to arrange for the Museum to join with other institutions in the formation of municipal and national committees, representative of educational, charitable and religious institutions, to urge upon Congress tax exemption of bequests and legacies for philanthropic purposes. President Henry Fairfield Osborn was elected Chairman, the Committee being organized as follows:

Jacob H. Schiff
Edward W. Sheldon
R. Fulton Cutting
Nicholas Murray Butler
Robert W. de Forest
William W. Niles
Cleveland H. Dodge
Morgan J. O'Brien
Lewis Cass Ledyard
Felix M. Warburg
Henry Fairfield Osborn

Hebrew Institutions
Libraries
Protestant Philanthropic Institutions
Columbia University
Metropolitan Museum of Art
New York Zoőlogical Society
Y. M. C. A. Institutions
Roman Catholic Institutions
New York Public Library
Hebrew Institutions
American Museum of Natural History

Through this Committee a General National Committee was organized representing endowed institutions in all parts of the United States, from Harvard University to the newest endowed colleges, together with religious and philanthropic institutions of all denominations, Hebrew, Roman Catholic and Protestant. With the concurrence of this General Committee, two measures were pressed upon Congress, as follows:

Amendment proposed by
Senator Henry L. Myers of Montana
Exempting from Federal Taxation

"All bequests, legacies, devises, or gifts to the United States, or to any State, or to any political division thereof, for exclusively public purposes, and all bequests, legacies, devises, or gifts for uses of a religious, literary, charitable, or educational character, or for the encouragement of art, or to societies for the prevention of cruelty to children."

Amendment by
SENATOR HENRY F. HOLLIS OF NEW HAMPSHIRE
Adopted October 3, 1917
Exempting from Federal Taxation

"Contributions or gifts actually made within the year to corporations or associations organized and operated exclusively for religious, charitable, scientific, or educational purposes, or to societies for the prevention of cruelty to children or animals, no part of the net income of which inures to the benefit of any private stockholder or individual, to an amount not in excess of fifteen per centum of the taxpayer's taxable net income."

The following is part of a Memorial sent to the Sixty-fifth Congress:

As representatives of the free public educational and philanthropic institutions of the City of New York, which are in close touch with a population of 6,000,000, we regard a national inheritance tax which will in any way diminish the bequests and gifts to education, philanthropy and religion as a direct blow at one of the finest and strongest elements of American life—namely, education and public welfare through individual initiative, management and contribution.

More than three-fourths (\$3,742,647) of the income of the higher educational institutions of this City is derived from private benefactions, as against less than one-fourth (\$1,076,795) derived from public taxation. To the annual income for higher education from bequests and gifts should be added the combined annual contributions to the educational museums and public libraries of New York, namely, \$1,864,600.

In the United States, for the entire field of college, university and technological education only, the annual income (1914–1915) from private benefactions is \$36,842,421, as compared with \$38,061,768 from taxation (see Report of United States Commissioner of Education, 1916). In other words, the income from private endowment is equal to the income from public taxation. We believe this is entirely without parallel in any country.

Great individual contribution to education and philanthropy is a peculiarly American custom, which will be fostered and encouraged by wise governmental taxation and retarded by unwise or hostile legislation. Whatever new burdens we have to carry in order to support this great struggle for humanity, liberty and justice, let these burdens fall as lightly as possible upon education, philanthropy or religion, which are the mainsprings of our national life. At best they will undoubtedly suffer from the burdens of necessary taxation, and that these burdens may not be carried to the point of the reduction or elimination of such gifts, we urge that the present law be amended to exempt such bequests, legacies and gifts.

In this connection we point out that American opinion as embodied in the enactments of thirty-five States is practically unanimous in favor of such exemption.

The Hollis Amendment was especially supported by a Committee representing Columbia University, headed by Professor Samuel McCune Lindsay. The Hollis Amendment was approved by the Finance Committee of the United States Senate, and by the Ways and Means Committee of the House of Representatives, and was adopted by both Houses. Thus one very important result was secured, namely, that gifts for educational and philanthropic purposes to the extent of fifteen per cent. of income are exempt from taxation. It is extremely important

that the Myers Amendment, or a measure of equivalent purport, shall be adopted by the Sixty-sixth Congress.\*

#### WAR SERVICE OF STAFF

When war seemed imminent, the scientific staff of the Museum organized for service, the older men for scientific work along various lines, the younger men for actual enlistment, the women for coöperation with the Red Cross and Hospital Supply Service.

The Museum has an honor roll of thirty-three employees in active service, including a number who have graduated from the Plattsburg camps.

Mr. Henry P. Davison, the Treasurer of the Museum, was appointed Chairman of the Red Cross War Council by President Wilson, and has rendered distinguished service to this country; Dr. Bashford Dean, Curator Emeritus of the Department of Ichthyology and Herpetology, was appointed Major in the Bureau of Ordnance, and his expert knowledge of armor is yielding important results; Dr. Frank M. Chapman, Curator of Ornithology, has left the Museum for the present, to serve as Director of the Bureau of Publications of the American Red Cross; Dr. Henry E. Crampton, Curator of the Department of Invertebrate Zoölogy, served as organizer and later as Vice-Chairman of the Committee on Engineering and Education of the Advisory Commission of the Council of National Defense, since its formation thirteen months ago; Curator Winslow was a member of the American Red Cross Mission to Russia, of which Dr. Frank Billings was the Chairman; Captain Barrington Moore, Associate Curator of the Department of Woods and Forestry, went to France last June and is head of one of the forestry divisions of the American service in France; Dr. Thomas G. Hull, of the Department of Public Health, has been called to Washington as Chief of the Division of Exhibits of the United States Food Administration.

The women organized into the American Museum War Re-

<sup>\* &</sup>quot;The strongest possible pressure should be brought to bear upon the Congress to take similar action now and to exempt, without delay, from the operation of the federal estate tax law, legacies and bequests to educational, philanthropic, and religious institutions." (Annual Report of President Butler, Columbia University in the City of New York, for 1916-1917.)

## The American Ouseum of Datural History Tuthe Service of Our Country

Mante -

Henry & Crampton Laurence Ferri Barrington Moore Charles L Camp Carlos D Empie John J. Finn Score on John J. Tinn
Scorge M. Mackenzie
Frank M. Chapman
Charles & A. Minslow
Henry Miof
Howarth & Boyle
Charles A. Councily
Albert J. Nefly
Mussell & Matthew
Webert Marsen
Hand & Justian Notert Marseli
Marol & Anthony
James W. Chapin
Gulder Striscom
Es & Miller
Sastiford Nean
Joseph & McSarty
William W. Themeyer
Harol K. Decker
S. H. Wolfe
Millian J. Silmartin
Millian J. Silmartin Michael J. Silmartin Benjamin F. Connolly Daniel J. Mc Sarty Thomas S. Hull Louis Jonas Joseph F. Connolly Fellx A. Barbarito

Clarence N. Halter

Sowin Meyenberg .

Chris Schroth

Position in Nuscum Curator of Shivertebrate Boology Attendant Associate Eurator of Books and Forestry Assistant in Vertebrute Palacontology Assistant in Mammalogy Medical Examiner, Pension Board Curator of Ornithology Curator of Public Health Attendant Assistant in Ornithology Attendant Attendant Preparator Cleaner Assistant in Mammalogy Assistant in Ornithology Assistant in Ornithology Assistant in Ornithology Eurator Emeritus in Ichthyology Attendant Preparator Assistant in Mammalogy Consulting Actuary Pension Board Fireman €leaner Eleaner Assistant in Public Health

Assistant in Invertebrate Zoology

Assistant in Herpetology

Clerical Assistant

Clerical Assistant

Preparator

Chauffeur

Prante of Bervice and Mark in Militard Service

Micchairman Answering in Miningering and Squarter Moissory Commission

Macking Sun Company, 1978 in Injurity

Captain, Smaincers, A&T.

20 feutenant, Folk Artillery

20 feutenant, Folk Military

Military Stateman, Company, C. 312th Injurity

Military Stateman, Company, C. 312th Injury, C. 312th Inju 21. S. Javal Reserve
Director, Burcau of Publications, American Red Cross
American Red Cross Mission to Russia
Ist Filed Artillery
21. S. Javal Base Hospital Qu. I. A. S. F.
Sargent, Company J. 165th Infantry, A. S. F.
Empany S. 165th Infantry, A. S. F.
21. S. Javy
21. S. Army
1st Heutenant, Field Artillery
1st Genemant, Jufantry,
23 Heutenant, Jufantry,
24 Heutenant, Jufantry,
25 Heutenant, Jufantry,
26 Heutenant, Jufantry,
27 Heutenant, Jufantry,
28 Heutenant, Jufantry,
29 Major, Burcau of Orbinance 181 Lindaudit Johanne Major, Bureau of Ordnance Majoritus Sun Company, 105th Infantry U. S. Navy Captain, U. S. Army Captain, M. S. Army
M. S. Army
M. S. Army
M. S. Army
Company
S. 5028 Ammunition Frain
Company
Company
Company
T. 44th Engineers, A. S. F.
Battery
Battery
Battery
Dattery
Datt Quartermaster's Dept. Stenographer, Ordnance

Branch of Service and Rank in National Service

n December 1916

May 8th

May 12th

Nay 31st

June 1st
June 20th
June 29th
July 19th
July 12th
July 15th
Aug 6th
Aug 90th

Aug. 20th

Aug 23rd

Aug 23rd

Aug 2518

Aug 25rd

Aug. 29th

Aug.29th

Sept. 220 Sept. Oct. 30

Oct. 8th

Oct. 9th

Oct. 15th

Oct. 25 th

960.21st

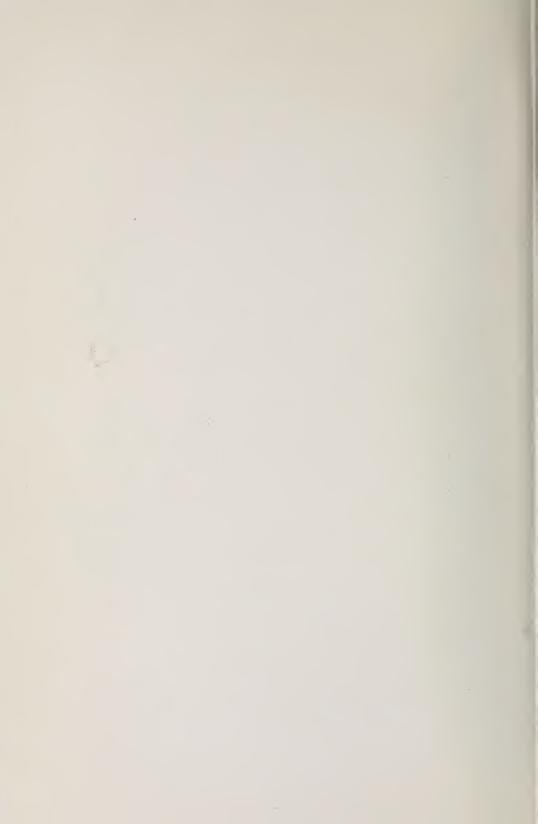
Dec. 9th

Dec. 17th

Dec. 27th

March 26, 1917

MEMBERS OF THE SCIENTIFIC, ADMINISTRATIVE AND MAINTENANCE STAFFS IN THE NATIONAL SERVICE, 1917



lief Association and allied themselves with the Red Cross and Navy League, turning out an average of fifty garments, one hundred knitted articles, and two thousand surgical dressings each month, and support a "Soldiers' Aid Committee," which supplies comfort kits and other gifts to the soldiers and officers who have enlisted from the Museum.

The Department of Public Health, under Curator Charles-Edward Amory Winslow, immediately began to arrange a special exhibition on food values and economies and to prepare a fifty-page handbook entitled "Health in War and Peace." The exhibition was first made in the American Museum, then in the Washington Irving High School and in the College of the City of New York. In all these institutions it has been used for practical intensive teaching purposes. The Health Department of the Museum, in coöperation with the departments of Mammals and Fishes, has advocated and listed various unutilized foods, such as seaweeds, marine mollusks, sharks and other unutilized food fishes, also whales and seals among marine mammals.

The Department of Public Education, in cooperation with the National War Work Council of the Y. M. C. A., has prepared a series of lectures accompanied by thousands of slides and many reels of motion picture films, for service among the allied troops at home and abroad.

The Department of Anthropology has been active in innovating and spreading the Mandan corn movement, a variety of corn adapted to extremely arid and elevated regions, which will result in greatly increasing the corn growing area of the United States, inasmuch as it will promote the cultivation of varieties of Mandan corn in localities where it has been found impossible to raise ordinary types of corn. This department has also been in coöperation with the Department of Mammals in an effort to provide proper clothing designed for aviation service, by submitting for Government inspection various fur and skin samples and garments made by the Eskimo in the arctic region.

At the beginning of the war a chémical exhibition was brought together and installed under the energetic direction of Dr. George F. Kunz, for the purpose of showing the progress in industrial chemistry made by this country and of encouraging American manufacturers to independent discovery along these lines.

Another important contribution by the Museum to the cause of the Allies is the model of the Liberty Field Hospital, most skilfully designed and constructed under the direction of President Osborn by Mr. Harry F. Liberty Field Hospital Unit Beers, Superintendent of Construction. model is on the unit construction principle. In sanitation it comprises the latest features of British, French and American field hospital designs, and approaches perfection especially for winter and summer use and in provision for openair treatment. The dimensions conform to the standards for field hospital wards adopted by Surgeon General Gorgas, and the model when complete will be submitted to the Surgeon General and to the Red Cross. When the war is over, these model hospitals can be converted into dwelling houses of any size in multiples of five feet and used in the reconstruction of devastated towns and villages.

Among other efforts to render national service may be mentioned the part taken by the Museum in the State Military Census registration, carried on by women volunteers from among the Museum's employees; the establishment of a Provost-Marshal's enlistment and exemption office in the Visitors' Room of the Museum, and the drastic means adopted toward the conservation of fuel by reducing the heat and light supply of the institution by one-half.

### EXPLORATION AND RESEARCH

It is gratifying to report the safe return of all the members of our Arctic party which left the Museum about five years ago
(July 2, 1913). In coöperation with the American Geographical Society and the University of Illinois, the Museum undertook this expedition on the assurance by Rear Admiral Peary that a northern land existed. The original estimates of cost were \$50,000, but up to the present time the cost has risen to \$167,953, owing to the unprecedented weather and ice conditions on the west coast of Green-



MUSEUM WAR ACTIVITIES Surgical Dressings Class in Members' Room



land and the failure of the first two relief parties on the "Cluett" and on the "Danmark," necessitating a third outfit, on the S.S. "Neptune," under Commander Bartlett. Although the main object of the expedition was not attained, the supposed land proving to have been a mirage, interesting and important scientific results in geography, botany and zoölogy were secured. According to the terms of our agreement, the detailed geographical reports of Messrs. MacMillan and Ekblaw belong to the American Geographical Society; the other scientific reports will be brought together in a volume to be arranged by a special editorial committee composed of the leader of the expedition, Mr. Donald B. MacMillan, another member of the expedition, Mr. W. Elmer Ekblaw of the University of Illinois, Dr. Frank E. Lutz, Editor of the Museum Bulletin and Memoirs, and Mr. George H. Sherwood, Acting Chairman of the Crocker Land Committee. Mr. MacMillan's narrative volume. in which he has exclusive rights, will be published by Harper and Brothers. The following contributions have been made to the cost of this Expedition:

American	Museum of Natural History	\$69,261.04
American	Geographical Society	19,000.00
University	of Illinois	10.000.00

The remaining expenses of \$33,000 are still to be raised by subscription or contribution.

The previous arctic work of the Museum, under Messrs. Stefánsson and Anderson, has been partly published in the Report of Mr. Stefánsson, and arrangements are being made with Dr. R. M. Anderson, now of the Geological Survey at Ottawa, Canada, to complete the zoölogical reports.

Exploration in North America for the year, especially in zoölogy and vertebrate palæontology, was largely discontinued because of the war. In anthropology, however, very important work in the Southwest, namely, the excavations of the buried cities of Aztec and Pueblo Bonito, was carried on through the continuation of the Southwest Fund generously contributed by Mr. Archer M. Huntington.

Of continued promise is the natural history survey of Porto Rico, undertaken in coöperation with the New York Academy of Sciences and the Government of Porto Rico. The plan, begun in 1913, is to make a complete survey of the island, its insect life, its botany, forests, plant and animal resources, its coast and fisheries. Several discoveries of very great interest have already been made and we look forward to the publication of a full series of three volumes of natural history reports by the New York Academy of Sciences, under the general direction of Dr. Nathaniel Lord Britton, Director of the New York Botanical Garden.

The chief event of the year in the prosecution of our scientific survey of South America was the publication of "The Distribution of Bird-Life in Colombia" by South America Dr. Frank M. Chapman, constituting Volume XXXVI of the Bulletin of The American Museum of Natural History. This contribution to the biological survey of South America represents the very highest standard of modern field exploration. It is the first completed scientific work of the intensive zoölogical survey of South America inaugurated in December, 1910, and conducted by Messrs. Chapman, Cherrie, Miller, Boyle, Richardson and Fuertes, under funds contributed by the Museum from the Jesup Fund, by Colonel Theodore Roosevelt, Mr. Cleveland H. Dodge and other friends of the Museum. The Museum also gratefully acknowledges the courtesies extended to it by the Colombian Government through its representatives in this country, and its administrators at the ports of Barranquilla, Buenaventura and Tumaco. Dr. Chapman's volume is a credit not only to the Museum but to American science. It sets a standard for all our work, not only in South America but in Africa and in other countries. courtesy, integrity and tact which our explorers carried into their South American work give promise of the establishment of new and friendly scientific relations with our sister republics of the south.

The next report to be issued in the South American series will be that by Mr. George K. Cherrie of the Roosevelt Expedition of 1916–1917.

Our work in Asia for the Asiatic Hall of the future has begun most auspiciously through the entire success of our first Asiatic Zoölogical Expedition under Mr. Roy Chapman Andrews, assisted by Mrs. Yvette Borup Andrews and Mr. Edmund Heller. The total cost of this expedition, namely \$14,000, was met partly by the Morris K. Jesup Fund and partly by generous contributions from the following Members of the Museum:

Mr. and Mrs. Sidney M. Colgate	\$425
Mrs. Adrian Hoffman Joline	100
Childs Frick	100
Lincoln Ellsworth	100
James B. Ford	500
Mr. and Mrs. Charles L. Bernheimer	400
Temple Bowdoin	500
Henry C. Frick	875

Landing in China in May, 1916, the party first explored the Province of Fu-kien, west of Formosa, where they were greatly assisted by the Reverend Harry R. Caldwell, a missionary of the finest type and a most worthy representative of our country in the Chinese Republic, also an enthusiast in natural science. We have recently enrolled him as one of our Life Members. After securing valuable collections in this region, the party proceeded to explore the Province of Yunnan, spending nine months in zoölogical and geographical exploration and bringing back priceless photographic records and a superb collection of 2,100 mammals, 800 birds and 200 reptiles, a large number of which, especially of the mammals, are new to the museums of this country. Issuing by way of Burma, the expedition was greatly aided by members of the British Government in India, to whom our very special acknowledgments are made in Mr. Andrews's report. His narrative volume will be published by D. Appleton and Company. He is now engaged upon a special scientific report which will appear in the American Museum Bulletin.

The American Museum Expedition to the Congo, after six years of arduous work in the field under Mr. Herbert Lang and Mr. James P. Chapin, returned to this country in 1915, since

which time the leaders and other members of the Museum staff have been engaged in the preparation and arrangement of the vast collections secured, in research and in publication.

The total cost of the expedition and the preparation of the collections to date is \$73,797.28. Here again the best standards of modern scientific field work were observed, and the following publications, already issued, are highly regarded by naturalists:

The Skeletal Characters of Scutisorex Thomas, by Dr. J. A. Allen
The American Museum Congo Expedition Collection of Bats, by J. A.
Allen, Herbert Lang and James P. Chapin

A Note on the Lumbar Vertebræ of Scutisorex Thomas, by H. von W. Schulte

Fresh-Water Fishes of the Congo Basin obtained by the American Museum Congo Expedition, 1909-1915, by John Treadwell Nichols and Ludlow Griscom

Descriptions of Three New Birds from the Belgian Congo, by James P. Chapin

The Pennant-Winged Nightjar of Africa and its Migration, by James P. Chapin

Four New Birds from the Belgian Congo, by James P. Chapin

The Classification of the Weaver-Birds, by James P. Chapin

Parasitic Muscid Larvæ Collected from the African Elephant and the White Rhinoceros by the Congo Expedition, by Joseph Bequaert

Dentition of Hydrocyon and its supposed fossil Allies, by Charles R. Eastman

Fossil Fishes collected by the American Museum Congo Expedition, by L. Hussakof

A new Species of Trematode (Cladorchis gigas) parasitic in Elephants, by G. A. MacCallum

Shrews Collected by the Congo Expedition of the American Museum, by N. Hollister

These papers are being published in the American Museum Bulletin. The division of these collections, for study and description, thus far has been made as follows:

Smaller mammals, Dr. J. A. Allen (partly published)

Larger mammals, Mr. Herbert Lang (in preparation)

Fishes, Mr. John T. Nichols and Mr. Ludlow Griscom (published)





DEPARTMENT OF MAMMALOGY

Тне Окарі

One of the rare animals secured by the Congo Expedition. Mounted for the proposed African Hall by Mr. Carl E. Akeley

Wasps and Spiders, Dr. Joseph Bequaert (nearly prepared for publication)

Butterflies, Dr. W. J. Holland, Director of Carnegie Museum, Pittsburgh

Molluscs, Dr. H. A. Pilsbry of the Philadelphia Academy of Sciences Birds, Mr. James P. Chapin

No less important than these technical and scientific reports will be the Narrative of the Congo Expedition of The American Museum of Natural History, which is in preparation by Messrs. Lang and Chapin. Mr. Chapin's work on the birds and on the narrative volume is temporarily interrupted by his commission as First Lieutenant in Infantry.

The mounting and sculpture of the animals for the African Hall are in charge of Mr. Carl E. Akeley, assisted by Mr. James L. Clark. During the past year two White Rhinoceroses have been completed and the first specimen of the Okapi is nearing completion. Progress has also been made on the great African Elephant Group.

Five years have now been devoted by Curator Henry E. Crampton to his exploration of the Polynesian Islands, under the Carnegie Fund, in coöperation with the American Museum. The first volume, entitled "Studies on the Variation, Distribution and Evolution of the genus Partula, a Species Inhabiting Tahiti," appeared in January, 1917, and will be followed in time by two other volumes, constituting a very important contribution to the land shell fauna of Polynesia, with a bearing on biological problems.

It is gratifying to report that our Philippine collections, which were secured by the Museum in 1904, at the time of the closing of the St. Louis Exposition, are now being carefully reviewed by Dr. Alfred L. Kroeber of the University of California, who has in preparation a handbook on this collection which will embody not only a review of the collection but will be a handbook to the ethnology, archæology and zoölogy of the Philippine Islands.

# MEMBERSHIP AND STAFF

In the opening part of this report a broader tribute was paid to our senior and most distinguished associate, the Honorable Joseph Hodges Choate, whose death occurred on May 14, 1917. We may now record somewhat more in detail Mr. Choate's great services to the Museum:

# JOSEPH HODGES CHOATE

was born at Salem, Massachusetts, on January 24, 1832, the son of Dr. George and Margaret Manning (Hodges) Choate. He graduated from Harvard College in 1852 with the degree of A.B., and from the Harvard Law School in 1854. He received the Honorary Degree of A.M. from Harvard in 1860, and the Honorary Degree of LL.D. in 1888. He also received the Honorary Degree of LL.D. from Amherst in 1887, Edinburgh, 1900, Cambridge, 1900, Yale, 1901, St. Andrew's, 1902, Glasgow, 1904, Williams, 1905, University of Pennsylvania, 1908, Union, 1909; and the degree of D.C.L. from Oxford in 1902. He was admitted to the Bar in Massachusetts in 1855, and in New York in 1856. He was presiding officer of the State Constitutional Convention of 1894; Ambassador to the Court of St. James from 1899 to 1905; representative of the United States at the Second Hague Conference in 1907: leading representative and orator of the City of New York on the occasion of the reception to the Commissions of Great Britain and of France, Wednesday, May 9, and Sunday, May 13, 1917. He passed away at his home in New York City on the evening of Monday, May 14, 1917.

He was a member of the original group of citizens who founded The American Museum of Natural History in 1869, and he served the Museum as Counsel and Trustee during the remainder of his life.

At a special meeting of the Trustees of The American Museum of Natural History, held May 22, 1917, in memory of Mr. Choate, the President was invited to prepare a Memorial, of which the following is an abstract:

"At the age of thirty-seven, in the month of February, 1869, Joseph Hodges Choate became one of the Founders of The American Museum of Natural History and served the institution continuously for forty-eight years, sending his last official letter to the President on May 5, 1917, and attending his last meeting of the Board of Trustees on May 7, 1917. At this time he was fresh and young in heart, powerful and vigorous in mind, and his interest in the Museum showed no abatement.

"The history of the Museum, as recorded in the Minutes of the Board of Trustees, shows that he was the author of the Charter, of the Act of Incorporation, of the original Constitution and By-Laws and of the Contract with the Department of Parks. Into these papers, which constitute the unique legal foundation of the Museum, he worked an entirely new conception, namely, provision for the independent and untrammeled management of the Museum by the most intelligent men of the city, combined with its establishment as a public institution, to be built and partly maintained by public taxation, and to be endowed and enriched with specimens brought together through private gifts and donations.

"This wise union of public and private endeavor led the way to a similar legal foundation for The Metropolitan Museum of Art, of which Mr. Choate was also the author. The foundation of these two Museums led to that of the several other great scientific and educational institutions of the City of New York, including The New York Botanical Garden and The New York Zoölogical Park; to these have been contributed, in the many years since their foundation, \$50,000,000 in private gifts. Thus Mr. Choate was, in a sense, the legal author of a system of institutions which now gives to the City of New York the lead among all the cities of the world."

For the full record of Mr. Choate's services, our Members are referred to the Memorial Volume which will be found in the Museum Library.

The Museum has suffered another loss through the death of Anson Wales Hard, who passed away on June 20, 1917.

Service of Anson W. Hard

At a meeting of the Board of Trustees held on November 12, 1917, the Trustees paid the following tribute to the life of their colleague:

"The Trustees desire to record their respect and high esteem for their late colleague

#### ANSON WALES HARD

who died on June 20, 1917. Mr. Hard was elected a Trustee in 1894 and in the same year was elected a member of the Executive Committee, on which he served continuously for thirteen years. He was a member of the Auditing Committee for eighteen years and was its Chairman from 1908 to 1913.

"He was deeply and practically interested in the progress of the Museum. Among his most important gifts are a collection of Serape and Chimayo Blankets from Mexico and his frequent contributions of rare and valuable books to the Library.

"His broad sympathy and regard for his fellow man were evidenced through his service on the Committees organizing the Pension System for the employees of the Museum and as a member of the Pension Board. His interest in the institution was not confined to one department but extended to many. His gentle manner and his consideration of others bore evidence of his kindly and affectionate nature.

"For some years past, Mr. Hard was in delicate health and we have missed his genial presence. We desire to send to his family this expression of our warm appreciation of his character and of his generous contributions in time and gifts to The American Museum of Natural History."

In the sudden death of Louis Pope Gratacap the Museum lost its senior Curator, who had been in continuous and devoted service of Louis P. Gratacap mired by all his associates and honored and esteemed by his fellow-workers in the two branches of science to which he devoted his life, namely, mineralogy and conchology. The present beautiful and orderly

arrangement of our great collection of shells, probably one of the oldest and largest of its kind, is entirely due to the energy and devotion of Mr. Gratacap. The same is true of the orderly arrangement of our great collection of minerals and gems. No curator in the Museum could leave his task more complete and in more perfect condition for his successor or successors. Nor can any successor be found who covers such a broad field and covers it so well. Mr. Gratacap inherited from his French ancestors his enthusiasm for science, his love of the beautiful, and his genius for the systematic and orderly arrangement of the collections in his care. He was a man of singular modesty and never would acquiesce in the praise and appreciation which all felt were his due.

At the request of the President and the Faculty, the Trustees have appointed Messrs.

Edwin H. Blashfield, Daniel C. French and Breck Trowbridge

an Advisory Committee on Mural Painting, Decoration, Sculpture and Architecture, in order that the art works in connection with the scientific exhibits may be of the highest standard.

At a meeting of the Faculty, held on December 5, 1917, it was voted that the title "Honorary Curator" should be reserved for those who had actually performed curatorial service and that the title "Research Associate" should be applied only to those who are rendering expert service in a particular branch of science.

Acting upon this recommendation, the Trustees have appointed

Henry Fairfield Osborn, Honorary Curator of the Department of Vertebrate Palæontology.

Bashford Dean, Honorary Curator of the Department of Ichthyology and Herpetology.

William Morton Wheeler, Honorary Curator of the Department of Invertebrate Zoölogy.

The following, who have been on the staff under the title of Honorary Curator, are now designated as Research Associates:

George F. Kunz, Research Associate in Mineralogy. A. L. Treadwell, Research Associate in Annulata. Charles W. Leng, Research Associate in Coleoptera.

The following new appointments and promotions were made:

- On December 26, 1916, Mr. Charles F. Herm was appointed Assistant in the Department of Anatomy and Physiology.
- On January 1, 1917, Dr. Willard G. Van Name was appointed Assistant in the Department of Invertebrate Zoölogy.
- On January 1, 1917, Mr. Barrington Moore was appointed Associate Curator in the Department of Woods and Forestry.
- On January 26, 1917, Mr. Alessandro Fabbri was appointed Research Associate in Physiology.
- On February 5, 1917, Mr. Roy W. Miner was promoted from Assistant Curator to Associate Curator in the Department of Invertebrate Zoölogy.
- On February 5, 1917, Dr. Frank E. Lutz was promoted from Assistant Curator to Associate Curator in the Department of Invertebrate Zoölogy.
- On February 5, 1917, Dr. G. Clyde Fisher was promoted from Assistant Curator to Associate Curator in the Department of Public Education.
- On April 18, 1917, Mr. W. DeW. Miller was promoted from Assistant Curator to Associate Curator of Ornithology.
- On July 1, 1917, Dr. H. K. Haeberlin was appointed Assistant in the Department of Anthropology.
- On October 17, 1917, Mr. W. Elmer Ekblaw was appointed Research Associate in Geology.
- On December 19, 1917, Mr. Roy Chapman Andrews was promoted from Assistant Curator to Associate Curator of Mammals, to take effect January 1, 1918.

- On December 19, 1917, Dr. Chester A. Reeds was promoted from Assistant Curator to Associate Curator of Invertebrate Palæontology in the Department of Geology and Invertebrate Palæontology, to take effect January 1, 1918.
- On December 19, 1917, Mr. Leo E. Miller was appointed Assistant in Ornithology, to take effect January 1, 1918.
- Dr. Joel Asaph Allen, after twenty-eight years of active service as editor of the scientific publications of the American Museum, tendered his resignation, in order to devote himself to the study of the ever increasing collections of the Department of Mammalogy and Ornithology, of which he is Curator.
- Dr. Frank E. Lutz, of the Department of Invertebrate Zoölogy, was appointed to succeed Dr. Allen, beginning his administration of the work on November 1.

# PUBLIC ACTIVITIES OF THE STAFF

The national character of the Museum is emphasized by the fact that in addition to the federal service which various members of the staff have rendered they have participated in many scientific activities outside the Museum:

President Henry Fairfield Osborn, Dr. Charles D. Walcott of the Smithsonian Institution, and Director Frederic A. Lucas were appointed judges for the bestowal of the Daniel Giraud Elliot Gold Medal, the gift of Miss Margaret Henderson Elliot.

On October 2 President Osborn accepted membership on the General Committee of the United States Food Administration in New York City.

On the evening of November 15, President Osborn delivered an address on "The Origin and Nature of Life," at the anniversary celebration of the New York Academy of Medicine.

Director Frederic A. Lucas was elected an Honorary Member of the California Academy of Sciences. He was also elected Honorary President of the Keramic Society of Greater New York.

Dr. Frank M. Chapman was elected an Honorary Member of the British Ornithologists' Union, at the annual meeting of the Society, held on March 14, in London. (Not more than ten "Honorary Members" are recruited from eminent ornithologists residing abroad.)

At a special meeting of the Argentine Society of Natural Sciences (Buenos Aires) and the Ornithological Society of the Plata (Buenos Aires), Dr. Frank M. Chapman was made an Honorary Member of the Ornithological Society and a Corresponding Member of the Society of Natural Sciences.

At the dedication of the Museum of New Mexico at Santa Fé the Museum was represented by Dr. Clark Wissler, who gave an address on "The Opportunities of the New Museum," and by Mr. N. C. Nelson, who spoke on "Recent Archæological Discoveries in the Southwest."

The Museum was represented by Dr. Clark Wissler, Dr. P. E. Goddard, and Mr. N. C. Nelson at the joint convention of the American Anthropological Association and the American Folk-Lore Society which was held in Philadelphia, December 27–29. Professor A. L. Kroeber presided. A dinner was given on the evening of December 27 in honor of Dr. Wissler, in appreciation of his recent publication, "The American Indian." This book was the theme of the after-dinner discussion.

Dr. Robert H. Lowie, Associate Curator in the Department of Anthropology, left in August for California, where he is acting as Associate Professor in Anthropology during the academic year 1917–1918 in the University of California at Berkeley, in exchange with Dr. A. L. Kroeber, who becomes Associate Curator in the Department of Anthropology, January 1–July 1, 1918.

Dr. Thomas G. Hull, Dr. F. E. Lutz, Mr. Barrington Moore, and Dr. C. C. Mook were elected Fellows in the New York Academy of Sciences in December.

At the twelfth annual meeting of the American Association of Museums held in New York from May 21 to 23, Mr. Roy W. Miner was elected a councilor for a term of three years.

### WELFARE OF EMPLOYEES

The Fifth Annual Report of the Pension Board has appeared and bears testimony to the efficient management of the Pension Fund under the Chairmanship of Mr. Felix M. Warburg.

The operation of the pension system is proving very satisfactory and is on a financially sound basis. There are now 256 subscribers to this fund. The invested funds amount to \$76,000, derived from the personal contributions of employees and Trustees since the establishment of the fund in 1913. The receipts through contributions of employees and the Board of Trustees for 1917 amounted to \$20,361.38. The disbursements during the year in pensions and gratuities amounted to \$5,434.66.

The requirement that all employees shall undergo physical examination before being accepted as permanent was undertaken primarily to safeguard the funds and has had an unforeseen beneficial result as it has brought to the attention of individual employees slight physical defects or tendencies, which, when treated under the advice of the medical examiner of the Board, have been either remedied or controlled.

Further steps have been taken in providing for the well-being of employees. Through friends of the Museum, endowed beds in the Mount Sinai and Presbyterian Hospitals have been placed at the disposition of the Pension Board for occupancy by employees in need of surgical or medical attention.

In June the President appointed Mr. Felix M. Warburg, Mr. Adrian Iselin, Mr. Frederick H. Smyth, and Mr. George N. Pindar, a Special Committee to formulate a plan whereby all the employees might have an opportunity to subscribe to the Liberty Loans. Under the plan evolved, each employee was permitted to subscribe for as many bonds as he wished, up to the amount of his accumulated contributions to the Pension Fund, and to pay for them by having \$2.50 a month on each \$50 bond deducted from his

salary. Through the generosity of two of our Trustees, funds were advanced for the purchase of the bonds desired and the plan was put in operation. There were 164 subscriptions to the first issue, amounting to \$13,150, and 95 to the second, amounting to \$9,100.

# HOSPITALITY TO SOCIETIES

In accordance with the custom of many years, the Museum has provided meeting rooms for educational and scientific societies, notably the New York Academy of Sciences and Affiliated Societies, the American Association of Museums, the American Scenic and Historic Preservation Society, the National Association of Audubon Societies for the Protection of Wild Birds and Animals, the Horticultural Society of New York, the Junior Auxiliary of the New York Zoölogical Society. The Department of Education of the City of New York has held lectures in our auditorium, on Tuesday and Saturday evenings, as for many years past.

Assistance has been given to the War Department by providing quarters in the Visitors' Room for the Local Board, Division No. 129, of the Provost Marshal General's Office.

Several special exhibits were arranged during the year as follows:

Models and paintings of modern animals and a mural decoration of prehistoric animals, by Charles R. Knight, from December 15, 1916, to January 22, 1917.

Paintings and bronzes portraying the Early West, by William de la M. Cary, from February 16 to April 22.

The Horticultural Society of New York held its flower exhibitions in the halls on the first floor, January 13–14, February 17–18 and November 9–11, respectively.

Two exhibits of designs suitable for the decoration of textile fabrics, wall paper and keramics, from objects in the Museum, one held in March and one in December.

Pottery and chinaware of designs inspired by the Museum's collections of the primitive art of the Americas were exhibited by the Keramic Society of Greater New York, from April 25 to May 6.

Paintings, "The Whalers of New Bedford," by Clifford W. Ashley, from May 10 to June 10.

Paintings, "Under-the-Sea," by Harry L. Hoffman, from June 15 to October 6.

The annual exhibition of The Aquarium Society, October 12-14.

In early November the thirty-ninth anniversary of the New York Microscopical Society was celebrated with a public exhibit held in the Museum.

New Zealand paintings, by Miss Frances Del Mar, from November 21 to December 10.

On December 5, the Board of Water Supply of the City of New York opened an exhibit of the Catskill System of Waterworks, illustrated by models, maps, water-color pictures, rock-cores, drawings, photographs and charts.

Among the societies and organizations that held meetings here were:

American Academy of Arborists

American Asiatic Association

American Association of Museums

American Ethnological Society

American Medical Association

American Red Cross

American Scenic and Historic Preservation Society

Aguarium Society

Catherine Abbé Club

Chautaugua Bird and Tree Club

City History Club of New York

Colonial Dames Club

Columbia University, classes

Department of Education, New York City, free public lecture courses

Elsie Rutgers Club

Forestry Club of the DeWitt Clinton High School

Gouverneur Morris Club

Horticultural Society of New York

Inkowa Club

Joan of Arc Club

Junior Auxiliary of the New York Zoölogical Society

Keramic Society of Greater New York

Linnæan Society of New York

National Association of Audubon Societies for the Protection of Wild Birds and Animals

Natural Science Committee of the Associate Alumnæ of the Normal College of the City of New York

New York Academy of Sciences

New York Entomological Society

New York Library Club

New York Microscopical Society

New York Mineralogical Club

New York State Historical Association

Swiss Scientific Society

Torrey Botanical Club

War Department—Local Board, Division No. 129, of the Provost Marshal General's Office

# BUILDING AND EQUIPMENT

As has been already noted, construction of new buildings has been postponed until after the war. This delay will necessitate further congestion in the exhibition halls.

Case Construction and Equipment

Through the equipment fund, CDP 3E, a moderate amount of case construction for both exhibition and storage has been accomplished during the year. As a result of a special appeal by the President, the Board of Estimate, on December 28, 1917, granted a further release of \$42,438.01, which will provide for case construction during the current year. Of the original appropriation, \$111,808.77, the sum of \$101,513.99 has now been released. The details of the work carried on under these appropriations as well as under the allotment for Special Repairs will be found in the Report of the Director, pages 45 to 50.

# SPECIAL GIFTS AND ACKNOWLEDGMENTS

In the list of Accessions, pages 185 to 201, will be found acknowledgments of the many gifts received by the Museum during the year 1917. Special mention may be made of the New York Zoölogical Society which has presented a large number of mammals, birds, reptiles and amphibians. Thus, through cooperation with the New York Zoölogical Society, rare animals which have served their purpose as living examples of their

species at the Zoölogical Park, continue their educational work in the Museum collections.

Other special gifts are: An ancestral tablet (for worship), from China, and a sacred belt, apron and head-dress of a lama of Tibet from Mrs. William Tod Helmuth; a fur coat made up in parka fashion, probably of marten skins, Alaska, from Mrs. E. H. Harriman; horns from Alaskan moose, spread 66 inches, engraved with Haida figures, from Juneau or Sitka, presented by J. M. Ellsworth. Five thousand feet of motion picture film of microscopic life, marine views, embryology and hatching of chick, and formation of crystals was the gift of Mr. A. Fabbri. More than 8,000 insects from China were received from the Reverend Harry R. Caldwell; an archæological collection of about 3,500 specimens from New York State and a series of ethnological specimens from North American Indians were presented by Mr. W. L. Hildburgh. A Chinese costume was given by Mrs. J. A. Finn; 517 birdskins from Ecuador by Mr. William B. Richardson; a mummified body of a man with a rabbit-skin blanket and some bone fragments, from a cliff cave in Tularosa Mountains of New Mexico, near Frisco River, were the gift of Dr. S. M. Strong, U. S. A.

The Spanish-American Iron Company of Santiago, Cuba, rendered much valuable service to the Museum through active coöperation with Mr. Anthony in the field. The company steamer and railroads were placed at Mr. Anthony's disposal, quarters at Daiquiri were given for several weeks, and horses and men were always had for the asking.

While in the field, the Asiatic Zoölogical Expedition was assisted very materially by the following gentlemen, without whose coöperation it would have been impossible to carry on the work, and it is a pleasure to acknowledge here the indebtedness of the American Museum to them: the Director of the Bureau of Foreign Affairs of the Chinese government; M. Georges Chemin Dupontès, Directeur de l'Exploitation de la Compagnie Française des Chemins de Fer de l'Indochine et du Yunnan, Hanoi, Tongking; M. Henry Wilden, Consul de France, Shanghai; M. Kraemer, Consul de France, Hongkong; Mr. Howard Page, Standard Oil Co., Yunnan-fu; Hon. Paul Reinsch, Minister Plenipotentiary and Envoy Extraordinary

to the Chinese Republic; Mr. J. V. A. McMurray, First Secretary of the American Legation, Peking; Mr. H. G. Evans, British-American Tobacco Co., Hongkong; Rev. William Hanna, Tali-fu; Rev. A. Kok, Li-chiang-fu; Ralph Grierson, Esq., Teng-yueh; Herbert Goffe, Esq., H. B. M. Consul General, Yunnan-fu; Rev. H. R. Caldwell, Yenping; Mr. C. R. Kellogg, Foochow, China; and the General Passenger Agent, Canadian Pacific Railroad, Hongkong.

# GENERAL ADMINISTRATION OF THE MUSEUM

FREDERIC A. LUCAS, Director

While the war has naturally affected the work of the Museum, yet its effects have been felt principally in a lessened number of expeditions, and satisfactory progress has been made in the care and installation of the collections, in research and in publication.

The slightly lessened sales of popular publications show the effect of "hard times," though the demand for the "General Guide" is about the same as usual, 3,233 copies having been sold during the year, exhausting the edition of 1916; a new edition is now in press and will be issued early in 1918.

There were also sold 1,282 *Handbooks*, 2,179 leaflets and 978 reprints of articles in the *Journal*; all in all, 8,566 copies of the various publications.

Diminished sales of poster stamps and post cards also reflect the enforced economy of the year, and it is rather interesting to note that, aside from the Guide, the leaflets most often called for are those more particularly written with students in view. "The Ancient Civilizations of Mexico and Central America" has been added to the *Handbooks* series, and in line with the use by students of the Peruvian collections, Mr. Mead prepared a leaflet on "Peruvian Art" which has been much in demand; also a leaflet on "Insects and Disease" is in the hands of the printer.

As part of the publicity work, under the direction of Mr. Pindar, another large edition of the hotel circular has been printed and distributed, and a handsome calendar, with illustrations mainly taken from groups and other objects in the Museum, was prepared and sent to all the Members of the Museum as well as to others interested in its work.

What may be termed the practical uses of the collections continue to increase, and this year designers have extended their work from designs for fabrics to those for entire costumes, taking their motives

from the garments of primitive peoples, especially those of the Koryaks. Aside from these, sculptors and medalists have drawn upon the Museum for models for various animals and even the humble woodchuck has posed for the general good.

The rearrangement of the Primates Hall, which is about half completed, may well be classed with new exhibits, for the removal of the single specimens from cherry bases, cleaning and installing them without shelves and with new labels, have made the individual specimens "as good as new," and, in some cases, even better. Fine groups of African Red Monkeys and Spider Monkeys have been added, a group of Lemurs is well advanced and one of Howling Monkeys commenced.

The Apache Group was opened to the public on May 19, and the Virginia Deer Group was placed on exhibition in September. This last, showing deer at sunset in the Adirondacks, is one of the most beautiful groups in the Museum.

The first of the projected exhibits illustrating the structure and physical characters of man has been installed: it deals with cranial characters, gives a sketch of the history of craniometry, illustrations of the terms employed and principal measurements used, and examples of typical crania of different types and races.

The rearrangement of the Chinese Hall has not only given more room for display, but has added greatly to its appearance, so that this section of the Museum is now extremely attractive.

The rearranging of the North Pacific Hall has made good progress. An important change has been the covering of the columns, thereby transforming them from round cast iron to square, cement-faced pillars, on which, or against which, large objects such as house posts can be placed.

A number of additions have been made to the Birds of the World series, and many, especially among the birds of prey, have been remounted by Mr. Engel, so that the general standard of the exhibits has been greatly improved.

Progress has been made on the Elephant Group, though, like all other branches of work, this has been hampered by war conditions which have called for service elsewhere those engaged upon it. The close of the year finds the young male nearly



DEPARTMENT OF MAMMALOGY AND ORNITHOLOGY

# VIRGINIA DEER GROUP

Specimens obtained through courtesy of Colonel Franklin Brandreth and Mr. Frederick Potter



finished, the female and young well advanced, and the huge male about one half done. The record White Rhinoceros is completed, as is the calf, and the female is well along in preparation.

The most important single piece completed during the year was the reproduction of the Manta, or Giant Ray, secured by Mr. Russell J. Coles, which was hung over the exhibits of fishes in November, and for the first time affords the public an idea of this most interesting creature.

Important additions have been made to the historical side of the collections through the gift of a large painting by Titian R. Peale of a herd of bison near the headwaters of the Platte, from studies made during the expedition under Long in 1820, and a portrait of Robert Havell, engraver of the first edition of Audubon's Birds of America, together with his last painting. For the first the Museum is indebted to Mr. John M. Hoffmire and Mr. Charles W. MacMullen, nephews of Mrs. Titian R. Peale, and for the latter to Mr. Robert Havell Lockwood, grandson of the engraver. The Museum had already acquired from Mr. Hoffmire a fine portrait of Peale together with the drawings and manuscript for his projected work on American Butterflies.

The printing office has turned out its customary amount of work, including this year 1,000 copies of each of the three leaflets, "Our Common Butterflies," "How to Col-Printing and lect Insects," and "Syllabus Guide to the Public Health Hall." There were also no less than 28,000 small booklets, sixteen pages each, issued in connection with the various lecture courses. Aside from these the printing may be roughly summarized as follows:

Summary of Printing—1917	Impressions
Letter-heads	84,000
Field and Reserve Collection Labels	
Report, Requisition and Other Forms	
Catalogue Cards, Tickets to Lectures, etc	322,114
Programs, Circulars, Invitations	141,735
Individual Labels 389	
Descriptive Labels 833	
1,222 (average of 5 each)	6,110
	764,300

The equipment and work of the printing office have increased to such an extent that the next logical step would seem to be raising it to such a point that it could do all the work of the Museum, save, possibly, the printing of the *Journal*.

The year has witnessed the completion of the iron storage racks in the Department of Vertebrate Palæontology, greatly increasing the storage space, safety and accessibility of the specimens. Work is well advanced on a series of four concrete storage rooms to replace the large wooden boxes over the west corridor, fifth floor, and here again their completion will add much

This year also sees the gallery and cases built in the Osborn Library of Vertebrate Palæontology, where additional room was badly needed, and the galleries for birds and mammals in two of the office rooms.

to the security and ease of handling of the ethnological material.

Many additions have been made to the storage cases for mammals, birds and insects, and yet the growth of the collections has been such that the lack of appropriations in 1915 has put the construction work so far behind that it seems impossible to catch up with them. To paraphrase the well known dictum as to the requirements of civilization, one may say that the needs of a museum are for cases, more cases, and still more cases.

Another and most important item, for which special provision was made in the budget, has been the improving of the acoustics of the large auditorium, plans for which were submitted by Professor Wallace C. Sabine three years ago. The results have been extremely satisfactory to lecturers and audiences, and it is to be regretted that structural obstacles make it impossible to effect equal improvements in the heating and ventilation.

Since the subsidence of the epidemic of poliomyelitis, the attendance has become almost normal, though the disquiet attendance

tendant on the imminence of war and subsequent participation in it by the United States, has apparently had a deterrent effect on visitors, especially on those from out of town.

Museum attendance is more or less uncertain and it is usually impossible to assign any definite reasons for increase, and especially decrease, in the number of visitors. It can simply be said that they come or stay away as they choose, and the most intensive advertising—such as took place during the Tuberculosis Exhibition of December, 1908—fails to add permanently to the list.

In September, 1917, the Visitors' Room was turned over to the Local Board, Division No. 129, of the Provost Marshal General, War Department, and up to date is still in use as well as the adjoining Academy Room. Up to the time of its occupancy by the Local Board, nearly 20,000 visitors had made use of the Visitors' Room in 1917.

# STATISTICS OF NUMBERS REACHED BY THE MUSEUM AND ITS EXTENSION EDUCATIONAL SYSTEM

	1913	1914	1915	1916	1917
Board of Education Lectures Lectures to School Children and Classes visiting the	48,119	52,761	41,970	34,421	32,790
Museum for Study Meetings of Scientific So- cieties and Other Meetings	56,899	65,785*	61,437	58,842	57,463
and Lectures	33,357	32,939	22,542	28,495	25,549
Total	138,375	151,485	125,949	121,758	115,802
Halls	728,288	657,458	794,139	725,917	786,151
Total Attendance for all Purposes	866,663	808,943	920,088	847,675	901,953
Centers			32,800	37,400	38,525
lating Collections	1,378,599	1,273,853	1,238,581	1,118,322	1,104,456†
Grand Total	2,245,262	2,082,796	2,191,469	2,003,397	2,044,934

There has apparently been a steady gain in the attendance of students, or of those who make systematic use of the collections, although exact figures are available only for the Darwin Hall, where 11,841 were recorded—a gain of 5,174 during the past three years.

A permanent gain of 10,000 who really use the Museum is better than a temporary gain of 50,000 who come for one visit only. And the record of attendance shows that special events,

<sup>\*</sup> Includes pupils, estimated at 15,000, attending lectures in the Local Centers. † Includes 29,380 in the public libraries.

such as the flower show, which bring a large attendance for a few days, are not followed by any increase in regular attendance but rather by a drop. The attendance, however, of students, pupils and others, who come to really make use of the collections, shows a healthy and steady growth.

### REPORTS OF THE CURATORS

# PUBLIC EDUCATION IN THE MUSEUM AND IN THE SCHOOLS\*

GEORGE H. SHERWOOD, Curator

The public educational work of the Museum may be separated into three major divisions:

Museum Extension to the Schools Natural History Teaching in the Museum The Photographic Work of the Museum

The extent of this practical educational work can be most effectively shown by citing the statistical summary of the work of the Department of Public Education for the year 1917.

The Circulating Nature Study Collections, 712 in all, have been in use in 446 schools, in which 1,075,076 children have had an opportunity to study them.

The lending of lantern slides, undertaken through special arrangement with the Department of Education of New York City, has had an astonishing development. The number of loans to public schools has increased from 491 to 935, while the number of slides circulated has risen from 38,912 in 1916 to 63,111 in 1917.

To pupils of the public schools, 103 lectures have been given by members of the staff, at which a total of 79,323 children were present. Of this number 40,798 came to the Museum, while in the case of the remaining 38,525, the lectures were taken to them in the schools.

The instruction for the blind included 31 lessons to blind children from the public schools with a total attendance of 345.

The special collections for libraries were exhibited in 9 branches of the New York Public Library and were studied by 29,380 people.

<sup>\*</sup> Under the Department of Public Education (see also pages 19, 25 and 185).

The reference series of negatives and photographs has received additions of 3,254 negatives and 3,128 photographs, the total reference file now numbering 46,565 negatives and 63,818 photographs.

The photographic department has made 1,547 negatives, 3,526 lantern slides and 13,623 prints.

While the regular Museum extension to the schools has been maintained at its previous high standard, the department has made a direct contribution to war work.

Appeals for help in the way of entertainment for soldiers have come to the Museum from the War Council of the Y. M. C. A. and three ways have been developed in which the Museum is able to render practical assistance.

The department possessed several thousand uncatalogued lantern slides. Largely through the volunteer assistance of members of the department, these slides have been carefully sorted, and more than 4,000 from which lectures may be made have been presented to the Y. M. C. A.

The second method of assistance consists in preparing special lectures particularly designed to interest soldiers and sailors. These are called "Exploration Tales for Soldiers and Sailors." Their purpose is set forth in the following foreword which accompanies each lecture:

"The expeditions sent by The American Museum of Natural History to the remote parts of the earth not only have brought together wonderful natural history collections, but are filled with adventures that stir the blood. We believe that the tales of these experiences will appeal to the soldiers and sailors, since the successful explorer must possess in marked degree the qualities which make good fighting men. These stories are told by the explorers themselves with the hope that they will entertain, amuse and rest the boys in training and those at the front."

Each tale is fully illustrated with colored lantern slides, and the text which accompanies it is dictated by the explorer himself in the language which he would use in addressing the men in person. Already two of these recreational lectures have been completed and lent to the Y. M. C. A.—"Camera Hunting for Whales," by Roy Chapman Andrews, and "Bird Life on an Antarctic Island," by Robert Cushman Murphy. Two others, "Through the Brazilian Wilderness with Colonel Roosevelt," by George K. Cherrie, and "Some of My Mascots," by Ernest Harold Baynes, are nearly completed, and two by Carl E. Akeley on "African Big Game" are in course of preparation.

The third plan of cooperation with the Y. M. C. A. is to lend two-reel sets of the best motion pictures in the Museum under the title of "American Museum Exploration Series." These will include selected portions of the motion pictures taken in China and Japan by Roy Chapman Andrews on the Asiatic Zoölogical Expedition of the Museum, and the films secured by the Crocker Land Expedition in the Arctic.

At the request of Mrs. Henry R. Hoyt, of the Ladies' Social Welfare Committee of the Y. M. C. A., guides have been furnished for groups of sailors on shore leave from the United States naval vessels in the waters near New York. Such groups visit the Museum on Saturday afternoons and are conducted through the exhibition halls. The Museum is indebted to Miss Annie Lucas who has generously given her services as docent on the occasions of these visits.

A more detailed account of the regular activities of the department is given below:

Circulating collections of natural history specimens have been lent to the public schools of Greater New York, as has been done since 1904. These collections include Circulating Collections practically everything called for in the course of nature study, and there are thousands of boys and girls in the schools of New York City who would have no other opportunity to see and to handle such natural history objects. More pupils are reached through this branch of the work of the department than through any other.

All specimens in the circulating collections, except those of insects, have been prepared so that they can be removed from the cases and actually handled by the pupils. That the privilege

of touching the specimen by the pupil adds to its teaching value, is practically the unanimous opinion of the teachers who use the material from the Museum. On the other hand, the necessary wear and tear resulting from the handling incur an added expense to the Museum in keeping certain collections, such as mounted birds, in good condition. However, in the case of the birds, when the number of years that many of the specimens have been in circulation and the number of times that they have been handled by the pupils have been considered, the results are not discouraging. However, on account of more and more stringent laws regulating the collecting of native birds, the department may be forced to put its loan collections under glass, so that they can not be handled by the pupils.

The loan collections have been increased by the issue of an improved edition of the series of public health charts entitled "The Spread and Prevention of Communicable Disease." Heretofore these had been prepared by a photographic process, while the new charts are in printed form, lighter in weight, more attractive in appearance, and it is thought they will prove to be more durable.

The Rockefeller Institute requested four sets of these charts for use in war work in France. Four sets of eleven charts each were prepared without captions so that French captions could be substituted. These, together with one complete set of fifteen charts with English captions, were presented by the Museum to the Rockefeller Institute.

Comparative Statistics Relating to the Circulating Collections for the Past Seven Years

	1911	1912	1913	1914	1915	1916	1917
Number of Collections in Use  Number of Schools of Greater New York Supplied.  Number of Pupils Studying the Collections	512	537	597	675	671	704	712
	486	491	501	470	473	439	446
	1,253,435	1,275,890	1,378,599	1,273,853	1,238,581	1,118,322	1,075,076



#### DEPARTMENT OF PUBLIC EDUCATION

PUBLIC HEALTH CHARTS FOR TEACHING PURPOSES

There are 35 complete sets in circulation in the schools of Greater New York



The loan collections prepared for the public libraries of New York have been in constant circulation. They have been dis-

The Museum and the Public Libraries played in children's rooms and in reference departments, and have not only added interest to the reading of books on natural history and geography, but have stimulated

coöperation between libraries, the public schools and the Museum. They include specimens, models, mounted prints, labels and maps, and have been placed on exhibition largely through the coöperation of the Department of Anthropology. The material is loaned for a period of one or two months, and is carried to the library and returned by the Museum messenger. It is installed, however, by the librarian in charge.

Five of the libraries of the City that have not heretofore been in touch with the Museum have borrowed circulating exhibits during the year 1917. The library of San Antonio, Texas, and the Utica, New York, Public Library have also received loans of photographs and specimens. In all, 26,802 children and 2,578 adults have studied the exhibits.

During this year, the lending of lantern slides to the public schools has increased more than 66 per cent.

Lending of Lantern Slides

This encouraging result is doubtless partly due to the equipment of more schools for the use of the slides.

Number of Lantern Slide Loans made to	1916	1917
Public Schools	401	935
Number of Public Schools Borrowing	17	300
Lantern Slides	63	84
Number of Lantern Slides Circulated	38,912	63,111

The file of lantern slides available for teachers contains 20,-900 slides. The slides in greatest demand during the past year illustrated (1) Industrial subjects, (2) Natural History, (3) Historical subjects, (4) Geographical subjects. Those which we have prepared in regular sets, each accompanied by a booklet of notes, were much more in demand than individual slides or slides in groups. There are now fourteen of these prepared lectures available.

Courses of lectures for school children, planned to supplement the regular school work, were given during the spring and autumn. For a number of years, the lec-Lectures to tures to school children, which have been given School Children in the Museum auditorium, have consisted of four courses in the spring and four courses in the autumn. A change was made this year in the autumn courses. Instead of four lectures a week, the same number of lectures was given, but they were arranged in two courses a week. Since it is a serious undertaking for a teacher to conduct a class to the Museum for a lecture and home during the rush hour, it was thought that teachers and pupils could attend a greater number of the lectures of the entire series if they did not occur so frequently.

Following is a summary of the Lecture Courses given during 1917:

	Number	
		Attendance
Lectures to School Children Given in the	e	
Museum	. 73	40,798
Lectures to School Children Given Outside	ė	
the Museum	. 30	38,525
Total Lectures to School Children	. 103	79,323
Lectures to Members of the Museum	. 8	8,557
Lectures to Children of Members	. 8	4,916

In addition to the above series, there have been held in the Museum, lectures under the auspices of the City Department of Education, the American Scenic and Historic Preservation Society, the New York Academy of Sciences and Affiliated. Societies.

Twice a year, during Regents' Week in January and again in June, biology classes from various high schools of Greater

New York come to the Museum with their teachers for lectures and for definite laboratory work in the exhibition halls. During the year, pupils from nine high schools were represented, and laboratory work was done with Habitat Groups of North American Birds, North American Forestry, Public

Health, Insects, Habitat Groups of Reptiles and Amphibians, and in the Darwin Hall.

On Saturday, January 20, a special exhibition of motion picture film entitled "How Life Begins" was given, to which the teachers of Greater New York were invited. Dr. Fisher gave an introductory talk. The attendance was 527.

Evening lectures for adults, lessons for the "sight classes" of the public schools, and loans of natural history specimens and relief globes of the world have constituted the Museum's principal activities in its instruction for the blind. The course of study for the children consisted of a series of ten talks on natural science, geography and travel, industrial life and history. The teachers selected from three to five of the topics and came to the Museum with their pupils during school hours.

In the evening entertainments for the adult blind, an unusual experiment was made—a talk on "Wild Flowers of Summer," by Dr. G. Clyde Fisher. The Museum foyer was filled with freshly gathered flowers. About 200 blind examined the blossoms and leaves before hearing the lecture, and carried them home at its close. Through the courtesy of Mr. Lorillard Spencer, Jr., Mr. W. B. Holcombe and Mr. C. Elmore Smith, the Boy Scouts of Manhattan, Brooklyn and Richmond respectively, kindly acted as guides.

The Jonathan Thorne Memorial Fund supports the education for the blind. It provides not only for the running expenses of the work, but it adds new equipment to that already in stock. Through it, this year, a tellurian, a loom for hand weaving, models of Indian homes and primitive instruments for fire-making have been purchased.

Docent service is provided by the Department for teachers and classes visiting the Museum. This coöperation is not limited to the public schools, but is extended to include the private and parochial schools, and it is not confined to Greater New York. Guides are also furnished for members of the Museum and their friends when requested. The calls from these various sources are frequent and the time

required for this work is considerable. The constant demand for docents by teachers and classes and by Members of the Museum is an indication of the value of this kind of service. Several members of the department act as guides, and the service is free.

The students in anthropology at Barnard continued their laboratory work in the Museum from January until the end of the college year in June. They studied the Siberian, South Sea Island, Eastern Woodlands, Plains, Pueblo, North Pacific Coast, Peruvian and Mexican collections. The nineteen talks given by the Museum docent were arranged to supplement lectures on material culture, religion, and art.

One sign of growth of the Museum as a whole is seen in the ever increasing demands for photographic work. Illustrations for scientific publications, for *The American Museum Journal*, the Public Information Committee, newspapers, magazines and special writers, and lantern slides for the educational work of the Museum have fully occupied the time of our two photographers.

The photographic department has made 1,547 negatives, 3,526 lantern slides and 13,623 prints.

The Museum's collection of negatives has been increased during the year by 3,500 negatives from the Crocker Land Expedition. The Asiatic Zoölogical Expedition added 450 negatives, of which 128 were Paget color plates. Both the ordinary black and white negatives and the color plates of the Asiatic Expedition were made by Mrs. Yvette Borup Andrews, photographer of the expedition. The work of filing the negatives from these two expeditions, and the making, mounting and filing of the photographic prints from these negatives was in progress at the close of the year. The reference file now numbers 46,565 negatives and 63,818 photographs.

It was with regret that the department lost the services of Miss Kathryn I. Upson, Lantern Slide Librarian, who resigned in October. The position has been filled by Miss Virginia McGivney, a graduate of Barnard College who, through experience as a teacher in the New York City Schools, is fitted to assist in making the most effective use of the slides.

During the year 1917, the department has had the coöperation of the following firms and individuals: Mr. Alfred W. Abrams, of the Division of Visual Instruction, Department of Education, Albany, in lending lantern slides for use in lectures to school children; The New York Historical Society in permitting the use of books and in permission to photograph cuts, plates, etc., for lantern slides; The Exhibitors' Booking Agency in lending the motion picture films entitled "How Life Begins" for a special lecture to teachers; Mr. E. R. Sanborn of the New York Zoölogical Society in lending motion picture films of animals for use in a lecture to children of Members; Brown Brothers, Sarony, Inc., Janet M. Cummings and Collier's Weekly in lending photographs from which to make lantern slides.

# GEOLOGY, GEOGRAPHY AND PAST LIFE ON THE EARTH\*

EDMUND OTIS HOVEY, Curator

The Curator returned to the Museum on August 27 after an enforced absence of more than two years in the Arctic, whither he was sent in July, 1915, in charge of the first relief ship despatched to Etah to bring home the Crocker Land Expedition staff, property and collections. During the winter of 1915–1916, he prepared his report on the Heilprin Fund expedition to Martinique and St. Vincent as far as was possible without access to important publications needed for reference. As much time as practicable was occupied in

<sup>\*</sup> Under the Department of Geology and Invertebrate Palæontology (see also page 186).

making observations on the geology and glaciers of the Greenland coast from Cape York to Etah, supplementing the studies made in the same region and beyond by Mr. W. Elmer Ekblaw, the geologist of the expedition staff. Important collections were made and many photographs taken. The long sledge journey outward in the spring of 1917, from Etah to Godhavn, Disko Island, gave the Curator an opportunity to add to his notes on the geology of the country.

Many changes in the department have taken place during the long absence of the Curator. The practical or apparent abandonment of the construction of a gallery in the main exhibition hall has entailed radical changes in the possibilities of arrangement and installation. One of the results has been the concentration of the thousands of type fossils of the James Hall and other collections in table cases, almost filling the center of the hall.

Assistant Curator Reeds worked faithfully and with ability in his care of the department during the Curator's absence and he accomplished noteworthy results. I beg to quote from his departmental report upon the first eight months of 1917, while he was still in charge, as follows:

The difficulties encountered in the rearrangement of the collections were so numerous and the object and possibilities so indefinite that drawings to scale of two exhibition halls, showing a possible arrangement of cases and exhibits, were submitted by Assistant Curator Reeds as "The August 1, 1917, Plan." An illustrated report concerning the features of this plan, called "The Revision of an Established Collection," by Assistant Curator Reeds, was delivered on October 1.

The rearrangement of the thousands of identified specimens according to the various biologic groups, a work which was started in 1916, was concluded by the end of February, 1917. This work permitted the assembling in small compass of all the specimens of an entire class or phylum. Furthermore, it enabled experts to work conveniently on their respective specialties.

A carefully selected set of bryozoan specimens for the biologic series was identified and arranged by Dr. J. J. Galloway. The "types" of the Schrammen sponges from northwest Germany were systematically studied and arranged by Dr. Marjorie O'Connell. She also prepared an extensive report entitled "The Structure and Classification of the Silicispongiæ as illustrated by the Schrammen Collection in The American Museum of Natural History." For a few weeks during the summer Dr. Elvira Wood collected illustrative material for the new panel extensions to the table cases which contain type specimens. She also prepared a preliminary sketch of an exhibit, composed of specimens and models, demonstrating "Recapitulation in the Pelecypoda."

In March, work was started on a large model of a section of the Grand Canyon of the Colorado in the vicinity of Grand Canyon, Arizona. Portions of the Bright Angel and Vishnu topo-Grand graphic sheets of the United States Geological Survey were Canyon enlarged four diameters and serve as an excellent contour Model map for developing the various elevations. The shape of the model is irregular, owing to the hexagonal outline of the end of the upright case where it is to be installed. It is being built of wood in four sections in our laboratory. Two sections have been completed and a good beginning has been made on the third and fourth. Mr. Hill has been engaged on this work from the start, Mr. Brickner and Mr. Foyles for a part of the time. When the model is completed it is proposed to continue the topographic and geologic features of the model on a painted background-the whole to present a miniature picture of the region.

A card catalogue of the labeled specimens in the department has been begun and fifteen thousand cards have been typewritten.

Our general meteorite collection, which is second if not first in rank in this country and is one of the four best collection in the world, is temporarily displayed in separate alcoves in our main exhibition hall.

The most important accessions of the year have been the G. K. Greene and W. J. McConathy collections of invertebrate fossils, purchased in October. It has been estimated that the

Greene collection contains approximately 400,000 well preserved specimens, chiefly corals from the Devonian reef at the Falls of the Ohio, opposite Louisville, Ky. The Important Museum is fortunate to have secured this collection, Accessions for it is one of the few fine collections of its kind in the United States. It represents the life work of one man and a large portion of that of his son. Approximately 500 species have been described and figured in G. K. Greene's "Contributions to Indiana Palæontology." The types of these species form a valuable part of the collection. The W. J. McConathy collection also consists chiefly of fossil corals from the Falls of the Ohio, and numbers approximately 7,000 specimens. With the addition of these two collections, the Museum will become a Mecca for students in fossil corals.

Other important accessions are: A series of beautifully preserved Tertiary fossils from Santo Domingo; a 70-pound mass of telluric iron from Ovifak, Disko Island, Greenland; the main portion of the meteorite fall at Plainview, Texas; specimens of the Scott City, Kansas, and Cookville, Tennessee, meteorites.

The extension of the fifth floor over the stairway at the northern end of the south central wing early in the year provided much-needed space for a geological laboratory.

In closing this report I desire to place on record my appreciation of the faithfulness and efficiency with which all the assistants employed in the department have discharged their various duties.

#### MINERALS AND GEMS\*

## Biographical Sketch of Louis Pope Gratacap by Frederic A. Lucas

In the death of Louis Pope Gratacap, which occurred on December 19, 1917, the Museum lost not only its Curator of Mineralogy but the Dean of its staff, for forty years a most loyal member of its force.

<sup>\*</sup> Under the Department of Mineralogy (see also pages 34 and 186).



LOUIS POPE GRATACAP Curator of Mineralogy and Conchology



Born in Brooklyn November 1, 1851, after passing through the public schools he entered the College of the City of New York, and following his graduation in 1869, took a special course in geology and mineralogy in the School of Mines, Columbia College, whence he was graduated in 1876. In October of that year he came to the Museum, then in the formative period of its existence and housed in the old Arsenal Building, hoping and working for a home of its own. He was made Assistant Curator of Mineralogy in 1880 and Curator in 1900, at which time he was also placed in charge of the shells, the two subjects being united in one department in 1901, though separated at the time of reorganization in 1909. Thence, until the time of his death Mr. Gratacap held the two positions of Curator of the Department of Mineralogy and Curator of Mollusca in the Department of Invertebrate Zoölogy.

His record of more than forty years of continuous service in one museum is probably surpassed only by that of Dr. D. S. Lamb in the Army Medical Museum, Washington, D. C.

Mr. Gratacap was of French descent, and his precise and somewhat formal mode of speech and courteous manner ever carried with them the suggestion of a gentleman of the old school. This was heightened by the fact that he was a fluent speaker and the master of an extensive vocabulary, comprising many words unfamiliar to modern ears, and yet at the same time he was without the least trace of affectation—what might have seemed such in others was with him but the natural expression of a well-stocked, serious mind. He was just and fair-minded to the last degree—one of the few not the mark of unpleasant criticism—and almost the only man to my knowledge who ever expressed himself as considering his services properly remunerated. Generous and charitable, no one but himself will know how much help he gave to others, both of purse and personal assistance.

He was a ready writer as well as a fluent speaker and the greater part of his evenings and other spare time was devoted to writing. While most of his books were of a serious character, dealing with philosophical, political or religious topics, yet among them were several works of what might be called scientific fiction, such as A Woman of the Ice Age and The Certainty of a Future Life in Mars. There is not at hand a complete list of his publications, though one is being prepared by Dr. George F. Kunz, but aside from many scientific papers, including some on Museum history and methods, he was the author of about twenty books.

His love of neatness and order was reflected in the collections under his charge, which were left in most excellent condition. He

took a special interest in matters relating to the instructive display of minerals and shells, was ever looking for opportunities to better the exhibits and ever ready to listen to suggestions for their improvement. Always prompt and punctilious in official matters, what has proved to be his last reports on the departments in his charge were handed in a few days before his untimely death.

## Annual Report of Curator Gratacap

The collection of minerals has attained a development which embraces its popular usefulness in those aspects of beauty and striking phenomena which appeal most naturally to the general public, and also in no small measure it has expanded in the acquisition of material of scientific significance. These two directions of growth are naturally related, even if divergent. They might prove mutually exclusive, if preponderance were allowed to one over the other, and the choice between them might easily incline toward securing specimens solely of extraordinary character, which, from size and perfection, elicit wonder or admiration. Quite usually such specimens would represent the better known minerals, and an emphasis of this sort would rob the collection of its eclectic value. It would disappoint an increasing attendance of students, for whom the collection is valued chiefly, because of its educational importance.

The collection has acquired more than 5,000 specimens since its instalment in the Morgan Hall, and these are fairly well distributed as regards their character over the twofold fields of interest. This comprehensiveness was already fully instituted in the original Bement Collection, which is its nucleus. It is not, however, always easy to guide expenditures, under necessary restrictions of resources, so as fairly to balance the claims of Science and Popularity. Rare or new species of minerals of intrinsic interest are quite frequently unattractive in appearance, and yet, if purchased, may prove expensive acquisitions. Unusual examples of common minerals command good prices, and specimens of phenomenal brilliancy excite competition and reach prohibitive values. The Museum Collection of Minerals depends for its growth almost wholly upon purchases, having at present no patron to augment it, and it is also deprived of the

sources of increase that might be found in the activities of a mineral or geological survey. Still, under such limitations, it has, quite surely, increased in interest, in importance, and in mineralogical celebrity and beauty. But the reflection is obvious that in all these years the collection has *simply grown*, and the time may now be considered imminent when the Department should be strengthened by progressive and original scientific research.

It seems imperative on this account to call attention to the development that might be expected, might, let me add, be required. The Curator has previously called attention to the importance of providing, in the planned additions of the new buildings, a chemical laboratory, in which should be provided instruments for optical and physical observations. It is these necessary adjuncts, with the provision of skilled workers, that would enormously expand the influence of this superb collection, and gather to it the scientific exhilaration and distinction which now it unfortunately lacks, and will lack, unless such steps are contemplated.

Problems of the most varied and interesting character in the mineral world, associated too with practical, with utilitarian questions, could receive attention, and immediately, in our neighborhood, the still unsolved perplexities of zeolitic deposition, in the traps and pillow-lavas of New Jersey, the genesis and mineral associations of the Pegmatites of Connecticut, the constitution and precise reference of the Serpentines, and the mineral make-up of the Cretaceous Marls would challenge debate and study, while within the treasures of the collection itself, remain, unsolicited, examples of rare crystallographic novelty.

More theoretical and abstract lines of interrogation into Nature's mineral laws might ensue, with experiments in the realm of the artificial production of minerals, in electric furnaces. Supplementing these features would follow lectures, instructions, and a more responsive, profitable and enthusiastic involution of the energies of the New York Mineralogical Club, with a wider suffrage and recognition among our citizens for the collection and its aims. Of all this I feel confident. The prospect enlarges with each review of its possibilities, but the

present Curator cannot, could not, assume or prepare its realization. This is a frank statement, frankly considered, frankly presented.

The collection has been enriched this year by additions of very handsome minerals, while the crowding overflow, in the drawers, offers convincing testimony to the increasing wealth of its contents. A striking, possibly a unique, strip of Mountain Leather from Korea (now attached to the north wall); a large Amalgam from Mexico; superb cubical Cuprite, partially reduced to metallic Copper, from Arizona; some wonderfully developed Pyrites, extraordinary in size, and rich in faces, from Colorado; a Pollucite mass from Maine; a few exquisite Rubellites from California; a polished translucent slab of Californite (Vesuvianite); an Antimony mass (100 pounds) from Kern County, California (secured through the Director's Fund); beautifully tufted Calamine from Colorado; a wonderful Scheelite crystal from Sonora, Mexico; a Sphalerite slab, crystallized, from Colorado; rich lemon brown crystals of Barite in a large group from England; immense Betafites from Madagascar; some large Halites from Stassfurt; a very ornate group of Apophyllite from Poonah, India, and a gem-mass of Chrysoprase from California, are, amongst a great many other additions (see Accessions), worthy of especial emphasis.

The collection of "Unclassified Minerals," those commonly found in the successive Appendices to Dana's "System of Mineralogy" or in publications more recent, has reached large proportions and demands public exhibition.

The perennial value of the Bruce Endowment is acknowledged, the generosity of the General Appropriation, and the helpful financial assistance of the Director.

The additions mentioned above yield, upon analysis, the following result:

Gifts and Exchanges	3,447
Bruce Endowment	830
General Fund	819

The more costly specimens were secured with the Bruce Fund, and in several instances the generous assistance of the Director's Fund has proved invaluable.

### WOODS AND FORESTRY\*

MARY CYNTHIA DICKERSON, Curator

There has been installed on a pedestal near the great redwood section in the Forestry Hall the bronze bust of Professor Charles Sprague Sargent, who brought together the Jesup Collection of North American Woods exhibited in the hall. The bust was executed by Mr. C. S. Pietro.

The quarter-size sketch prepared by Mr. Hobart Nichols for a mural decoration at the east end of the hall has been accepted.

It shows a sunny woodland interior opening out into a distant view of forested hills and mountains, at the season when the first hint of autumn coloring tinges the land-scape. It promises to put into the hall what will be, first, a satisfaction to the love of the beautiful in us all; second, an invitation to visit the enchantment of the original woodland and country-side; and, third, an exemplification of the greatest forestry principle, namely, that all steep slopes of the highlands of our country should be kept forested in order that the flow of streams may be equalized and floods and droughts minimized.

The work of the artist, Mr. Milton D. Copulos, has added very beautiful leaf, flower and fruit sprays to the hall. Among the new sprays are the laurel oak (Quercus imbricaria), black jack oak (Quercus Marilandica), post oak (Quercus minor), gray birch (Betula populifolia), Biltmore ash (Fraxinus Biltmoreana), black maple (Acer nigrum), and the large-leaved cucumber-tree (Magnolia macrophylla). This last specimen, a spray with flower and leaves of record size, is so monumental a piece of work that it will be exhibited in a special case.

The large hopes at the beginning of the year that progress might be made in the alcove forestry exhibits, planned to show reforestation, forest fires, etc., have come to little because of the demands of war. Mr. Barrington Moore, Associate Cura-

<sup>\*</sup> Under the Department of Woods and Forestry (see also page 188).

tor in the department, an early volunteer with rank as captain, spent a few months in an American camp, then went to France as an officer in the United States Forestry Regiment. With headquarters in Paris, a member of the Comité Interallié des Bois de Guerre, he has charge of the selection and acquisition of standing timber to be cut for war purposes. He has six hundred men under him to do the work in logging and deliver the timber to the Expeditionary Force, and his problem is to take out of a given forest as large a yield as possible and leave the forest silviculturally intact.

#### **EXISTING INVERTEBRATES\***

HENRY EDWARD CRAMPTON, Curator

In the last month of the year, the Department and the Museum suffered an irreparable loss through the death of Mr.

Louis P. Gratacap, Curator of Conchology. Mr. Gratacap's devoted service of more than two score years and his patient and time-consuming labor for the development of the shell collections of the Museum call for the fullest and sincerest tribute.

At the beginning of the year Mr. Roy W. Miner and Dr. Frank E. Lutz were made Associate Curators. Mr. J. F. Connolly, a laboratory assistant, has entered the National Army.

On account of the disturbed conditions throughout America and the world, field work in invertebrate zoölogy has been confined to near-by areas, or has been carried on with direct reference to exhibition purposes, while special efforts have been directed toward research and publication. The Curator's volume on the Partulæ of Tahiti, published by the Carnegie Institution of Washington, appeared in January, as the first in the series on the variation, distribution and evolution of the genus; considerable progress has been made on the second and third volumes. Mr. Miner, ably assisted by several members of the preparation room staff, spent several weeks at the Biological Laboratory at

<sup>\*</sup> Under the Department of Invertebrate Zoölogy (see also pages 31 and 188).

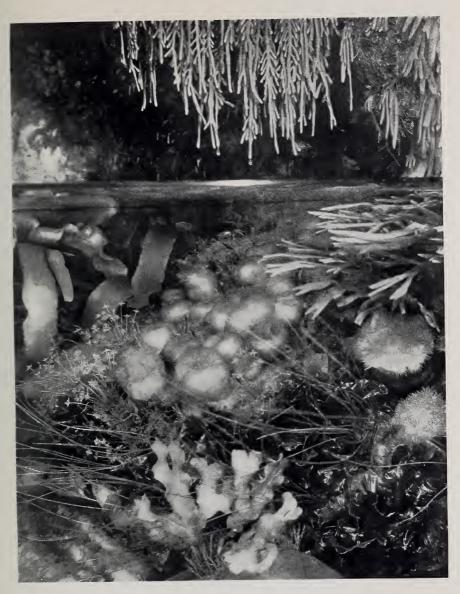
Woods Hole, Massachusetts, securing material and sketches for a projected group which will exhibit the fauna and flora of the Sound bottom. Mr. Miner is continuing the work on the synonymy and bibliography of the American Myriapods. Dr. Van Name has practically completed his monograph on the West Indian Ascidians, which covers also the forms of related territories such as southern United States and Bermuda; this research is a valuable contribution to the work of the Museum. in connection with the Biological Survey of Porto Rico in cooperation with the New York Academy of Sciences. Professor G. A. MacCallum is engaged in studying the parasites collected by the Congo Expedition, and has already submitted for publication a paper on "A Trematode Parasitic in Elephants." A paper entitled "On the Anatomy of the Leech (Ozobranchus branchiatus Menzies)," by W. G. and G. A. MacCallum, is also in press and will appear shortly. Dr. Lutz has collected a large amount of material with special reference to the needs of exhibition work and has also made substantial progress in the study of North American bees of the group Apoidea. Mr. Mutchler has continued his able studies on the Coleoptera of Florida and the West Indies. Mr. Watson has devoted considerable time to the securing of illustrative material on the life histories of Lepidoptera. Dr. Bequaert completed during the year a large and important paper on African Vespidæ. As in former years, members of the New York Entomological Society and other entomologists, notably Mr. B. Preston Clark, have continued their generous cooperation.

Just prior to his death Curator Gratacap submitted an extensive report which included not only a statement of progress in conchology during the year but also an extensive analysis of its needs and purposes; the latter is especially valuable, as it is based on his long retrospect of the history and development of his division.

The work of Curator Gratacap during the year was restricted almost exclusively to labeling the study series of shells, the marine univalves and bivalves being entirely completed. The fresh-water shells, though still requiring some revision, are primarily classified and arranged. Some rare and beautiful

volutes have been added to the handsome collections obtained from Mrs. Oldroyd, while the Oldroyd purchase of last year is distributed. Tentative arrangements have been undertaken for the amplification of the West Coast shell collections through the coöperation of the Southwest Museum at Los Angeles. The D. Jackson Steward collection has been revised and steps have been taken to make its many duplicates available for exchange, in order to secure additional Philippine land shells. A few transparencies have been added to the series in the Hall of Shells, and, through the courtesy of the United States National Museum, two admirable photographs taken by Dr. Paul Bartsch have been secured which illustrate the habitats respectively of Cerion glans of the Bahamas and Helix (Cepolis) ovum-reguli of eastern Cuba. Mr. Gratacap had taken up also the difficult question of a general catalogue and had made plans for bringing it to completion.

The Nahant Tide Pool Group, the most ambitious yet attempted, is nearing completion. Its construction has demanded the most careful work, in both field and laboratory, of Mr. Miner and the members of the preparation General Invertebrate staff, Mr. H. Mueller, Mr. S. Shimotori, Mr. C. E. Collections Olsen and the late Mr. Ignaz Matausch. The work on the Bryozoa Group has been resumed and will be prosecuted vigorously during the year 1918. The projected group showing the associations at the bottom of Vineyard Sound has already been mentioned. Substantial progress has been made in the construction of individual exhibits for the synoptic series, with especial reference to the Alcove of Protozoa. Many Infusoria and two beautiful Radiolaria (Heliodrymus dendrocyclus and Tholospira dendrophora) are especially noteworthy and are particularly valuable for class instruction. Another important item is the flagellate Proterospongia haeckeli. Other protozoan models and two of nudibranch mollusks are well toward completion, as is also a new panel to illustrate color inheritance in the "Four-o'clocks." A phylogenetic chart of the animal kingdom is in preparation and will be particularly useful for the study of the synoptic series. The educational value of the Darwin Hall has greatly increased during the year; the hall



DEPARTMENT OF INVERTEBRATE ZOÖLOGY

NAHANT TIDE POOL GROUP

SEA-ANEMONES AND HYDROIDS

Detail of group showing the marine life of a New England Tide Pool



was used by 11,841 pupils of 449 classes from 185 institutions, as compared with 6,667 pupils of 244 classes from 130 institutions in 1914. Dr. Van Name has been most successful in consolidating the general collections of invertebrates, giving particular attention to the arthropods and urochordates. Incidentally, duplicate series of Porto Rico collections have been selected for the Porto Rican Government, and much work has been done on the invertebrates of the Congo collection.

In an earlier paragraph the major work with insects and spiders has been described, and little needs to be added. exhibits in the Hall of Insects have been amplified Insects and so as to increase materially the educational value Spiders of the entire hall. The study collections have been used by numerous entomologists who have also contributed their services for the improvement of the collections. Mutchler's work with Coleoptera and Mr. Watson's with Lepidoptera have been particularly noteworthy, while Mr. Wunder has continued to be invaluable as a laboratory assistant. account of the large size of the groups in question, and also because of the variety and delicacy of the material, the principal problems are concerned with the installation and care of the rapidly growing collections.

While it is impracticable to enumerate all the valuable accessions of the year, the following may be noted. Among the general invertebrates are an extensive and important collection of Bryozoa, embracing many types, presented by Professor Raymond C. Osburn of the Ohio State University; the series of myriapods and arachnids given by Mr. Howard J. Notman; models of trematode and cestode parasites secured by Professor Dean in Japan; a collection of invertebrates from Florida presented by Dr. W. G. Van Name, and by purchase a series of well prepared marine invertebrates, including a number of rare forms. The entomological accessions are numerous, though for the most part of small series of specimens. Among the larger and more important items are the series of 243 Lepidoptera, including some very rare specimens, given by Mr. B. Preston Clark; nearly a thousand specimens.

mens of various orders from Mr. W. S. Wright; a gift of 310 bees, representing 226 species, from the United States National Museum: 1,600 representatives of various orders from Mrs. J. B. Knapp; 28 specimens of mites, chiefly cotypes, presented by Mr. H. E. Ewing; nearly 300 insects, chiefly exotic, donated by Mr. Charles Wunder; 83 specimens of various orders, inclusive of many paratypes, as a gift from Mr. C. J. Drake; and a series of more than 500 insects, given by Mr. C. R. Kellogg of Foochow, China. Notable additions by gift to the shell collections are Cuban specimens from Mr. Barnum Brown; 44 specimens of Bulimulus from Mr. E. D. Crabb of Texas; specimens showing the economic uses of shells from the McKee and Bliven Button Company of Muscatine, Iowa; numerous specimens from Mr. W. H. Weeks, and a series of marine shells from Mrs. E. B. Peters. Through Professor Bashford Dean numerous and valuable specimens of Japanese species were secured by purchase, and a large series of marine shells was obtained through exchange with Mr. W. H. Weeks.

# RECENT AND EXTINCT FISHES EXISTING REPTILES AND BATRACHIANS\*

Bashford Dean, Honorary Curator Mary Cynthia Dickerson, Associate Curator of Herpetology

#### **FISHES**

The most notable fish placed on exhibition during 1917 is a copy of the great devilfish (Manta birostris) captured for the Museum in Florida by Mr. Russell J. Coles. It has been hung, as though swimming, over the fish cases on the second floor and in such a manner that visitors can obtain an impressive view of it looking down from the gallery above. Work is in progress on two marine groups, the more important of these, nearing completion, a large Blue Shark accompanied by a brood of young. The introduction into a group of this nature of true light and color effects has been made the subject of careful study by Dr. Dean, and, as a result, a mirror simulating the ocean surface seen from below has been introduced

<sup>\*</sup> Under the Department of Ichthyology and Herpetology (see also page 192).

across the top of the case. A subsidiary group will show lesser characteristically pelagic fishes.

As usual there have been additions in the cases of fishes arranged systematically and many labels have been printed, so that the entire exhibition of fishes is now adequately supplied with permanent labels.

The installation of a new system of racks for the alcoholic collections necessitated the rearrangement of this entire material (more than 7,000 separately catalogued specimens) and corresponding revision of the reference catalogue. This task has been completed, but certain improvements, notably in ventilation and lighting, will have to be made in the storage room before the collection reaches its maximum availability for study.

Owing to war conditions, the department has not attempted to carry on field work during the past year. It should be mentioned, however, that, during a short trip to Japan in the spring, Dr. Dean was able to purchase several specimens of especial value to the department, and that Dr. Eastman, who left for South America in June primarily in the interests of the Department of Vertebrate Palæontology, has also been making collections of fishes as opportunity offered.

In late March the Assistant Curator took advantage of an offer to accompany Mr. Herman Armour Nichols of Chicago on a three weeks' cruise in southern Florida, as this afforded him the opportunity to further investigate certain problems relating to Ground Sharks (*Carcharhinus*) in which the department became interested during the preceding summer. This short trip proved well worth while, and its results have been published in the Museum *Bulletin*.

The systematic report on the fresh-water fishes of the Congo Expedition, by Mr. John Treadwell Nichols and Mr. Ludlow Griscom, appeared in the Bulletin. It is doubtless the most important paper on a collection of African fishes ever published. This marks the completion of the necessary initial systematic study of the material, and it is hoped that a short paper, published later by Dr. East-

man on the "Dentition of Hydrocyon and its supposed Fossil Allies," will be followed by similar ones of philosophic interest.

During the past year. Dr. Dean's "Bibliography of Fishes" has been the most important fish work the Museum has had on hand. Since Dr. Eastman's departure for the field in June, editorial and compilation work on it have gone forward under Mr. Arthur W. Henn. Two volumes have been published during 1917. Volume I, Authors A-K, appeared in January, and Volume II, Authors L-Z, in June. Together these volumes comprise more than 1,400 pages and include more than 40,000 titles. They represent the culmination of nearly twenty-five years of effort and have been made possible by the coöperation and assistance of ichthyologists in all parts of the world. They have already proven a storehouse of ichthyological knowledge in every aspect—in anatomical, embryological, palæontological, systematic, fish-cultural and other phases-and have been received with cordial appreciation by the foremost workers in science. Work on a final volume, which will constitute a classified and subject index, facilitating rapid and convenient reference to all the literature of any given subject relating to fishes, is in an advanced state of preparation and should be completed in 1918.

At the outbreak of the war, the department expressed its desire to coöperate in any way with the United States Bureau of Fisheries, and we note with pleasure that on one Cooperate in any way with the United States Bureau of Fisheries, and we note with pleasure that on one or two occasions a Bureau of Fisheries agent in New York has been able to settle here questions which must otherwise have been referred to Washington. Mr. Russell J. Coles, a Life Member of the Museum and an enthusiastic amateur ichthyologist, to whose activity in other years we owe the Manta model and many other specimens of scientific value, has interested himself during the past summer in the utilization of sharks and rays as food, keeping in close touch with the Bureau of Fisheries and also with this department.

#### REPTILES AND AMPHIBIANS

The additions to the catalogued study collections for 1917 total 2,651 specimens—372 batrachians and 2,279 reptiles, not counting the Nicaragua collection (about 2,500 specimens). Notable among these additions are 133 specimens from the work of the Museum's Asiatic Zoölogical Expedition in high altitudes in Yunnan, China; 66 from John Graham, Yunnan; 36 from Manchuria, gift of Makoto Nishimura; 67 from high altitudes in North Carolina, gift of Morton L. Church; and many smaller collections from South America and the American Southwest.

Outstanding exchanges have been completed by shipments of material to the Institut de Butantan, São Paulo, Brazil, and the California Academy of Sciences, San Francisco. Notable receipts closing exchanges include 52 specimens from the Albany Museum, Grahamstown, South Africa; 10 from the Museum of Comparative Zoölogy, Cambridge; and several hundred specimens of Costa Rican and Colombian species, including 24 types described by Cope, from the Commercial Museum, Philadelphia. At the close of the year an exchange was arranged with the British Museum, and several shipments of North American frogs will be sent within the next few weeks for use by Dr. Boulenger in his revision of the genus Rana.

By temporary exchange or loan of material for mutual advantage in special work during 1917, the department has cooperated with the following American institutions: the United States National Museum, Washington; the Museum of Zoölogy, University of Michigan; the Museum of Comparative Zoölogy, Cambridge; and the Field Museum of Natural History, Chicago. In addition, courtesies have been received in the shape of loaned collections for comparative study from the Academy of Natural Sciences, Philadelphia, and from the Brooklyn Museum. The most important of outgoing collections loaned by the American Museum consists of our material from Peru, Bolivia, Ecuador and Chile, sent to Cambridge.

Mr. G. K. Noble was appointed a research assistant in June, and has been carrying on investigations on the Central and South American collections of the Museum. He Research and is at present on leave of absence to complete re-Publication search begun on Peruvian reptiles at Cambridge. One paper has been published in the American Museum Bulletin on the status of certain representatives of Eleutherodactylus, Cerathyla and Hyla, with a contribution to the discussion of the importance of the terminal phalanges in classification. He has completed, ready for publication, a second paper covering the amphibians of the Nicaragua Collection of the Museum. There is also on hand a completed paper on the snakes of the Nicaragua Collection by Clarence R. Halter, who was prevented from carrying out further work by a call to military service. A paper is ready for publication on the turtles, crocodiles and lizards of the Congo Collection of the Museum (1,593 specimens, 52 species of 23 genera). Of the ten new forms described, 3 are geckos, 3 lacertids, 2 chamæleons, and 1 represents a new genus of Crocodilia related to the West African Osteolæmus. This work is in the hands of Mr. Karl P. Schmidt. Mr. Schmidt has also done the preliminary cataloguing and

Research on the reptile fauna of Lower California, in the hands of the Associate Curator, has led necessarily to a review of the reptile fauna of the Southwest, with critical study of distribution and revision of various genera of desert lizards. New species include three of Sauromalus, large chuckwallas related to the single species so long known from the Colorado Desert, and various island representatives of Sceloporus, Callisaurus, etc.

identification for a paper on the snakes of the Congo.

Much bibliographical work has been carried on in connection with research, forming records of permanent value to the department and to herpetology. The bibliographical work has been standardized in accordance with a system compiled from previous researches, including that recently carried out by the department of fishes of the Museum, and it will be brought together from the permanent card indexes for publication in the future by Messrs. Charles L. Camp, George K. Noble and Karl P. Schmidt. The Congo work has covered the cataloguing of





DEPARTMENT OF ICHTHYOLOGY AND HERPETOLOGY
FLORIDA REPTILE GROUP
Detail of the Group

more than 890 titles on African herpetology, 2,500 cards; that on the American Southwest includes about 270 titles, 4,500 cards; work on Asian herpetology has necessitated the cataloguing of 300 titles, 900 index cards; and miscellaneous work, 500 titles, 600 index cards. Mr. Noble brings to this work a contribution in neotropical bibliography as follows: 382 titles, with 514 cards of new species of amphibians, 452 cards of new species of reptiles (post-Boulenger). Mr. Camp contributes on North American herpetology and morphological papers, about 3,000 titles, 900 index cards.

The 1917 publications include the paper by Mr. E. R. Dunn on the North Carolina mountain reptile and amphibian collection in the American Museum, the field work for which was done in the summer of 1916.

Progress has been made on small pieces of exhibition work such as the Florida Gopher Group and the New Zealand Sphenodon Group, but the major piece of exhibition on Exhibition hand for 1917 has continued to be the Florida Group, started in the summer of 1916. This is now virtually completed. The work was delayed greatly by the many months of absence from the Museum and the death in October of Mr. Ernest W. Smith. Mr. Smith has done the main work of assembling in all the groups in the reptile series, under the direction of the Associate Curator, also supervising the technique of assistants in the preparation of the masses of foliage. His death is a very great loss; there can scarcely be found anywhere a man with his skill in this particular line of work. The Florida Group has been continued to completion by Mr. Frederick H. Stoll, expert wax modeler and colorist. The background was painted by Mr. Hobart Nichols.

The group is the largest yet attempted in the Museum, the foreground having an area of about 275 square feet, and the background of about 475 square feet. When we look at such a group completed, it is difficult to comprehend how vast has been the amount of fine exact reproduction of nature entailed; how involved the principles and details of the basic construction and lighting to produce the effect of composition and perspective; what attention to accuracy and finish has been nec-

essary to gain this illusion of the natural, even on closest approach.

Like the other reptile and amphibian groups, this, on a larger scale, shows what can be accomplished with wax as a medium. The lifelike turtles, alligators, lizards, snakes, frogs and toads are but perfectly posed and colored casts from life—and, fortunately, years have proved that such wax casts are permanent through all variations of heat and cold in the New York climate.

The group is not simple; it is very complex and shows many species and many individuals. In planning the various reptile groups in the American Museum, where space is so much an item to be considered, it has been the feeling of the department that enough was not accomplished when a group set forth one theme or one or two species of animals, or when it was made a beautiful picture only; but that it should be as highly educational as possible in number of forms portrayed, in life histories and habits and in adaptation to the given environment —even though this should mean sacrifice, to some extent, of the æsthetic element, because of decreased simplicity.

It is to be noted that the very beautiful little white herons of the group were obtained through exchange with the Louisiana State Museum at New Orleans.

The color scheme of the group includes gray (varying to white) and green, enlivened by glimpses of red. There is the gray-white of lichen-grown tree trunks and knees, and of the hanging tillandsia, the summer green of sweet bay, myrtle, deciduous holly, and various tropical vines. On the river side of the group are white flowers of rare beauty belonging to the amaryllis family. In the center are the red, ripening berries of the holly and red lilies which grow commonly at this time of the year (early September) in the white sand among the saw palmettos. The field work for the group was done in the swamps and on the rivers within a radius of from twenty to sixty-five miles of Orlando, and all accessories and animals of the group are made directly from the living material.

It is hoped that the group will prove instructive in presenting in their natural haunt the many and very unusual reptile and amphibian species of the southeastern United States. It is an

accurate picture of the cypress swamps, which are rapidly disappearing through the effects of fire, lumbering, and the present movement for the drainage of the Florida swamp lands. It is hoped that, beyond these points, the group may succeed in giving one somewhat the rare experience that comes to the person who for the first time visits these unique swamps of our country. Reading and pictures have made us all familiar with the sand wastes, the turpentine pines, the palmettos, the prairies, the luxuriant vegetation along the rivers, the alligators, the diamond-back rattlers. But the cypress swamp itself is a different matter,—we are not prepared for that. No pictures and no reading can carry the effect of that to the mind. It might be on another planet, so different is it from anything else on this globe. In visiting the sequoia forests of the Pacific Coast, we are filled with wonder at the magnitude of the trees: at the sight of certain cactus growths on mountain slopes in the Southwest, we may receive a thrill as though entering some dimly remembered garden of ancient gods; but nothing has prepared us for the influence of the Florida cypress swamp in the full sunshine of afternoon. It is probably largely a matter of line and color. The lichen-white trunks, as austerely straight as the columns of a cathedral, gracefully curve outward at their fluted bases; these same curves are paralleled in the fantastic knees, while the broken canopy of branches above and the white trunks below are everywhere wreathed and festooned with swaying white tillandsia. The whole has a sculptural beauty as though carved out of living marble by some hand other than man's. The group in relatively so small a space can do little, of course, toward reproducing the vastness and massiveness of the original, but it attempts to suggest the spirit of the unusual beauty of this part of our country.

In addition to the work in herpetology, the editorship of *The American Museum Journal* has been carried.

#### MAMMALS AND BIRDS\*

J. A. Allen, Curator

The work of this department was seriously interrupted during a large part of the year (1917) by the entry into the service of the United States of eight members of its staff, five of whom entered the training camp at Plattsburg, New York, in August, received commissions as lieutenants and were assigned to active duty at field camps in December. Curator Chapman entered the service of the American Red Cross in June, and was later made Director of its Bureau of Publications in Washington. members of the staff who have entered the United States service, with their assignments, are: Mr. H. E. Anthony, Assistant in Mammalogy, 1st Lieutenant, Field Artillery; Mr. James P. Chapin, Assistant in Ornithology, 1st Lieutenant, Infantry; Mr. Leo E. Miller, Assistant in Ornithology, 1st Lieutenant, Aviation; Mr. Carlos D. Empie, Mammalogy, 2d Lieutenant, Infantry; Mr. Ludlow Griscom, Ornithology, 2d Lieutenant, Intelligence; Mr. Howarth S. Boyle, Ornithology, Naval Base Hospital. Mr. Harold K. Decker entered the United States Navy in September.

Notwithstanding this handicap, the routine work of the department has progressed steadily, and large accessions have been received from expeditions which were already in the field or organized for field work at the beginning of the year.

The accessions have come mainly, as usual, from field expeditions, and have been important. Additions to the mammal collection comprise 2,600 specimens, of which 2,230 have been received from Museum expeditions; 40 by exchange, 160 by purchase and 175 by gift. The additions to the collection of birds number 3,950 specimens, of which about 3,000 were obtained through Museum expeditions, 413 by exchange with the São Paulo and Buenos Aires Museums, 294 by purchase, and a few by gift.

<sup>\*</sup> Under the Department of Mammalogy and Ornithology (see also pages 28, 29 and 194).

The American Museum Asiatic Zoölogical Expedition, under the leadership of the Assistant Curator of Mammals, Mr. Roy C. Andrews, left New York in March, 1916, for Field field work, mainly in the Province of Yunnan, Expeditions China, and returned in October, 1917. As stated in the report of this department for 1916, Mr. Andrews was accompanied by his wife, Mrs. Yvette Borup Andrews, official photographer of the expedition, and by Mr. Edmund Heller, well known as an expert collector and explorer. The expedition was eminently successful, obtaining 2,100 mammals, 800 birds and 200 reptiles, 10,000 feet of motion picture film, and 550 photographs, of which 150 are in natural colors. Collections were made at localities varying from 1,500 to 15,000 feet above sea-level and extending from the Burma frontier to the borders of Tibet. The mammals include large series of gorals and serows, the shrew-like Hylomys and large numbers of rodents and insectivores, nearly all previously unrepresented in our collections. As much of the region traversed had not before been visited by collectors, it is probable that this material will be found to contain many undescribed forms.

Mr. Waldron DeWitt Miller, Associate Curator of Ornithology, made a reconnaissance trip to Nicaragua, to familiarize himself with the physical conditions and the distribution of bird-life in that country, preparatory to the publication of a work on Nicaraguan birds, based on the large collections of birds made for the Museum by William B. Richardson in 1906–1909. As Mr. Miller was able to avail himself of Mr. Richardson's services as guide and assistant in his field work, he was successful in obtaining important results, both in the way of material and in first-hand knowledge of the faunal conditions. Mr. Miller's collection of 1,500 specimens enables him to add a considerable number of species to the list of known Nicaraguan birds. He was accompanied by Mr. Griscom of this department.

The work begun in Porto Rico by Assistant H. E. Anthony in 1916 was this year extended to Cuba, where several months were spent in exploring caves for the remains of extinct mammals. Despite the revolutionary conditions then prevailing, which considerably hampered his work and brought it to an

early close, Mr. Anthony secured a large amount of fossil mammal material and incidentally collected 130 bats, representing, in good series, most of the species known from the island.

Mr. George K. Cherrie returned early in the year from his work along the Paraguay River, undertaken in extension of the work in that region by the Roosevelt Brazilian Expedition in 1913–1914, of which Mr. Cherrie was a member. Colonel Roosevelt's strong interest in this region as a rich field for ornithological investigation has been shown by his contribution of financial aid for Mr. Cherrie's second visit, which was supported by Colonel Roosevelt and Mr. Cleveland H. Dodge. While Mr. Cherrie devoted his time largely to the study of the life-history of the striking bird life of the region, he also secured 750 specimens of birds to supplement his previous collection, and also a number of mammals.

The Crocker Land Expedition, under the direction of Mr. Donald B. MacMillan, returned toward the close of the year after an eventful sojourn of four years in Arctic America, where zoölogical as well as geographical and geological investigations were successfully prosecuted, resulting in important additions of both mammals and birds to the resources of the Museum.

The Museum's share of the mammals collected on the Collins-Day Expedition to South America have been received, numbering 147 specimens, which, in accordance with the terms of agreement respecting the results of the expedition, have been identified and reported upon by Mr. Wilfred H. Osgood of the Field Museum.

During the year the Brewster-Sanford Collection has been enriched by the addition of some 1,500 bird skins, of which about 1,000 were collected in the West Indies by Mr. Rollo H. Beck, after completing his several years of successful work in collecting pelagic birds along the coasts and islands of southern South America. The island of Santo Domingo, where he collected nearly 800 specimens and visited the high mountains of the interior as well as the coast district, proved of special interest, his collection containing several new forms, an account of which was promptly published by Curator Chapman in the current volume of the Museum *Bulletin*.

Dr. Dwight's collection of birds, which, like the Brewster-Sanford Collection, is available for scientific research at the Museum, is increased by frequent accessions, which during the present year number 2,000 specimens, and is now, with a total of 47,000 specimens, by far the largest and most scientifically valuable collection of North American birds extant.

The installation of the large number of metal storage cases mentioned in last year's report has made it possible to rearrange the research collections of both mammals Study

Collections and birds through the additional storage facilities thus provided; but lack of storage space is still a crying need, particularly for the proper installation of the osteological material, recently so greatly increased in amount and value through the immense accessions from the Congo Expedition. Storage space for the large mammal skins and skeletons is wholly inadequate, either for their safety or accessibility.

Good progress has been made during the year in the reorganization of the collection of mammals, chiefly under the direction of Assistant Anthony, and in the preparation of the larger skins, skulls and skeletons, mainly under the general supervision of Mr. Lang, who reports that 1,290 skins have been tanned and that 3,764 skulls and skeletons have been cleaned and made ready for study. The work is progressing rapidly and with satisfactory results, but will require several months more for its completion. The cataloguing of the recent accessions is well advanced, and the index catalogue is kept well abreast of the serial catalogue entries and the identification of the material.

The three large mammal groups placed on exhibition during the year are a Virginia Deer Group, an African Red Monkey Group, and a South American Spider Monkey Group. The Hall of Primates is being rearranged, and important desiderata have been supplied toward the completion of the Synoptic Hall of Mammals. A Newfoundland Dog, the gift of Mr. J. Alpin Graydon, has also been mounted for exhibition.

The Curator has concentrated his available time for research upon the Congo collection of mammals. The identification of the bats, begun in 1916, was concluded early in Research and 1917, and a report upon them, in coöperation Publication with Messrs. Lang and Chapin, has been published in the Museum Bulletin, forming an article of about 159 pages, illustrated with drawings by Mr. Chapin and field photographs by Mr. Lang; about one-half of the text consists of a systematic list of the species, the ecological and field notes by Messrs. Lang and Chapin constituting the remainder and forming an important contribution to the bionomics of the subject. Later a paper was prepared and published by the Curator on the remarkable skeletal characters of a peculiar shrew (Scutisorex Thomas) based on a fine series of specimens in the Lang-Chapin collection. This is followed in the Bulletin by a paper based on the same material by Dr. H. von W. Schulte, on the lumbar vertebræ of Scutisorex. A report on the Insectivores of this collection has been prepared and awaits publication, and a report on the Sciuromorphs is nearly finished.

Mr. Anthony, on returning from field work in Cuba, resumed the elaboration of his Porto Rico material, the results of his investigations being already in press as a contribution to the Museum *Memoirs*, under the title "The Land Mammals of Porto Rico, Living and Extinct." The subject is treated monographically, and, illustrated with numerous excellent text figures and plates, forms an important contribution to science, based mainly on the author's personal explorations in Porto Rico. Mr. Anthony has also published during the year three preliminary papers in the *Bulletin* on the same general subject.

Curator Chapman's account of his work in Colombia, announced in last year's report as in press, was published in November, under the title "The Distribution of Bird-Life in Colombia; A Contribution to a Biological Survey of South America," and forms Volume XXXVI of the Museum Bulletin. It comprises 740 pages of text, numerous maps and other text illustrations and forty-one plates, of which six are colored, the remainder being half-tones from field photographs illustrating the topographic features and faunal conditions of the

extensive areas traversed by the Museum's expeditions. Following an historical account of previous work relating to the ornithology of Colombia, and detailed itineraries of the eight Museum expeditions (1910-1915) in that country, resulting in the addition to the Museum's resources of nearly 16,000 birds and 1.600 mammals, the author discusses the life zones and faunas of Colombia, with special reference to the Colombian Andes, to which the expeditionary work was mainly restricted. The bird-life characteristic of each is listed, while a map in colors shows their extent and relationships, and another colored map shows the distribution of forested and unforested districts. Part II (pp. 170-639) is systematic, and entitled "A Distributional List of the Birds Collected in Colombia by the American Museum's Expeditions," numbering 1,285 species and subspecies. This comprises not only a detailed record of localities and number of specimens for each of the forms, but citations of their previous records for Colombia, with often technical comment on their status and relationships. An appendix contains a "Gazetteer of Colombian Collecting Stations," with a map showing their location, the routes followed by the American Museum's expeditions and the localities at which collections were made. This feature will be a boon to future workers on Colombian zoölogy. This volume is thus an important contribution not only to Colombian ornithology but to zoögeography, and an enviable monument to the author who has devoted the last five years to South American ornithological exploration, greatly to the credit of the American Museum.

Mr. Chapin's paper on "The Classification of the Weaver-Birds," published in May, is the fourth prepared by him on the ornithological results of the Congo Expedition. Other ornithological papers from this department are Mr. Leo E. Miller's field notes on the Cowbirds (Molothri) of Argentina, and Curator Chapman's on Mr. R. H. Beck's collection of birds from Santo Domingo (for the Brewster-Sanford Collection), describing three new species, with comment on others of special interest. In this connection mention should be made of the description of a new Albatross by Mr. Robert Cushman Murphy, based on material in the Brewster-Sanford Collection. Mr. George K. Cherrie has been engaged in the preparation of

his report on the birds of the Roosevelt South American Expedition, which is nearing completion.

An elaborate paper by Dr. H. von W. Schulte on the skull of *Kogia breviceps*, based on the material of this department, has been published in the *Bulletin*.

The publications of the department in the current volume of the *Bulletin* (Vol. XXXVII) comprise 11 papers, aggregating 305 pages, 32 plates, and 45 text figures. Seven of the papers relate to mammals and four to birds; they were contributed by eight authors, of whom six are official members of the department staff.

Illustrated articles relating to Museum expeditions from this department have been contributed to *The American Museum Journal* by Mr. George K. Cherrie ("To South America for Bird Study"), Messrs. Herbert Lang and James P. Chapin ("Bats of the Belgian Congo"), Mr. Leo E. Miller ("A Search for *Scytalopus*" and "A Glimpse into the Quichua Country of Southern Bolivia"), Dr. J. A. Allen ("Report from the Asiatic Zoölogical Expedition"), and Mr. Roy Chapman Andrews ("Little-known Mammals from China").

# **EXTINCT VERTEBRATES\***

HENRY FAIRFIELD OSBORN, Honorary Curator W. D. Matthew, Curator

For reasons connected with the entrance of the United States into the world war, it was considered advisable to postpone the usual field work for the season of 1917. Preparation and research were continued during the year.

Further progress has been made in the preparation of the great collection of Cretaceous dinosaurs from Alberta and

Montana. One complete and two partial skeletons of a new type of duck-billed dinosaur *Pro*cheneosaurus have been finished; a skeleton of a great carnivorous dinosaur and a second and very fine one of *Corythosaurus*, besides two skulls of *Stephanosaurus* and two incomplete skeletons of *Hypacrosaurus*, are in preparation. All

<sup>\*</sup> Under the Department of Vertebrate Palæontology (see also page 198).



DEPARTMENT OF VERTEBRATE PALÆONTOLOGY

# Moropus

Clawed Ungulate from the Miocene of Nebraska. Skeleton recently placed on exhibition. One of seventeen skeletons



these, save the carnivorous dinosaur, belong to the group known as duck-billed dinosaurs, of which until a few years ago only a single kind was known.

The skeleton of the giant *Tyrannosaurus* has been removed from its temporary place in the Hall of the Age of Man and installed in the Dinosaur Hall, where it properly belongs.

The skeleton of the clawed ungulate *Moropus* has been mounted and placed in the center of the Tertiary Mammal Hall. This is a remarkably fine skeleton of a very curious and hitherto very rare animal. Others will be added later to form a group.

The fossil camel alcove has been revised and improved by the addition of a series of skulls and partial skeletons illustrating the evolution of this family in North America and its later migration to the Old World and to South America, where the camels and llamas still survive although they have become extinct in their old home.

In the Hall of the Age of Man, the skeleton of a glyptodont or tortoise armadillo Lomaphorus has been added to the series of extinct animals of South America. It is an Skeleton of a interesting example of the great changes in the internal framework of these animals resulting from the massive turtle-like shell that covered them, and from their peculiar habits of life.

The most attractive feature of this hall will be the series of fine mural paintings by Mr. Charles R. Knight, gift of Mr.

Mural Paintings

J. P. Morgan. The first of these has been completed, representing a Pleistocene Life Scene of northern Europe, contemporary with prehistoric man. The animals shown, mammoth and reindeer, are especially characteristic of the Glacial Period of Europe, and are represented in the arctic environment to which they were adapted. A second mural, representing a Pleistocene Life Scene in North America, is well advanced. It shows in their natural surroundings the great American Mastodon, the extinct long-horned bison

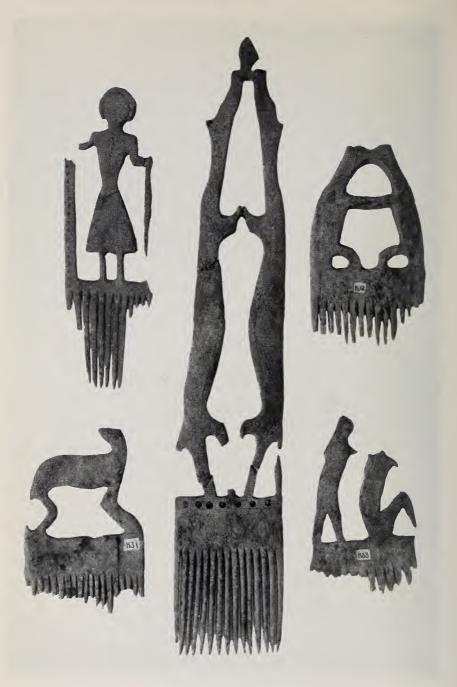
and native horse, characteristic prehistoric animals of the Middle West. Preliminary studies have been made and approved for the remaining murals in this hall.

A skeleton of the great long-jawed mastodon Megabelodon has been purchased from the discoverer, Captain E. L. Troxell, and will be restored and mounted in the series of fossil Proboscideans. The Megabelodon was an animal equaling the great American Mastodon in bulk but having shorter legs and greatly elongated jaws. It inhabited North America during the Pliocene epoch.

A number of important specimens of the very primitive mammals of the oldest Tertiary formations have been prepared, especially the skeletons of *Ectoconus* and *Pantolambda*, skull of *Triisodon* and remains of various new or rare species of minute size. These specimens are of great scientific interest as they throw much light upon the origin and early evolution of the mammals.

The postponement of field expeditions has notably increased the amount of research work in the department. An important book published by Professor Osborn, "The Research Work Origin and Evolution of Life on Earth," discusses the broader evolutionary problems in the light of recent researches, especially in biochemistry and allied subjects, presenting new or little considered aspects of evolutionary theory. Professor Osborn has in press a revision of the later Tertiary fossil horses marking the completion of an important stage in his studies on the Evolution of the Horse. He has likewise continued his monographic revision of the sauropodous dinosaurs, assisted by Dr. Mook, and has the monograph upon the Titanotheriidæ nearly ready for the press. Dr. Matthew and Mr. Granger have continued or completed various studies upon fossil mammals, Mr. Brown upon dinosaurs, and Dr. Gregory upon the primates (monkeys and lemurs) and upon the very ancient reptiles of the Permian period. Some results of these various researches are contained in eight articles in the Museum Bulletin; the greater part are not yet in shape for publication.





DEPARTMENT OF ANTHROPOLOGY

IROQUOIS BONE COMBS

Specimens from the Hildburgh Collection. Presented by Dr. Walter L. Hildburgh

# EXISTING AND EXTINCT RACES OF MEN\*

CLARK WISSLER, Curator

An unusually large number of valuable collections was donated during the year, the full list of which will appear under the appropriate head. Among these is a large Acquisitions field collection by Dr. T. Mitchell Prudden from prehistoric ruins in the Mesa Verde District, Colorado. Dr. Prudden is noted for his scientific studies in Southwestern anthropology, in the course of which this collection was brought together. It is thus of the greatest scientific value. Also of great importance is a rich series of archæological specimens from Iroquois sites in western New York State donated by Dr. W. L. Hildburgh, an anthropologist of note. This collection was made by the donor and is accompanied by the original catalogue. Mrs. E. H. Harriman presented a remarkable coat of marten skins collected among the natives of Alaska in 1899. Our Tibetan collections were enriched by Mrs. William Tod Helmuth's gift of a rare carved Lamanistic belt and apron and Mrs. Florence Magee's presentation of one of the earliest known promissory notes issued in Lhasa. In this connection may be mentioned Mr. Marshall C. Lefferts' fine collection of Japanese armor mounted on effigies ready for exhibition. Our somatological collections have been enriched by gifts of Santa Barbara skulls from Mr. R. G. Hazard, five hundred skin and hair samples from Professor T. W. Todd, and a mummified body from New Mexico by Captain S. M. Strong. Mr. William W. Heaton presented a series of Lake Dweller specimens from Lake Geneva; Mr. Henry Hornbostel a large series of photographic studies in Maya architecture; and an ethnological collection from Colombia was presented by the Honorable Luis Febres Cordero, Governor of the Department of North Santander, Colombia.

Among the important purchases from the Jesup Fund were a fine wampum belt from the Iroquois Indians, a large collec-

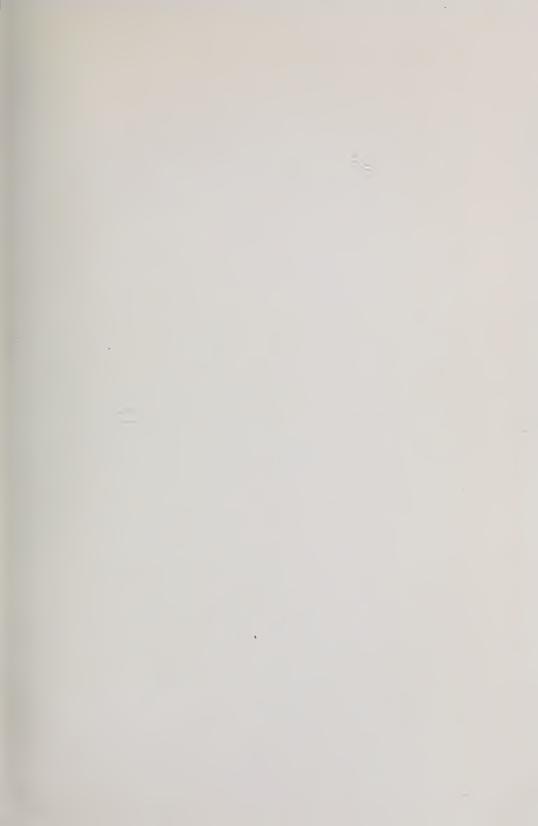
<sup>\*</sup> Under the Department of Anthropology (see also pages 25, 27, 31 and 198).

tion of baskets from the Chitimacha and other southern tribes, a particularly fine series of baskets from the Mission Indians of Southern California, a large series of prehistoric pottery from certain ruins in Arizona, a collection of fine swords and knives from Java, a rare and unusual sacred Tibetan book, a general collection of stone implements from western Europe, a collection of skeletons from the Canary Islands, and a number of unusual pieces of tapa cloth from Hawaii and Samoa.

Several important advances have been made in the development of our exhibition units. For one, we have placed upon view the initial exhibit of somatic, or racial, Exhibition and characters peculiar to man. The fundamental Study Collections plan for the development of our anthropological halls, which has governed our entire activities for a number of years, contemplates a comprehensive presentation of primitive cultures upon a geographical basis, by culture areas, each of which is to be supplemented by a somatological exhibit of the peoples themselves. The first unit of this series is a demonstration of principles in somatic classification, where, in compact and attractive form, Mr. Sullivan made a new and original presentation of the subject. With the labels and diagrams, this exhibit is a small illustrated handbook of physical anthropology. The greater part of the past year has been given to working out the units to accompany the culture area exhibits of North America. Of these, the one for the Plains Indians is about ready for installation.

The rearrangement of the Asiatic Hall, which was reported last year, has proceeded to the revision of the Chinese industrial collections. It now remains to work over the bronze and pottery exhibits to complete this undertaking. The remainder of the hall is given over to the wilder folk of Siberia. Some additional casing is necessary here to bring the arrangement up to the standard set by the Chinese section. During the early part of the year Associate Curator Lowie worked out the general tribal labels for the Siberian peoples, and later Mr. Spier prepared labels and details of arrangement for the tribal exhibits of the Chukchee and Koryak.

Important additions have been made to the archæological





DEPARTMENT OF ANTHROPOLOGY,
APACHE GROUP

Background by Howard McCormick and Mahonri M. Young

exhibits. In the North American section, Mr. Spier installed a demonstration of results from inquiries into the antiquity of man at Trenton, New Jersey. Further, a section showing the prehistoric cultural characters of New England was completed. In the prehistoric section of the Southwest Hall, Assistant Curator Nelson installed an exhibit of Mimbres pottery from New Mexico. The Jesup North Pacific Hall is nearing completion. One great improvement has been brought about by concealing the ornate pillars supporting the ceiling behind totem poles and similar architectural features of native art. This more than any one change in the hall gives the final ethnic touch to the whole exhibit.

Another advance is in the arrangement of our study collections. A room on the storage gallery has been equipped for the use of special students, college classes, and members of the staff engaged in the intensive study of our collections. It has also been necessary to give additional space on the office floor to students of design and to the work of Mr. Crawford.

A group representing the Apache Indians was formally opened in May. This was designed as a companion to the Hopi group.

It depicts the life of the semi-nomadic peoples of Southwestern United States in contrast to the more sedentary peoples of which the Hopi are a type. The artists were Mr. Howard McCormick and Mr. Mahonri M. Young. The painted background represents a section of landscape on the San Carlos River near Rice, Arizona, reproduced here from sketches made upon the ground. The lighting system for the Hopi group was completely revised during the year and some small alterations made in the accessory construction. As now presented, the group is lighted as it would appear in the afternoon sunshine.

The plans for a Navajo group have been developed, in the background for which typical cliff ruins will appear. The preliminary construction is in place and it is contemplated that the background will be completed during 1918.

The murals for the Jesup North Pacific Coast Hall now occupy the two side walls, and it is expected that during 1918, the artist, Mr. Will S. Taylor, will begin on the large end

panels. Mr. Edwin W. Deming has submitted two large canvases for the side walls of the Plains Indian Hall.

Only minor collecting trips were made this year. The chief activities were at Aztec, New Mexico, where Mr. Earl H.

Morris continued the systematic excavation and repair of standing walls in the large pueblo ruin noted in last year's report. The funds for this undertaking were donated by Mr. Archer M. Huntington. A large portion of the ruin was uncovered and a fine series of specimens secured. Among these are thousands of pieces of worked turquoise and some unique examples of turquoise inlay. The pottery received contains the finest examples of black-and-white ware yet found in the Southwest.

Late in the summer, Assistant Curator Nelson made an inspection trip to Aztec and incidentally visited the lower borders of the Rio Grande pueblo area to get final data for the installation of a chronological exhibit in our Southwest Hall. Mr. Nelson traveled approximately four thousand miles on foot and by horse, visiting practically every ruin in that part of the country. While more exploration is desirable to complete our knowledge, the essential chronological steps in the development of pueblo culture are now evident. These will soon be demonstrated in our Southwest Hall. Further, in connection with the installation of the Zuñi chronological exhibit, it became necessary for Mr. Leslie Spier to return to Arizona for additional data. The results of this trip, now being worked out, promise to give us the required information.

Last April we learned that certain large shell-heaps in Florida were being dug away by steam shovels. Accordingly, Assistant Curator Nelson visited these sites, where by the courtesies of the contractors in charge, sections of the entire heaps were worked out. From this it appears that there were three well-marked periods in the development of Southeastern culture, a fact which will be of the greatest service in future studies in this area.

Assistant Curator Spinden spent most of the year in Central America in a general archæological survey upon which we cannot report at this time.

In the department laboratories important work is under way. The Curator has taken up the archæological data and collection returned by the Crocker Land Expedition. Research in The greater part of the collection is from Captain the Museum George Comer's kitchen midden at North Star Bay, Greenland. Messrs. Nelson and Spier have worked out chronological tables from our pottery collections from the Southwest. Mr. Louis R. Sullivan has continued his investigation of skeletal modifications due to function and the collection of hair and scalp samples for the investigation of racial differences. Incidentally, our entire somatological collection has been checked over and re-catalogued. A special investigation of stature and face form according to geographic distribution is now under way, the results of which will be incorporated in forthcoming exhibits.

The usual January lectures dealing with the methods and interpretations of anthropological data were given by Associate Public Lectures

Curator Lowie. The subject this year was "Culture and Ethnology," in four lectures, which have since appeared in book form. The continued good attendance for these highly technical courses justifies making them a permanent feature of our work with a view to reflecting the best scientific work of our staff.

A special series of three lectures on "Primitive Decorative Design" was given in February by Assistant Curator Spinden and Mr. M. D. C. Crawford.

Seven scientific papers were published during the year in the Publications

Anthropological Papers, by members of the department staff. A full list of these articles will be given under the head of Publications.

There was published also *Handbook* No. 3, by Dr. Herbert J. Spinden, "Ancient Civilizations of Mexico and Central America."

# ANATOMY AND PHYSIOLOGY\*

RALPH W. Tower, Curator

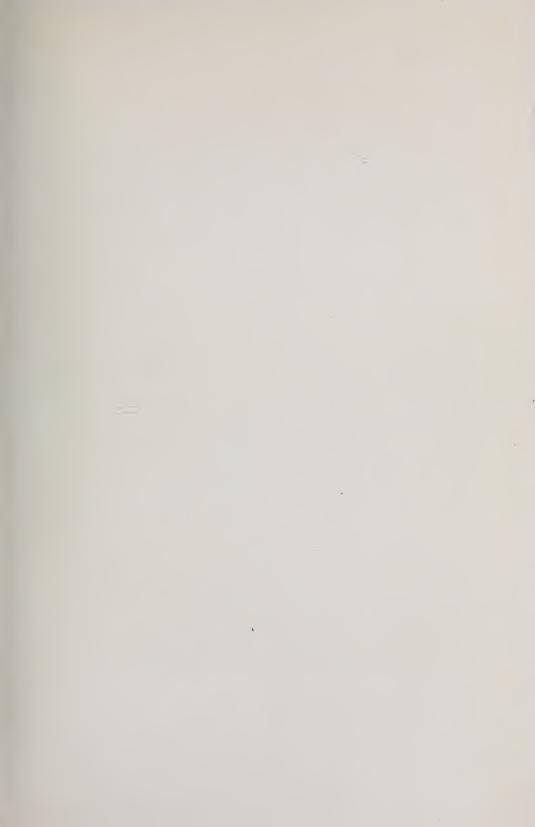
At the beginning of the year Mr. Alessandro Fabbri was appointed Research Associate in Physiology, and during the months of January to April he devoted a large amount of time, with the assistance of Mr. Herm, to the production of a microcinematograph showing the physiology of the heart and circulation in the vascular area of the embryonic chick. The work was executed in the research laboratory of Mr. Fabbri, which is superbly equipped for a study of this character. The film shows the rhythmic contractions of the embryonic heart, the contractility of the blood vessels and the phenomenon of circulation through the arteries, veins, capillaries and their various anastomoses. In fact, the film illustrates many details not readily observed by the eye with the aid of a microscope. The investigation has been temporarily suspended since Mr. Fabbri has been called into the Federal Service for the duration of the war.

Further investigation on the development of the red blood cell, especially in the bird, has been carried on in the laboratory at the Museum with a view to correlating the process in birds and mammals.

Mr. Herm has conducted some experiments in the production and use of a "loop" film. Such a device would permit moving pictures of a subject, such as a contracting muscle, to be exhibited for an unlimited time, thus allowing opportunity for more detailed inspection or for instructive explanation.

The department has mounted twelve skeletons for exhibition: a Phalanger, a Squirrel, a Secretary Bird, a Cassowary, a Rhea, a Manis, four Monkeys and two Baboons. There have been prepared also 812 skulls and 123 skeletons.

<sup>\*</sup> Under the Department of Anatomy and Physiology.





DEPARTMENT OF PUBLIC HEALTH
BALANCED MEAL
From Special Food Exhibit

## PUBLIC HEALTH\*

CHARLES-EDWARD AMORY WINSLOW, Curator

As soon as the United States declared war against Germany, the plans for the development of the Department of Public Health were so recast as to make the educational forces at its disposal of immediate service in the national crisis.

As a first step a special exhibit was prepared illustrating the principal problems of camp sanitation and military hygiene and showing in graphic form how our army is being protected against the dangers of disease. This exhibit, which was opened about the end of April, dealt with the purification of water in the field and the disposal of camp wastes, with the control of insect carriers of disease in army life, with the protection of the recruit by the use of vaccines and sera, with the food and the clothing of the soldier from a hygienic standpoint, and with the prevention of trench foot and other new medico-military problems of the present war.

The Department of Public Health had already made a beginning on an exhibit illustrating the problems of food supply as related to the public health as a distinct section of the permanent exhibition in our Hall of Public Health. It seemed that the development of an exhibit of this sort along the immediate practical lines of food conservation offered important possibilities of usefulness. All the energies of the department were therefore turned in this direction, and on May 23 a special exhibition on Food Values and Economies was opened in the Foyer in connection with a public meeting on Conservation for War, at which addresses were made by the Honorable George W. Perkins, Chairman of Mayor Mitchel's Food Supply Committee, Professor Graham Lusk, of Cornell University, Dr. Hermann M. Biggs, New York State Commissioner of Health, and Dr. Walter B. James, President of the New York Academy of Medicine.

<sup>\*</sup> Under the Department of Public Health (see also pages 25 and 201).

In connection with this meeting there was prepared a special "Handbook of Health in War and Peace, a Manual of Personal Preparedness," which was placed on sale at the Museum and at the subway kiosks throughout the city.

The Food Exhibit was kept open in the Foyer through June, July, August, and September, with a gratifying increase in Museum attendance for this season of the year. It was then transferred to the Washington Irving High School and was displayed there for two months. On December 15 it was set up in the Lincoln Corridor of the College of the City of New York at the request of President Mezes.

Curator Winslow was given leave of absence at the end of June to accept an appointment as Deputy Commissioner and

Other Services of Staff in Connection with War Problems member of the American Red Cross Mission to Russia. He conducted a survey of public health conditions in Russia and organized a plan for civilian relief in Petrograd along the-

lines of child welfare, returning to take up his duties at the Museum in November.

The success of the Food Exhibit was so great that Mr. Herbert C. Hoover asked for the release of Dr. Thomas G. Hull, who had been in charge of its preparation, to undertake work for the Government along similar lines. Dr. Hull was given leave of absence November 1, and was appointed Chief of the Division of Exhibits of the United States Food Administration.

The Food Exhibit as at present installed at the City College fills six large museum cases. It illustrates in graphic form the

Present Status and Future Development of Food Exhibit food needs of the body and the energy values and body building constituents of various foods. One set of models shows the percentage composition of a dozen typi-

cal foods in regard to protein, fat, carbohydrate, ash and water. A second series of twenty models shows the calorie value and cost of ordinary restaurant portions of different foods, and a third series of about seventy-five models (presented to the Museum by the Plastic Art Novelty and Specialty Company)

illustrates the amount of each food which will supply 100 calories of energy to the body. Tables set for breakfast, lunch and dinner show satisfactory dietaries for an individual, based on either a moderate or a restricted income.

Numerous exhibits are included dealing with unutilized food stuffs of various sorts, particularly seaweeds, marine mollusks and food fishes (shark, skate, etc.).

Food production problems are illustrated by photographs, models and specimens which tell the story of wheat and of corn from the grain fields through the flour mill, and from the bakery to the home.

The food conservation problems of the war are brought home by statistical diagrams and a series of striking colored cartoons prepared by Mr. A. Operti.

The plans for the development of the Food Exhibit in the future contemplate its extension along the line of practical food conservation in marketing and home use of foods and the making graphic of the particular food economies demanded from time to time by the United States Food Administration. In this important task we have been fortunate in securing the coöperation of the Department of Home Economics of Columbia University by an arrangement for the part-time service of assistants in that department.

The exhibits in the Hall of Public Health dealing with insect-borne diseases have been supplemented during the year by the addition of photographs and models illustrating the campaign against typhus fever in Serbia, and amplifying other material on insect-borne diseases.

A fine series of transparencies has been purchased, illustrating the parasites causing certain diseases, and a large model of the yellow fever mosquito, *Aëdes calopus*, prepared by Dr. B. E. Dahlgren, is almost completed.

The exhibits at present installed in the Hall of Public Health have been made more readily available for the use of teachers and students by the publication of a special "Syllabus Guide to Public Health Exhibits" by Mr. L. V. Coleman, giving in brief outline the principal facts which the student ought to know about Water Supply, Municipal Waste Disposal, and Insect-

borne Diseases, with parallel reference to individual numbered exhibits illustrating the points in question.

Through the cooperation of the Departments of Invertebrate Zoölogy and Public Health of the Museum, a somewhat exhaustive Guide Leaflet dealing with insects and disease has been prepared and is ready for publication.

Attention must be called at this time to the pressing need of the Department of Public Health for exhibition space to allow for future development. The present Hall of Need for Public Health is practically filled. The Food Exhibition Space Exhibit, which is being rapidly increased, may be shown outside the Museum for a time (as at the Washington Irving High School and at City College), but much of it should finally be installed at the Museum as a section of our permanent Public Health Exhibit, of which it forms an integral part.

The Museum of Living Bacteria, now under the immediate direction of Mr. William Rothberg, continues to fill a large place in the scientific life of this branch of Bacteriological natural history. Ninety-eight new strains have been added to the collection, making the total

number now under cultivation over eight hun-

Museum and Research

dred. During the year ending December 1, 1917, 3,935 cultures were sent without charge to laboratories of universities and health departments, making a total of 18,980 cultures distributed since the opening of the laboratory in 1911; 143 new institutions have availed themselves of our service during the year, making 635 in all. It has been particularly gratifying to note that we have been able to supply cantonment medical officers, government bureaus at Washington, and medical research institutions in this country and abroad with cultures needed for special problems of military hygiene.

Changes in staff and the demands made by emergency war work have made heavy inroads upon time generally allotted for research. A monograph, by Curator Winslow, Dr. Kligler and Mr. Rothberg, on the classification of the colon-typhoid group of bacteria, has been completed, however, and is ready for publication.

## THE LIBRARY\*

RALPH W. Tower, Curator

The activities of the Library during the year just past have not been surpassed by those of any year in its history. Not only has work of the highest importance been accomplished by the skill and industry of the various members of the staff, but the department has benefited widely through the generosity of its many friends.

Among the accessions of the first importance are the following rare and unique volumes, received through the benefactions of Mr. Ogden Mills: De Bry, Peregrinationes in Indiam Orientalem, 1598-1613, a valuable first edition of nine parts in Latin which form companion volumes to the Peregrinationes in Indian Occidentalem previously donated by Mr. Mills. The great usefulness of a work of this character cannot be too highly emphasized—researches in geography, anthropology and zoölogy are all dependent upon such sources of information. Again through the liberality of Mr. Mills, the collection of the handsomely illustrated monographs by John Gould have been completed, thus not only enriching the Library but supplying a most useful need to the scientists who are carrying on their researches at this institution. These are: A Monograph of the Macropodidæ or Family of Kangaroos, 1841-1842; Supplement to the Monograph of the Trochilidæ; The Birds of Asia in seven volumes, 1850-1883; Mammals of Australia in three volumes, 1845-1863; A Century of Birds from the Himalaya Mountains, 1832, and A Monograph of the Pittidæ, 1880-1881.

Through the courtesy of Mr. John M. Hoffmire, a nephew of Mr. Titian Ramsey Peale, the Library has received a copy of Lepidoptera Americana; or Original Figures of the Moths and Butterflies of North America; in their various Stages of Existence, and the plants on which they feed. Drawn on Stone,

<sup>\*</sup> Under the Department of Books and Publications.

and coloured from Nature; with their characters, synonyms, and remarks on their habits and manners, by Titian R. Peale—Curator of the Philadelphia Museum—Volume I, Number I, printed by William P. Gibbons, S. W. Corner Sixth and Cherry Streets, 1833. The present copy undoubtedly was the author's personal one, as it contains a printed "Proposals" on which are written the names of the various subscribers to the work. The part is otherwise composed of 14 unnumbered pages and calls for plates 3, 4, 5, 7. The plates present are, however, 2 to 10 and exist both in colored and uncolored form. There is also an unnumbered and uncolored plate of Morpho iris.

Other accessions are: The Danish Ingolf-Expedition. Volumes I-VI, Copenhagen, 1899-1916; Reports on the Collections made by the British Ornithologists' Union Expedition and the Wollaston Expedition in Dutch New Guinea, 1910-1913, Volumes I, II, London, 1916; Voyage aux Côtes de Guinée et en Amérique, par M. N., Amsterdam, 1719; Natural History of Carolina, Florida and the Bahama Islands, by Mark Catesby, Volumes I, II, London, 1771; The Coleoptera of the British Islands, by W. W. Fowler, Volumes I-VI, London, 1887-1913; Rhopalocera Exotica, being Illustrations of New, Rare and Unfigured Species of Butterflies, by Henley Grose-Smith & W. F. Kirby, Volumes I-III, London, 1887-1902; Les Insectes—Traité Elémentaire d'Entomologie, by Maurice Girard, Tomes I-III, et Atlas, Paris, 1873-1885; Trachten, Haus-, Feld- und Kriegsgeräthschaften der Völker Alter und Neuer Zeit, by Friedrich Hottenroth, Bände I, II, Stuttgart, 1884-1891; Historia de las Indias, by Bartolomé de Las Casas, Volumes I-V, Madrid, 1875-1876; Le Costume Historique, par M. A. Racinet, Volumes I-VI, Paris, 1876-1888, and Icones Ornithopterorum, by Robert H. F. Rippon, Volumes I, II, London, 1898-1906.

For the immediate future the section of the Library dealing with primitive languages, magic, charms and amulets is to be strengthened—the latter subjects with the assistance of Dr. W. L. Hildburgh, whose experience has already proved of much value.

The constantly increasing demands which are made upon the staff by the departments of the institution as well as the public are seriously retarding the essential work within the Library. The proper adjustment of economy and efficiency will soon be lost, thus making quite imperative the appointment of another assistant in order to maintain the standard necessary to supply the proper service.

A gallery tier of shelving has been placed in the Osborn Library, thus doubling the available space for the installation of books. The new equipment, besides serving a distinct need for expansion, has also added much to the attractiveness of the room. It has been found possible to intercalate all the non-duplicate titles in Vertebrate Palæontology from the General Library, and thus for the first time the Osborn Library has become a distinct unit—classified and catalogued.

## **PUBLICATIONS**

## J. A. Allen, Editor

Two volumes of the Bulletin were issued during 1917: Volume XXXVI, by Frank M. Chapman, on the ornithology of Colombia (740 pages, 41 plates, 7 of them colored, Technical and 21 text figures), and Volume XXXVII, the **Publications** current volume for the year (920 pages, III plates, 5 of them colored, 117 text figures, and 5 maps). The 37 articles represent 32 contributors. Parts of five volumes of the Anthropological Papers (Dr. Clark Wissler, Editor) have been published, aggregating 868 pages and 230 text figures. Also Volume II of "A Bibliography of Fishes" (Authors L-Z, 701 pages); Volume I (Authors A-K) was issued in 1916. Two parts of Volume II (New Series) of the Memoirs are in press, unexpected delays in printing having prevented their publication in 1917, as intended.

The popular publications comprise the Forty-eighth Annual Report of the Trustees; Volume XVII of The American Museum Journal (edited by Miss Mary C. Dicker-Popular Son); Guide Leaflets Nos. 38, 39, 45, and 46, and Handbooks Nos. 3 and 6.

Following is a detailed list of the technical publications of the Museum, during 1917, arranged by departments:

#### DEPARTMENT OF GEOLOGY AND INVERTEBRATE PALÆONTOLOGY

Anna I. Jonas. "Pre-Cambrian and Triassic Diabase in Eastern Pennsylvania." Bull. XXXVII, pp. 173-181 and map.

#### DEPARTMENT OF INVERTEBRATE ZOÖLOGY

- John A. Grossbeck (edited by Frank E. Watson). "Insects of Florida. IV. Lepidoptera." Bull. XXXVII, pp. 1–147.
- H. E. Ewing. "New Acarina. Part II.—Descriptions of New Species and Varieties from Iowa, Missouri, Illinois, Indiana, and Ohio." Bull. XXXVII, pp. 149–172, pls. i-iv.
- Charles W. Leng and Andrew J. Mutchler. "Supplement to Preliminary List of the Coleoptera of the West Indies." *Bull.* XXXVII, pp. 191–220.
- Charles H. T. Townsend. "Second Paper on Brazilian Muscoidea Collected by Herbert H. Smith." Bull. XXXVII, pp. 221-233.
- Henry L. Viereck. "New Species of Bees of the Genus Andrena, from Equatorial Africa, in the American Museum of Natural History." Bull. XXXVII, pp. 235-239.
- Henry L. Viereck. "Contributions to our Knowledge of the Bee Genus *Perdita* Smith." *Bull.* XXXVII, pp. 241-242.
- Wm. T. M. Forbes. "Notes on West Indian Syntomidæ and Arctiidæ (Lepidoptera)." Bull. XXXVII, pp. 339-345, 5 text figs.
- Adolph Elwyn. "Effect of Humidity on Pupal Duration and on Pupal Mortality of *Drosophila ampelophila* Loew." Bull. XXXVII, pp. 347-353, I text fig.
- James A. G. Rehn and Morgan Hebard. "Studies in West Indian Earwigs (Dermaptera)." Bull. XXXVII, pp. 635-651, pls. lxii, lxiii.
- G. A. MacCallum. "A New Species of Trematode (*Cladorchis gigas*) parasitic in Elephants." *Bull.* XXXVII, pp. 865-871, pls. cviii-cx, I text fig.

#### DEPARTMENT OF ICHTHYOLOGY AND HERPETOLOGY

- Emmet R. Dunn. "Reptile and Amphibian Collections from the North Carolina Mountains, with especial reference to Salamanders." Bull. XXXVII, pp. 593-634, pls. lvii-lxi, and 7 text figs.
- John Treadwell Nichols and Ludlow Griscom. "Fresh-water Fishes of the Congo Basin obtained by the American Museum Congo Expedition, 1909–1915." With Field Notes by the Collectors, Herbert Lang and James P. Chapin. *Bull.* XXXVII, pp. 653–756, pls. lxiv-lxxxiii (4 colored), 31 text figs., 3 maps.
- Charles R. Eastman. "Dentition of Hydrocyon and its supposed Fossil Allies." Bull. XXXVII, pp. 757-760, pls. lxxxiv-lxxxvii, 3 text figs.
- L. Hussakof. "Fossil Fishes collected by the American Museum Congo Expedition." Bull. XXXVII, pp. 761–767, pl. lxxxviii, 7 text figs.

- G. K. Noble. "The Systematic Status of some Batrachians from South America." Bull. XXXVII, pp. 793-814, pls. xciii-xcvi, 7 text figs.
- John Treadwell Nichols. "Ichthyological Notes from a Cruise off Southwest Florida, with Description of *Gobiesox yuma* sp. nov." Bull. XXXVII, pp. 873–876, pl. cxi, I text fig.
- Bashford Dean. "A Bibliography of Fishes. Vol. II. Authors' Titles L-Z," 702 pages. Enlarged and Edited by Charles Rochester Eastman. (Special Publication.)

#### DEPARTMENT OF MAMMALOGY AND ORNITHOLOGY

- Frank M. Chapman. "The Distribution of Bird-Life in Colombia; a Contribution to a Biological Survey of South America." Bull. XXXVI, pp. i-x, 1-729, pls. i-xli (7 colored), 21 text figs.
- H. E. Anthony. "New Fossil Rodents from Porto Rico, with additional Notes on *Elasmodontomys obliquus* Anthony and *Heteropsomys insulans* Anthony." *Bull.* XXXVII, pp. 183–189, pl. v.
- James P. Chapin. "The Classification of the Weaver-Birds." Bull. XXXVII, pp. 243-280, pls. vi-x, 9 text figs.
- Frank M. Chapman. "Descriptions of New Birds from Santo Domingo and Remarks on Others in the Brewster-Sanford Collection." *Bull.* XXXVII, pp. 327-334.
- H. E. Anthony. "A New Rabbit and a New Bat from Neotropical Regions." Bull. XXXVII, pp. 335-337, pl. xxxiv.
- H. von W. Schulte. "The Skull of Kogia breviceps Blainv." Bull. XXXVII, pp. 361-404, pls. xxxv-xliii, 2 text figs.
- J. A. Allen, Herbert Lang, and James P. Chapin. "The American Museum Congo Collection of Bats." Bull. XXXVII, pp. 405-563, pls. xliv-lv, 26 text figs., 1 map.
- H. E. Anthony. "Two New Fossil Bats from Porto Rico." Bull. XXXVII, pp. 565-568, pl. lvi.
- Leo E. Miller. "Field Notes on Molothrus bonariensis and M. badius." Bull. XXXVII, pp. 579-592.
- J. A. Allen. "The Skeletal Characters of Scutisorex Thomas." Bull. XXXVII, pp. 769-784, pls. lxxxix-xcii, 8 text figs.
- H. von W. Schulte. "A Note on the Lumbar Vertebræ of Scutisorex Thomas." Bull. XXXVII, pp. 785-792.
- Robert Cushman Murphy. "A New Albatross from the West Coast of South America." Bull. XXXVII, pp. 861-864, 1 text fig.

#### DEPARTMENT OF VERTEBRATE PALÆONTOLOGY

Barnum Brown. "A Complete Skeleton of the Horned Dinosaur Monoclonius, and Description of a second skeleton showing Skin Impressions." Bull. XXXVII, pp. 281-306, pls. xi-xix, 4 text figs.

- W. D. Matthew and Walter Granger. "The Skeleton of *Diatryma*, a Gigantic Bird from the Lower Eocene of Wyoming." *Bull.* XXXVII, pp. 307-326, pls. xx-xxxiii, I text fig.
- Charles C. Mook. "Criteria for the Determination of Species in the Sauropoda, with Description of a New Species of *Apatosaurus*." Bull. XXXVII, pp. 355-360, 2 text figs.
- W. D. Matthew. "A Paleocene Bat." Bull. XXXVII, pp. 569-571, 1 text fig.
- William Diller Matthew. "Absence of the Pollex in Perissodactyla." Bull. XXXVII, pp. 573-577.
- Charles C. Mook. "The Fore and Hind Limbs of Diplodocus." Bull. XXXVII, pp. 815-819, 2 text figs.
- Walter Granger. "Notes on Paleocene and Lower Eocene Mammal Horizons of northern New Mexico and southern Colorado." Bull. XXXVII, pp. 821-830, pls. xcvii and xcviii, 1 map.
- W. D. Matthew. "The Dentition of Nothodectes." Bull. XXXVII, pp. 831-839, pls. xcix-cii.
- Walter Granger and William K. Gregory. "A Revision of the Eocene Primates of the Genus *Notharctus.*" Bull. XXXVII, pp. 841-859, pls. xciii-cvii.

#### DEPARTMENT OF ANTHROPOLOGY

- P. E. Goddard. "Beaver Texts." Anthrop. Papers, X, pt. V, pp. 295-397.
- P. E. Goddard. "Beaver Dialect." Anthrop. Papers, X, pt. VI, pp. 399-547, 191 text figs.
- Robert H. Lowie. "Plains Indian Age-Societies: Historical and Comparative Summary." *Anthrop. Papers*, XI, pt. XIII, pp. 877–1031.
- A. L. Kroeber. "Zuñi Kin and Clan." Anthrop. Papers, XVIII, pt. II, pp. 39-204, 3 text figs.
- Leslie Spier. "An Outline for a Chronology of Zuñi Ruins." Anthrop. Papers, XVIII, pt. III, pp. 207-331, 18 text figs.
- Robert H. Lowie. "Notes on the Social Organization and Customs of the Mandan, Hidatsa, and Crow Indians." *Anthrop. Papers*, XXI, pt. I, pp. 1–99.
- N. C. Nelson. "Contributions to the Archæology of Mammoth Cave and Vicinity, Kentucky." Anthrop. Papers, XXII, pt. I, pp. 1-73, 18 text figs.

### POPULAR PUBLICATIONS

Forty-eighth Annual Report of the Trustees, 235 pages, 16 plates. The American Museum Journal, Volume XVII, 594 pages.

"Our Common Butterflies." By F. E. Lutz and F. E. Watson. Guide Leaflet No. 38, Third Edition, 31 pages, numerous illustrations.

- "How to Collect and Preserve Insects." By Frank E. Lutz. Guide Leaflet No. 39, Third Edition, 22 pages, with 12 text figures.
- "Syllabus Guide to Public Health Exhibits in the American Museum of Natural History; dealing with Water Supply, Disposal of Municipal Wastes and Insect-borne Diseases. An Outline for Teachers and Students." By Laurence V. Coleman. *Guide Leaflet* No. 45, 14 pages, and diagram plan of Hall of Public Health.
- "Peruvian Art, a Help for Students of Design." By Charles W. Mead. Guide Leaflet No. 46, 16 pages, 5 plates and frontispiece.
- "Ancient Civilizations of Mexico and Central America." By Herbert J. Spinden. *Handbook Series* No. 3, 238 pages, numerous illustrations.
- "Handbook of Health in War and Peace, a Manual of Personal Preparedness." By C-E. A. Winslow, with Foreword by Henry Fairfield Osborn. *Handbook Series* No. 6, 51 pages.

# GENERAL SUMMARY

In reviewing the work of the year 1917, we observe that it has been very strong along the lines of public education, in the arrangement of the exhibition halls, in the care and cataloguing of our great collections, in scientific research and publication. Our biological survey of South America has made a very auspicious beginning and will now continue systematically through the labors of Chapman, Cherrie and Beck in birds and mammals, supplemented by those of Eastman in fishes. We are establishing new and influential scientific relations with our sister republics on the south, which will be the prelude to friendly economic and political relations, and thus of service to the cause of Pan-Americanism.

Our African collections have been made available, and a notable plan of research and publication has been developed in which Allen, Lang, Chapin, Bequaert, Wheeler and other distinguished zoölogists are taking part. Similarly, arrangements are on the way to coördinate and publish the valuable results of our Asiatic expeditions. In the meantime North American studies are progressing systematically, especially on birds, mammals, reptiles and fishes, recent and extinct, and on insect life through the labors of Lutz.

On the visible side of building, exhibition space and even of storage space, we have made little progress, but, despite the pressure of war conditions, we are making every possible endeavor with the municipal authorities and with our ever-widening circle of generous friends to increase the present exhibition space and to extend our building. The Museum is more than ever an integral part of the City's great educational system, and on the ground of its service to our schools and colleges alone, there are strong reasons for immediately extending the exhibition space of the building.

Respectfully submitted,

HENRY FAIRFIELD OSBORN,

President.

# FINANCES, MAINTENANCE, ENDOWMENT

During the year 1917, several changes in recording the financial transactions have been made. It was deemed advisable to separate the General Account into two accessful accounts: First, the General Account, wherein are recorded the unrestricted funds of the Trustees, which include mainly the income from the General Endowment, membership dues, subscriptions of Trustees for general purposes, interest on bank balances, and respirate from sales and supposes of recording the financial transactions have been made. It was deemed advisable to separate the General Account into two accessful accounts to the General Account into two accessful accounts.

of Trustees for general purposes, interest on bank balances, and receipts from sales and exchanges of specimens and from sales of publications; second, the Morris K. Jesup Fund Account, which was created to carry out the intent of the Will of our late President Morris K. Jesup, and of the subsequent Will of his wife, Maria De Witt Jesup.

In order to show the increase of the main sources of receipts of the General and Morris K. Jesup Funds, in comparison with 1916, they are treated below as one account:

	1916	1917
Income of General Endowment	\$57,211.88	\$58,459.86
Income of Morris K. Jesup Fund	202,050.86	267,009.06
Membership Dues	29,344.00	32,084.00
Sales and Exchanges and Sale of Publications	4,698.62	5,252.15
Subscriptions of Trustees for General Purposes.	43,500.00	59,000.00

The second modification contributing to greater efficiency in the method of conducting the finances of the Museum has been the substitution of endorsement on checks

Receipt by Check Endorsement

Bursar, formulated for the Museum a plan which would meet the requirements of the Department of Finance of the City of New York. The Comptroller readily saw the wisdom of such a change, and, with the consent of the Department of Parks, permission was given to eliminate the submission of receipted bills and the signatures on payrolls

and to submit instead a tabulated statement of the firms from whom the Museum purchased the goods, on which the Director and the Assistant Secretary make the following certification: "We hereby certify that the above mentioned firms have delivered goods as shown; that the prices are just and reasonable; that there are on file in the Treasurer's Office endorsed checks for the sums set opposite their names, and that all details pertaining to the purchases are open for the inspection of the proper authorities." In the case of the payrolls, the following certification is made by the Director and the Assistant Secretary: "We hereby certify that the above mentioned employees have rendered services for the period specified on this payroll; that there are on file in the Treasurer's Office endorsed checks for the sums set opposite their names and all details pertaining to their services are open for the inspection of the proper authorities; and we hereby further certify that all persons named on this payroll, who are subject to the provisions of Chapter 622, Laws of 1894, are citizens of the United States." This change has brought about a greatly reduced number of vouchers and eliminates much needless signing by officers and employees.

On December 31, 1917, the Permanent Endowment was \$7,974,019.34, composed of securities valued at \$7,965,375 and uninvested cash of \$8,644.34. There are still held stocks of a bequest value of \$183,325 awaiting a favorable market for their sale and conversion into bonds that are legal for savings banks to hold. The Trustees authorized the Finance Committee to proceed with this change at the annual meeting in February, 1916.

During the year 1917, the executor of the estate of Maria De Witt Jesup made the final payment, on account of the bequest, of \$500,000, bringing the total to \$5,000,000. This, together with the original bequest of the late Morris K. Jesup of \$1,000,000, made the total gift to the Morris K. Jesup Fund \$6,000,000; on December 31, 1917, this Fund was composed of securities valued at \$6,656,563.80 and uninvested cash of \$6,303.70.

There were added to the General Endowment Fund, by gift from Mr. Frank W. Kitching, 121 shares of Anaconda Copper Mining Company stock, which had a market value of \$10,043 at the time of its acquisition. The receipts were further supplemented by membership dues of Patron, Fellow and Life Members to the amount of \$7,000.

Following the patriotic duty of citizens and organizations having funds available for investment, the Finance Committee subscribed for \$20,000 United States of America 10-25-year 4% Convertible Gold Bonds.

The appropriation for salaries and expenses for 1917 was \$200,000, as compared with \$197,342 for 1916; and the appropriation for special repairs to the building was City Maintenance \$12,700, whereas the amount for 1916 was \$15,657. Since the City's appropriation was practically the same for 1917 as for 1916, and because of the constantly increasing cost of supplies and the much needed increases of salaries to all classes of employees, the Trustees were obliged to make a much larger subscription for maintenance purposes than ever before. In 1917 this deficiency amounted to \$92,300.

The Treasurer's books show a balance on hand December 31, 1917, of \$163,511.82.

This balance is made up as follows:

Trustees' General

Proceeds of five notes of the United States Trust Company of New York \$150,000.00

> 13,511.82 ——— \$163,511.82

As the greater portion of the income of invested funds is received on June 30 and December 31, and the principal expenditures are made prior to these dates, it has been necessary to increase the bank loan of the United States Trust Company of New York from \$75,000 to \$150,000. The Museum is not obligated to pay interest on this sum, except on the amounts necessary to meet the daily overdrafts.

It is gratifying to note that the subscriptions for Special Funds do not show a considerable decrease, in view of the urgent demands made upon all classes of our Special Funds Account citizens for war relief work. The special subscriptions for 1917 were \$17,391.21; in 1916 the sum received was \$22,588.82.

The Museum continued to act as Treasurer for the funds of the Crocker Land Expedition, and during the year the General

Crocker Land Expedition Fund Account Account loaned large sums to this Account, pending the receipt of subscriptions or special gifts. On December 31, the Crocker Land Expedition Fund Account owed to the Gen-

eral Account the sum of \$33,000. It is hoped that subscriptions covering this deficiency will be made in 1918. In 1917 this Fund received \$50,000 from the General Account and the Morris K. Jesup Fund Account, this sum representing the unexpended incomes of both these accounts for 1916 and 1917, which were transferred by action of the Board of Trustees. In addition to this sum, there was transferred from the Morris K. Jesup Fund \$1,500 for special services of a field assistant, and from the Angelo Heilprin Exploring Fund \$500 for geological work in North Greenland.

As explained in previous reports, the expenses connected with the equipment work are met largely through appropriations of corporate stock by the City. In 1917 the expenditures for these purposes amounted to \$9,496.74. On December 28, the Board of Estimate and Apportionment granted a further release of \$42,438.01, to provide for the continuation of this work.

The need for additional building is so great that when in 1916 it became evident that the City could not provide new building for some time, several of the Trustees and other friends of the Museum personally subscribed to a building fund, and the moneys paid in now amount to \$106,050.83. Two subscriptions have been received during the year, namely, Mr. Archer M. Huntington, \$2,008.94, and Mr. George B. Hopkins, \$1,000.

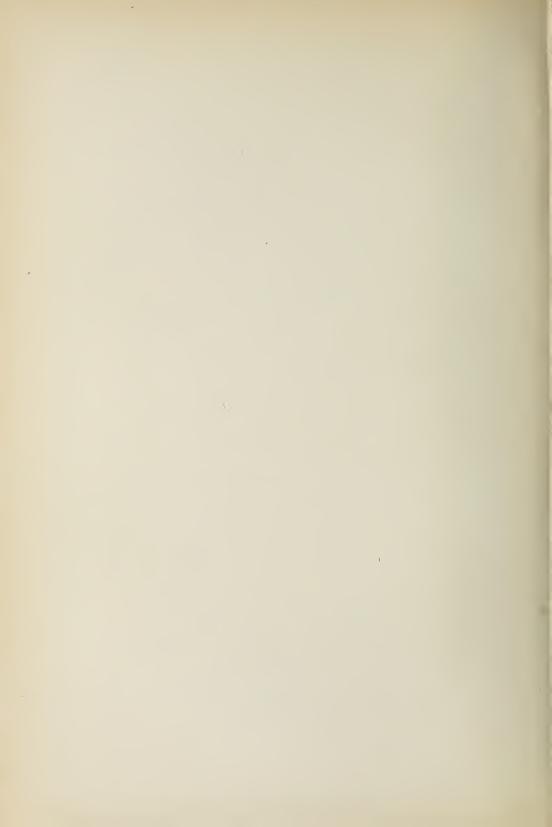
All details pertaining to the Pension Fund Account and a full report by the Treasurer, who is *ex officio* member of this Fund, are noted on pages 223 to 239, inclusive.

Pension Fund Account

The plan inaugurated by the Special Committee appointed by the President to solicit subscriptions for the two Liberty Loans of 1917, whereby it was made possible for an employee to subscribe a minimum sum each month for 20 months, has made considerable extra work in the Bookkeeping Department. Special mention of the manner in which loans have been advanced by certain Trustees to finance this plan is made in the report of the Chairman of the Pension Fund.

Respectfully submitted,

H. P. Davison, *Treasurer*.



# FINANCIAL STATEMENT

# 1917

# PERMANENT ENDOWMENT

Morris K. Jesup Fund:  Bonds		
General Endowment Fund*	\$6,656,563	
Special Endowment Funds:		
Matilda W. Bruce Fund	11,000	00
Jonathan Thorne Memorial Fund	26,884	10
Margaret Olivia Sage Fund	11,000	00
Uninvested Cash:	\$7,965,375	00
Morris K. Jesup Fund	6,303	70
General Endowment Fund		
Margaret Olivia Sage Fund	,00,	89
Margaret Onvia Sage Pund	2	
	\$7,974,019	34
* Principal contributors to the General Endowment Fund:		
Hugh Auchincloss \$10,223 56 Morris K. Jesup Samuel D. Babcock 5,000 00 Frank W. Kitching	\$225,000	00
Samuel D. Babcock 5,000 oo Frank W. Kitching Anna B. Bliss 5,000 oo Charles Landon	10,043	
Emil C Bondy To ogo og Solomon Loeb	5,000	00
George S. Bowdoin 5,000 00 D. O. Mills James M. Constable J. Pierpont Morgan	125,000	
Benjamin P. Davis 22,799 25 Oswald Ottendorfer	30,000	00
Wm. E. Dodge       5,000 00       Percy R. Pyne         Wm. E. Dodge       10,000 00       Wm. Rockefeller	45,000	
Mrs. Martha T. Fiske 10,000 00 Wm. R. Sands	10,000	
Frederika Gade 5 000 00 Wm C Schermerhorn	5,000	
Miss S. M. Hitchcock 5,000 00 Charles E. Tilford	50,000 25,070	
C. P. Huntington 5,000 00 Mrs. Emily N. Trevor	30,098	90
Henry Iden	25,000	
Henry Villard \$5,000 00		

# ENDOWMENT AND INVESTMENT ACCOUNT

#### RECEIPTS

1917

GENERAL ENDOWMENT FUND:*	
Balance \$2,813 43	
Patron	
Fellow 500 00	
Life Members 5,500 00	
	\$9,813 43
Morris K. Jesup Fund:	
Balance \$29,812 19	
Estate of Maria DeWitt Jesup 500,000 00	
Proceeds from Sale of Stocks 8,996 25	
	538,808 44
Margaret Olivia Sage Fund:	
Balance	2 89
INTEREST ON CREDIT BALANCES:	
Earnings to December 31, 1917	1,553 26
	\$550,178 02
Examined Series Lanier Charles Lanier Thomas DeWitt Cuyler Committee	ittee

<sup>\*</sup> In 1917 there were added to the General Endowment Fund, by gift from Mr. Frank W. Kitching, 121 shares of Anaconda Copper Mining Company Capital Stock.

# ENDOWMENT AND INVESTMENT ACCOUNT

# DISBURSEMENTS

1917

GENERAL ENDOWMENT FUND:		
Purchase of Bonds	\$7,475 68	8
Morris K. Jesup Fund:		
Purchase of Bonds	532,504 7	4
Interest on Credit Balances:		
Transferred to Interest on Credit Balances, General		
Account	1,553 20	6
Cash on hand December 31, 1917	8,644 3.	4

\$550,178 02

H. P. DAVISON, Treasurer

E. & O. E. New York, December 31, 1917

# CITY MAINTENANCE ACCOUNT

#### RECEIPTS

1917

Capital Fund: Cash on hand January 1, 1917 \$13,919 09 Department of Parks: Appropriation for 1916: Extraordinary Repairs 1,080 91	\$15,000 00
Department of Parks:	φ15,000 00
Appropriation for 1917: Salaries and Expenses \$200,000 00	
Special Repairs 12,700 00	
Total net receipts for the maintenance of all departments	212,700 00
Interest on Credit Balances:	
Earnings to December 31, 1917	254 14
Loans	20,000 00
	\$247,954 14
Examined and Approved Felix M. Warburg Auditing Charles Lanier Thomas DeWitt Cuyler Comm	nittee

#### CITY MAINTENANCE ACCOUNT\*

#### DISBURSEMENTS

1917

Geology and Invertebrate Palæontology	\$2,093	52		
Mineralogy	1,134	97		
Mammalogy and Ornithology	3,884	73		
Vertebrate Palæontology	2,352	IO		
Anthropology	3,191	бо		
Ichthyology	805	63		_
Herpetology	137	68		
Invertebrate Zoölogy	4,316	48		
Public Health	1,196	42		
Woods and Forestry	135	10		
Library	6,981	59		
Public Education	5,051	19		
Publications	3	00		
Heating and Lighting	29,075	08		
Repairs and Installation	31,511			
Special Repairs	12,700	00		
General Supplies and Expenses	13,247	27		
Administration	94,882	бі		
Total net disbursements for the maintenance of all departments			\$212,700	00
Interest on Credit Balances:				
Transferred to Interest on Credit Balance	s. Gene	ral		
Account	-		254	14
Loans	• • • • • •		20,000	00
Capital Fund:				
Cash on hand December 31, 1917			15,000	00
			\$247,954	14

H. P. DAVISON, Treasurer

E. & O. E.

New York, December 31, 1917

<sup>\*</sup> The annual appropriation of the City can be used only for the maintenance of the Museum and is inadequate for this purpose. It cannot be used for the purchase of specimens or for the expenses of exploring and collecting expeditions. The deficiency in maintenance for 1917, amounting to \$92,300, has been met from the Trustees' General Account.

# GENERAL ACCOUNT

# RECEIPTS

1917

Trustees' Unrestricted Funds:	
Cash on hand January I, 1917       \$58,459 86         Income from General Endowment       \$58,459 86         Interest on Credit Balances       2,295 14         Annual Members       28,000 00         Sustaining Members       2,200 00         Associate Members       984 00         Sales and Exchanges       689 62         Sale of Publications       3,285 11	\$8,480 28
Contributions of Trustees for General Purposes:	
George F. Baker       \$5,000 oo       Adrian Iselin       \$2,000 oo         Frederick F. Brewster       2,000 oo       Arthur Curtiss James       5,000 oo         R. Fulton Cutting       1,000 oo       Auter B. James       5,000 oo         Thomas DeWitt Cuyler       1,000 oo       A. D. Juilliard       5,000 oo         H. P. Davison       5,000 oo       Charles Lanier       1,000 oo         Cleveland H. Dodge       5,000 oo       Ogden Mills       5,000 oo         James Douglas       2,000 oo       J. P. Morgan       5,000 oo         Henry C. Frick       5,000 oo       John B. Trevor       1,000 oo         Archer M. Huntington       3,500 oo       Felix M. Warburg       5,000 oo	
59,000 00	155,813 73
-	155,015 75
Total net receipts for the development of all departments	\$164,294 01
Loans:         \$9,000 00           City Maintenance Account         \$9,000 00           Morris K. Jesup Fund Account         78,800 00           Bursar's Account         12,000 00           Loans Receivable Crocker Land Expedition         33,000 00	
American Red Cross:	132,800 00
Special Dividends	60 50
Trustees' Restricted Funds:  Cash on hand January 1, 1917	
	33,078 95
Proceeds of Notes held by United States Trust Company of New York	150,000 00
	\$480,233 46
Examined FELIX M. WARBURG Auditing CHARLES LANIER Committee THOMAS DEWITT CUYLER	

# GENERAL ACCOUNT\*

# DISBURSEMENTS

1917

-9-7		
Geology and Invertebrate Palæontology	\$3,533 70	
Mineralogy	1,283 56	
Mammalogy and Ornithology	6,996 03	
Vertebrate Palæontology	4,397 19	
Anthropology	7,593 85	
Ichthyology	2,913 09	
Uarnotalare		
Herpetology Invertebrate Zoölogy	1,860 34	
Invertebrate Zoology	7,295 28	
Anatomy and Physiology	111 79	
Public Health	2,327 64	
Woods and Forestry	1,651 05	
Library	3,210 12	
Public Education	5,574 60	
Preparation and Exhibition	253 06	
Publications	19,288 35	
Heating and Lighting	2,781 66	
Repairs and Installation	5,232 28	
General Supplies and Expenses	26,462 35	
Administration	28,989 57	
Pension Fund	10,167 20	
Interest on Bank Loans	2,146 97	
•	<del></del>	
Total net disbursements for the development of all depa	rtments	\$144,069 68
-		4144,009 00
Contribution to Crocker Land Expedition Fund Account:	<b>.</b>	
Unexpended Income of 1916	\$2,985 28	
" " 1917	3,727 23	
Loans:		6,712 51
City Maintenance Account	\$9,000 00	
Morris K. Jesup Fund Account	78,800 oo	
Bursar's Account		
Crocker Land Expedition Fund Account	12,000 00	
•	33,000 00	
American Red Cross:		132,800 00
Contribution		60 50
Morris K. Jesup Fund Account:		·
Transfer of Cash		22.058.05
		33,078 95
Cash on hand December 31, 1917:		
Cash in Bank	\$13,511 82	
Proceeds of Notes held by United States Trust Com-		
pany of New York to meet overdrafts	150,000 00	
-		†163,511 82
'		
•		\$480,233 46
E. & O. E. H. P. 1	AUICON 2	r
	DAVISON, 7	reasurer
New York, December 31, 1917		
* The Trusteer' Unrestricted Funds are applied to the general nurs	ones of the Men	aaum inaludina
* The Trustees' Unrestricted Funds are applied to the general purp the deficiency in maintenance.	oses of the Mu	seum, including
t The Treasurer's books show a balance on hand December 31, 1917, of	<b></b> .	. \$163,511 82
The halance is made up as follows:		70/5
Proceeds of five notes of the United States Trust Company of N	lew	
York Sum reserved to meet pledges and obligations of 1917. \$4,086	\$150,000 0	00
Unexpended income of 1917	64	
9,4%	- 13,511 8	2
		- \$163,511 82

#### 120

# MORRIS K. JESUP FUND ACCOUNT

#### RECEIPTS

1917

Tweetoon?	Restricted	Funde .
1 rustees	Restricted	runus:

General	Account .

General Account:	
Transfer of cash on hand January 1, 1917	\$33,078 95
Income from Morris K. Jesup Fund \$267,009 06	
Sale of Publications	
Sales and Exchanges 230 95	
Interest on Credit Balances 393 35	
	268,679 83

Total net receipts	for the development of all	
departments		\$301,758 78

#### Loans:

City Maintenance Account	\$11,000 00
General Account	78,800 oo
Crocker Land Expedition Fund Account	58,000 00

147,800 00

\$449,558 78

amined
Approved

FELIX M. WARBURG
CHARLES LANIER
THOMAS DEWITT CUYLER Examined Auditing Committee

# MORRIS K. JESUP FUND ACCOUNT \*

#### DISBURSEMENTS

#### 1917

-3-1			
Geology and Invertebrate Palæontology	\$17,882 08		
Mineralogy	2,086 71		
Mammalogy	26,324 39		
Vertebrate Palæontology	31,093 19		
Vertebrate Palæontology Research and Pub-			
lication Fund	5,474 <i>7</i> 8		
President Osborn's Science Fund	5,000 00		
Anthropology	29,388 99		
Ichthyology	6,650 54		
Dr. Dean's Research and Publication Fund	1,300 00		
Herpetology	5,652 69		
Invertebrate Zoölogy	8,157 43		
Anatomy and Physiology	3,574 99		
Public Health	1,389 00		
Woods and Forestry	6,254 69		
Library	11,482 92		
Public Education	8,547 83		
Preparation and Exhibition	38,913 60	•	
Publications	30,459 68		
General Supplies and Expenses	1,243 71		
Total net disbursements for the developme	nt of oll		
departments		\$240,877	22
departments	• • • • • • • • • • •	ψ240,0//	22
Crocker Land Expedition Fund Account:			
Unexpended Income of 1916	\$7,014 72		
" " 1917	36,272 77		
Loans:		43,287	49
	Φ		
City Maintenance Account	\$11,000 00		
General Account	78,800 00		
Crocker Land Expedition Fund Account	58,000 00	m O	
Cash on hand December 31, 1917:		147,800	00
Cash in Bank		†17,594	07

#### E. & O. E.

#### H. P. DAVISON, Treasurer

\$449,558 78

New York, December 31, 1917

<sup>\*</sup> Disbursements of this account are made as the Board of Trustees may direct, for the purchase of specimens, for the expenses of field parties, and for the support of scientific work.

† The Treasurer's books show a balance on hand December 31, 1917, of \$17,594.07, which has been carried forward to 1918 to meet pledges and obligations contracted in 1917.

# RECEIPTS

1917

GEOLOGY AND INVERTEBRATE PALÆONTOLOGY				
Angelo Heilprin Exploring Fund: Mr. and Mrs. Paul J. Sachs	\$500	00		
Geological Fund: Balance	1,000	00	<b>.</b>	
MINERALOGY:		_	\$1,500 0	00
Matilda W. Bruce Fund: Balance	\$1	06		
Interest	660		661 0	об
Mammalogy and Ornithology:				
Crandall Oölogical Fund: Balance	\$1,160	00		
Whale Model Fund: Balance	1,000	00		
South American Exploration Fund: Balance	1,033	30		
Peru Bird Fund: Balance	500	00		
Asiatic Zoölogical Expedition Fund: Charles L. Bernheimer	200	00		
Margaret Olivia Sage Fund:       \$231 48         Balance       \$231 48         Interest       427 88				
<del></del>	659	36	4,552	66
Vertebrate Palæontology:				
Pleistocene Faunal Life Scenes Fund: Balance	\$500 6,000			
J. 27 240-1804			6,500 (	00
Anthropology:				
East Asiatic Fund:  Balance	\$2,335	49		
	5,489	67		
Aztec Ruin Fund: Archer M. Huntington New Zealand Group Fund:	1,500	00		
Balance	43	71	9,368 8	87
Carried forward			\$22,582	59

# DISBURSEMENTS

1917	
Geology and Invertebrate Palæontology:	
Angelo Heilprin Exploring Fund:  Transferred to Crocker Land Expedition Fund Account for Geological Work in North Greenland	\$500 00
Mineralogy:	
Matilda W. Bruce Fund: Purchase of Minerals	659 00
Mammalogy and Ornithology:	
Peru Bird Fund: Purchase of South American Birds \$189 28	
Asiatic Zoölogical Expedition Fund:  Transferred to Mammalogy and Ornithology, Morris K. Jesup Fund Account, for expenses of field assistant in China 200 00	389 28
Vertebrate Palæontology:	
Pleistocene Faunal Life Scenes Fund: For Murals in the Hall of the Age of Man	6,500 00
Anthropology:	
Anthropology of the Southwest Fund:  Expenses of Field Work \$1,947 16  Transferred to Anthropology,  Morris K. Jesup Fund Account, for expenses of field  work	·
Aztec Ruin Fund:  Expenses of Field Work	6,447 16
Carried forward	

#### RECEIPTS 1917

Brought forward		\$2	2,582 59
ICHTHYOLOGY:			
Dodge Ichthyology Fund:			
Balance	\$714	17	
Balance \$39 27			
Bashford Dean 700 00	739	27	
Public Health:	705		1,453 44
Public Health Fund: Balance			302 82
Public Education:			
Jonathan Thorne Memorial Fund:       \$300 28         Balance       \$300 28         Interest       1,084 20			
	\$1,384	48	
Public Education Fund: Balance	120	00	
Balance	115	69	
School Fund:  Department of Education of the City of			
New York	1,204	_	
Barnard College	100	00	
Preparation and Exhibition:		_	2,924 30
Sea Elephant Preparation Fund: Balance			1,000 00
Publications:			
Jesup North Pacific Expedition Publication Fund	1:	-	
Balance	\$1,121	05	
Alfred Hafner \$5 00 Sylvanus G. Morley 10 00			
Sylvanus G. Moricy 10 00	15	00	
_			1,136 65
Total net receipts for the development of specific departments	ic	\$2	9,399 80
Interest on Credit Balances: Earnings to December 31, 1917			420 50
		· · <u>-</u>	429 50
		\$2	9,829 30
/ TIADIEC   ANTED	diting Comn	nittee	

DISBURSEMENTS 1917

Brought forward ......\$14,495 44 PUBLIC HEALTH: Public Health Fund: PUBLIC EDUCATION: Jonathan Thorne Memorial Fund: For Services of instructors, transportation of the blind and expenses of special lec-\$848 55 Transferred to Public Education, General Account, for Special Work IO 00 \$858 55 School Fund: Loaning Slides to Public Schools ...... 1,204 13 2.062 68 Publications: Museum Journal Fund: Transferred to Publications, Morris K. Jesup Fund Account, for special inserts ........ 15 00 Total net disbursements for the development of specific departments ......\$16,729 37 INTEREST ON CREDIT BALANCES: Transferred to Interest on Credit Balances, General Account .....

Cash on hand December 31, 1917 ...... 12,670 43

E. & O. E.

H. P. DAVISON, Treasurer

\$29,829 30

NEW YORK, December 31, 1917

# CROCKER LAND EXPEDITION FUND ACCOUNT RECEIPTS 1917 Cash on hand January 1, 1917..... \$3,533 33 Subscriptions: Miss Caroline F. Lester ..... GENERAL ACCOUNT: Contribution of the unexpended incomes of 1916 and 1917 ..... 6,712 51 MORRIS K. JESUP FUND ACCOUNT: Contribution of the unexpended incomes of 1916 and 1917 ..... \$43,287 49 Special Contribution from Department of Geology .. 1,500 00 44,787 49 SPECIAL FUNDS ACCOUNT: Angelo Heilprin Exploring Fund ..... 500 00 SALE OF SPECIMENS ..... 57 42 52,067 42 LOANS: General Account \$48,600 00 Morris K. Jesup Fund Account 58,000 00 106,600 00 INTEREST ON CREDIT BALANCES: Earnings to December 31, 1917 ..... 47 96 \$162,248 71 $\begin{array}{l} \text{amined} \\ \text{and Approved} \left\{ \begin{array}{l} \text{Felix M. Warburg} \\ \text{Charles Lanier} \\ \text{Thomas DeWitt Cuyler} \end{array} \right\}$ Examined Auditing Committee CORPORATE STOCK ACCOUNT RECEIPTS DEPARTMENT OF PARKS ..... \$9,493 25 INTEREST ON CREDIT BALANCES: Earnings to December 31, 1917 ......

FELIX M. WARBURG

and Approved CHARLES LANIER
THOMAS DEWITT CUYLER

Auditing

Committee

Examined

# CROCKER LAND EXPEDITION FUND ACCOUNT

DISBURSEMENTS

1017

1917	
Disbursements of 1913, met by loan from General Account still unsubscribed \$15,600 00 Materials, Supplies and Equipment 5,575 31 Incidental Expenses 3,649 50 Transportation 54,504 62 Salaries 8,332 50	\$87,661 93
Loans: General Account	73,600 00
Cash on hand December 31, 1917	986 78

\$162,248 71

E. & O. E.

NEW YORK, December 31, 1917 H. P. DAVISON, Treasurer

# CORPORATE STOCK ACCOUNT

DISBURSEMENTS

1917

Payrolls of Mechanics, etc. ..... \$9,493 25

INTEREST ON CREDIT BALANCES:

Transferred to Interest on Credit Balances, General Account ..... 3 49

E. & O. E.

New York, December 31, 1917

H. P. DAVISON, Treasurer

# INCIDENTAL ACCOUNT

# RECEIPTS

1917

- · ·	
Cash on hand January 1, 1917	\$207 13
Interest on Credit Balances: Earnings to December 31, 1917 10 98	3,188 92
Examined and Approved Thomas DeWitt Cuyler Auditing Commit	\$3,396 05
MUSEUM BUILDING FUND ACCOUN	T

#### RECEIPTS

1917	
Cash on hand January 1, 1917	\$100,451 39
Subscriptions: Archer M. Huntington \$2,008 94	
George B. Hopkins 1,000 00 \$3,008 94	
Interest on Credit Balances:	
Earnings to December 31, 1917 2,590 50	5,599 44
	\$106,050 83
Examined FELIX M. WARBURG CHARLES LANIER THOMAS DEWITT CUYLER Comm	ittee

# INCIDENTAL ACCOUNT

#### DISBURSEMENTS

1917

DISBURSEMENTS	FOR	Individuals and	
SOCIETIES			

\$2,988 08

INTEREST ON CREDIT BALANCES:

Transferred to Interest on Credit Balances, General Account .....

10 98

Cash on hand December 31, 1917 .....

\$2,999 06 396 99

\$3,396 05

E. & O. E.

New York, December 31, 1917 H. P. DAVISON, Treasurer

# MUSEUM BUILDING FUND ACCOUNT

#### DISBURSEMENTS

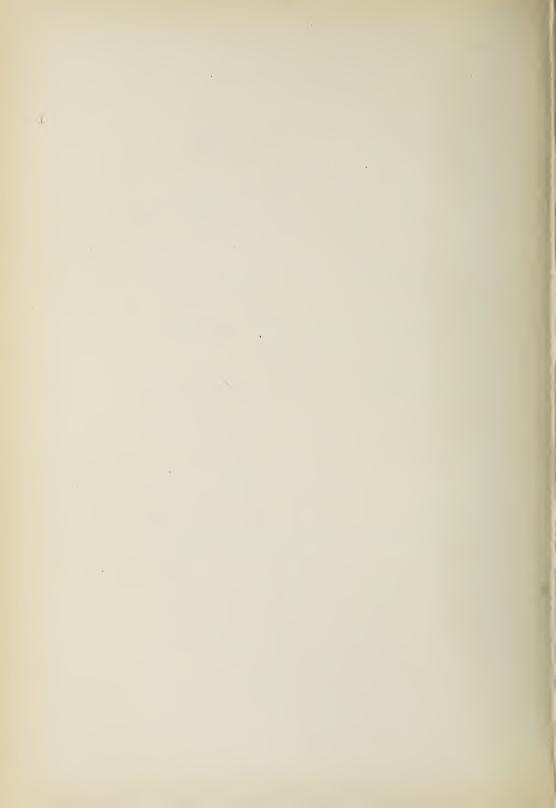
1917

Cash on hand December 31, 1917 ..... \$106,050 83

\$106,050 83

E. & O. E.

New York, December 31, 1917 H. P. DAVISON, Treasurer



#### MEMBERSHIP

The number of Members of the Museum is greater than ever before despite the present disturbed conditions of the country, which are making such unusual demands upon the income of every citizen. This is a source of special gratification and encouragement to the Museum, since it indicates that the public service the institution is rendering is more widely appreciated than ever before.

It has often been stated that many become members of the Museum, not because they expect in person value received for the membership fee, but because they believe that Privileges the work the institution is doing for science and education is worthy of support. Unquestionably this civic pride is an important factor in maintaining the membership. On the other hand, a little reflection will show that every member is offered a very large personal return for his contribution. Every member receives copies of The American Museum Journal, a magazine which keeps the members in touch with Museum activities and presents in authoritative manner the results of the latest explorations and researches in natural science.

The lectures that are given annually to members compare favorably with those given in any lecture course in the City.

In 1917, more than 85 lectures were given to which Members were welcome.

The spring course of lectures to Members was as follows: One by C. William Beebe, "In the Jungles of British Guiana," describing the work carried on at "Kalacoon," the tropical research station, ideally situated for studying the problems of habitat and distribution. In place of the lecture which was to have been given by Mr. Herbert W. Gleason, "In the High Sierras with John Muir," a lecture was given on practically the same region by Mr. Leroy Jeffers, with stereopticon views of that part of the country and also of the rocks

and surf in the region of Nahant, Massachusetts. The lecture by Herbert J. Spinden, "Our Debt to Ancient American Civilizations," called particular attention to the fact that more than half of our agricultural products are direct gifts from the American Indian. Mr. Leo E. Miller, "With Camera and Gun Through Western Colombia," dealt with Antioquia, a region of diversified physical characters and an unusually rich field for the naturalist.

The autumn course for members included the following lectures: Donald B. MacMillan, "The Search for Crocker Land." Mr. MacMillan had spent four years in the Arctic as leader of the Crocker Land Expedition organized by The American Museum of Natural History, The American Geographical Society and The University of Illinois. His narrative gave an account of the perils and disappointments of Arctic travel, and an intimate picture of the Cape York Eskimo, the most northerly inhabitants of the world. A. Radclyffe Dugmore, "The Romance of the Beaver and the Caribou," covered observations of a series of years. Captain Dugmore has seen service in France, where he was "gassed" in the battle of the Somme and invalided home. Frank M. Chapman, "The Southern Andes," concluded the story of the natural history reconnaissance made by him in South America in 1916. Dr. Chapman also established relations with the museums in the principal cities through which the expedition passed. Roy C. Andrews, "The Frontiers of a Forbidden Land," gave an account of the Asiatic Zoölogical Expedition's journey through southern and southwestern China, the mountains of the Tibetan frontier, the Burma border, the little known native tribes, and of conditions in the interior of China, illustrated by motion pictures and colored lantern slides from photographs taken by Mrs. Andrews.

The ninth and tenth series of Nature Stories for the Children of Members were given in 1917. In the spring course,

Mr. Robert C. Murphy gave a lecture entitled "Among the Penguins of South Georgia," and in the autumn course Mr. Roy Chapman Andrews told of "The Children of the Far East."

In January the Department of Anthropology gave a series of four lectures on "Ethnology: The Science of Culture," by Dr. Robert H. Lowie.

Special Lectures

On January 10, under the auspices of The American Scenic and Historic Preservation Society and The American Museum of Natural History, a lecture was given by the Honorable Robert Sterling Yard, on "Our National Parks and Monuments," illustrated with beautiful colored stereopticon views.

On January 20, a series of remarkable motion pictures entitled "How Life Begins," was shown through the courtesy of the Exhibitors' Booking Agency of New York City. The pictures were made by Mr. George E. Stone, A.B., and Professor J. A. Long, Ph.D., of the University of California.

In February, three lectures on "Primitive Decorative Design" were given by Dr. Herbert J. Spinden and Mr. M. D. C. Crawford, under the auspices of the Department of Anthropology.

On February 8, the first exhibition of Prizma motion pictures was given, under the auspices of The American Museum of Natural History and The New York Academy of Sciences. These pictures are a faithful reproduction of objects in motion or at rest in natural colors and relief. The exhibition included pictures of the Grand Cañon of the Colorado, Niagara Falls, marine life and other subjects of natural science. A brief description of the method of producing the pictures was given by Ernest Fox Nichols, Sc.D., LL.D., Professor of Physics at Yale University.

On March 28, under the auspices of The American Museum of Natural History and The American Scenic and Historic Preservation Society, a lecture was given by Samuel Christopher Lancaster, on "The Scenic Beauty of Oregon," illustrated with lantern slides and Paget plates.

On May 21 and 23 addresses were given in connection with the Twelfth Annual Meeting of the American Association of Museums.

On May 23, addresses were given by President Osborn (presiding), the Honorable George W. Perkins and Doctors Graham Lusk, Hermann M. Biggs and Walter B. James, in

connection with the opening of a special exhibition illustrative of the most recent researches in Food Values and Economies.

On May 28, special addresses were given in connection with the Centennial Meeting of the New York Academy of Sciences, by Professor Michael Idvorsky Pupin, President of the Academy, by Dr. Nathaniel Lord Britton, and by Dr. John Hendley Barnhart.

On June 8, a lecture for the blind was given by Dr. Fisher on "Wild Flowers of Summer."

On October 2, addresses were given in connection with the Nineteenth Annual Meeting of the New York State Historical Association.

On December 5, Mr. Roy Chapman Andrews spoke on "Travels in Little Known China," at the meeting of the American Asiatic Association.

On December 17, under the auspices of the New York Academy of Sciences, an address was given on "Science and the War" by Dr. R. A. Millikan.

It is gratifying to report that the number of new members enrolled during 1917 was 412; the loss through Status of death and resignation was 270, showing a net gain Membership of 133. On December 31, 1917, the total membership was 4,242, divided into classes as follows:

Founder	I	Fellows	41
Benefactors	5	Honorary Fellows	10
Associate Founders	11	Life Members	717
Associate Benefactors	21	Sustaining Members	80
Patrons	113	Annual Members	2,880
Associate Member	rs (1101	n-resident) 262	

#### NEW MEMBERS

The following was elected Associate Founder:

A. D. JUILLIARD

The following were elected Associate Benefactors:

FREDERICK F. BREWSTER JAMES B. FORD

HENRY C. FRICK ADRIAN ISELIN

FRANK W. KITCHING\*

\* Deceased.

The following were elected Patrons:

HENRY P. DAVISON

DR. JAMES M. B. HARD

GEO. B. HOPKINS

PAUL J. SACHS

MRS. PAUL J. SACHS

Mrs. Wm. Tod Helmuth Mrs. Willard D. Straight

The following were elected Fellows:

CHARLES L. BERNHEIMER B. PRESTON CLARK

Louis T. Haggin

The following were elected Life Members through contribution of One Hundred Dollars:

THOMAS BARBOUR

JAMES H. BARR

R. CLIFFORD BLACK

AMOS P. BROWN

EDWIN KUTTROFF

MRS. FREDERIC S. LEE

ALFRED F. LICHTENSTEIN

CHAS. H. LOUIS

WM. REYNOLDS BROWN
GEORGE BULLOCK
ARTHUR F. LUKE
MALCOLM S. MACKAY

E. C. Converse Edward Mallinckrodt, Jr.

GEORGE A. CROCKER, JR. W. H. MARSHALL
MRS. WILLIAM H. CROCKER
MOREAU DELANO
MRS. C. N. DIETZ
W. H. MARSHALL
GEORGE MERCER
WM. H. NICHOLS
GEORGE NOTMAN

HENRY L. DOHERTY Mrs. Chas. Albert Perkins

LEWIS L. DUNHAM E. W. RICE, JR.

ALFRED I. DU PONT GEORGE D. ROSENGARTEN
MARSHALL FIELD MRS. HORACE RUSSELL
BRUCE FORD EDMUND J. SCHEIDER
WILLIAM LOUIS GARRELS CHAS. A. SCHIEREN
MRS. JAMES J. GOODWIN ARCHIBALD T. SCOFIELD

E. H. R. Green Valentine P. Snyder

Mrs. James B. Haggin John A. Spoor H. M. Hanna, Jr. Adolfo Stahl W. P. Hardenberg Edw. R. Stettinius

HARRY S. HARKNESS MRS.WARNER M. VAN NORDEN

Eph. A. Karelsen Samuel N. Vauclain
Edward Dudley Kenna Benjamin L. Webster
Wm. M. Kerr Mrs. Delos O. Wickham

IRVING B. KINGSFORD WALTER C. WITHERBEE

WILLIAM M. WOOD

The following were made Life Members through Honorary Election:

ROBERT A. BARTLETT LOUIS AGASSIZ FUERTES
REV. HARRY R. CALDWELL PROF. C. R. KELLOGG
RAYMOND L. DITMARS DR. WM. DILLER MATTHEW

The following have become Sustaining Members:

SAMUEL BIRD, JR.

Mrs. Pierpont Morgan

THEODORE H. LAMPRECHT C. H. TENNEY

C. H. Zehnder

# DECEASED TRUSTEES AND MEMBERS

Trustees

Joseph Hodges Choate

Anson Wales Hard

Founders

Joseph Hodges Choate

HENRY PARISH

Associate Benefactor
Frank W. Kitching

Life Members

BERTRAND F. BELL MRS. DANIEL S. LAMONT
MISS KATHARINE L. CAMMANN DR. PERCIVAL LOWELL
ZENAS CRANE O. H. PAYNE
SAMUEL ELLIOTT J. K. ROBINSON

REV. DR. HENRY FERGUSON

CHARLES E. HANAMAN

N. W. HARRIS

FRANK D. HURTT

J. K. ROBINSON

WM. R. SCHMELZEL

GEO. P. SHIRAS

HENRY F. WALKER

FREDERICK B. WENDT

A complete list of members is appended.

Respectfully submitted,

Adrian Iselin, Secretary.

# LIST OF TRUSTEES AND TERMS OF SERVICE

# 1869–1917

The Mayor of the City of New York1908-
The President of the Department of Parks1908-
The Comptroller of the City of New York1908-
Auchincloss, Hugh1876–1890
Baker, George F
Bickmore, Albert S
Bishop, H. R
Blatchford, Richard M
Blodgett, William T
Bowdoin, George S
Brewster, Frederick F
Choate, Joseph H
Colgate, Robert
Constable, James M
Cutting, R. Fulton1914-
Cuyler, Cornelius C
Cuyler, Thomas DeWitt1910-
Dana, Chas. A
Davison, Henry P
Dodge, A. G. Phelps
Dodge, Cleveland H
Dodge, W. E., Jr
Douglas, James1909-
Drexel, Joseph W
Elliot, Daniel Giraud
Field, Benjamin H1869–1893
Frick, Henry C
Gerry, Elbridge T
Grant, Madison1911-
Green, Andrew H1869–1903
Grinnell, Moses H
Haines, William A1869–1880
Hard, Anson W1894–1917
Harriman, Oliver1878-1895
Havemeyer, H. O
Havemeyer, Theodore A1891–1897
Haven, George G1892–1895
Hewitt, Abram S

Huntington, Archer M	_
Hyde, Frederick E	
Hyde, James H	
Iselin, Adrian	
Iselin, Adrian1905	
James, Arthur Curtiss	
James, D. Willis	
James, Walter B	
Jesup, Morris K	
Juilliard, A. D	
Kissel, Gustav E	
Landon, Charles G	
Lanier, Charles	
Low, Seth	
Mills, D. O	
Mills, Ogden	
Morgan, J. Pierpont	
Morgan, J. P	
Morton, Levi P	
Osborn, Henry Fairfield	_
Ottendorfer, Oswald	
Parish, Henry	
Potter, Howard1869-	
Pyne, Percy R	-1805
Pyne, Percy R	-1095
Robb, J. Hampden	
Rockefeller, William	
Rogers, Archibald	
Roosevelt, Theodore 1869	
Roosevelt, Theodore 1886	
Sherman, Benjamin B	
Stebbins, Henry G. :	
Stevens, Frederic W	
Steward, D. Jackson	
Stuart, Robert L	
Trevor, John B	
Trevor, John B	
Vanderbilt, Cornelius	 
Warburg, Felix M	
Wickersham, George W	
Whitney, William C	
Wolfe, John David	
worte, John David	10/2

#### LIST OF MEMBERS

# December 31, 1917

#### **FOUNDERS**

This class of members is composed of the incorporators of the Museum

WILLIAM T. BLODGETT\*
JOSEPH H. CHOATE\*
ROBERT COLGATE\*
CHARLES A. DANA\*
A. G. PHELPS DODGE
BENJAMIN H. FIELD\*
WILLIAM A. HAINES\*
ADRIAN ISELIN\*

Morris K. Jesup\*
J. Pierpont Morgan\*
Henry Parish\*
Howard Potter\*
Theodore Roosevelt\*
Benjamin B. Sherman\*
D. Jackson Steward\*
Robert L. Stuart\*

JOHN DAVID WOLFE\*

#### **BENEFACTORS**

Through honorary election

James M. Constable\*
Cleveland H. Dodge
James Douglas
Archer M. Huntington
Arthur Curtiss James
Morris K. Jesup\*
Mrs. Morris K. Jesup\*

DARIUS OGDEN MILLS\*
J. PIERPONT MORGAN\*
HENRY FAIRFIELD OSBORN
PERCY R. PYNE, SR.\*
MRS. ROBERT L. STUART\*
CORNELIUS VANDERBILT\*
WM. H. VANDERBILT\*

#### ASSOCIATE FOUNDERS

Through honorary election

GEORGE S. BOWDOIN\*
JAMES M. CONSTABLE\*
CLEVELAND H. DODGE
WILLIAM E. DODGE, JR.\*
HENRY O. HAVEMEYER\*
ARCHER M. HUNTINGTON
ARTHUR CURTISS JAMES
A. D. JUILLIARD
CHARLES LANIER
OGDEN MILLS

J. P. Morgan
Oswald Ottendorfer\*
Percy R. Pyne, 1st\*
William Rockefeller
'Miss Phebe Anna Thorne\*
Charles E. Tilford\*
Mrs. John B. Trevor
Cornelius Vanderbilt, 1st\*
Felix M. Warburg
William C. Whitney

\* Deceased.

#### ASSOCIATE BENEFACTORS

#### Through honorary election

Hugh Auchincloss\* EMIL C. BONDY\* George S. Bowdoin\* FREDERICK F. BREWSTER **Јо**ѕерн Н. Сноате\* ROBERT COLGATE\* THOMAS DE WITT CUYLER BENTAMIN P. DAVIS\* CLEVELAND H. DODGE WILLIAM E. DODGE, 2D\* Mrs. William E. Dodge\* Mrs. Josiah M. Fiske\* JAMES B. FORD HENRY C. FRICK Anson W. Hard\* ARCHER M. HUNTINGTON HENRY IDEN\* ADRIAN ISELIN\*

140

Adrian Iselin ARTHUR CURTISS JAMES D. WILLIS JAMES\* A. D. Juilliard Frank W. Kitching\* CHARLES LANIER JOSEPH F. LOUBAT OGDEN MILLS J. P. Morgan HENRY FAIRFIELD OSBORN PERCY R. PYNE WILLIAM ROCKEFELLER Mrs. Russell Sage WM. R. SANDS\* JACOB H. SCHIFF ROBERT L. STUART\* JOHN B. TREVOR Mrs. John B. Trevor

FELIX M. WARBURG

#### **PATRONS**

# By contribution of \$1,000, or through honorary election

EDWARD D. ADAMS JOHN ANDERSON\* TAMES ANGUS\* HICKS ARNOLD\* RICHARD ARNOLD\* WILLIAM H. ASPINWALL\* JOHN JACOB ASTOR\* WILLIAM WALDORF ASTOR Hugh Auchincloss\* BENJAMIN AYMAR\* Samuel D. Babcock\* GEORGE F. BAKER Mrs. Guy Ellis Baker A. H. BARNEY\* D. N. BARNEY\* JAMES GORDON BENNETT Albert S. Bickmore\* Mrs. Albert S. Bickmore

Frederick Billings\* HEBER R. BISHOP\* George Bliss\* George T. Bliss\* MISS SUSAN DWIGHT BLISS Mrs. William H. Bliss WILLIAM T. BLODGETT\* ROBERT BONNER\* HENRY BOOTH M. C. D. Borden\* J. A. Bostwick\* George S. Bowdoin\* GEORGE DEXTER BRADFORD\* Frederick F. Brewster ALEX. H. BROWN, M. P. JAMES BROWN\* MISS MATILDA W. BRUCE\* HERMON C. BUMPUS

<sup>\*</sup> Deceased.

JOHN L. CADWALADER\* Mrs. Carnegie Andrew Carnegie Dr. Walter Channing **Томерн Н. Сноате\*** JOHN J. CLANCY\* EDWARD CLARK\* TONAS G. CLARK\* JAMES B. COLGATE\* ROBERT COLGATE\* Frederick A. Constable\* Mrs. Frederick A. Constable JAMES M. CONSTABLE\* GEORGE C. COOPER\* Peter Cooper\* Austin Corbin\* ALEXANDER I. COTHEAL\* ZENAS CRANE\* IOHN D. CRIMMINS\* JOHN J. CROOKE ROBERT FULTON CUTTING CORNELIUS C. CUYLER\* THOMAS DEWITT CUYLER HENRY P. DAVISON Dr. BASHFORD DEAN Mrs. Bashford Dean W. M. Dongan de Peyster L. P. DI CESNOLA\* A. G. PHELPS DODGE CLEVELAND H. DODGE WILLIAM E. DODGE, 1st\* WILLIAM E. DODGE, 2d\* MRS. WILLIAM E. DODGE\* TAMES DOUGLAS Andrew E. Douglass\* JOSEPH W. DREXEL\* Mrs. Isaac M. Dyckman\* D. G. Elliot\* Mrs. M. Schuyler Elliot TAMES R. ELY\* LIEUT. G. T. EMMONS, U.S.N. BENJAMIN H. FIELD\* CYRUS W. FIELD\* CYRUS W. FIELD, JR.\* JAMES B. FORD PROF. AUGUSTE FOREL

HENRY C. FRICK Mrs. Fredericka Gade\* WILLIAM T. GARNER\* ELBRIDGE T. GERRY ROBERT W. GOELET LUDWIG MAX GOLDBERGER\* **JOEL GOLDENBERG\*** GEORGE J. GOULD JOHN A. C. GRAY\* IOHN A. GROSSBECK\* WILLIAM A. HAINES\* Anson W. Hard\* JAMES M. B. HARD Mrs. E. H. Harriman OLIVER HARRIMAN\* E. H. HARRISON\* HENRY O. HAVEMEYER\* THEODORE A. HAVEMEYER\* GEORGE G. HAVEN\* GEORGE G. HAVEN George A. Hearn\* Mrs. Wm. Tod Helmuth ABRAM S. HEWITT\* Mrs. Abram S. Hewitt\* MISS S. M. HITCHCOCK\* VERY REV. E. A. HOFFMAN, D.D., LL.D.\*

Mrs. Eugene A. Hoffman\* SAMUEL V. HOFFMAN GEO. B. HOPKINS GEN. T. H. HUBBARD\* ARCHER M. HUNTINGTON Mrs. Archer M. Huntington C. P. Huntington\* Mrs. Henry Edwards HUNTINGTON B. H. Hutton\* B. T. BABBITT HYDE Dr. Frederick E. Hyde FREDERICK E. HYDE, JR. 'IAMES H. HYDE ADRIAN ISELIN\* ADRIAN ISELIN ARTHUR CURTISS JAMES D. WILLIS JAMES\* Dr. Walter B. James

<sup>\*</sup> Deceased.

CHARLES M. JESUP Morris K. Jesup\* Mrs. Morris K. Jesup\* H. J. JEWETT\* J. TAYLOR JOHNSTON\* Mrs. Isabelle Field Judson A. D. Juilliard JAMES R. KEENE\* L. D. KELLOGG GUSTAV E. KISSEL\* CHAS. G. LANDON\* CHARLES LANIER LORD LEITH OF FYVIE JAMES LENOX\* ADOLPH LEWISOHN MAJOR C. A. M. LIEBRECHTS SOLOMON LOEB\* JOSEPH F. LOUBAT SETH LOW, LL.D.\* Princess VILMA LWOFF-PARLAGHY IOHN B. MARCOU\* PHILIPPE B. MARCOU EDWARD MATTHEWS Francis O. Matthiessen\* GEORGE B. McCLELLAN Dr. Edgar A. Mearns, U.S.A.\* HERMAN A. METZ DARIUS OGDEN MILLS\* OGDEN MILLS MASON MITCHELL J. PIERPONT MORGAN\* J. P. Morgan HENRY FAIRFIELD OSBORN WM. CHURCH OSBORN W. H. Osborn\* Mrs. Wm. H. Osborn\* OSWALD OTTENDORFER\* JOHN E. PARSONS\* GEORGE FOSTER PEABODY DR. WM. PEPPER\* I. N. Phelps\* S. WHITNEY PHŒNIX\* HENRY CLAY PIERCE HENRY W. Poor\* JOHN H. PRENTICE PERCY R. PYNE\*

PERCY R. PYNE PAUL J. RAINEY CLARK LOMBARD RING J. HAMPDEN ROBB\* COLEMAN T. ROBINSON\* JOHN D. ROCKEFELLER JOHN D. ROCKEFELLER, JR. WM. ROCKEFELLER Col. Archibald Rogers Mrs. Mary E. Rogers\* Theodore Roosevelt\* THEODORE ROOSEVELT EDWARD S. RUSS\* PAUL J. SACHS Mrs. Paul J. Sachs Mrs. Russell Sage WM. SCHAUS F. Augustus Schermerhorn WILLIAM C. SCHERMERHORN\* JACOB H. SCHIFF Mrs. Harriet L. Schuyler\* HENRY SELIGMAN JESSE SELIGMAN\* CHARLES H. SENFF\* CHARLES S. SHEPARD EDWARD M. SHEPARD\* BENTAMIN B. SHERMAN\* WM. D. SLOANE\* CHARLES E. SLOCUM, M.D., LL.D.\* CHARLES SMETS JAMES BAKER SMITH\* CATHERINE L. SPENCER\* FREDERIC W. STEVENS D. Jackson Steward\* A. T. STEWART\* JAMES STOKES\* J. G. PHELPS STOKES MRS. WILLARD STRAIGHT ALEXANDER STUART\* ROBERT L. STUART\* Mrs. Robert L. Stuart\* APPLETON STURGIS\* Dr. Elizabeth M. Sturgis FRANK K. STURGIS Mrs. Frank K. Sturgis HENRY C. SWORDS

<sup>\*</sup> Deceased.

Samuel Swords\*
John T. Terry
Rev. Roderick Terry, D.D.
Mrs. F. F. Thompson
Edwin Thorne
Joel Wolfe Thorne
Jonathan Thorne\*
Jonathan Thorne
Miss Phebe Anna Thorne\*
Samuel Thorne\*
Victor Corse Thorne
John B. Trevor
Mrs. John B. Trevor
Mrs. John B. Trevor
Mrs. John B. Trevor

C. VANDERBILT\*
GEO. W. VANDERBILT\*
W. K. VANDERBILT
HAROLD GARRISON VILLARD
HENRY VILLARD\*
RODMAN WANAMAKER
FELIX M. WARBURG
EDWIN H. WEATHERBEE\*
PROF. WILLIAM M. WHEELER
WILLIAM C. WHITNEY\*
GEORGE W. WICKERSHAM
RICHARD T. WILSON\*
MRS. ROBERT WINTHROP
MISS C. L. WOLFE\*
JOHN D. WOLFE\*

#### **FELLOWS**

By contribution of \$500, or through honorary election

IOHN ALSTYNE\* SAMUEL P. AVERY\* CHARLES T. BARNEY\* THOMAS BARRON\* THE DUKE OF BEDFORD CHARLES L. BERNHEIMER CORTLANDT FIELD BISHOP DAVID WOLFE BISHOP\* George Bliss\* TEMPLE BOWDOIN ROBERT S. BREWSTER STEWART BROWN\* WM. LANMAN BULL\* JOHN L. CADWALADER\* JAMES C. CARTER\* CHARLES W. CASS\* GEORGE W. CASS\* PROF. CHAS. F. CHANDLER B. PRESTON CLARK Mrs. Geo. W. Collord\* HANSON K. CORNING\* Mrs. RICHARD P. DANA\* ALFRED B. DARLING\* CHARLES DEERING WILLIAM DEMUTH\* WM. EARL DODGE, 4TH

\* Deceased.

ABRAM DUBOIS\* CYRUS W. FIELD, IR.\* Iosiah M. Fiske\* H. M. Flagler\* HENRY FORD ROBERT GORDON GEORGE G. GRAY\* CHARLES W. GRISWOLD\* JOHN A. GROSSBECK\* TAMES B. HAGGIN\* Louis T. Haggin F. R. HALSEY MISS LAURA P. HALSTED\* WM. H. HARBECK\* Mrs. Henry O. Havemeyer SAMUEL HAWK\* VERY REV. E. A. HOFFMAN, D.D., LL.D.\*

H. B. Hollins
Paul Griswold Howes
Meredith Howland\*
Samuel N. Hoyt\*
D. B. Ivison\*
Charles M. Jesup
Aymar Johnson
James H. Jones

GOUVERNEUR KEMBLE\* ROBERT LENOX KENNEDY\* WHEATON B. KUNHARDT Col. Anthony R. Kuser Prof. WILLIAM LIBBEY A. A. Low\* HENRY G. MAROUAND\* EMERSON McMillin MISS CAROLINE L. MORGAN SAMUEL F. B. Morse\* RICHARD MORTIMER LEVI P. MORTON FRANCIS CHILD NICHOLAS LLOYD PHŒNIX PHILLIPS PHŒNIX HENRY W. Poor\* HOWARD POTTER\* O. B. POTTER\* Dr. WILLIAM RADLOFF MARSHALL O. ROBERTS\* JOHN D. ROCKEFELLER C. V. S. Roosevelt\* Mrs. Herbert L. Satterlee F. Augustus Schermerhorn H. M. Schieffelin\* GRANT B. SCHLEY Mrs. Harriet L. Schuyler\*

PHILIP SCHUYLER\* CHARLES H. SENFF\* ELLIOTT F. SHEPARD\* JOHN SLOANE\* JOHN SNEDEN\* D. C. STAPLETON CHARLES STEELE CHARLES D. STICKNEY\* MISS CAROLINE PHELPS STOKES\* MISS OLIVIA E. PHELPS STOKES Mrs. Frank K. Sturgis RUTHERFURD STUYVESANT\* JOHN T. TERRY\* MRS. EZRA RIPLEY THAYER LEWIS S. THOMPSON JAMES THOMSON\* TIFFANY & Co. LUCIUS TUCKERMAN\* H. McK. Twombly\* LEONIDAS A. VAN PRAAG\* GEN. EGBERT L. VIELE, U.S.A.\* THOS. A. VYSE, JR.\* FREDERIC C. WALCOTT SAMUEL WILLETS\* MRS. ROBERT WINTHROP R. A. WITTHAUS, M.D.\* MISS CAROLA WOERISHOFFER\*

#### HONORARY FELLOWS

Through election in recognition of distinguished scientific . service to the Museum

ROALD AMUNDSEN
DR. BASHFORD DEAN
LIEUT. GEORGE T. EMMONS,

U.S.N.

GEO. BIRD GRINNELL
BARON LUDOVIC MONCHEUR

REAR-ADMIRAL ROBERT E. PEARY,

HON. THEODORE ROOSEVELT
DR. LEONARD C. SANFORD
SIR ERNEST HENRY SHACKLETON
VILHJALMUR STEFANSSON

#### LIFE MEMBERS

By contribution of \$100, or through honorary election

ERNEST KEMPTON ADAMS\*
MRS. MAUD W. ADAMS
C. R. AGNEW

\* Deceased.

G. B. AGNEW
CARL E. AKELEY
JOHN E. ALEXANDRE\*

ADMIRAL E. ALEXEIEFF REV. ARTHUR HUNTINGTON ALLEN RICHARD H. ALLEN\* F. D. Aller BERNARD G. AMEND\* F. LOTHROP AMES LARZ ANDERSON Mrs. Blanche L. Andrews\* CONSTANT A. ANDREWS FRANCIS R. APPLETON Mrs. Martin Archer-Shee ALLISON V. ARMOUR S. T. Armstrong. M.D. Mrs. William Armstrong BENJAMIN WALWORTH ARNOLD B. G. ARNOLD\* EDWARD W. C. ARNOLD JOHN JACOB ASTOR\* VINCENT ASTOR I. T. ATTERBURY\* Mrs. Edgar S. Auchincloss, Jr. Mrs. Emma B. Auchingloss Hugh D. Auchincloss\* SAM. SLOAN AUCHINCLOSS MISS FLORENCE AUDUBON MISS MARIA R. AUDUBON MISS M. ELIZA AUDUBON SAMUEL P. AVERY\* SAMUEL P. AVERY MRS. JAMES C. AYER\* MISS E. AYMAR\* JULES S. BACHE TAMES A. BAILEY\* IAS. MUHLENBERG BAILEY\* MISS CHARLOTTE S. BAKER GEO. F. BAKER, JR. H. MARTYN BAKER EDWIN SWIFT BALCH ALBERT H. BALDWIN CARROLL BALDWIN JOSEPH C. BALDWIN\* S. PRENTISS BALDWIN HENRY McC. BANGS DAVID BANKS\* HENRY I. BARBEY\* THOMAS BARBOUR

Mrs. P. Hackley Barhydt\* THOMAS BARING FORDYCE BARKER, M.D.\* MISS CORA F. BARNES\* TAMES BARNES JOHN S. BARNES\* JOHN HENDLEY BARNHART, M.D. JAMES H. BARR George D. Barron J. O. BARTHOLOMEW\* ROBERT A. BARTLETT BERNARD M. BARUCH W. H. Beadleston\* C. WILLIAM BEEBE George E. Belcher, M.D.\* BERTRAND F. BELL\* MRS. CHRISTOPHER M. BELL\* C. M. Bell, M.D.\* DENNISTOUN M. BELL GORDON KNOX BELL Louis V. Bell WM. F. Beller AUGUST BELMONT MISS BEATRICE BEND THOMAS G. BENNETT THEODORE BERDELL\* C. M. Bergstresser CHARLES L. BERNHEIMER Mrs. Charles L. Bernheimer JOHN E. BERWIND SAMUEL R. BETTS WILLIAM G. BIBB LYNFORD BIDDLE W. LYMAN BIDDLE Mrs. Albert Bierstadt\* TOHN BIGELOW\* MISS ELIZABETH BILLINGS FREDERICK BILLINGS\* R. CLIFFORD BLACK\* MRS. EMMONS BLAINE 'I. Insley Blair T. W. BLAKE GEO. BLEISTEIN MISS CATHERINE A. BLISS\* CORNELIUS N. BLISS\* CORNELIUS N. BLISS, JR.

<sup>\*</sup> Deceased.

ROBERT WOODS BLISS SAMUEL J. BLOOMINGDALE GEORGE BLUMENTHAL HENRY W. BOETTGER Robert Boettger EDWARD C. BOHDE A. K. Bolan\* George C. Boldt\* W. B. Bourn FREDERICK G. BOURNE Louis J. Boury Mrs. Temple Bowdoin\* GEORGE W. BRACKENRIDGE MRS. WM. H. BRADFORD, SR. JOHN R. BRADLEY ANTHONY N. BRADY\* JAMES C. BRADY HENRI M. BRAEM\* COURTNEY BRANDRETH BENJAMIN BREWSTER\* FREDERICK F. BREWSTER George S. Brewster WILLIAM BREWSTER Mrs. Samuel W. Bridgham CHARLES LYMAN BRINSMADE CHAS. P. BRITTON\* WM. RUTGER BRITTON WILLIAM GOULD BROKAW Addison Brown\* Amos P. Brown\* DICKSON Q. BROWN FRANK G. BROWN\* Geo. McKesson Brown George H. Brown\* JAMES M. BROWN\* STANLEY DOTY BROWN WM. REYNOLDS BROWN J. Hull Browning\* MISS MATILDA W. BRUCE\* DAVID LONEY BRUCE-BROWN\* WILLIAMSON BUCKMAN GEORGE BULLOCK CAPTAIN GUY H. BURRAGE, U.S.N. R. L. Burton JOSEPH BUSHNELL THOMAS C. BUSHNELL\*

B. H. Buxton JOHN L. CADWALADER\* REV. HARRY R. CALDWELL W. R. CALLENDER Mrs. Alex. Cameron FREDERIC ALMY CAMMANN MISS KATHARINE L. CAMMANN\* RICHARD CANFIELD\* GEORGE B. CASE Mrs. George B. Case EDWARD PEARCE CASEY CHAS. M. CAULDWELL, M.D. ISAAC P. CHAMBERS\* C. W. CHAPIN JAMES P. CHAPIN S. B. CHAPIN Mrs. Geo. H. CHATILLON HENRY CHAUNCEY\* EVERSLEY CHILDS J. E. CHILDS\* Hugh J. Chisholm\* E. Dwight Church\* Frederic E. Church\* JAMES A. CHURCH LESTER B. CHURCHILL B. Preston Clark F. AMBROSE CLARK ROBERT STERLING CLARK Augustus L. Clarkson\* BANYER CLARKSON George C. Clausen\* Mrs. George C. Clausen\* CHAS. D. CLEVELAND Treadwell Cleveland HENRY CLEWS WM. P. CLYDE ALEXANDER SMITH COCHRAN ADAM W. S. COCHRANE W. R. COE CHARLES L. COLBY\* W. W. Cole\* BIRD S. COLER Russell J. Coles EDWARD COLGATE\* RICHARD M. COLGATE S. BAYARD COLGATE

<sup>\*</sup> Deceased.

SIDNEY M. COLGATE Mrs. Sidney M. Colgate WILLIAM COLGATE ALFRED M. COLLINS MISS ELLEN COLLINS\* SAMUEL D. COLLINS GEORGE W. COLLORD\* SAMUEL POMEROY COLT CHESTER L. COLTON Mrs. WILLIAM COMBE FRED. H. COMSTOCK WASHINGTON E. CONNOR MISS MARIE LOUISE CONSTABLE CHARLES H. CONTOIT\* E. C. CONVERSE Mrs. E. C. Converse Wm. L. Conyngham\* HAROLD J. COOK HENRY H. COOK\* C. FORSTER COOPER EDWARD COOPER\* HUGH L. COOPER THEODORE COOPER R. R. CORNELL JOHN J. CORNING DANIEL W. CORY Mrs. Sally Morris Cory\* ALEX. I. COTHEAL\* MISS ELLEN H. COTHEAL\* CAPTAIN W. H. COTTINGHAM\* JOHN LYMAN COX DAVIES COXE, M.D.\* S. D. COYKENDALL\* WILLIAM R. CRAIG ZENAS CRANE\* GEORGE A. CROCKER, JR. MRS. WILLIAM H. CROCKER FREDERIC CROMWELL\* JAMES CRUIKSHANK\* WALTER GRAY CRUMP, JR. W. BAYARD CUTTING\* MRS. W. BAYARD CUTTING MISS ELEANOR DE GRAFF CUYLER CHAS. M. DA COSTA\* ALFRED G. DALE A. DALRYMPLE\*

MARCUS DALY MRS. DAVID T. DANA BENJAMIN P. DAVIS\* EDMUND W. DAVIS\* Mrs. GHERARDI DAVIS WM. T. DAVIS CHAS. STEWART DAVISON HENRY J. DAVISON\* HENRY P. DAVISON LEE GARNETT DAY EDGAR DEAL THOMPSON DEAN\* Andre de Coppet EDWARD J. DE COPPET GEORGE B. DE FOREST A. V. DE GOICOURIA ALFRED DEJONGE S. DE JONGE ALBERT DELAFIELD LEWIS L. DELAFIELD HENRI DECKERT DE LA MEILLAIE EUGENE DELANO Moreau Delano WARREN DELANO Dr. Carlos de la Torre J. H. DE MOTT\* WILLIAM DEMUTH\* CHAUNCEY M. DEPEW, JR. GEN. J. WATTS DE PEYSTER\* CHARLES DE RHAM HENRY A. C. DE RUBIO F. W. Devoe THEODORE DE WITT WILLIAM G. DE WITT ANTHONY DEY W. B. DICKERMAN MRS. C. N. DIETZ J. W. Dimick\* MRS. HENRY F. DIMOCK Mrs. W. B. Dinsmore RAYMOND L. DITMARS CLEVELAND H. DODGE Mrs. Cleveland H. Dodge MARCELLUS HARTLEY DODGE NORMAN W. DODGE\* Peter Doelger\*

<sup>\*</sup> Deceased.

HENRY L. DOHERTY PETER DONALD\* T. E. DONNE E. J. Donnell\* JAMES DOUGLAS JOHN WALDO DOUGLAS Andrew E. Douglass\* MRS. HENRY DRAPER\* HENRY C. DRAYTON MISS ETHEL DU BOIS MISS KATHARINE DU BOIS WILLIAM A. DU BOIS EDWARD L. DUFOURCO A. RADCLYFFE DUGMORE R. G. Dun\* WM. BUTLER DUNCAN\* Dr. CARROLL DUNHAM Dr. EDWARD K. DUNHAM JAMES H. DUNHAM\* LEWIS L. DUNHAM Dr. Theodore Dunham GEO. ELSWORTH DUNSCOMBE ALFRED I. DU PONT COLEMAN DU PONT MATOR BASIL HICKS DUTCHER U.S.A.

WILLIAM DUTCHER CLARENCE H. EAGLE GEO. EASTMAN THOMAS T. ECKERT, JR. CHARLES EDDISON CHARLES J. EDER WILLIAM FRANKLIN LUXTON EDWARDS MRS. DAVID S. EGLESTON GEORGE EHRET Louis J. Ehret CARL EICKEMEYER OTTO M. EIDLITZ SAMUEL ELLIOTT\* JAMES W. ELLSWORTH LINCOLN ELLSWORTH AMBROSE K. ELY\* Amos F. Eno\* Dr. Henry C. Eno\* WM. P. ENO

A. F. Estabrook Dr. Evan M. Evans ALLEN W. EVARTS Alessandro Fabbri EBERHARD FABER MRS. ERNEST A. FAIRCHILD Percival Farouhar EDWARD J. FARRELL DANIEL B. FEARING REV. DR. HENRY FERGUSON\* CORTLANDT DE PEYSTER FIELD MARSHALL FIELD D. K. ESTE FISHER, JR. IOHN FITCH\* WM. L. FLANAGAN\* MAX C. FLEISCHMANN Dr. Austin Flint, Jr. Prof. A. E. Foote\* BRUCE FORD JAMES B. FORD I. HOWARD FORD\* JAMES FRASER\* Mrs. Frank Pierce Frazier C. LINCOLN FREE FRANCIS P. FREEMAN\* CHARLES L. FREER Mrs. John French SETH BARTON FRENCH\* CHILDS FRICK VARICK FRISSELL Louis Agassiz Fuertes DALLETT FUGUET HOWARD FUGUET ARTHUR D. GABAY ALFRED WARREN GALE GEORGE GARR\* WILLIAM LOUIS GARRELS Francis P. Garvan E. H. GARY I. E. GATES\* WILLIAM H. GEBHARD\* THEODORE K. GIBBS\* FRANK LEGRAND GILLISS Dr. George H. GIRTY PARKE GODWIN\* S. A. GOLDSCHMIDT

<sup>\*</sup> Deceased,

P. J. GOODHART Dr. Frederic G. Goodridge TAMES T. GOODWIN Mrs. James J. Goodwin STEPHEN T. GORDON\* MRS. W R GRACE GEORGE SCOTT GRAHAM MADISON GRANT NORMAN GRANT HORACE GRAY\* IOHN CLINTON GRAY\* ANDREW H. GREEN\* E. H. R. GREEN MORRIS M. GREEN JOHN GREENOUGH MISS D. GREER\* FRANKLIN U. GREGORY T. A. GRIFFIN\* F. GRAY GRISWOLD IOHN N. A. GRISWOLD\* JAMES B. M. GROSVENOR\* DANIEL GUGGENHEIM S. R. GUGGENHEIM BERNARD G. GUNTHER FRANKLIN L. GUNTHER WILLIAM D. GUTHRIE ALEX. HADDEN, M.D.\* JOHN A. HADDEN\* ALFRED HAFNER CARL HAGENBECK\* Mrs. James B. Haggin MISS E. S. HAINES JOHN P. HAINES RICHARD T. HAINES\* W. A. HAINES\* Mrs. W. A. Haines\* GAYLORD C. HALL MISS LAURA P. HALSTED\* WILLIAM M. HALSTED\* WILLIAM GASTON HAMILTON\* CHARLES E. HANAMAN\* H. M. HANNA, JR. W. P. HARDENBERGH I. HORACE HARDING MRS. CHARLES W. HARKNESS\* CHAS. W. HARKNESS\*

MRS. EDWARD S. HARKNESS HARRY S. HARKNESS Mrs. Stephen V. Harkness Mrs. W. L. HARKNESS Mrs. Fletcher Harper CHARLES I. HARRAH E. H. HARRIMAN\* ALAN C. HARRIS EDWARD D. HARRIS N. W. HARRIS\* FRANCIS B. HARRISON GEORGE L. HARRISON, JR. BENTAMIN HART\* Dr. Louis Haupt Frederick C. Havemeyer\* WILLIAM F. HAVEMEYER\* **TACOB HAYS\*** MRS. E. HERRMAN\* GEORGE G. HEYE CHARLES C. HIBBARD\* JAMES J. HIGGINSON\* MRS. JAMES J. HIGGINSON Hugh Hill FREDERIC DELANO HITCH\* Mrs. Frederic Delano Hitch Francis R. Hitchcock GARRET A. HOBART MRS. RICHARD MARCH HOE VERY REV. E. A. HOFFMAN.

D.D., LL.D.\* GEO. B. HOPKINS DR. WILLIAM T. HORNADAY THEO. D. HOWELL\* Mrs. Florence Howland\* GEORGE T. HOWLAND, M.D.\* ALFRED M. HOYT\* ALFRED W. HOYT\* JOHN SHERMAN HOYT MARK HOYT\* MISS ROSINA S. HOYT THEODORE R. HOYT JOHN HUBBARD GEN. THOMAS H. HUBBARD\* Dr. Alex. C. Humphreys RICHARD S. HUNGERFORD WILSON G. HUNT\*

<sup>\*</sup> Deceased.

ARCHER M. HUNTINGTON C. P. Huntington\* H. E. HUNTINGTON MISS HELEN HURD FRANK D. HURTT\* KARL HUTTER\* CLARENCE M. HYDE\* Dr. Frederick E. Hyde JAMES H. HYDE HENRY IDEN\* GEORGE TLES JOHN V. IRWIN Mrs. C. H. ISHAM Снаѕ. В. Іѕнам W. В. Ізнам\* PAUL A. ISLER D. B. Ivison\* JOHN B. JACKSON THEO. F. JACKSON\* V. H. JACKSON, M.D., D.D.S. A. JACOBI, M.D. MISS LAURA JACOBI S. K. JACOBS M. R. JACOBUS ARTHUR CURTISS JAMES Mrs. Arthur Curtiss James Mrs. D. WILLIS JAMES\* Mrs. Henry James, Jr. NORMAN JAMES DR. WALTER B. JAMES MICHAEL JENKINS\* O. G. Jennings Mrs. Oliver G. Jennings Mrs. James R. Jesup WM. KENNON JEWETT R. D. O. Johnson Mrs. Adrian Hoffman Joline Miss C. O. Jones\* Mrs. Edward H. Jones Mrs. A. D. Juilliard\* FREDERIC A. JUILLIARD CHAS. H. KALBFLEISCH\* Mrs. John Innes Kane EPH. A. KARELSEN Mrs. E. Keep-Schley\* ALEXANDER SANFORD KELLOGG

Prof. C. R. Kellogg HENRY C. KELSEY WALTER SCHUYLER KEMEYS GEORGE KEMP\* EDWARD DUDLEY KENNA FREDERIC H. KENNARD JOHN S. KENNEDY\* RUDOLPH KEPPLER LEWIS SAYRE KERR, JR. SAMUEL KISSAM KERR WM. M. KERR George A. Kessler NATHANIEL T. KIDDER GEORGE GORDON KING JAMES GORE KING, JR. IOHN KING\* JOHN ALSOP KING\* IRVING B. KINGSFORD A. C. KINGSLAND\* WM. M. KINGSLAND\* D. P. KINGSLEY STANTON D. KIRKHAM WILLIAM ADAMS KISSAM ALFRED J. KLEIN ARNOLD KNAPP Percival Knauth\* THEODOR WHITMAN KNAUTH George T. Knight\* JAMES KNIGHT, M.D.\* H. R. KUNHARDT, JR. George F. Kunz ALPHONSE H. KURSHEEDT EDWIN KUTTROFF Mrs. Adolf Ladenburg Mrs. Daniel S. Lamont\* HENRY LANG HERBERT LANG WOODBURY G. LANGDON Dr. F. LANGE **JACOB LANGELOTH\*** JOSEPH LAROCQUE\* Dr. J. V. LAUDERDALE JOHN BURLING LAWRENCE Mrs. Samuel Lawrence\* JAMES M. LAWTON\* MRS. JAMES M. LAWTON

<sup>\*</sup> Deceased.

Mrs. Frederic S. Lee S. M. LEHMAN CHARLES W. LENG STEPHEN R. LESHER\* ALFRED F. LICHTENSTEIN EDWARD H. LITCHFIELD Mrs. Frank Campbell Littleton IOHN R. LIVERMORE\* P. W. LIVERMORE EDWARD DE P. LIVINGSTON GOODHUE LIVINGSTON MISS EMMA H. LOCKWOOD Morris Loeb\* GEORGE C. LONGLEY BERNARD LOTH IOSEPH LOTH\* CHAS. H. LOUIS JOHN H. LOVE JAMES Low\* SETH LOW. LL.D.\* WM. G. Low Percival Lowell\* Dr. Frederic A. Lucas EDWARD LUCKEMEYER\* ARTHUR F. LUKE PROF. RICHARD S. LULL DAVID LYDIG\* E. H. R. LYMAN\* JAMES A. MACDONALD CLARENCE H. MACKAY MALCOLM S. MACKAY MARY SUTTON MACY, M.D. V. EVERIT MACY MRS. V. EVERIT MACY MRS. WM. H. MACY, JR. MRS. JOHN MAGEE IACOB MAHLER\* ALEXANDER MAITLAND\* J. MALFEYT EDWARD MALLINCKRODT, JR. GODFREY MANNHEIMER\* PETER MARIE\* Francis H. Markoe, M.D.\* Mrs. John Markoe HENRY G. MAROUAND\* Louis Marshall

W. H. MARSHALL Bradley Martin\* WILLIAM C. MARTIN\* GEORGE GRANT MASON IGNAZ MATAUSCH\* ALBERT MATHEWS\* E. P. MATHEWSON Dr. WILLIAM DILLER MATTHEW GEORGE W. MAYNARD WALTER E. MAYNARD CHAS. W. McALPIN Mrs. D. Hunter McAlpin Mrs. George McAneny JOHN J. McCook\* JOHN G. McCullough MRS. JOHN G. McCullough IOHN B. McDonald\* GATES W. McGARRAH GLENN FORD MCKINNEY GUY R. McLANE JAMES McLEAN Mrs. James McLean EMERSON McMillin MARION McMILLIN Mrs. Constance S. Mead George Mercer JOHN W. MERCER MANTON B. METCALF JOHN T. METCALFE. M.D.\* Dr. A. B. Meyer\* IACOR MEYER\* Moses Charles Migel CHARLES ADDISON MILLER\* CHARLES DUNCAN MILLER Dr. Geo. N. MILLER A. G. MILLS OGDEN L. MILLS RUSSELL HASTINGS MILLWARD CHARLES E. MILMINE Mrs. William F. Milton 'Mrs. J. W. MINTURN\* ROBERT B. MINTURN\* A. M. Post Mitchell ROLAND G. MITCHELL\* E. A. Moen\* MRS. EMILY H. MOIR\*

<sup>\*</sup> Deceased.

CHARLES A. MOORE, JR. E. C. Moore\* Mrs. E. C. Moore EDWARD C. MOORE, JR. JOHN G. MOORE\* WILLIAM H. MOORE CHARLES MORAN\* VICTOR MORAWETZ MISS F. T. MORGAN HENRY S. MORGAN Mrs. J. Pierpont Morgan J. P. Morgan J. S. Morgan, Jr. FORDHAM MORRIS\* JAMES MORRIS\* Dr. Lewis R. Morris NEWBOLD MORRIS DWIGHT W. MORROW MANDEVILLE MOWER\* ALFRED H. MULLIKEN HENRY A. MURRAY J. F. FREIRE MURTA PERCY MUSGRAVE THOMAS B. MUSGRAVE\* NATHANIEL CUSHING NASH\* W. B. Neftel, M.D.\* ABRAM G. NESBITT H. VICTOR NEWCOMB\* ACOSTA NICHOLS Mrs. George Nichols JOHN TREADWELL NICHOLS MORTON C. NICHOLS W. D. Nichols\* Mrs. Wm. G. Nichols Wм. H. Nichols DELANCEY NICOLL WILLIAM NIVEN George Notman Joseph J. Nunan THOMAS H. O'CONNOR\* C. H. ODELL E. Oelbermann\* Dr. P. J. OETTINGER IDA H. OGILVIE, PH.D. DUDLEY OLCOTT, 2D Mrs. Catharine L. Olmsted\* H. O'NEILL\* ALBERT OPERTI A. O. OSBORN\* Mrs. A. O. Osborn\* A. Perry Osborn Mrs. H. Fairfield Osborn H. FAIRFIELD OSBORN, JR. Mrs. WILLIAM CHURCH OSBORN RAYMOND C. OSBURN JOHN C. OSGOOD JAMES F. O'SHAUGHNESSY\* MISS JULIETTE A. OWEN R. G. PACKARD, JR. BENJAMIN F. PANKEY EDWARD C. PARISH HENRY PARISH\* TRENOR L. PARK\* EDWARD LUDLOW PARKER Dr. James H. Parker\* T. B. PARKER Mrs. Herbert Parsons JOHN E. PARSONS\* Mrs. John E. Parsons WILLIAM F. PATTERSON O. H. PAYNE\* FRANK E. PEABODY George Foster Peabody WILLIAM I. PEAKE\* ALFRED PELL\* Mrs. Anne W. Penfield EDMUND PENFOLD Dr. Charles B. Penrose Mrs. Charles Albert Perkins NORTON PERKINS RUSSELL PERKINS SEYMOUR PERKINS W. H. PERKINS MRS. THEODORE PETERS THOMAS M. PETERS W. R. Peters MISS FRANCES PHELPS CAPT. JOHN J. PHELPS PHELPS PHELPS MRS. WM. WALTER PHELPS HENRY PHIPPS HENRY C. PHIPPS

<sup>\*</sup> Deceased.

HENRY CLAY PIERCE ANNA J. PIERREPONT JOHN J. PIERREPONT JULIA J. PIERREPONT GIFFORD PINCHOT GIFFORD PINCHOT, 2D JAMES W. PINCHOT\* MISS ROSAMOND PINCHOT S. C. PIRIE HENRY B. PLANT\* JOHN PONDIR\* GEORGE B. POST HENRY A. V. POST\* CHAS. E. POTTS THOMAS POTTS\* GEO. D. PRATT HAROLD I. PRATT MISS CORNELIA PRIME FREDERICK T. PROCTOR M. TAYLOR PYNE Mrs. Percy Rivington Pyne Mrs. Samuel Quincy PAUL J. RAINEY Dr. WILLIAM S. RAINSFORD CHARLES T. RAMSDEN GEORGE C. RAND\* A. A. RAVEN ISOLINE D. RAY NORMAN B. REAM\* HENRY S. REDMOND ISAAC H. REED\* I. W. REINHART\* ROBERT G. REMSEN\* E. W. RICE, JR. WILLIAM LATHROP RICH AUGUSTE RICHARD\* GEORGE RICHARDS\* MRS. GEORGE H. RICHARDSON CLARENCE B. RIKER JOHN J. RIKER Louis A. Ripley CHANDLER ROBBINS MILTON ROBBINS\* WM. M. ROBERTSON HENRY J. ROBINSON I. K. Robinson\*

Nelson Robinson JOHN A. ROEBLING ALFRED ROELKER\* JOHN ROGER COL. ARCHIBALD ROGERS HENRY H. ROGERS L. HARDING ROGERS, JR. ROBERT ROGERS PHILIP A. ROLLINS Franklin D. Roosevelt Mrs. James Roosevelt George D. Rosengarten Frederick C. Rowley HENRY ROWLEY JACOB RUBINO\* C. H. RUDDOCK ARCHIBALD D. RUSSELL Mrs. Horace Russell JOHN D. RYAN THOMAS F. RYAN ARTHUR RYLE PAUL J. SACHS Mrs. Paul J. Sachs F. L. St. John\* I. SANFORD SALTUS THE ARCHDUKE LUDWIG SALVATOR\*

MISS E. LOUISE SANDS WM. R. SANDS\* Dr. Leonard C. Sanford HERBERT L. SATTERLEE Mrs. Armar D. Saunderson EDMUND J. SCHEIDER F. Augustus Schermerhorn Ernest Schernikow SAMUEL B. SCHIEFFELIN\* SCHUYLER SCHIEFFELIN CHAS. A. SCHIEREN JACOB H. SCHIFF Mrs. Jacob H. Schiff ' ARNOLD SCHLAET WM. R. SCHMELZEL\* PAUL A. SCHOELLKOPF CHAS. M. SCHOTT, JR. HERBERT F. SCHWARZ ROBERT J. F. SCHWARZENBACH

<sup>\*</sup> Deceased.

ARCHIBALD T. SCOFIELD MISS GRACE SCOVILLE JAMES A. SCRYMSER WM. F. SEBERT\* SIR ERNEST SHACKLETON OUINCY A. SHAW EDWARD SHEARSON ALBERT JAMES SHELDON EDWARD W. SHELDON George R. Sheldon JAS. O. SHELDON\* ELLIOTT F. SHEPARD\* FINLEY J. SHEPARD GARDINER SHERMAN\* Mrs. W. Watts Sherman JOHN H. SHERWOOD\* GEORGE SHIRAS, 3D GEORGE P. SHIRAS\* I. H. Shoenberger\* CHAS. H. SHULTZ HIRAM W. SIBLEY HERMAN SIMON\* C. RITCHIE SIMPKINS MISS JEAN WALKER SIMPSON MORTIMER M. SINGER ALANSON SKINNER FRANCIS SKINNER JENS SKOUGAARD JOHN R. SLATTERY Mrs. E. A. Slaven SAMUEL SLOAN\* Mrs. William Sloane Mrs. William Douglas Sloane CHARLES E. SLOCUM, M.D., LL.D.\* ALBERT SMITH Byron L. Smith\* Mrs. Charles Stewart Smith HENRY ATTERBURY SMITH HENRY MILFORD SMITH\* HOWARD CASWELL SMITH Dr. Hugh M. Smith L. DINWIDDIE SMITH\* R. A. C. SMITH S. Newton Smith\* Dr. Emilie Snethlage VALENTINE P. SNYDER

NICOLI SOKOLNIKOFF S. N. SOLOMON THOMAS F. SOMERS HENRY F. SPAULDING\* MISS CLARA B. SPENCE TAMES SPEYER PAUL CECIL SPOFFORD JOHN A. SPOOR MISS FRANCES E. SPRAGUE ADOLFO STAHL GEORGE L. STEBBINS Dr. James H. Stebbins, Ir. JAMES R. STEERS ROBERT D. STERLING Louis Stern FRANCIS LYNDE STETSON EDW. R. STETTINIUS ALEX. H. STEVENS\* BYAM K. STEVENS\* Mrs. Byam K. Stevens C. AMORY STEVENS Mrs. Robert Stewart CHARLES CHAUNCEY STILLMAN MAX WM. STÖHR Anson Phelps Stokes\* MISS OLIVIA E. P. STOKES MISS ANNIE STONE ALBERT H. STORER ADOLPH. D. STRAUS ISIDOR STRAUS\* JAMES STREAT Mrs. Gustav Stromberg BENJAMIN STRONG, JR. THOMAS W. STRONG\* Frederick Sturges FRANK K. STURGIS HERMAN STUTZER WILLIAM L. SWAN Miss P. C. Swords\* HENRY M. TABER\* Frederick Taylor IRVING K. TAYLOR WILLIAM H. TAYLOR JAMES TERRY\* Dr. Allen M. Thomas EMERY J. THOMAS, M.D.

<sup>\*</sup> Deceased.

SAMUEL THOMAS\* WM. S. THOMAS, M.D. FRED. F. THOMPSON\* COLONEL ROBERT M. THOMPSON WILLIAM BOYCE THOMPSON Miss Anne Thomson SAMUEL THORNE\* MISS EDITH W. TIEMANN CHARLES E. TILFORD\* H. M. TILFORD ROBERT E. TOD A. N. Towne\* HENRY R. TOWNE A. B. TOWNSEND\* Dr. CHARLES H. TOWNSEND EFFINGHAM TOWNSEND\* IRA OTIS TRACY, M.D. SPENCER TRASK\* George A. Treadwell\* WILLIAM TROTTER EDWARD TUCK MRS. MARY A. TUTTLE SEWELL TAPPAN TYNG EDWARD UHL\* FREDERICK UHLMANN\* CARL UPMANN FREDERICK T. VAN BEUREN A. VAN CORTLANDT ALFRED G. VANDERBILT\* C. VANDERBILT\* F. W. VANDERBILT GEO. W. VANDERBILT\* AMBROSE ELY VANDERPOEL BAREND VAN GERBIG Mrs. Warner M. Van Norden H. D. VAN NOSTRAND\* ROBERT A. VAN WYCK Mrs. James M. Varnum SAMUEL M. VAUCLAIN JAMES DE LANCEY VERPLANCK HERMAN C. VON POST\* W. A. Wadsworth WILLIAM PERKINS WADSWORTH D. EVERETT WAID FREDERIC C. WALCOTT ALEXANDER WALKER

\* Deceased.

DR. HENRY F. WALKER\* JAMES N. WALLACE RICHARD L. WALSH\* HENRY WALTERS Mrs. Felix M. Warburg PAUL M. WARBURG Mrs. Paul M. Warburg CAROLINE CONSTANTIA WARD WILLIAM R. WARREN JOHN I. WATERBURY JAMES S. WATSON Mrs. J. Henry Watson J. GRISWOLD WEBB I. WATSON WEBB SILAS D. WEBB Mrs. William Seward Webb W. SEWARD WEBB BENJAMIN L. WEBSTER CHAS. B. WEBSTER\* HAMILTON FISH WEBSTER Mrs. Sidney Webster MISS ALICE DELANO WEEKES FREDERIC DELANO WEEKES HENRY DEFOREST WEEKES COL. JOHN WEIR\* BENJAMIN WELLES Frederick B. Wendt\* Sol. Wertheim George Peabody Wetmore WILLIAM P. WHARTON JAMES DUGALD WHITE JAMES GILBERT WHITE Mrs. Jos. M. White\* LOOMIS L. WHITE\* CHAS. E. WHITEHEAD\* ALFRED R. WHITNEY\* ALFRED RUTGERS WHITNEY, JR. MRS. H. P. WHITNEY Mrs. Delos O. Wickham JAMES B. WILBUR EDWARD KIRK WILLARD Elmore A. Willets HOWARD WILLETS JOHN T. WILLETS\* ROBERT R. WILLETS\* JOHN J. WILLIAMS

R. F. WILLIAMS
S. C. WILLIAMS\*
WILLIAM WILLIAMS
BENJAMIN A. WILLIS\*
MRS. M. ORME WILSON
WALTER WINANS
L. STUART WING\*
EDWARD WINSLOW\*
GRENVILLE L. WINTHROP
WALTER C. WITHERBEE
HENRY R. WOLCOTT
JOHN WOLFE\*
MRS. CHAS. BOUGHTON WOOD

EDWIN O. WOOD
WILLIAM M. WOOD
L. G. WOODHOUSE\*
DR. ROBERT S. WOODWARD
F. W. WOOLWORTH
JOHN G. WORTH
HENRY H. WOTHERSPOON\*
MISS FANNY ELLEN WRIGHT\*
JOHN H. WYMAN\*
MRS. JOHN J. WYSONG
MRS. CORNELIUS ZABRISKIE
WM. ZIEGLER\*

## SUSTAINING MEMBERS

By payment of \$25 annually

FRITZ ACHELIS Mrs. John D. Archbold H. D. BABCOCK Mrs. Robt. F. Ballantine Dr. EDWIN BEER SAMUEL BIRD, JR. MRS. WALTER PHELPS BLISS MRS. BENJ. BREWSTER WILLIAM BRUCE-BROWN Louis Bry R. R. COLGATE MRS. J. HENRY DICK Mrs. James Douglas Mrs. H. B. Duryea MRS. THOMAS A. EDISON A. W. Erickson Mrs. L. W. Faber WM. H. FISCHER JOHN W. FROTHINGHAM Mrs. M. Goldfrank HENRY GOLDMAN GEORGE COE GRAVES I. B. GREENHUT SUSAN D. GRIFFITH EDWARD S. HARKNESS JOHN F. HARRIS HORACE HAVEMEYER A. Augustus Healy

BENJAMIN A. HEGEMAN, JR. MAX HERMAN WALTER C. HUBBARD CONRAD HUBERT MRS. EMILY N. HUYCK JULIUS KAYSER I. PRENTICE KELLOGG SAMUEL KRAUS THEODORE H. LAMPRECHT MRS. L. H. LAPHAM PHILIP C. LINDGREN ALFRED E. MARLING OTTO MARON JAMES MARWICK ROBERT MAXWELL EUGENE MEYER, JR. JOHN G. MILBURN MRS. ELISABETH C. T. MILLER MRS. PIERPONT MORGAN ALFRED NATHAN ARTHUR NOTMAN HOWARD NOTMAN Mrs. George W. Perkins MRS. N. M. POND Mrs. C. M. Pratt Mrs. Benjamin Prince OGDEN M. REID MISS EMELINE ROACH

<sup>\*</sup> Deceased.

MARIE L. RUSSELL MORTIMER L. SCHIFF D. SCHNAKENBERG EWALD H. SCHNIEWIND Mrs. Isaac N. Seligman ELIAS D. SMITH LISPENARD STEWART Mrs. Robert Stewart WILLIAM R. STEWART FREDERICK STURGES ALBERT TAG C. H. TENNEY

J. KENNEDY TOD OSWALD W. UHL F. D. UNDERWOOD MRS. HELEN HALL VAIL Mrs. P. A. Valentine FREDERIC S. WELLS HAROLD C. WHITMAN Mrs. M. Orme Wilson RALPH WURTS-DUNDAS C. H. ZEHNDER FRIDA ZINSSER

## ANNUAL MEMBERS

By payment of \$10 annually

Abbe, Robert Aldrich, Spencer Aldridge, Darwin R. Abbott, James Aldridge, Mrs. W. H. Abbott. Mrs. Theodore J. Alexander, Mrs. Charles B. Abeel, George Abercrombie, David T. Alexander, Douglas Abert, Benjamin Alexander, Harry Achelis, Alexander, Miss Elizabeth A. Achelis, Mrs. Fritz Alexander, John F. Alexander, J. S. Achelis, John Acker, Miss A. V. Ackerman, Ernest R. Alexandre, MissAnnaR. Appleton. Alexandre, Mrs. J. E. Adams, Benj. Adams, F. B. Alexandre. Adams, John Dunbar Adams, Samuel Alfonseca, Dr. José D. Arend, F. J. Adler, Julius Ochs Alker, Mrs. A. H. Alker, James W. Adler, Mortimer C. Adler, Siegmund Allen, Calvin H. Adriance, Wm. A. Allen, James Lane Agar, John G. Allen, Leroy V. Agnew, Mrs. C. R. Allen, Wm. Hall Aitken, John Altschul, C. Albright, J. J. Altschul, Frank Alcuin Preparatory Amerman, Wm. L. School Amory, Copley, Jr. Amy, Ernest J. H. Alden, Percy S. Aldrich, Amy, L. H. Mrs. James Herman Anderson, A. J. C.

Anderson, P. Chauncey Andreini, J. M. Andrew. Mrs. Henry Hersey Andrews. Mrs. Emma B. Andrews, W. H. Mrs. Henry A. Andrews, W. L. Annan, Miss Alice H. Ansbacher, David A. Alexander, Mrs. William Ansbacher, Mrs. Louis Charles Lanier Archbold, John F. Mrs. Nathalie Archer, Mrs. G. A. Arkush, Reuben Armour, Mrs. H. O. Arnold, E. H. Arnold, Mrs. Glover C. Arnstein, Mrs. Leo Aronson, David A. Arthur, George D. Ashforth, Albert B. Ashton, Mrs. M. G. Justin Asiel, E. Aspell, John, M.D. Ast, Abraham W.

Anderson, Mrs. J. Scott

Asten, Mrs. Thomas B. Barber, Thomas H. Atkins, G. W. E. Auchincloss, Mrs. C. C. Auchincloss, Mrs. E. S. Barker, Louis H. Auchincloss, Hugh Auchincloss, John W. Auerbach, Joseph S. Auerbach, Mrs. Jos. S. Barnes, E. W. Auerbach, S. H. Auger, C. L. Austen, Mrs. Vallé Aycrigg, B. Arthur Ayer, James C., M.D. Ayres, Mrs. F. O.

Babcock, W. I. Bacon, Daniel Bacon, Geo. W. Bacon,

Marshal Chandler Barry, Llewellyn Bacon, Mrs. Martha W. Barstow, Frederic D. Baerwald, Paul Bailey, Mrs. A. T. Bailey, Dr. Pearce Baird, Charles Baird, John S. Baker, Alfred L. Baker, Hugh Potter Baker,

Baker, Stephen Baker, W. E. Baldwin, Frederick H. Battin, Mrs. A. Baldwin, Geo. J. Baldwin.

George V. N., Jr. Baldwin, Henry

Baldwin, W. D. Ball, Alwyn, Jr. Ball, T. Arthur Ballard, Charles W. Ballard, Edward L. Ballin, Gustav N. Bangs, F. S. Bannard, Otto T. Barber, Herbert

Mrs. James Lent Beach, Edwin Barnard, Miss E. J. Barnes, A. Victor Barnes, Henry B. Barnes, J. Sanford Barnes, T. Howard Barnes, Willis A. Barney, Ashbel H. Barney, Edgar S., Sc.D. Barnum, William M. Barr, James I.

Barringer, D. M. Barrows, Ira Barry, Charles D. Barstow, Geo. E. Bartlett, Philip G. Bartol, Henry G.

Barton, Mrs. F. O. Bassett, Mrs. John S. Bastedo, W. A., M.D. Mrs. James McF. Bates, James H. S.

> Bateson, Mrs. E. Farrar

Barton,

Battle, Geo. Gordon Bauchle,

Thomas Henry, Jr. Bauer, Mrs. Louis de Forest Baugh,

> Baumgarten, Paul Baumgarten, Paul J. Bausher, C. L. Bava, Felice Baxter, M., Jr. Baylies, Edmund L. Baylis, William Bayne, Mrs. Howard

Bayne,

Mrs. Lawrence P. Beadleston, Edith Barlow, Mrs. Francis C. Beadleston, Randolph Beal, Mrs. Robert C. Beall, Jeremiah Beatty, A. Chester Bechstein, A. C. Beck, Martin Beckhard, Martin Beckwith, Edward P. Bedle, J. D. Beekman, Charles K. Beekman, Gerard Beer, Mrs. J. Behr, Herman Behrend, Otto F. Beinecke, B. Beller, A. Belmont, August, Jr. Bendernagel, James F. Bendix, Joseph H.

Benedict, A. C. Benedict, Miss Clara J. Mrs. C. Vanderbilt Benedict, E. C. Benedict, H. H. Benedict, Lemuel C. Benet, Miss Lillian Benjamin, E. Benjamin,

> George Powell Benjamin, Wm. M. Benkard, J. Philip Benson,

Mrs. Clausine M. Benson, Miss Mary Bent, Arthur Cleveland Miss Margaret L. Benton, Andrew A. Benziger, Miss Lulu Bernheim, Mrs. Eli H. Bernheim, Geo. B. Bernheim, Henry J. Bernheim, Isaac J. Bernheim, Mrs. J. C. Bernheimer, Miss Rosie Berolzheimer, Emil

Berolzheimer, Philip Bertron, S. R. Berwind, Edward J. Berwind, Mrs. E. J. Bettens, Edward D. Bevin, Leander A. Bickerton, Joseph P., Jr. Boettger, Theodore Biddle, Mrs. Nicholas Biddle, William C. Bier, Mrs. Sylvan Bigelow, Dr. Wm. S. Biggs,

Bijur, Abraham Bill, Nathan D. Billings, C. K. G. Bing, Alexander M. Binswanger, Max Birkhahn, Robert C. Bishop, H. R. Bishop, Wm. F. Black, George P. Black, Mrs. George P. Borne, Mrs. John E. Black, Mrs. Robert C. Bouvier, M. C. Blagden, Mrs. Arthur C. Bowditch, Charles P. Blagden, Dexter Blagden, Mrs. George Blagden,

Blair, C. Ledvard Blair, Mrs. C. Ledyard Bowman, John McE. Blake, Mrs. Catharine K. Bradley,

Bleecker, Mrs. Theo. B. Bleyer, Alfred Bliss, Brig.-Gen. Tasker H., U. S. A. Brainard,

Block, Henry Blodgett, William T. Blodgett,

William T., 3d Brawner, A. H. Blood,

George Whitefield Bloodgood, Robert F. Bloomingdale, Hiram C. Breslauer, A. Bluen, Mrs. M. J. Blum, Albert

Blum, Mrs. H. L. Blumenthal, B. Blumenthal, Hugo Blumenthal, Sidney Blumgart, Louis Boardman, Miss R. C. Bogert, Miss Anna Bogue, Morton G. Bolton.

Bond, S. N. Hermann M., M.D. Bond, Mrs. Wm. E. Bondy, Richard C. Bondy, Wm. Bonner, G. T. Bonnett, Charles P. Booth, Enos S. Borden, Howard S. Borg, Sidney C. Borg, Mrs. Sidney C. Born, Edward Bowen.

Bowen, Mrs. H. S. Mrs. Samuel P. Bowers, Henry S. Bowers, John M. Braden, Welcome W.

> Bradley, Mary T. Bradley, Wm. H. Col. David L., U.S.A. Brownell, F. H. Brainard, Frank Braman, Chester A.

Breckinridge, Brennan, Edmund M. Brewer, Horatio J. Brewster, William

Briesen, Arthur v. Briggs, James Ellis Brightman, F. C. M. Brill, Dr. A. A. Brill, Henry S. Bristol, John I. D. Bristow, William B. Brite, Mrs. James Britton, Dr. N. L. Brokaw, Clifford V. Reginald Pelham Bronson, Dr. E. B. Brookfield.

> Mrs. William Brookman, Mrs. H. D. Brooks.

> Mrs. Charles H. Brooks, Dr. Harlow Brooks, J. Arthur Broughton,

Mrs. Urban H. Broun, LeRoy, M.D. Brower, Wm. L. Brown, Charles F. Brown, Charles Hilton Brown, Charles S., Jr. Brown, Edwin H. Mrs. Clarence W. Brown, Ernest Clive Brown, Franklin Q. Brown,

Mrs. Franklin Q. Brown, J. Adams Brown, J. Alexander Brown, Lathrop Daniel Richards Brown, Thatcher M. Brown, Vernon C. Brown, Wm. Adams Browne, Dr. Charles Browning, J. A. Browning, Mrs. J. Hull Bruggerhof, F. W. Bruns, Edwin G. Mrs. John C. Brunswick, Mrs. E. Brussel, Mrs. Dennis G. Bryce, William Bryson, T. B. Buckner, M. N.

Buckner, Thos. A. Bulkley, Edwin M. Bulkley, Mrs. Edwin M. Cammann, Miss I. M. Bulkley, Jonathan Bulkley, Mrs. Jonathan Campbell, Dr. C. G. Bulkley,

Bunker, William Burden, James A. Burden, Mrs. Jas. A., Jr. Cannon, H. W. Burden, Mrs. W. A. M. Cannon, Mrs. S. T. Burghard,

Burhorn, Edwin Burke, Mrs. J. K. Burke, Mrs. Martin Burleigh,

Burleigh, George Wm. Burnham, Wm. Burns, William J. Burr, Algernon T. Burr, Geo. H. Burr, Winthrop Burr, Wm. H. Burroughs, Chas. W. Bush, D. Fairfax Bushnell, Charles E. Busk, Fred T. Butler, Charles S. Butler, Dr. E. Santley Butler,

Ethan Flagg, M.D. Cassard, Wm. J. Butler, Miss Helen C. Butler, Miss Virginia Butler, Wm. Allen Butler, Mrs. Wm. Allen Chambers, Hilary R. Button, Mrs. W. H. Byrne, James Byrne, Mrs. James

Cæsar, H. A. Cahn, Mrs. Leopold Cahn, Mrs. S. Caldwell, Edward T. Calman, Henry L.

Cammann, Henry L. Cammann, H. H. Camp, Edward B. Campbell, J. W. C. L. Duncan, M.D. Campbell, Malcolm Canfield, Frederick A. Cheney, Geo. L. Canfield, George F. Capen, Mrs. Frances I. Chew, Beverly Mrs. Edward M. Carden, Richard A. Cardozo, Ernest A. Carey, H. T. Carlebach, Emil Carlisle, G. Lister, Jr.

Mrs. George W. Carlisle, Mrs. G. Carlton, Newcomb Carnegie, Mrs. George L. Chisolm, B. Ogden Carpender, Wm. Carpenter, Chas. W. Carr, Augusta G. Carr, Herbert J. Carse, John B. Carter, Ernest T. Carter, Robert A. Carty, John J. Case, Charles L. Case, J. Herbert

Caspary, A. H.

Chaim, Morris L., M.D. Cillis, Hubert Butler, Maxwell Evarts Chaires, Miss Anna E. Classin, George E. Chambers, Frank R. Chambers, Geo. J. Champ, William S.

Chandler, Percy M.

Chandor, Chapin, G. E. Chapin,

Chapman, Clarence E. Chapman,

Mrs. John Jay Chappell, Walter F. Charles, Lillian M. Chatillon, George E. Chaves, José E. Cheney, Mrs. K. D., Jr. Cheney, O. H. Chesebrough, W. H. Child, Miss Ruth Auchincloss

Childs, S. W. Childs, Mrs. Starling W. Childs, Wm., Jr. Chilton, H. P. Lister, Jr. Chisholm, George E.

Chisholm, Hugh J. Chisolm.

Mrs. B. Ogden Chisolm.

Mrs. George E. Choate, Mabel Choate, Wm. G. Christie, R. E. Chubb, Percy Chubb, S. H. Church, Charles B. Church, C. T. Church, Louis P.

Claflin, John Clancy, John Evarts Clapp, A. P. Clapp, George H. Champollion, André C. Clark, Ambrose R. (In Memoriam) Clark, A. Wayne

Clark, Bernard S. Clark, Charles Martin Miss Valentine L. Clark, Clarence M. Clark, D. Crawford

Clark, Edward S. Miss Maria Bowen Clark, Miss E. Mabel Clark, Miss Emily Vernon Cole, Frederic A. Clark, George C. Clark, Henry A. Clark, John M. Clark, Mrs. John Peyton Clark, Julian B. Clark, J. William Clark, Louis C. Clark, Thos. F. Clark, W. A. Clark, William N. Clarke, E. A. S. Clarke, Thomas B. Clarke, Thomas Shields Colt, Harris D. Clarkson, Miss Annie Clarkson, Ashton C. Clausen, George U. Clayburgh, Albert Clemens, Dr. James B. Conheim, Hermann Clerici, John Cleveland.

Clement, M.D. Connell, Clinch, Edward S. Close, Walter H. Clowes, Frederick V. Clowry, Robert C. Cobb, Frank I. Cochran, G. D. Cochrane, A. DeWitt Coddington, Mrs.

Clarence Morgan Cook, Robert H. Coffin, Miss Alice S. Coffin, C. A. Coffin, Edmund Coffin, Francis A. Coffin, I. Sherwood Coffin, Wm. Edward Coffin, William S. Coggeshall, Edwin W. Cogswell, W. B. Cohen, Benno Cohen, De Witt Clinton Corson, H. C. Cohen, Julius Henry Cohen, Dr. Martin Cohen, Max Cohen, Wm. N.

Cohn, Mrs. J. M. Cole, Mrs. Rufus Colebrook, Charles B. Colfelt,

Mrs. Rebecca McM. Crane, H. M. Colgate, Mrs. A. W. Colgate, Gilbert Colgate, Mrs. Gilbert Colgate, James C. Collier, Robert J. Collins, Charles Collins, C. L. Colon, George Edward Colt, Richard C. Conboy, Martin Condit, Wm. L. Cone, Frederick H. Conklin, Roland R. Conkling, Paul B.

Connett, E. V., Jr. Content, Walter Cook, Mrs. Alfred A. Cook, Charles S. Cook, Mrs. Chas. T. Cook,

Miss Lilian Gillette Cullman, Jos. F. Cooley, Mrs. Elmer E. Curiel, H. Coolidge, Mrs. F. S. Cooper,

Cooper, F. G. Corbin, Austin Cordley, Frank R. Corlies, Howard Corn, Mrs. Joseph J. Corning, Christopher R. Cutler, J. Warren Costello, Alfred Coster, Mrs. C. H. Coulter, Elmer Dean Coutant, Dr. R. B.

Cowdin, Winthrop Cowl, Clarkson Crabbe, Miss Louise G. Crain, Miss Christobelle Crane, Charles R. Crane,

Mrs. Jonathan H. Cravath, Mrs. Paul D. Cravath, Miss VeraA.H. Crawford, R. L. Crawford, Wm. Crehore, Frederic M. Crider, George A. Crile, George W., M.D. Crimmins,

Mrs. Thomas Crocker, William H. Crocker, W. T. Crockett, Mrs. Stuart Cromwell, Miss Gladys Cromwell, James W. Cromwell, Lincoln Herbert Stanley Cromwell, Seymour L. Crosby, Maunsell S. Crosby,

Nicholas Evertson

Cross, George D.

Cross, Richard J. Cross, W. R. Curie, Chas. Curtis, F. Kingsbury Curtis, G. Warrington Mrs. Charles W. Curtis, Ronald Eliot Curtis, W. J. Curtis, Wm. Edmond Curtiss, Roy Cushing, Howard G., Jr. Cutcheon, F. W. M. Cutter, Ralph L.

> Daily, George M. Dakin, Mrs. Henry Drysdale

Dallett, Frederic A. de Lagarde, Doelger, Charles P. Cécile Denis Doelger, Frank G. Dalziel, Mrs. F. Dana, Charles L., M.D. Delamar, Alice A. Dominick, Bayard, Jr. Dana, Paul De Lamar, J. R. Dominick, H. B. Danforth, Delano, Lyman Dommerich, L. W. Mrs. George H. Delano, Moreau Dommerich, O. L. Daniels, Lorenzo De Lanoy, William C. Donohugh, Danziger, Virginia de Laugier-Villars, Mrs. Agnes C. L. Davenport, Mrs. Ira Countess Dorman, Benjamin Davey, Wm. Nelson Delin, B. Dorr, John V. N. Davidge, Wm. H. Deming, L. C. Dorrance, Saml. R. Davies, J. Clarence Demuth, Leopold Dorsett, R. Clarence Dennis, John B. Doscher, Henry Davies, Julien T. Davis. Denny, Mrs. Lucy W. Doubleday, F. N. Rear-Admiral C. H. Denton, Dr. Myron P. Doughty, Edgar M. Davis, David T. DePuy, Mrs. Henry F. Douglas, Miss Elizabeth De Sola, Mrs. J. C. Douglas, Davis, Everly M. Davis, Dr. Geo. E. Despard, Walter D. Frederic Huntington Deutsch, Alexander Davis, George S. Douglas, Walter Davis, Gherardi DeVinne, T. B. Douglas, Wm. Harris Davis, John W. A. de Witt, Miss Helen A. Douglass, Alfred Davis, Leonard M. DeWolf, W. Ashley Douglass, Benjamin, Jr. Davis, Morgan Devo, Robert E. Douglass, Mrs. Charles Davis, Mrs. William C. Dick, J. Henry Douglass, Mrs. G. A. Davison, Miss Alice M. Dickerman, Dow, Mrs. Frederic G. Mrs. Wm. C. Dow, R. P. Davison, Alvah Dowd, Joseph Davison, C. B. Dickey, Charles D. Davison, Miss E. H. Dickey, Dowd, William B. Mrs. Charles D. Downes, Davison, E. Mora Diedel, Henry R. Day, Miss Sarah J. William A., M.D. Dazian, Henry Diefenthäler, Downey, John I. Dean, Miss Florence Charles E. Dows, David Dieterich, Chas. F. Dean, Geo. Hamilton Dows, Mrs. David de Bary, A. Dill, Miss Mary A. Drake, Miss Mary E. de Bruÿn, I. Dillon, Mrs. John M. Draper, Charles D. Dilworth, Jos. R. De Buys, A. Draper. Deeves, Richard Dimmick, J. Benjamin Mrs. William K. de Forest, H. W. Dittenhoefer, I. M. Draper, Mrs. Wm. P. de Forest, Johnston Dix, John A. Drayton, J. Coleman Drexel, Mrs. John R. de Forest, Lockwood Dix, Mrs. Morgan Dobbyn, William A. Dreyfuss, Ludwig de Forest, Robert W. de Forest, Dodd, Miss Gertrude Drummond, Mrs. Robert W. Dodds, Lida L. Isaac Wyman Degener, John F. Dodge, DuBois, Arthur Degener, John F., Jr. Mrs. Arthur M. DuBois, Eugene Dodge, Rev. D. Stuart DuBois, De Klyn, B. F. Delafield, Frederick P. Dodge, Francis P. Dr. Matthew B.

DuBois. Mrs. Matthew B. Ehrmann, Mrs. E. Dudley, P. H. Duell, Holland S. Duer, Mrs. J. B. Duncan, Frederick S. Duncan, Mrs. John P. Duncan, Stuart Dunham, Mrs. Carroll Dunham, H. F. Dunlap, Mrs. R. Dunn, Gano Dunn, Henry E. Dunning, Dr. William B. Ellis, W. H. du Pont, Henry F. Durkee, Eugene W. Emanuel, Du Val, Guy Duvall, William C. Embury, Dwight, A. S. Dwight, John E. Dwight, Jonathan, M.D. Emmet, C. Temple Dwight, Mrs. M. E. Dworetzky, Morris Dyer, Leonard H. Eaton, Geo. Dummer Eckart, Edmund Ecker, F. H. Eckstein, H. E. Eckstein, M. Maurice Eckstein, W. G. Eddy, Geo. Simpson Eder, James M. Erdwurm, Edgar, Mrs. Herman LeRoy Erlanger, Abraham

Edie, Richard, Jr.

Edmonds, John W.

Eger, Theodore G.

Egleston, Melville

Ehret, George, Jr.

Ehrich, Samuel W.

Ehrich, Jules S.

Edson, Mrs. J. B.

Ehrich, Mrs. Wm. J. Eilers, Karl Eilers, Miss Meta Eilshemius, Henry G. Eimer, A. O. Eimer, August Einstein, I. D. Eisman, Max Eldridge, Lewis A. Elgar, Benj. F., 2d Elkan, Benno Ellinger, Ernest Ellis, S. A. Ellis, Wm. D. Elmer, C. W. John Henderson, Jr. Fearing, George R. Emerson, Mrs. Wm. Emmet, Miss Lydia F. Ferguson, Walton Endicott, William Enelow, H. G. Eno, Miss Mary Pinchot Field. Erb, Newman Erbsloh, R. Erdmann, Martin Erdmann, William Frank, M.D. Edgar, Mrs. J. Clifton Erlanger, Milton S. Edgell, Mrs. George S. Ernst, Irving L. Erstein, Benedict Esberg, Henry Ethical Culture School Fiske, Alex. P. Ettlinger, Louis Evans, Dr. Samuel M. Everett, Mrs. Leo Ewing, B. M. Ewing, Charles

Fabbri, Ernesto G. Fabricius, Dr. J. R. Fahnestock, Harris Fairchild, Charles S. Fairchild, Mrs. Chas. S. Fairchild, S. W. Falk, Mrs. G. Falk, Kaufman George Farish, John B. Farnam, Thomas W. Farnham, Mrs. Horace P. Farnsworth, William Farrel, Mrs. Franklin Farrell, James C. Fatman, Morris Fatman, S. A. Fay, Dudley B. Feder, Mrs. Joel Miss Emma C. Ferguson, Alfred L. Ferguson, Mrs. Farguhar Emmet, Robert Temple Ferguson, William C. Ferris, Frank A. Crowninshield Festetics, Countess E. Feustman, L. P. Field, Wm. B. Osgood Mrs. Wm. B. Osgood Finch, Edward B., M.D. Firuski, Louis L. Fischer, Hermann, M.D. Fischer, T. Tasso Fisher, L. G. Fisher, Mrs. P. L. Fisher, Miss Ruth B. Fisk, Pliny Fiske, John S. Fitch, Ezra H. Fitzgerald, Mrs. Louis Flagler, Harry Harkness

164 Flagler, John H. Flannery, Mrs. Joseph A. Frank, Joseph Fleck, Dr. Charles E. Fleischer, Nathan Fleitmann, Fred. T. Fleitmann, H. C. Fleming, Henry S. Fleming, Matthew C. Fleming, Stephen B. Flesh, William J. Fletcher, Henry Flexner, Mrs. Simon Flint, Chas. R. Floyd, William Floyd, William T. Floyd-Jones, Edward H. Frazier, W. W. Fohr, Franz Follett, Richard E. Follmer, Charles J. Folsom, H. Lloyd Foot, Miss Katharine Foot, Sandford D. Foran, George J. Ford, Franklin Fordyce, Dr. John A. Forni, Madame F. G. Fara Friedlander, Wm. S.

Forsch, Mrs. F. Forsyth, Robert Foshay, P. Maxwell Foster, Edward W. Foster, Harold A.,

M.D. Foster, Macomb G. Foster, Mortimer B. Foster, Scott Fowler, A. A.

Fowler, Mrs. Thomas Fox, Miss Alice

Bleecker Fox, Hugh F. Fox, Mortimer J. Fox, Thomas Francis

Fox, William Frank, Edgar E. Frank, Joseph S. Franke, Julius Frankel, D. J. Frankel, Herbert Frankenberg, Henry E. Garrett, Robert Frankenberg,

Frankenstein, Edwin Frankfield, A. Frankfort, M. Franklin, George S. Fraser, George C. Fraser, Miss J. K. Fraser, Miss S. Grace

Freeland, Arthur G. Frelinghuysen,

French, Daniel C. French, Mrs. Daniel C. Frenkel, Emil Freund, Mrs. E. Frew, Walter E. Friedlander, Louis Friedlander, Victor Fries, Miss Emilie Fries, Harold H. Frissell, A. S. Frissell, Miss Leila S.

Randolph Frye, Jed Fuld, Felix Fuld, Sol. Fuller, Mrs. Eugene Fowler, Mrs. R. L., Jr. Fulton, Robert Edison Godfrey, Mrs. E. D.

Frothingham, Mrs.

Powell Gaillard, Mrs. Wm. D. Goldman, Julius Gaines, Mrs.

Gallatin, Albert Gallatin, Mrs. Albert Gallatin, Goelet

Gambier, E. V. Gardin, John E. Gardiner, Robert A. Garrard,

Miss Margaret H.

Garrett, John W. Garrett, Laura B. Gartland, George E. Werner V. Garver, John A. Gaston, Wm. G. Gautier, Dudley G. Gawtry, H. E. Gayley, Florence Gayley, Mrs. Gardiner Geer, Robert C. Geer, Walter

Gelshenen, William H. Gerrish, Frank Scott Gerry, Robert L. Frederick Gibb, Dr. W. Travis Gibson,

Miss Florence Wier Gilbert, Mrs. C. Gilbert, Clinton Gilbert, Miss Ellen G. Gilbreth, Frank B. Gillespie, Robert McM. Gillies, Edwin J. Gilroy, Thomas F., Jr. Gips, Walter Fuld Gladding, J. R. Glazier, Henry S. Gleason, Henry Glenn, John M. Goadby, W. H. Goddard, Annie C. Goddard,

Mrs. Frederic N. Goldman, Albert Goldman, Samuel P. Furman V. Goldsmith, Frederick Goldsmith, Mrs. H. B. Goldsmith, James A. Goldstone, Abraham L.

Goldwasser, I. Edwin Goldzier, Morris Goodfriend, Jacob Goodfriend, Meyer Goodhue, Chas. E. Goodman, S. A. Goodwin, Walter L. Gottgetreu, Wm. Gottheil, Leon Gottheil, Mrs. Paul Gotthold, Arthur F. Gould, Charles A. Gould, Edwin Gould, Horace S. Grace, Mrs. L. A. Graham, Miss M. D. Grasselli, C. A. Graves, Henry, Jr. Gray, Henry G. Gravdon,

Greeff, Bernhard, Jr. Greeff, Ernest F. Green, Fred W. Greenberger, Albert Greene, Miss

Greene, G. S., Jr. Greene, John Arthur Greenebaum, Fred H. Greenhut, Benedict J. Greening, Alfred C. Greenwood.

Greer. Charles Greer, Rt. Rev.

David H. Greer, Mrs. David H. Greer, Louis M. Griffith, Edward Grinnell, E. Morgan Griscom, C. A. Griswold, Mrs. Chester Gross, Moritz Grossmann,

Grundner, M.

Gude, O. J. Guernsev.

Guggenheim, Harry F. Hammond, Guggenheim, Simon Guggenheim, William Hanauer, Jerome J. Guinness,

Guinzburg, A. M. Guinzburg, Mrs. Victor Hanna, Elizabeth Guiteras, Ramon Guiterman, Rudolph Gurnee, Mrs. Walter S. Hard, De Courcy L. Gushee, R. A. Guye, C. H.

Haas, Kalman Hage, Daniel S. Hague, Miss Marian Hague, William Mrs. Clendenen Hahlo, Arthur H. Haines, Charles D. Hale, Thomas Hall, Henry J. S. Hall, Henry Walker Hall, Mrs. John H. Augusta Borland Halls, William, Jr. Halsev.

Halsey, Robert H. Halsey, R. T. H. Hamann, Wm. A. Hamburger, L. Miss Eliza R. Hamburger, Samuel B. Hartshorn, Stewart Hamerschlag, Royal P. Haskell, J. Amory Hamersley,

> Hamilton, Alexander Hamilton, Miss E. S. Hamilton,

Hamlen, Dr. George Dempster Havemeyer, H. O. Hammerslough,

Mrs. Edward A. Hammerslough, Samuel Havemeyer, T. A. Hammill, C. W.

Hammond,

Mrs. John Hays Henry William Hammond, Ogden H.

Mrs. John Henry Hance, John A. Mrs. Benjamin Hand, Joseph C. Handy, Parker D. Hanna, L. C. Hansen, Ferdinand Hardenbergh, Mrs. T.E. Hardenbergh,

Mrs. W. P.

Hardon.

Mrs. Henry W. Hardtmayer, Dr. H. R. Hardy, Charles J. Hardy,

Dr. Sarah Belcher Hare, J. Montgomery Harkness, David W. Harmon, Mrs. Clifford Harmon.

Mrs. Frank D. Harriman, E. Roland Mrs. Frederick A. Harrington, Mary E. Harris, Abraham Harris, Alfred Harris, William H. Harrison, Archibald Haskin, Dr. W. H. Louis Gordon Hasslacher, Jacob Hastings, Thomas Hastings, Mrs. Thomas Hately, John C. Mrs. W. Pierson Hathaway, Charles Havemeyer, F. C.

> Havemeyer, J. C. Edward Havemeyer, John F.

Haven, Mrs. G. G.

Haven, J. Woodward Haviland, Paul B. Hawk, William S. Hawk,

Hawkes, Eva Hawkes,

Hawkins, Eugene D. Hawley, Mrs. Henry E. Herzig, Mrs. Joseph Hawley, Samuel B. Haynes, W. deF. Hayward, J. B. Hazard, Rowland G. Hazen, George H. Heck, George C. Heckscher, Mrs. G.

Hedges, Job E. Heide, Henry Heide, Henry, Jr. Heide, Herman L. Heimann, Julius Heinsheimer, Alfred M. Held, Max Heller, Abraham A. Heller, Samuel

Heller, William H.

Hellman, Edgar A.

Helmer, Mrs. G. J.

Helme, Mrs. Geo. A.

Helmuth, Hencken, Hancke Henderson, John B., Jr. Hendricks, Mrs. Edgar Hine, Francis L. Hendricks, Harmon W. Hine, Lyman N. Henry, Miss H. Maud Henry, James Henry, Philip W. Hepburn, A. B. Herbert, Victor Hering, Henry Hernsheim, Joseph Hernstadt, William L.

Heroy, W. W.

Herreshoff,

J. B. Francis Herrick, Harold Herrick, Mrs. W. W. Mrs. William Samuel Herrmann, Charles E. Herrmann, F. Herter, Albert Mrs. McDougall Herty, Chas. H. Herz, Fred. W. Herzog, Max Hess, Dr. Alfred F. Hess, Selmar

Hess, Simon Hetzler, Theo. Hewitt, Mrs. Charles B. Hoffmann, Bernhard Hewitt, Mrs. C. R. Maurice Hewitt, Peter Cooper

> Hewlett, Walter Jones Hoisington, Heydt, Herman A. Heymann, Albert Hicks,

Hicks, John M. W. Higbie, James S. Higgins, Arthur G. Highet, Frank B. Hilder, Moritz Hillard, Henry R. Hills, Dr. Alfred K.

Hilyard, George D. John Lockman Hinchman, Walter Hinckley,

Hine, Thomas A. Hines, Walker D. Hirsch, Chas. S. Hirsch, Mrs. H. Hirsch, Morris J. Hirschberg, M. H.

Hirschhorn. Mrs. Charles Heroy, Mrs. James H. Hirschhorn, Fred Hirschland, F. H.

Hoagland,

Mrs. Joseph C. Hochschild, Berthold Hodenpyl, Anton G. Hodges, Geo. W. Hodson,

Mrs. Halstead Pell Hoe, Alfred G. Hoe, Geo. E. Hoe, Richard M. Hoe, Mrs. Robert Hoffman, Charles W. Hoffman, F. B. Hoffman,

Wm. Wickham Hogan, Mrs. Jefferson Hoggson, W. J.

Frederick R. Holbrook, Mrs. Edward Heymann, Seymour E. Holden, Mrs. Edwin B. Holland, Arthur L. Mrs. Frederick C. Hollenback,

Miss Amelia B. Hollister,

Frank C., M.D. Hollister, George Clay Hollister, Granger A. Holt, Henry Holt, L. Emmett, M.D. Holt, R. S.

Holter, Mrs. E. O. Holzmaister, L. V. Mrs. Samuel N. Holzman, Elkan Homan, B. H. Homans, Howard P. Homer, Francis T. Honig, Joseph Hooke, Harvey Lewis

Hooker, Mrs. Elon H. Hooker, Mrs. Ransom S.

Hopkins, Miss Augusta D. Hopkins, Russell Hoppin, G. Beekman

Mrs. Everard B. Huyler, David Horr, A. R. Huyler, Frank DeK. Horr, L. Wm. Hyatt, A. M. Hotchkiss, Henry D. Hyde, A. Fillmore Jay, Mrs. Augustus Jekyll, Mrs. Arthur Jenkins, Alfred W. Jennings, Miss A. B	
Houghton, Clement S. Hyde, Arthur S. Jennings, Mrs. Phili House, Edward M. Hyde, Jennings, Robt. E.	рΒ.
House, Frederick B. Mrs. Augustus L. Jennings, Walter	
Housman, Clarence J. Hyde, Mrs. Clarence M. Jewett, George L.	
Howell, M. D. Hyde, E. Francis (In Memori Howells, Mrs. John Hyde, Jobe, Miss Mary L.	am)
Howells, Mrs. John Hyde, Jobe, Miss Mary L. Howes, Mrs. Reuben Seymour Worrall Johnson, Alfred J.	
Hoyt, Elizabeth S. Hyde, W. Truslow Johnson, Mrs. Brad	lish
Hoyt, Francis S. Johnson, Guy B.	_
Hoyt, Geo. S. Ingalls, Fay Johnson, Mrs. Harr	
Hoyt, Gerald L. Ingraham, Geo. L. Johnson, Mrs. Pitne Hoyt, Miss Gertrude L. Ingraham, Mrs. George Johnston, Edwin C	
Hubbard, Inman, John H. Johnston, J. Herber	
Ernest V., M.D. Innis, Wm. R. Johnston,	
Huber, Mrs. J. M. Iselin, C. Oliver Mrs. J. Her	bert
Hudson, Percy K. Iselin, Miss Georgine Jones,	
Huff, E. S. Iselin, John H. Mrs. Adam Le Huidekoper, Edgar Iselin, Lewis Jones, A. H.	eroy
Humphrey, Iselin, Mrs. William E. Jones, Mrs. Cadwala	der
Rev. Wm. Brewster Iselin, Wm. E. Jones, H. Bolton	
Humphreys, Frederic E. Isham, Mrs. Wm. B. Joseph,	
Humphreys, Frederic H. Mrs. John A.,	
Humphreys, Geo. H. Jackson, Mrs. C. D. Josephthal, Louis M. Hunter, Mrs. Robert Jackson, Judson, Mrs. Alber	
Hunter, Mrs. Robert Jackson, Judson, Mrs. Alber Huntington, F. J. Francis DeMilt Judson, Henry I.	LL.
Huntington, Jackson, Mrs. Jungbluth, Karl	
Mrs. Robt. P. Frederic W.	
Huntington, Mrs. R. P. Jackson, Jas. W. Kahn, Otto H.	
Hüpfel, Adolph G. Jackson, Mrs. Percy Kahn, Dr. Robert Hüpfel, J. Chr. G. Jackson, Samuel Johnst	000
Hüpfel, J. Chr. G. Jackson, Samuel Johnst Hurd, Dr. Lee M. Jacobus, John S. Kahrs, J. Henry	.0116
Hurlbut, Miss Jaffray, Robert Kane, Mrs. De Lan	cey
Margaret C. James, Ellerton Kassing, Edwin S.	
Hussey, William H. James, Henry Kathan, Reid A.	
Husted, Miss James, Robert C. Kaufman, Mrs. S. I	₹.
M. Katharine James, Mrs. Walter B. Kaufmann, B. Husted, Seymour L., Jr. Janeway, Henry H., Kaufmann, H. M.	
Hutchins, M.D. Kaufmann, Julius	
Mrs. R. G., Jr. Jansen, Ed. Kautz-Eulenburg,	
Hutchinson, Cary T. Jaretzki, Mrs. Alfred Miss P	. R.

Kingsford, Daniel P. Kean, Kursheedt, Roland S. Mrs. Hamilton Fish Kingsford, Miss Kuser, Keane, Edwin J. Margaret S. Mrs. Anthony R. Keech, Mrs. Frank Kingsland, Kuser, John Dryden Browne Mrs. Wm. M. Kuttroff, Adolf Keeler, Mrs. Charles Kuttroff, Fredk. Kingsley, W. M. Bradley Kinney, Morris Keen, Barton L. Kinney, Warren Lacombe, E. Henry Kip, W. Ruloff Keith, Henry M. La Dow, Stanley V. Lagai, Dr. G. Keith, Minor C. Kirchberger, M. Keith, Mrs. Minor C. Kirkpatrick, Lagowitz, Miss H. L. Kelchner, William W. Mrs. Thomas Lamarche, Mrs. Henry J. Keller, S. Kissam, Mrs. Maude Kellers, Fred. T. Kissel, Mrs. G. E. Lambden, John F. Kellogg, L. D. Kissel, W. Thorn Lambelet, Henry Kellogg, Klein, Leo M. Lambert, Adrian V. S. Mrs. Morris W. Klenke, William H. Lambert, Samuel W. Kemmerer, M. S. Klipstein, E. C. Lamont, T. W. Kemp, Mrs. Edward Knapp, Edward J. L'Amoreaux, J. S. Kemp, Prof. James F. Knapp, Mrs. H. K. Landon, Francis G. Kempner, Elias Knapp, Joseph P. Landon, Henry Hutton Kennan, George Knoedler, Roland F. Lane, Edward V. Z. Kennedy, Dr. Harris Knowlton, Eben B. Lane, James Warren Kennedy, Mrs. John S. Koch, William T. Lane, Wolcott G. Kennerley, Helen M. Koenig, Otto Langeloth, Mrs. Jacob Kent, Edwin C. Kohler, Miss M. E. Langenberger-Jones, Keppel, David Kohlman, Chas. Mabel Kerr, E. Coe Kohn, Elsie B. Langmann, Mrs. G. Kerr, John B. Lanier, Reginald B. Kohn, S. H. Kohns, Lee Kerr, John Clapperton Lapham, Mrs. John J. Kerr, Walter Kohnstamm, Emil V. Lapham, Lewis H. Kerrison, Dr. Philip D. Koles, Henry M., M.D. Lapsley, Anna Welsh Keuffel, W. G. Konta, Alexander Lathers, Agnes Keyes, Dr. E. L. Koplik, Isador Lathrop, Alanson P. Keyser, Mrs. Samuel Kops, Mrs. Max Lauder, Geo., Jr. Kidder, Edward H. Kosmak, Geo. W., M.D. Lauer, Edgar J. Kilborne, Mrs. R. S. Kremer, Laughlin, James, Jr. Killeen, Edward V. Mrs. William N. Lauterbach, Edward Kilner, S. E. La Vie, Geo. A. Kruse, Edward H. Kimball, Alfred R. Kudlich, H. C. Law, Frank E. Kimbel, Anthony Kuhn, Arthur K. Lawrence, Emlen N. Kimbel, Henry Kuhn, August Lawrence, King, Mrs. Edward Kuhn, Edward Miss Margaret King, Ellen Kuhn, Julius Lawrence, Townsend King, Miss Isabella C. Kuhn, Mrs. Walt Lawrence, W. V. King, James Gore Kühne, Mrs. Lea, Charles M. Kingsbury, N. C. Frederick J. Leale, Charles A., M.D.

Lewis, Wm. J., M.D. Loring, D. A. Leary, Mrs. George Leavitt. Lewisohn, Miss Irene Loring, Mrs. Charles W. Lewisohn, Sam A. Daniel Alden, Jr. Lewisohn, Mrs. Walter Lorsch, Henry Lederman, M. Ledyard, Lewkowitz, Gustav Louderback, Arthur E. Mrs. Lewis Cass Lexow, Mrs. Allan Louis, Chas. H. Lichtenstein, Melvin Lee, Charles N. Love, E. G. Lee, Frederic S. Lichtenstein, Oscar R. Lovett, R. S. Lee, Mrs. Frederic S. Lichtenstein, Paul Low, Ethelbert I. Lee, Ivy L. Lichtenstein, Mrs. Paul Low, William Lee, Dr. Marguerite T. Lieb, J. W. Gilman, Jr. Leeds, Mrs. Warner M. Lieber, Dr. Hugo Lowell. Le Fevre, C. R. Lilienthal, Albert M. Miss Carlotta Russell Lefferts, Marshall C. Lilienthal, Lowenstein, Oscar Lefferts, Wm. H. Howard, M.D. Lowndes, M. E. Legg, George Lilienthal, Jos. L. Lowrey, Mrs. G. C. W. Lehmaier, James M. Lilly, Mrs. Henry Ludington, Mrs. Lehmaier, Limburg, Herbert R. Charles H. Mrs. Louis A. Lincoln, Lowell Ludington, Mary L. Lehman, Arthur Lindenmeyr, Fritz Ludlow, Mrs. Banyer Lehman, Irving Lindheim, Norvin R. Ludlow, Mrs. E. L. Lehman, Isidore H. Lindsey, Edward Ludlow, James B. Lehman, Meyer H. Lipper, Arthur Ludlum, C. A. Leigh, R. Walter Lisman, Frederick J. Lueder, A. Littauer, Lucius N. Leland, Mrs. Amory Lueders, George LeMaistre, F. J. Littell, Mrs. Emlen Lufkin, E. C. Lemmon, Robert S. Luke, Adam K. Livermore, Lemp, Louis Mrs. John R. Luke, David L. Leonori, Charles L. Livingston, Miss A. P. Luke, John G. Le Roy, Mrs. E. A. Livingston, Lummis, LeRoy, Dr. Louis C. Mrs. Charles L. Benjamin Rush Lester, A. Edward Livingston, John G. Lunger, John B. Leupp, Wm. H. Lloyd, Francis G. Luquer, Lea Shippen Leventritt, David Lobenstine, W. C. Lusk, Miss Anna H. Levi, Albert A. Lockwood. Lüttgen, Walther Levi, Emil S. Dr. George Roe Lybrand, William M. Levine, Edmund J. Loeb, C. M. Lydig, Philip M. Levison, Benno Loeb, J. Lyman, Henry D. Loeb, Mrs. Morris Levor, G. Lyman, Theodore Levy, Edgar A. Lynch, Mrs. John H. Loeser, Vincent Levy, Ephraim B. Lynes, Miss Grace E. Loewenstein, Levy, Louis S. Miss Virginia S. Lyon, Ralph Loewenthal, Mrs. Julius Lewis, Alphons Lewis, Mrs. August Loewi, Hugo V. Maas, Gustavus Lewis, Mrs. Eugene Loewy, Benno Mabon, J. B. Lewis, Frederic Elliott Logan, Frank J. MacDougall, Geo. R. Lewis, Richard V. Long, Louis MacFadden, Carl K.

Macfadden, Robyn	Mathesius, Fredk., Jr.	McMahon,
MacIver,	Matheson, Wm. J.	Rev. Joseph H.
David Randall	Mathews, Dr. Frank S.	McManus, Edward F.
Mack, Arthur J.	May, George O.	McMillan, Francis W.
Mack, Fred. A.	Mayer, Dr. Alfred G.	McMillan, W. N.
Mack, M.	Mayer, M. R.	McNall, Robert H.
Mackenzie, Mrs.	Mayer, Nelson B.	McNaugher, David W.
Hugh Ross	Mayer, R. A. de Lima	McNeir, George
Mackey, Oscar T.	Mayer, Theresa	McRoberts, Samuel
Macy, George H.	Mayo, Mrs. George H.	Mead, Charles N.
Mager, F. Robert	McAdoo, William	Mead, Marvin H.
Mahl, Wm.	McAfee, John Knox	Means,
Main, Frank H.	McAleenan, Joseph A.	Philip Ainsworth
Mainzer, Herbert R.	McAllister,	Meeker, Henry E.
Mainzer, Robert H.	Robert Edgar	Meeks, Howard V.
Mallory, Charles	McAlpin, Dr. D. H.	Mehl, Henry
Manges, Dr. Morris	McAlpin, George L.	Meinhard, Morton H.
Manierre, Charles E.	McBride, Mrs. Herbert	Melcher, John S.
Mann, W. D.	McBride, Thomas J.	Mellen, Chase
Mansfield, Howard	McCagg, Louis B.	Menken, S. Stanwood
Mapes, Eugene E.	McCall, John C.	Merrick, Bertha V.
Marbury,	McCarthy, J. M.	Merrihew, George W.
Miss Elisabeth		Merrill, Edwin G.
Marcus, Samuel	McCulloh, Charles S.	Merrill, Mrs. Payson
Markle, John	McCurdy, Robert H.	Metcalf, Stephen O.
Markoe, Dr. J. W.	McCutchen, Chas. W.	Metcalfe,
Marks, Maurice	McDonald, Wm.	Capt. Henry, U.S.A.
Marsh, J. A.	McElheny, Victor K., Jr.	
Marston, Edgar L.	McGinley, J. R.	Meyer,
Marston, Edwin S.	McGregor, Robert	Mrs. Eugene, Jr.
Martin, Bradley	McIlhenny, E. A.	Meyer, Geo. A.
Martin, Robert W.	McIntyre, John G.	Meyer, Harry J.
Martin, Walton, M.D.	McKeever, J. Lawrence	
Martin, W. M.	McKelvey, Charles W.	
Masbach, Robert J.	McKelvey, J. J.	Mezes, S. E.
Masius, Max L.	McKenney, Henry P.	Milbank, Albert G.
Mason, C. N.	McKim, Mrs. Haslett	Milhau, Louis J. de
Mason, Miss Fanny P.		Millard, William J.
Mason,	McKim, Le Roy	Miller, Mrs. Charles E.
Mrs. George Grant		Miller, Clifford L.
Massey, Mrs. George	Miss Elizabeth	
Massey,	McLane, Miss Sophie	Miller, J. Doull
Miss Harriet F.		Miller, Simon
Masters, Miss Eliza B.	•	Miller, William W.
Masters, Sarah W.	McLean, Miss Ethel L.	
Mastin, Mrs. J. Edward		Mills, Dr. Adelaide Mills, Frederic C.
Mather, Samuel	Marconn, M.D.	willis, Frederic C.

Mills, John T. Milne, Clyde Miner, Edward G. Mitchell, A. M. Mitchell, C. E. Mitchell,

Mitchell, Miss Addison Mosle, A. Henry Mitchell, Wesley C. Mitchell, Mrs. William Mitchell, Wm. Mitten, T. E. Moffatt,

Mrs. R. Burnham Mott, Mrs. J. L. Moffitt, Samuel Molleson, George A. Mommer, Ewald Monae-Lessèr, Dr. A. Monroe, Robert Grier Montant, Alphonse Montgomery, Carleton Munsey, Frank A. Montgomery,

Montross, N. E. Moore, Barrington Moore, Casimir de R. Moore.

Moore, D. Thomas Moore, Mrs. W. D. Moore, William A. Moorhead, Horace R. Moos, Louis H. Morgan, Miss Anne Morgan, E. D. Morgan, Paul B. Morgan,

Morgan,

Morgenthau, Henry Morris, Henry Lewis Morris, Ira Nelson Morris, Mrs. John A. Morris, Louis M. Morris, Mrs. L. R. Morris, Stuyvesant F. Morris.

Morrison, Edward A. Morton, Mrs. Levi P. Morton, Mrs. Paul Morton, Quincy L. Mrs. John Murray Moses, Mrs. E. Mosle, Max. A. Mosman, Philip A. Moss, Augustus L. Motley, Jas. M. Mott, Henry C. Mott, Mrs. John B. Mott, Miss Marian Muendel, Christina Mulford, Edwin H. Müller, Carl Muller-Schall, Fred. Munson, C. W. Charles S. Murphey, Mrs. Jenny

Murphy, Franklin Murphy, G. M.-P. Murphy, Wm. C. Mrs. Casimir de R. Murray, F. W., M.D. Murray, J. Archibald Murray, J. Irvin, Jr. Murtha, Thomas F. Muschenheim, Wm. C. Obrig, Adolph Myers, L. Myers, Theo. W.

Myers, William S.

Nagle, James Franklin Ogden, David B. W. Forbes, Jr. Nash, William A. Nathan, Harmon H. Wm. Fellowes Naumburg, Aaron Necarsulmer, Henry Nesmith, James Nessler, H. D. Neuburger, David Neustadt, Mrs. S. New, Wm. Wesley

Newbold, Fredc. R. Theodore Wilson Newbury, Andrew J. Newcomb, James G. Newton, Mrs. Francis Nichols, John W. T. Nicholson, John E. Nickerson, Hoffman Nicoll, Benjamin Nicoll, Fancher Nicolson, John Niehaus,

Regina Armstrong Nies. Rev. James B., Ph.D. Nolker, Robert E. Norman, Mrs. Bradford Norrie,

Mrs. E. L. Breese Norris, Beverly Arden North, George B. Norton, Mrs. N. R. Norton, W. P. Notman, George Stafford Noves, H. F. Nugent, Frank L. Nute, Mrs. John W.

> Oastler, Dr. F. R. Oberdorfer, George Obermayer, Charles J. Obermeyer, Jos. Ochs, Adolph S. Offerman, John O'Flynn,

Mrs. E. Howard Ogden, J. R. Ogle, Mrs. Ponsonby Olcott, Dudley Olcott, E. E. Olcott, Geo. M. Olin, S. H. Ollesheimer, Henry Ollive, Thos. S. Olney, Elam Ward Newberry, Truman H. Olyphant, Murray

Pardee, Ario

Pariser, Robert Olyphant, R. M. Pennington, Aaron S. Olyphant, Robert Parish School, Perine, William D. N. Opdvcke, Mrs. Emerson Evangelical Lutheran Perkins, Mrs. Charles Church of St. Mat-Opdycke, Albert Mrs. Leonard E. thew Perkins, George W. Parker, A. W. Perkins, G. Lawrence Oppenheim, J. Oppenheim, Myron H. Parker, Forrest H. Perkins, James H. Oppenheimer, Parker, Junius Perkins, R. P. Dr. Henry S. Parker, Robert A. Perry, O. B. Ornstein, Dr. Georg Parker, Winthrop Perry, Mrs. William A. Parks, Elton Orr, William C. Peters. Parodi, Dr. Teofilo Edward McClure Orvis, Edwin W. Parrish, James C. Osborn, Mrs. Peters, Samuel T. Frederick H. Parsons, Chas. W. Peterson. Parsons, Edgerton Frederick, M.D. Osborn, Miss Josephine A. Parsons, Edwin Peterson, Mrs. Wilson Parsons, Frank H. Petrasch, Carl Schurz Osterholt, Ehler Parsons, Otis, Mrs. George L. Peyton, William C. Ottinger, Marx Miss Gertrude Peyton, Mrs. William C. Oudin, Lucien Parsons, Herbert Pfeiffer, Curt G. Overton, Frank Parsons, Wm. Barclay Pfender, W. S. Paskus, Benj. G. Pfletschinger, Paddock. Paton, David Mrs. L. A. Mrs. Eugene H. Paton, Dr. Stewart Phelps, Mrs. G. M. Page, Edward D. Paton, Wm. Agnew Philipp, M. Bernard Page, F. Palmer Patterson, Benjamin Philipp, Philip B. Patterson, Frederick H. Phillips, Page, J. Seaver Page, Wm. H. Mrs. Alfred Noroton Patterson, Henry S., Pagenstecher, A. M.D. Phillips, John M. Pagenstecher, A., Jr. Patterson, Phipps, Henry Mrs. Rufus L. Pickhardt, Carl Pagenstecher, G. Paine, A. G., Jr. Patterson, Stuart H. Piel, Gottfried Patterson, T. H. Hoge Piel, Paul Paine, H. S. Painter, Dr. H. McM. Paul, John J. Pierrepont, Seth Low Painter, Mrs. U. H. Pavenstedt, E. Pierson, Mrs. C. W. Palmenberg, Emil T. Peabody, Stephen Pierson, D. H. Palmer, Edgar Pearson, Pillot, P. Stuyvesant Mrs. Frederick Pinkerton, Allan Palmer, Howard Palmer, John Peck, Charles E. Piquet, Lily S. Palmer, John Stanton Peck, Charles H. Pitman, Gen. John, Palmer, Laura A. Peck, L. O. U.S.A. Palmer, N. F. Peck, Morton R., M.D. Pitney, John O. H. Palmer, William I. Pedersen, Dr. James Place, Ira A. Palmieri, F. Louis Platt, Charles H. Pegram, Pappenheimer, Edward Sandford Platt, Mrs. Frank H. Alvin M., M.D. Pell, Mrs. Stephen Platt, Lewis A.

Pell, Walden

Platzek, M. Warley

Plaut, Joseph Plympton, Gilbert M. Polhemus, Miss R. A. Polk, Dr. Wm. M. Pollak, Bernard E. Pollock, George E. Pomeroy, D. E. Pomroy,

Poole, Mrs. Ernest Poor, Mrs. Horace F. Poor, Roger M. Poor, Ruel W. Pope, G. D. Pope, Mrs. James E. Pope, Sylvester Popper, A. W. Porter, Alexander J. Porter, Mrs. Clarence Porter, Gen. Horace Porter,

Mrs. Rachel Lenox Quincy, C. F. Porter, William L. Porter, Wm. H. Post, Abram S. Post, Carroll J., Jr. Post, Mrs. Charles A. Post, Sylvester Potter, Miss Blanche Potter, Frederick Potter, James Brown Potter.

Dr. Mary Goddard Raisler, Samuel Potter, Orlando B. Potter, R. Burnside Pottier, Auguste Ruffin Randolph, Coleman Potts, William B. Powers,

Cornelius Van Vorst Ransom, Wm. L. Pratt, Albert Houghton Rathborne, Richard C. Pratt, Dallas B. Pratt, Mrs. George D. Rauch, William Pratt, Mrs. Herbert Pratt, John T. Prentiss, Henrietta Prescott, Amos L. Preston, Veryl

Price, David Priddy, Lawrence Prince, J. Dyneley Procter, William Proctor, Mrs. Chas. E. Reed, Wm. E. Proctor, Thomas R. Proctor, Wm. Ross Prudden, T. Mitchell Mrs. Henry K. Pulitzer, Mrs. Joseph Pulitzer, Ralph Pulsifer, Mrs. N. T. Putnam, Geo. P. Putnam, H. S. Putney, Miss Eva C. Pyle, D. H. McAlpin Pyle, James McAlpin Pyne, Mrs. M. Taylor

> Quigg, Lemuel E. Quinlan, Wm. J., Jr. Quinn, John Quinn, Martin J. Ouintard, Dr. Edward

Rafferty, Mrs. Ewing L. Rice, Philip B. Rahlson, K. J. Raht, Chas. Rainsford, Mrs. W. S. Richard, Miss Elvine Ramsay, D. S. Ramsperger, H. G. Randolph, Edmund D. Richardson, Ranger, Stanley G.

Rau, Henry 'M. Rawle, Henry Raymond, Irving E. Raynor, Forrest Read, Geo. R. Read, Mrs. William A. Riegel, Louis

Rebman, Francis J. Redmond, Miss Emily Redmond,

Mrs. Henry S. Rees, R. Llewelyn

Regensburg,

Mrs. Jerome Reichenbach, L. Reichenberger, Mrs.

Victor M. Purdy, Wm. Macneven Reid, Mrs. Daniel Gray Putnam, Mrs. Albert E. Reid, Mrs. Ogden Mills Reid, Wallace Reiland, Rev. Karl Reincke, Hans Reis, Fred. L. Remick, W. H. Remsen, Charles Rendigs, Chas. W.

Renult, William Renwick, Edward Brevoort Reynal, Mrs. E. S.

Reynolds, Mrs. James Bronson Reynolds, John D. Rabe, Rudolph F., M.D. Rhoades, Miss Nina Rich, M. P. Richard, E. A.

Richard, Oscar L. Richards, Eben Richardson, Catherine L.

Mrs. C. Tiffany Richardson,

Mrs. Enos S. T. Richardson, Sinclair Ricker,

Mrs. Eleanor A. Riddle, Mrs. Theodate Pope Ridgway, Mrs. Robert

Riem, Simon R. Riesenberg, Adolph Riggs, Edward G. Riggs, George C. Riglander, Mrs. M. M. Rohdenburg, G. L. Riker, Wm. J. Ring, Mrs. George S. Ripley, Henry B. H. Rippenbein, Morris Risley, Mrs. G. H. Rives, George L. Robb. Wm. I. Robbins, Mrs. Helen C. Roosevelt, G. Hall Robert, Samuel Roberts, G. Theo. Roberts, Miss Mary M. Roosevelt, W. Emlen Robertson, Albert Robertson, Miss J. Robertson, R. H. Robinson, Beverley R. Rosen, Mrs. Felix T. Robinson, Charles Edw. Rosenbaum, Harold A. Sage, Dean Robinson, Mrs. C. L. F. Rosenbaum, H. C. Robinson, Douglas Robinson, Mrs. Douglas Rosenbaum, Sol. G. Robinson.

Robinson, Edward Robinson, Monroe D. Rosenthal, Mrs. Oscar Salomon, William Robinson,

Mrs. T. Douglas Ross, Morgan R. Rockefeller,

Rockwood, Miss K. C. Rockwood, Wm. H. Roddy, Harry Justin Rodewald, F. L. Roe, Gen. Chas. F. Roelker, Alfred, Jr. Rogers, Allen Merrill Rogers, Edmund P. Rogers, Edward L. Rogers, Francis Rogers, Mrs. Francis Rogers, Hubert E.

Mrs. Jas. Gamble Rumrill, Mrs. Jas. A.

Rogers,

Rogers, John S. Rogers, Dr. Oscar H. Rogers, Saul E. Rogers, William B. Rokenbaugh, H. S. Rolle, Augustus J. Rolt-Wheeler,

Roome, Mrs. C. M. Roome, William J. Roos, M.

Roosevelt, Mrs.

Root, Elihu Rose, Mrs. A. Sumner Rose, Mrs. George Rosenbaum, Selig

Rosenberg, Max Mrs. Drew King Rosenfeld, Edward L. Rosenstamm, S. S. Rosenthal, Sylvan E.

Rossbach, Jacob Mrs. Wm. G. Rossin, Alfred S. Rossin, Morris

Rothbarth, A. Rothschild,

Roumage, C. C. Rounds,

Rouse, William L. Rowe, Wm. V. Rowland, Mrs. Chas. B. Rowland, Thos.

Ruhl, Louis Ruhlender, Henry

Rogers, Mrs. John, Jr. Rumsey, Mrs. C. C.

Runk, George S. Runk, Mrs. George S. Runsheim, Joseph Runyon, Walter Clark Ruperti, Justus Ruppert, Mrs. Jacob Rusch, Adolphe, Jr. Rusch, Henry A. Rev. Francis, Ph.D. Russell, Charles H. Ryan, John Barry Ryle, Miss Julia

> Sabin, Charles H. Sachs, Arthur Hilborne L. Sachs, Bernard, M.D. Sachs, Harry Sachs, Julius Sachs, Samuel Sachs, Walter E. Sackett, Miss G. T. Sage, Mrs. Henry W. St. John, Mrs. Jesse Saks, Isadore Salomon, Chas. Salomon,

> > Harry R., Ph.D. Sampson, Alden Sampson, Charles E. Sanborn, Frederick H. Sanders,

Mrs. Franklyn B. Sandhagen, H. Sands, Mrs. B. Aymar Mrs. V. Sydney Sands, Mrs. Charles Ward

Sanger, Ralph Ralph Stowell, Jr. Sanger, Mrs. Ralph Saril, August Satterlee.

> Mrs. Herbert L. Satterlee, Miss Mabel Saul, Charles R. Sauter, A. J. Sauter, Fred., Jr. Savin, William M.

Schweitzer, Dr. Hugo Sheffield, Geo. St. John Sayles, Robert W. Schaefer, Edward C. Schwerdtfeger, Otto M. Sheffield, Mrs. James R. Schaefer, Geo. G. Schwob, Adolphe Schaefer, Henry Scofield, Miss Marion Schaefer, J. Louis Scott, Donald Schaefer, R. J. Scott, Francis M. Schafer, Samuel N. Scott, Walter Schall, W. Scott, William Scoville, Herbert Schaller, Otto Schanck, George E. Scoville, Robert Schanck, Mrs. Geo. E. Scribner, Charles Schauffler, Mrs. A. F. Scrymser, Mrs. J. A. Schefer, A. H. Scudder, Edward M. Schell, Miss Mary E. Scudder, Hewlett, Jr. Scudder, Myron T. Scheuer, Arnold L. Schieffelin, Mrs. H. M. Scudder, Willard Schieffelin, Wm. Jay Scull, Chas. O. Schiff, Gustave H. Seaman, Lloyd W. Schirmer, Rudolph E. Seaman, Louis L., M.D. Siegel, Jacob Schley, Evander B. Seaver, Benj. F. Schlicke, C. P. See, A. B. Schling, Max Seeman, Carl Seitz, Charles E. Schmelzel, James H. Schmidt, William H. Selig, Arthur L. Schnakenberg, Seligman, Edwin R. A. Simon, Leo L. H. Ernest Seligman, George W. Schniewind. Seligman, Jefferson Mrs. Elma M. Seligman, Mrs. Julia Seligsberg, Albert J. Schniewind. Heinrich, Jr. Sellew, Mrs. Timothy Gibson Scholle, A. H. Semken. Schoonmaker, Miss Mary Dr. George H. Simpson, John W. Schoonmaker, S. L. Semler, Geo. Seton, Alfred Schramm, W. Schreiter, Henry Sexton, Lawrence E. Schrenk, Otto von Seymour, William E. Shailer, William G. Schrenkeisen. Raymond M. Shannon, Mrs. William Skinner, William Schutz, Bernard Shardlow, Mrss Eliza Schuyler, Ackley C. Schuyler, Sharpe, Elizabeth M. Miss Georgina Shattuck, A. R. Schwartz, H. J. Shaw, Mrs. John C. Schwarz, Henry F. Shaw, Mrs. Wm. N. Sheehy, W. H. Schwarz, Dr. Herman

Sheets, Dr. Elmer A.

Schwarz, Paul

Shepard, C. Sidney Shepard, Mrs. Finley J. Sherman, Gerald Shillaber, Wm. Shiman, Abraham Shipman, R. D. Shoemaker, Henry W. Shonk, Herbert B. Shonts, T. P. Shulof, Herman Humboldt Sicher, Dudley D. Sidenberg, Geo. M. Sidenberg, Richard Siedenburg, R., Jr. Siegel, William Silliman, Harper Simon, Alfred L. Simon, Franklin Simon, Horatio S. Simon, R. E. Simpson, David B. Simpson. Mrs. Ernest L. Simpson, Frederick Boulton Simpson, John Boulton Sinclair, Mrs. John Sizer, Robt. R. Skeel, Frank D., M.D. Skeel, Roswell, Jr. Skinner, Milton P. Cummings Slade, Francis Louis Slaughter, Rochester B. Sloan, Benson Bennett Sloan, Samuel Sloan, Mrs. Samuel Sloane, Henry T. Sloane, John Sloane, Wm. M.

Slocum, H. Jermain, Jr. Sperry, Elmer A. Slocum, Myles Standish Sperry, Wm. M. Smidt, Frank B. Smidt, Thos. Smillie, James C. Smillie, Ralph Smith, Abel I., Jr. Smith, Augustine J. Smith, Augustus Smith, Mrs. De Cost Smith, E. A. Cappelen Stallknecht, C. P. Smith, E. Quincy Smith, Miss Fanny A. Smith, Mrs. Fitch W. Smith, F. M. Smith, Henry G. Smith,

Miss Josephine C. Smith, Lenox Smith, Pierre J. Smith, Theodore E. Smith, Van W. Smith, W. Hinckle Smith, W. Schuyler Smithers, F. S. Smyth, Francis Snare, Frederick Snell, Thomas Snow, Elbridge G. Snow, Mrs. Frederick A. Sterling, Duncan Solley, Mrs. John B., Jr. Stern, Benjamin Solomon, Mrs. Albert

Solomon, Arthur L. Somers, L. H. Sondern, Frederic E. Sondheimer, Julius Sorchan, Mrs. Victor Souls, William H. Spadone, Elizabeth A. Spafford, Joseph H. Sparrow, Mrs. E. W. Spear, James Spedden, Frederic O. Spencer, J. Clinton Speranza, Gino C.

Speyer, Mrs. James Spiegelberg, Eugene E. Stewart, Spencer W. Spingarn, Mrs. J. E. Spitzner, Geo. W. Spotts, Mrs. R. L. Spring.

Stafford, Wm. Fredk. Stallman, F. L. Stanton, J. R. Starbuck, C. A. Starr, Howard W. Starr, Louis Morris Starr, M. Allen, M.D., LL.D. Stone,

Stearns, Louis Stein, Mrs. Abram N. Stein, Enrico N. Stein, Leo Stein, Leonard L. Steinbrugge, E., Jr. Steinhardt, Jos. H. Steinthal, Martin Steinway, Fred. T. Steinway, Wm. R. Stemme, Mrs. John Stern, Edwin H. Edward Stern, Leopold Stern, Nathan B. Stern, Mrs. Stella Sternberg, Fred Sternfeld, Theodore Sterns, May Sterrett, J. E. Stettenheim, I. M. Stettinius, Mrs. Edw. R. Strauss, Mrs. William Stevenot, Chas. J. Stevens, Miss Mary O. Street, Mrs. C. F. Stevenson, C. C. Stewart, Cecil P.

Stewart, John A.

Stewart,

Mrs. John Wood Stewart, Mrs. Percy H. Stieglitz, Albert Stiger, E. M. Stiger, William E. Stillman, Miss B. G. Miss Anna Riker Stillman, J. A. Stillman, Leland S. Stimson,

Daniel M., M.D. Stix, Sylvan L. Stockmann, Marie F. C. Stoeckel, Carl Stokes, Harold Phelps Stone, Miss Annie

Miss Elizabeth B. Stone, Geo. C. Stone, I. F. Stone, S. H. Storm, Raymond W. Storrs, Frank V. Stowell, C. W. Straight, Mrs. Willard Straus, Herbert N. Straus, Mrs. H. Grant Straus, Jesse Isidor Straus, Marcus Straus, Nathan Straus, Percy S. Straus, Mrs. Roger W. Strauss, Albert Strauss, Mrs. Albert Strauss, Charles Strauss, Frederick Strauss, John Francis Strauss, Martin Strauss, Samuel Strawn, Wm. H. Streeter, Thomas W. Spencer, Mrs. Edwards Stewart, Alexander M. Strong, Mrs. Benjamin Strong, John R. Strong, R. A.

Stroock, Joseph Tallman. Thompson, Stroock, Louis S. Malcolm Herrick Rev. Dr. Walter Stroock, Moses J. Talmage, Mrs. Thomson, A. T. Edward T. H. Thomson, Stroock, Mrs. S. M. Talmage, E. T. H. Miss Evelyn M. Sturges, Arthur P. Sturges, Mrs. E. C. Tanenbaum, Moses Thomson, George W. Sturges, Henry C. Tate, Joseph Thomson, Wm. Hanna Sturmdorf, Tatham, Charles Thorley, Charles Thorne, Mrs. Edwin Arnold, M.D. Tatum, C. A. Stursberg, Julius A. Taylor, Thorne, Miss Eliza A. Stursberg, W. Edward Graham Thorne, Mrs. J. W. Suckley, Robert B. Taylor, Emma Fellowes Thorne, Robert Sullivan, Mrs. James Taylor, Mrs. Geo. H. Thorne, Samuel, Jr. Sulzberger, Cyrus L. Taylor, Henry R. Thorne, W. V. S. Sumner, Graham Taylor, Howard Thorne, Mrs. W. V. S. Sumner, Mrs. Graham Taylor, Howard C. Thornton, Sussman, Dr. Otto Taylor, Myron C. Mrs. George M. Sutphen, Duncan D. Taylor, Quintard, M.D. Tiedemann, Mrs. Sutphen, John S. Taylor, S. Frederic Theodore Sutro, Lionel Taylor, W. A. Tierney, Myles Taylor, William R. K. Sutro, Mrs. Lionel Tiffany, Charles L. Sutro, Richard Tefft, Erastus T. Tiffany, Louis C. Sutro, Victor Terry, Mrs. Charles Tillotson, Mrs. H. B. Suydam, Lambert Appleton Tim, Bernard L. Swan, Mrs. C. F. Terry, Roderick, Jr. Timolat, J. G. Swan, Charles F. Thacher, Archibald G. Timpson, James Swan, James A. Thacher, Thomas Tinkham, Julian R. Swann, Mrs. A. W. Thaw, J. C. Tipper, Harry Swayne, Francis B. Thaw, Stephen Dows Titus, Erastus, Jr. Swetland, H. M. Thayer, B. B. Toch, Mrs. Maximilian Swetland, Mrs. Thayer, H. B. Tonnelé, John L. Horace W. Thayer, Rev. William Tonnelé, Mrs. John N. Symons, W. E. Greenough, D.D. Torrance, Norman F. Syrett, Herbert Theakston, F. H. Totten, John R. Thedford, Harry W. Towns, Mrs. Charles B. Taber, David Shearman Thibaut, Richard E. Townsend, David C. Taber, John Russell Thomas, Mrs. Townsend, Howard Taber, Miss M. Howard L. Trainor, P. S. Taft, Henry W. Troescher, A. F. Thomas. Taggart, Rush Mrs. J. Metcalfe Trowbridge, E. Kellogg Tailer, Edward N. Thomas, Mrs. Lee Trowbridge, Taintor, Charles N. Thomas, Frederick K. Taintor, Charles Wilson Samuel Hinds Trowbridge, Talbert, Jos. T. S. Breck P. Thompson, Talbot, Richmond Mrs. J. Todhunter Tucker, Carll Thompson, Lewis M. Talcott. Tucker, Mrs. Carll Rev. J. Frederick Thompson, Samuel A. Tuckerman, Alfred

Tuckerman,	Van Iderstine, Robert	Walbridge, H. D.
Mrs. Alfred	Van Ingen, Edward H.	Walcott, Mrs. F. C.
Tuckerman, Miss Emily		Waldo, Miss Julia L.
Tuckerman, Paul		Wales, Edward H.
Turck, Dr. Fenton B.		Walker, Charles C.
Turnbull, Arthur	Van Sinderen, Howard	
	•	
Turnbull, Mrs. Ramsay		Walker,
Turnbull, William	Van Vorst,	Mrs. Gustavus A.
Turner,		Walker, Horatio
Mrs. J. Spencer	Van Wagenen, Bleecker	
Turnure, George E.	Van Winkle, Edgar B.	Walker,
Tuska, Benjamin	Veit, Richard C.	Mrs. Joseph, Jr.
Tuttle,	Veltin, Miss Louise	Walker, W. G.
Donald Seymour	Vernon, Mrs.	Walker, William I.
Tweedie, Miss Annie	Catherine D.	Wallenstein, Milton H.
•	Vesper, Karl H.	Wallerstein, Leo
Ullman, Sigmund	Vettel, Mrs. Rosa	Wallerstein, Dr. Max
Ullmann, E. S.	Vietor, Carl	Walsh, Myles
Ulmann, C. J.	Vietor, Ernst G.	Walter, Edw. J.
Ulmann, James	Vietor, Mrs. Geo. F.	Walter, W. I.
Ulmann, Ludwig	Vietor, Thos. F.	Walther, Elmore Curt
Underwood,	Villa, Alfonso P.	Wanninger, Chas.
· •	Villard, Mrs. Henry	Ward, Artemas
Untermyer, Alvin	Vineberg, Dr. Hiram N.	Ward, Mrs. Artemas
Untermyer, Isaac	Voelker, John Ph.	Ward, Mrs. Frances M.
	Vogel, Felix A.	Ward, John Gilbert
Vail, Theo. N.	Vogel, Herman	Ward, Owen
Vaillant, Mrs. G. H.	Vogel, H. G.	Wardwell, Allen
Valentine, J. Manson	Vogel, Martin	Warner, C. Blaine
Valentine,	Vogelstein, L.	Warner, Mrs. Henry S.
· ·	Vondermuhll, George A.	
van Beuren, F. T., Jr.	von Gontard, Alex.	Mrs. Henry Wolcott
van Beuren, Mrs. M. M.	•	Warner, Lucien C.
Van Brunt, Jeremiah R.		Warren, Mrs. J. Kearny
Vanderbilt,	Voss, F. G.	Warren,
	Vreeland, Frederick K.	Mrs. John Hobart
Vanderbilt, Reginald C.		Washburn, Thomas G.
Vanderbilt, Mrs. W. K.	Dr. Jules A.	• • • • • • • • • • • • • • • • • • • •
Vanderlip, Mrs. F. A.		Miss Florence
Vanderlip, Frank A.	Wadleigh,	Waterbury, Mrs. John I.
Vanderpoel, Mrs. J. A.		Waterman, Max
Van Dusen, Thos. D.	Wadsworth,	Waters, Horace
van Dyke, Tertius	James W., Jr.	Waters, Spencer
Van Emburgh, D. B.	Wagner, T. B.	Wätjen, Louis
Van Emburgh,	Wainwright, Wm. P.	Watkins, Eugene W.
	Wakeman, Stephen H.	Watson, A. W.
Van Horne, John G.	Walbridge, G. H.	Watson, Miss Emily A.

Watson, Mrs. J. E. Watson, John J., Jr. Watson, Louis T. Wearne, Harry Weatherbee, Mrs. E. H. Wheeler, Webb, H. Walter Webb, Mrs. Vanderbilt Wheeler, Miss L. Weber, Ferdinand Weeks, Andrew Gray Weeks, Dr. John E. Wehrhane, Chas. Weidenfeld, C. Weigle, Chas. H. Weil, Arthur William Weil, Emil Weil, Dr. Isaac Weil,

Miss Josephine M. White, W. A. Weiller, Simon Weinberg, Charles Weinberger, Dr. B. W. Whitman, Wm., Jr. Weinberger,

Weir, Chas. Gouverneur Whitney, Edward F. Weir, Mrs. Chas.

Weiss, Mrs. Chas. Weiss, Mrs. Samuel W. Wiborg, F. B. Weitling, Wm. W. Welinsky, Max Wells, Mrs. John Wells, Judd Elwin Wells, Oliver J. Welsh, S. Chas. Welwood,

John Caldwell Wiley, Louis Wentz, James G. Wentz, Theodore Werner, Charles H. Werner, Theodore Wertheim, Jacob Wesendonck, M. A. Wessell, Arthur L. Westcott.

Westervelt,

Weston, Dr. Edward Westover, Myron F. Wheeler,

Dr. Herbert L.

John Davenport Willis, W. P. Wheelock, Geo. L. Wheelwright,

Joseph S., M.D. Wilmerding, Whitaker, John E. White, Alexander M. White, A. Ludlow White, Miss Caroline White, Miss H. White, John Jay, Jr. White, Mrs. Stanford

Whitehouse, J. Henry Whiting, Mrs. James R. Wilson, Whitmarsh, Theo. F. Mrs. Jacques Whitney, Caspar

Whitney, Mrs. Eli Gouverneur Whitney, H. P.

Whitney, Mrs. Payne Wickes, Edward A. Wilbour, Miss

Wilcox,

Mrs. Clermont H. Witherbee, Wilcox, T. Ferdinand Wiley, J. S.

Theodora

Wilkens, H. A. J. Wilkie, John L. Wilkinson, Alfred Willcox, William G. Willets, Miss Maria Willett, George F. Williams, Alex. S. Williams, Arthur

Mrs. Robert E. Williams, Blair S. Williams, Ellis D. William Young Williams, Joseph

Williams, Mrs. Percy H. Williams, Richard H. Williams,

Mrs. Richard H. Williams, William H. Willson, Fredk. N. Willstatter, A. Wilmerding, Lucius

Wilson, Rev. Andrew Chalmers Wilson,

Mrs. Lucius K.

Mrs. Augustine J. Wilson, Edmund B. Wilson, George T. Wilson, Mrs. Henry B. Wilson, John E., M.D.

Miss Margaret B. Wilson, M. Orme Wilson, Orme, Jr. Wilson, R. Thornton Wilson, Walter H. Wimpfheimer, Chas. A. Wingate, Geo. W. Winter, Emil Winthrop, Bronson Wise, Edmond E. Wisner, Miss E. H. Wisner, Percy

Mrs. Frank S. Wittenberg, Mrs. A. M. Wittmann, Joseph Woerishoffer,

Mrs. Anna Woerz, F. W. Wolfe, S. Herbert Wolff, Mrs. Lewis S. Wolff, Wm. E. Wolfson, T. Wood, Mrs. John D. Wood, Willis D. Wood, Wm. C.

Woodbury, C. Palmer

Woodin, Mrs. C. R. Woolley, James V. S. Woolman, Edward W. Worcester, Wilfred J. Wray, A. H. Wray, Miss Julia Wright, Mrs. J. Hood Wurzburger, A. Wyckoff, Barkley

Wyckoff, Edward Guild Young, Wylie, Dr. R. H. Charles H., M.D. Yeisley, Zabriskie, George

Rev. Dr. George C. Zanetti, Joseph A. Young, A. Murray Young, Young, Miss Annette

Zimmermann, Charles Zimmermann, John Mrs.A. Murray Zinsser, August, Jr. Zoller, Charles

## ASSOCIATE MEMBERS

(NON-RESIDENT)

## By payment of \$3 annually

Aborn, John Russell Ackley, Adams, Newton Albrecht, Arthur E. Albree, Fred W. Albright, Mrs. John J. Bayard, Thomas F. Allen, C. L. Allen, Normand

Anderson. Andrews, E. A. Andrews, Col. James M. Benney, G. A. Appleton, Maj.-Gen.

Ames, Oakes

Arensberg, Charles F. C. Billings, Frank Armour, M. Cochrane Arnold, Miss Mittie Atlee, E. I. Atwater, Chas. B.

Babcock, Frederick R. Babcock, William Baehr, Mrs. Meta Bailey, Edward P. Baily, Henry P. Ballantine, Percy Ballou, Louis Barney, D. Newton Barr, James H. Barrett, W. H.

Barron, Clarence W. Bartlett, A. C. Miss Adeline E. Bartlett, Florence Barton, Geo. H. Bass, Robert P. Baxter, Harold F. Beardslee, J. C. Belknap, Bell, C. Edward Louis Francis Benjamin, Julian A. Bennett, Winchester Benson, Edwin N., Jr. Brown, Samuel B. Francis Henry Bent, Wm. W. Bindley, Cornelia McK. Bryant, Henry G. Bingham, Arthur E. Bird, John B. Blackmer, James L. Blakeley, George H. Blakiston, Kenneth M. Burgess, Theodore P. Blanchard, John A. Blaney, Dwight Bliss, Miss Elizabeth B. Burpee, David Blossom, Mrs. DudleyS. Burr, J. H. Ten Eyck Blumer, George

Boardman, Bodine, Wm. W. Bogert, William B. Bole, B. P. Bond, Hugh L., Jr. Bowditch,

Mrs. Henry P. Bradford, Sidney Brainard, M. B. Brennan, Harry M. Brewer, Mrs. Joseph Brewster, Frank Henry Wyckoff Bridge, Norman Briggs, Dr. C. E. Brooks, Charles T. Brown, Mrs. Carter Brown, Laurence F. Browning, Victor Reed Bruun, Chas. A. Bryn, H. Buckingham, John Bulkley, Barry Bull, Manlius Burnham, T. W.

Burnham, W. E. Burrell, Loomis Bushnell, Edward Mrs. William D. Butcher, Henry C.

Cabot, George E.

Cadwalader,

Williams B. Cahn, Benjamin R. Caldwell, James H. Canniff, William Henry Cutler, James G. Carmalt.

William H., M.D. Dann, W. M. Carney, F. D. Carruthers, J. B. Carter, Dr. C. Shirley Carter, Geo. E. Carton, Alfred T. Cary, Miss Kate Case, Willard E. Chamberlain.

Chase, Frederick S. Cheever, James G. Cheney, Mary Chenev. Paul H. Child, John H. Child. Wm. A. Church, Morton L. Clapp, Charles C. Clark, Emory W. Clark, George H. Clark, Jefferson Coe, Miss Ella S. Cogswell,

Mrs. Wm. Browne Dunbar, F. L. Cole, Mrs. Ansel O. Cole.

Mrs. Robert Clinton Colgate,

Mrs. Mary F. L. Erickson, Colgate, Robert Comstock,

Conover, H. B. Cooke, George I. Cope, Francis R., Jr. Cousens, John A. Cox, J. D. Cramp, Theodore W. Crowell, Robert H. Cudahy, Joseph M. Cummings, Byron

Cummings,

Cushing, Harvey Cushman, Herbert E.

Danziger, J. M. Davenport,

Mrs. Elizabeth B. Davis, Chas. H. Davis, Geo. Whitefield Day, Mrs. F. A. Dean, C. E. Delano, F. A. Chauncy W. Deming, Paul H. Denègre, Wm. P. Dennison, Henry S. DeWolf, Wallace L. Dietz. Carl Frederick Dietz, Mrs. C. N. Disston, William D. Dixon, Ephraim W. Dixon, J. Shipley Douglas, Albert Dows, Tracy Draper, Wallace S. Dravo, Edward T. Drury, Francis E. duPont, Alfred I. Durant, Frederick C.

Ely, Philip V. R.

Mrs. Robt. H. Fabyan, F. W., Jr. Fabyan, Marshal Farnham, Wallace S. Farrel, Estelle Ffoulkes, S. Wynne Field, E. B. Fisher,

Miss Elizabeth W. Hickox, W. B. Fleek, Henry S. Ford, Mrs. John B.

Fordyce, Geo. L. Mrs. Charles A. Foulke, Mrs. J. Roberts Freeman,

Miss Harriet E. Freer, Mrs. Watson M. Frost, A. B. Fuller, Clifford W.

Galle, Miss Louise Gallogly, E. E. Gardner, James P. Garrett, Mrs. Philip C. Gifford, Harold Gilbert, H. K. Gilman, Miss C. T. Glessner, John J. Glover, Chas. C. Godfrey, Mrs. W. H. K. Goodloe, Mrs. Hart Gordon, Mrs. Donald Greene, Arthur Duncan Grew, Joseph C. Gustine, John S., Jr.

Haass, Lillian Henkel Halbach, Howard L. Hamann, Dr. C. A. Hannum, William E. Harding, Emor H. Hare.

Dr. Hobart Amory Harriman, Mrs. J. Low Harris, Geo. B. Harris, Geo. W. Mrs. A. Wentworth Harrison,

> Mrs. Charles C., Jr. Harrison,

Thomas Skelton Harvey, Dr. Robert H. Hasbrouck, Mrs. H. C. Hazard, Mrs. John N. Hecker, Frank J. Henry, Howard H. Higgins, Harry E. Hill, Wm. Bancroft

Hinchman,

Mrs. Charles S. Lodge, F. S. Hirst, Dr. John C. Holcomb, James W. Holden, Guerdon S. Hooper, Miss I. R. Horsfall, R. Bruce Howland, C. H., D.D.S. Lowell, James A. Hoyt, Edwin Hubbard, Lucius L. Hutchinson,

Hutchinson, Mahlon

Iddings,

Ingersoll, Dr. J. M. Irish, Franklin C.

James, George Abbot Jenness, Chas. G. Jewett, E. H. Jones, Livingston E. Justice, Theodore

Keep, Chauncey Kellogg, Mrs. R. S. Kimball, Benjamin Kimball, Walter F. Krohn, Irwin M.

Lane, H. H. Laughlin,

Mrs. Geo. M., Jr. Neeb, H. A. Lawrence.

Lee, Mrs. George B. Lee, George C. Leiter, Joseph Lemly, Capt. Henry

Le Moyne, Francis J. Leverett, Geo. V. Little, Arthur D. Livingood, Chas. J. Livingston,

Lloyd, John Uri Logan, Frank G. Loring, Lindsley Lovejoy, F. W. Lowe,

Mrs. Josephine D. Lyman, Henry F.

Macnamara, Charles John Palmer Malcom, Mrs. Arthur Manierre, George Marlatt, Charles Lester Martin, Frank G. George S., M.D. Martin, Wm. Barriss Mason, Dean Masson, John G. McGregor, Tracy W. McKay, Robt. J. McLachlin, Dan. Mercer, William R. Mershon, Wm. B.

> Mrs. Albert A. Milligan, Dr. Robert Mills, Enos Mitchell, Walter S. Monroe, William S. Morris, F. W., Jr. Morris, Miss Lydia T. Scott, Wm. G. Musgrave, M. E.

Michelson,

Neely, Miss C. B. Mrs. Annie W. Nettleton, Charles H. Newcomb, C. A., Jr. Newcomb, William W. Newman, Mrs. R. A.

Rowan, U.S.A. Oliver, Nelson E., M.D. Slaven, Ralph E. Olmsted, John C. O'Neill, Edwin F.

Pabst, Mrs. Frederick Painter, Kenyon V. Archibald R. Pardee, Lucius C., M.D. Swan, Mrs. J. Andrews

Parke, W. G. Parker, Mrs. Robert Pellew, Miss Marion J. Perkins, F. Curtis, Jr. Perry, Thomas S. Phillips,

Ebenezer Sanborn Platt, Mrs. Orville H. Porter, James F.

Raymond, Dr. Alfred Rebmann,

G. Ruhland, Jr. Redwood, Mrs. Francis Tazewell Remington, Seth P. Reynolds, John P. Rice, Prof. Wm. North Ricketson, Walton Roberts,

Thos. S., M.D. Rogers, Wm. B. Roloson, Walter L. Rothwell, J. E. Ruggles,

Mrs. T. Edwin Russell, B. F. W.

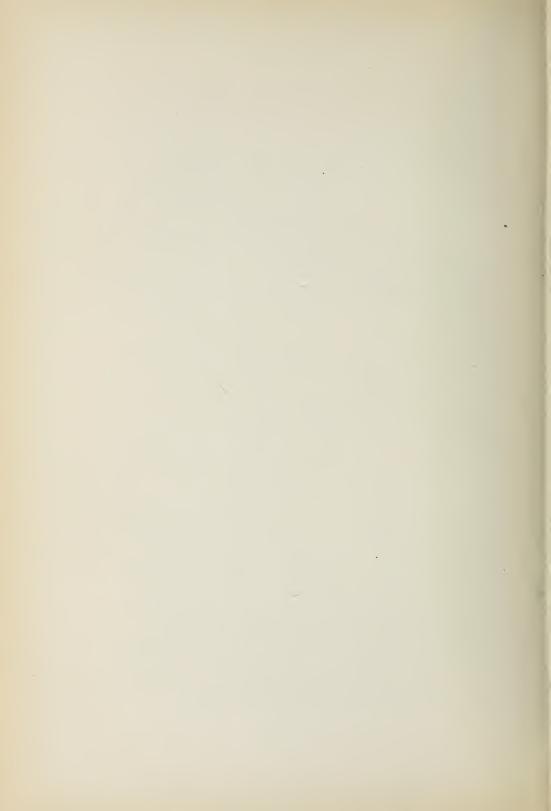
Sarmiento, Mrs. F. J. Shattuck,

Frederick C., M.D. Sheldon, Mrs. G. W. Sherman.

Miss Althea R. Sibley,

Mrs. Rufus Adams Simons, W. C. Slater, H. N. Slocum, William H. Sprague, A. A., 2d Stevens, Henry G. Stuart, Henry Clifford Sturgis, S. Warren

Sweeney, John E.	Wadsworth, Samuel	Whitney, David C.
Sweet, Henry N.	Walker, Sir Edmund	Whitney, Hammond M.
	Walker, Miss Lydia M.	Will, George F.
Tate, J. M., Jr.	Wallace, Herbert I.	Willey, Arthur
Thayer, John E.	Warren, George C.	Williams, David W.
Thayer, Mrs. W. B.	Warren, Dr. J. Collins	Willock, Harry H.
Ticknor,	Watson, Thomas A.	Willock, J. Scott
Mrs. Howard M.	Webb, Walter F.	Wood, Dr. Casey A.
Todd, James	Webster,	Wood, Mrs. Richard L.
Townshend, Henry H.	Harrison B., M.D.	Woodward,
	Wehrle, Augustine T.	Lemuel Fox
Uihlein, Edgar J.	Weld, Elizabeth F.	Woodwell, John
	Wheatland, Richard	Wright, A. B.
Vaillant, G. W.	Wheeler, H. C.	Wright,
Van Devanter, Willis	Wheeler, Samuel H.	Mrs. Eva Edgar
Van Dyke, B. Franklin	White, Dr. Charles J.	Wright,
Vibert, Charles W.	White, Walter W., M.D.	Miss Harriet H.



# LIST OF ACCESSIONS, 1917

# DEPARTMENT OF PUBLIC EDUCATION

## By GIFT

WALTER L. BEASLEY, New York City.

I Negative of an Emerald, I Negative of South African Ostrich.

Miss Gladys Bridges, New Rochelle, N. Y.

Robin, Yellow Warbler and Kingbird in flesh.

Miss Laura B. Broomall, Far Rockaway, N. Y.

Olive-backed Thrush, Maryland Yellowthroat, Purple Grackle, and Ovenbird in the flesh, Long Island.

ALBERT E. BUTLER, Denver, Colo.

Lumière plate, 52 negatives, and 66
lantern slides of natural history
subjects.

E. P. CLARK, New York City. 25 Mounted birds.

DEPARTMENT OF ORNITHOLOGY, Transfer. Hermit Thrush in the flesh.

RAYMOND L. DITMARS, Bronx Park, N. Y. C.

1,000 Feet of motion picture film showing Anthropoid Apes and Equines.

Alessandro Faberi, New York City. 5,000 Feet of motion picture film representing microscopic life, marine views, embryology and hatching of chick, and formation of crystals

A. G. N. Fowler, New York City.

I Young Screech Owl in the flesh,
New York.

F. S. R. HALSTROM, Belton, Mont.
6 Photographs of Porcupine and
Mountain Sheep.

Mrs. Hine, South Britain, Conn. Nests of Towhee and Red-eyed Vireo.

Mrs. C. R. Lamb, New York City. Boer Trekking-cart (model).

Mrs. William C. Lobenstine, New York City.

180 Specimens of minerals and rocks, 10 shells.

C. K. MacFadden, New York City. Set of 35 South American Photographs, Colombia.

Miss Alice B. Mackey, Cedarhurst, L. I. Black-billed Cuckoo in flesh.

N. Y. Botanical Garden, Bronx, N. Y. C. 2 Gray Squirrels in the flesh.

Miss H. E. Ripley, New York City. Pigeon in the flesh, New York City.

Louis C. de Rochemont, Worcester, Mass.

50 Feet of positive motion picture film.

DR. FRANK SKEEL, New York City. 81 Bird skins, New York City.

HARRY S. TRULL, New York City. Junco in flesh, New York City.

J. E. WADE, New York City. Starling in flesh, New York City.

T. C. Warren, Arverne, L. I.
Fox Sparrow, Slate-colored Junco,
Golden-crowned Kinglet, Hermit
Thrush in the flesh.

#### By Purchase

245 Negatives made in Nicaragua by Clarence R. Halter and L. Alfred Mannhardt.

500 Feet of motion picture film of Minnesota bird life, made by Dr. Thomas S. Roberts, University of Minnesota.

4,500 Feet of positive motion picture film entitled "How Life Begins," made by George E. Stone, University of California.

# THROUGH MUSEUM EXPEDITIONS

CROCKER LAND EXPEDITION.
3,500 Negatives, 12,000 feet negative motion picture film.

ASIATIC ZOÖLOGICAL EXPEDITION. 322 Negatives, 128 Paget color plates, 10,000 feet negative motion picture film.

# DEPARTMENT OF GEOLOGY AND INVERTEBRATE PALÆONTOLOGY

#### By GIFT

Barnum Brown, New York City. 300 Specimens of Cretaceous invertebrates, Alberta and northern Montana.

Joseph Dunleavy, Boston, Mass. Specimen of *Paradoxides Harlani* from Braintree Slates, Mid-Cambrian.

J. J. Galloway, New York City. 50 Specimens of Bryozoans.

Georgia Marble Co., Tate, Georgia. 6 Samples of marble, Tate.

John D. Haseman, New York City. 18 Specimens of silicified wood, corals and conglomerate from Piauhy, Brazil.

W. L. HILDBURGH, New York City.
Miscellaneous fossil invertebrates,
mostly from Hamilton group.

Albert Johnson, Wabasso, Minn. I Specimen petrified wood.

Miss A. I. Jonas, Bridgeton, N. J. 7 Specimens of Triassic and Pre-Cambrian rock, Pennsylvania.

Horace Krncsik, New York City.

4 Gryphæa valves, spherical pebble,
Cerro Lotena, Nenquen Territory,
Argentina.

Mrs. H. W. Leitch, New York City. 20 Microscopic sections of corals, mounted.

Leo E. MILLER, New York City.
3 Fragments of *Dalmanites* (Devonian), near La Paz, Bolivia.

N. C. Nelson, New York City.
3 Heteroceras specimens, Cimarron,
N. Mex.

H. J. SPINDEN, New York City. Specimen of *Trigonia* sp., Plains of Barquisimeto, Venezuela.

### By Purchase

The "G. K. Greene Collection," comprising about 400,000 specimens of fossils (Bryozoa, Crinoids, Brachiopods, Gastropods, Trilobites and corals) and Indian relics, mainly Falls of the Ohio.

The "W. J. McConathy Collection," comprising upwards of 7,000 specimens of fossil corals, Crinoids, Brachiopods, Bryozoa, Stromatoporoids, etc., Falls of the Ohio.

193 Species, 1,024 specimens of Tertiary(?) fossils, Santo Domingo.

153 Specimens of fossil insects, Florissant, Colo.

275 Specimens of amber containing insects, southern shore Baltic Sea.

Cystoid, Bryozoan and 4 Meristellas, Buffalo, N. Y.

Specimen of Eusarcus, Kokomo, Ind. Specimen of Pentacrinus briareus Miller, Lyme Regis, England.

Specimen of calcareous tufa, Yellowstone Park, Wyoming.

150 hand-size specimens of New York State rocks.

Lava of 1888 eruption, Bandai San, Japan; 2 pieces of petrified wood, Virginia.

70-pound mass of Telluric Iron, Ovifak, Disko Island, Greenland.

3 Specimens, 4,004 grams, of aërolite "Plainview," Texas; I fragment of aërolite, 140 grams, Scott City, Kansas; I slice of siderite, 294 grams, Cookville, Tenn.

Model of a portion of the Grand Canyon of the Colorado River, including the "Alligator" and "Dana Butte" features.

### THROUGH MUSEUM EXPEDITION

I Siderite "Akpohon," 1,660 grams, east coast of Ellesmere Land. Collected by an Eskimo, transmitted by W. Elmer Ekblaw.

90 Rock specimens, Parker Snow Bay and vicinity, Greenland. Collected by E. O. Hovey.

#### DEPARTMENT OF MINERALOGY

#### By GIFT

FREDERICK I. ALLEN, New York City.
Specimen of Wernerite, Hardiston,
N. J.

R. H. Beck, New York City.

Specimen of Chalcopyrite in chloritic slate, island near Cape Horn.

- H. C. Bellow, Quebec, Canada. Specimen Red Calcite, Molybdenite, Ontario, Canada.
- R. Broadbent, New York City.
  Specimens of Garnet, McDonald
  Range, South Australia.
- Barnum Brown, New York City.

  Miscellaneous specimens of Calcites illustrating mineral phases of the beds in Blackfoot Indian Reservation, Montana; 2 specimens of Limonite from Lower Eocene Bad Lands, near Powell, Wyo.
- Louis Browne, New York City. Specimen of Serpentine (Chrysotile), Warren County, N. Y.
- MATILDA W. BRUCE FUND. 70 Specimens of minerals.
- Louis Brunet, New York City.
  2 Specimens of Halite, Cardona,
  Spain.
- James Douglas, New York City.
  Specimen limestone replacement, with
  copper ore, containing fossils, from
  the Copper Queen Mine, Bisbee,
  Ariz.
- Henry Fair, Spokane, Wash.

  7 Specimens of Sphærosiderite on
  Diabase with Hyalite and Chalcedony, Spokane.
- HENRY FLEMING, New York City.

  12 Specimens of Rosin, Washoe,
  Mont.
- EDWARD J. FOYLES, New York City. Specimen of Magnetite in Serpentine, Blue Mine, Pompton, N. J.
- Samuel G. Gordon, Philadelphia, Pa. I Specimen Actinolite, Pa., Calcite variety Argentine, Pa., Calcite variety Argentine, Va.
- A. C. HAWKINS, Bartlesville, Oklahoma. Specimen of Dolomite, Osage County, Okla.
- CHARLES W. HOADLEY, Englewood, N. J. Specimen of Red Feldspar with Graphite, Cornwall, Conn.
- FREDERICK F. HUNT, New York City.
  2 Specimens of Fava (Zirconium Oxide) from Brazil.
- ESPER S. LARSEN, Washington, D. C.
  Specimen of Griffithite from Griffith
  Park, Los Angeles, Cal.; specimen
  Lorettoite from Loretto, Tenn.

- SIMERON LEDERER, New York City.
  Large specimen of Tin Ore (Cassiterite) with Tungsten Ore (Hubnerite), Cowboy Mine, Hell City, Black Hills, S. Dak.
- Mrs. S. L. Nolan, New York City. Specimen of Pyrite from Jermyn, Pa.
- H. Papke, West Hoboken, N. J. Specimen of Prehnite (pseudomorphous), Paterson, N. J.
- Mrs. E. B. Peters, Brooklyn, N. Y. Vial of shore sand composed of Magnetite, Garnet and Quartz.
- HENRY M. RAU, New York City.
  Specimen Vanadium Pentoxide, fused and crystallized.
- J. H. ROTTKAMP, New York City.
  Specimen of Magnetite, Orange Co.,
  N. J.; specimen of Molybdenite,
  Tunk Pond, Me.
- Justus Rupert, New York City.

  Large specimen of Tungsten Ore
  (Wolframite), San Antonio, Bolivia.
- W. T. Schaller, Washington, D. C. Glauberite cavity, Dollington, Pa.
- GEORGE S. SCOTT, New York City.
  2 Specimens of Native Copper,
  Houghton, Mich.
- GEORGE O. SIMMONS, Brooklyn, N. Y. Specimen Galenite, Ani Ugo, Japan; specimen Manganite, Owani Fomori Keu, Japan.
- JOHN G. TAIT, New York City.
  6 Specimens of Peat from Colonial
  Park, N. Y. C.; bottle of Penol Coal
  Tar.
- GEORGE O. WILDE, New York City.
  Specimen of Black Tourmaline, Born
  Jesus da Carahy, Minas Geraes,
  Brazil; 6 specimens Aquamarine,
  Marambaya, Minas Geraes, Brazil;
  specimen Emerald found near Born
  Jesus das Meias, Bahia; specimens
  of Aquamarine, Emerald, Tourmaline and Associated Cyanite, Hematite, Lepidolite, Garnet and Quartz.

#### By Exchange

- M. L. GLENN, New York City.6 Specimens of Alunogen from Slates at Erie, Pa.
- H. PAPKE, West Hoboken, N. J. Calcite crystal, West Paterson, N. J.

Albert H. Petereit, New York City.
Specimen Chrysoprase, Porterville,
Lower California; Natrolite on
Prehnite, Paterson, N. J.; Orthoclase, Minerva, N. Y.; Variscite,
Lucin, Utah.

GEORGE S. Scott, New York City. Specimen of Orthoclase, Mystic, Conn.

#### By Purchase

- I Large Apophyllite, Poonah, India.
- I Specimen Borax, Synthetic.
- I Specimen Calcite, Stalactite Core.
- I Specimen Calcite with Sphalerite, Joplin, Missouri.
- I Specimen Calcite with Galena, England.
- I Specimen Chabazite, West Paterson, N. J.
- 1 Specimen Cuprite, Nevada.
- I Specimen Chalcanthite, Synthetic.
- I Specimen Chrysoprase, Porterville, Cal.
- I Specimen Creedite, near Wagon Wheel Gap, Colo.
- 3 Specimens Fluorite crystals, single, Durham, England.
- I Specimen Halite, Cardona, Spain.
- I Specimen Halite, Stassfurt, Prussia.
- I Specimen Kaemmererite, near Murphys, Cal.
- 5 Specimens Magnesite, Hoboken, N. J.
- I Large specimen of Mountain Leather, Korea.
- I Specimen Natrolite and Thompsonite, West Paterson, N. J.
- 4 Specimens Opalized Shells, Cretaceous, South Australia.
- I Specimen Pollucite, Buckfield, Me.
- 2 Specimens Prehnite, West Paterson, N. J.
- I Specimen Pyromorphite and Cerussite, Scotland.
- I Specimen Pyrite, Pribram.
- 3 Specimens Stevensite, West Paterson, N. J.
- I Specimen Siderite, Cryolite, Greenland.
- I Specimen Tourmaline, Alaska.

I Specimen of Antimony, largest mass known, Kern County, Cal.

# DEPARTMENT OF WOODS AND FORESTRY

#### By GIFT

Mrs. Horde, New York City.

Spray of Magnolia grandiflora with flowers and leaves of record size for reproduction in wax.

WAYNE M. MUSGRAVE, New York City. Cone of *Pinus coulteri*, 4 cones of *Pinus lambertiana*, from near Mariposa Grove, California.

## By Purchase

91 Photographs of trees.

# DEPARTMENT OF INVERTE-BRATE ZOÖLOGY

#### INVERTEBRATES

## By GIFT

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, Philadelphia, Pa. 2 Metatypes of Pamphila yehl Skin-

2 Metatypes of Pamphila yehl Skinner, Nashville, Tenn., 2 Pamphila aaroni, 2 Pamphila taxiles, 2 Pamphila deva, United States.

J. ALEXANDER, New York City.
Parasitized larva of Sphecodina abboti.

Mrs. E. Magawley Banon, New York City.

Sea Plume, Island of Santo Domingo.

H. G. BARBER, Roselle Park, N. J. Various insects, New York and New Jersey.

WILLIAM BARNES, Decatur, Ill. 25 Lepidoptera, including 7 Paratypes.

LINDELL T. BATES, New York City. Oyster, Hoboken, N. J.

- C. WILLIAM BEEBE, New York City. 4 Crustacea, Georgetown, British Guiana.
- E. L. Bell, Flushing, L. I.
  About 500 Lepidoptera and Coleoptera, including larvæ and pupæ, New York, New Jersey and Florida.
- J. BEQUAERT, New York City. Various invertebrates, including insects.

- Sydney Bevin, Elmhurst, N. Y. 2 Lepidoptera from Cuba and Panama.
- HENRY BIRD, Rye, N. Y.
  Paratype of *Papaipema eryngii* Bird,
  Chicago, Ill.
- Louis Boury, New York City.
  Smith and Beck microscope, box of mounted specimens and miscellaneous microscopic objects.
- Howarth S. Boyle, New York City. About 30 insects, Colombia.
- ROGER L. BRIDGEMAN, Friant, Madera Co., Cal. 745 Insects, etc., California.
- BARNUM BROWN, New York City. 20 Spiders and insects, Cuba.
- GORDON D. BROWNE, New York City. About 400 insects (various orders), Carthagena, Porto Colombia and Santa Marta, Colombia.
- J. W. Brownlee, Yukon, Canada. Sphinx moth, Yukon, Canada.
- Отто Виснности, Elizabeth, N. J. 8 Noctuids, North America.
- GARY N. CALKINS, New York City.
  3 Microphotographs illustrating maturation divisions of Paramecium caudatum.
- B. Preston Clark, Boston, Mass. 243 Lepidoptera, North and South America, Bahamas, Santo Domingo.
- T. D. A. Cockerell, Boulder, Colo. 40 Hymenoptera, 2 cotypes.
- L. V. COLEMAN, New Haven, Conn. 7 Hesperiidæ, Woods Hole, Mass.
- CORNELL UNIVERSITY, Ithaca, N. Y. 12 Moths, Ithaca.
- R. T. COTTON, Rio Piedras, Porto Rico. 2 Weevils, Rio Piedras.
- M. D. C. Crawford, Washington, D. C. 8 Parasites.
- Mrs. P. H. Davis, Rye, N. Y. 52 Lepidoptera, Java.
- WM. T. DAVIS, New Brighton, S. I. 20 Moths, Florida.
- R. P. Dow, Brooklyn, N. Y.

  Cicindela anita, 2 types; Cicindela

  marutha, 2 types; Cicindela ancisconensis var. dowiana, 2 cotypes; Trogosita virescens var. nyenta, 1 type.

- Carl J. Drake, Syracuse, N. Y. 67 Hymenoptera; 9 Heteroptera, including 7 paratypes.
- H. E. EWING, Ames, Iowa.26 Cotypes, I paratype, I autotype of mites on microscopic slides.
- George H. Field, San Diego, Cal. Hesperid, Imperial County, Cal.
- G. CLYDE FISHER, New York City. 15 Sphinx larvæ and parasites, New Rochelle, N. Y.
- Spencer Franklin, New York City. Lantern fly, Abangarez, Gold Fields, Puntarenas, Costa Rica.
- CHARLES GRAMET, New York City.
  2 Jars of chordates and mollusks.
- George C. Griffiths, Bristol, England. Blown larva of Euschæmon rafflesiæ; colored sketch of larva of Euschæmon rafflesiæ; colored sketch of pupa of Euschæmon rafflesiæ, from Old World tropics.
- GAYLORD C. HALL, New York City. Sphinx moth, Cuba.
- CLARENCE R. HALTER and L. ALFRED MANNHARDT, New York City.
  2 Spiders, 1 scorpion, 1 insect, Nicaragua.
- CLARENCE R. HALTER, New York City. 34 Lepidoptera, tropical America.
- EDWARD D. HARRIS, New York City. 96 Specimens of exotic Cicindelinæ from the Fuchs Collection.
- DEPARTMENT OF HERPETOLOGY, Transfer. 3 Specimens of *Apus*, Mukden, Manchuria.
- E. SEYMOUR HERSEY, New York City. I Beetle, Cuba.
- Mrs. M. Hiddinta, New York City. 7 Pieces of Coral.
- John Hiscox, New York City. I Deformed Lobster claw.
- Frederick F. Hunt, New York City.
  9 Barnacles (*Chelombia testudinaria*),
  Boca Grande Pass, Florida.
- Department of Ichthyology, Transfer. 2 Crayfish, South Haven, Mich.
- C. R. Kellogg, Foochow, Fukien Province, China.550 Insects, China.

H. P. A. KJERSKOG-AGERSBORG, Staple-

ton, S. I.

3 Jars of Littorina litorea and Purpura lapillus, 3 specimens of Polynices lewisi, and 3 specimens of Aurelia sp., Washington Channel, Puget Sound and various localities in Norway.

Mrs. John B. Knapp, New York City. Collection of insects, chiefly Lepidoptera, about 1,600 specimens and accessories.

Frederick Lemmer, Irvington, N. J. 6 Noctuidæ, New Jersey.

C. W. Leng, New York City. 181 Tiger Beetles, Keene Valley, Essex Co., N. Y., 19 Carabidæ, Chile.

Mrs. C. W. Lipsey, Blanton, Fla. I Whip-tail Scorpion, Blanton.

G. A. MacCallum, New York City. Various parasitic worms, Woods Hole, Mass., and N. Y. Zoölogical Park.

Walter C. Mathias, Portland, Ore. 87 Insects, various orders, Oregon.

Leo E. Miller, New York City. 302 Lepidoptera, Colombia.

W. DEW. MILLER, New York City. 27 Insects, Nicaragua.

Frederick Muir, Honolulu. 28 Homoptera.

Howard Notman, Brooklyn, N. Y. 220 Insects and 143 vials of spiders and myriapods, Adirondack Mts., N. Y.

CHRIS E. OLSEN, New York City. 130 Coleoptera, Denmark.

DEPARTMENT OF ORNITHOLOGY, Transfer. 26 Coleoptera, near Mt. Chimborazo, Ecuador.

RAYMOND C. OSBURN, Columbus, Ohio. Collection of Bryozoa, various localities; specimen of Salpa vagina, Matinicus I., Maine.

R. Ottolengui, New York City. 5 Lepidoptera, North America.

L. S. QUACKENBUSH, New York City. 234 Jars of invertebrates.

CHAS. T. RAMSDEN, Guantanamo, Cuba. 51 Coleoptera, Guantanamo.

CHARLES H. ROGERS, New York City.
I Clam shell, eaten by boring sponge,
Cliona sulphurea, Long Beach, N.Y.

L. C. Sanford, New Haven, Conn.

16 Specimens (eggs and larvæ) of

Hyloicus gordius Cramer, Westerly,
R. I.

Charles O. Schoof, Brooklyn, N. Y. 2 Annulates.

ERNEST SHOEMAKER, Brooklyn, N. Y.

2 Beetles, 1 butterfly, Adirondack
Mts., N. Y., and Maine; 4 butterflies, Virginia.

THOMAS E. SNYDER, Washington, D. C. 2 Chrysobothris impressa, Miami

Beach, Florida.

Henry Thurston, New York City. 198 Lepidoptera and I Cicada, American tropics; 300 insects, various orders, Florida.

V. TILLIET, New York City. 23 Beetles, France.

UNITED STATES NATIONAL MUSEUM, Washington, D. C.

94 Lepidoptera (named), 310 specimens of Bees, representing 226 species.

WILLARD G. VAN NAME, New York City.
9 Pupæ of Macronoctua onusta, 5
larval workings and larvæ of noctuid moth, New Haven, Conn.; 41
vials of other invertebrates (largely ascidians), Florida.

R. H. VAN ZWALUWENBURG, Mayaguez, Porto Rico.

5 Slugs, Porto Rico.

Frank E. Watson, New York City. 400 Insects, chiefly Lepidoptera, vicinity of New York City.

HARRY B. WEISS, New Brunswick, N. J.
11 Papilio japonica, 1 Eucactophagus
weissi, 1 Acythopeus gilvonotatus,
New Jersey.

Lewis B. Woodruff, New York City. 22 Odonata.

W. S. Wright, San Diego, Cal. 968 Insects, California.

CHARLES WUNDER, New York City. About 300 insects (mostly exotic).

#### By Exchange

Durban Museum, Natal, Africa. 143 Lepidoptera, 301 insects of other orders, Africa.

A. M. GAUDIN, New York City. 27 Coleoptera.

HARRY L. JOHNSON, South Meriden, Conn.

2 Coleoptera (Badister maculatus and Coccinella 14-guttata), England.

### By Purchase

137 Beetles, Dunedin, Fla.

49 Insects, Salino Basin, near Tucson, Ariz.

Specimen of Dorippe japonica von Siebold, 3 models of parasitic worms, 4 insect groups and sets, 4 insect models, Japan. (Through Professor Bashford Dean.)

Series of models illustrating development of echinoderm and model of Lithobius.

52 Lepidoptera from various localities.

26 Mounted spider webs.

28 Insects, 9 Crustacea and other invertebrates, Yunnan-fu, West China.

Collection of 52 marine invertebrates, Woods Hole, Mass., Eastport. Maine, and West Indies.

14 Japanese corals, Tosa, Shikoku, Japan.

# THROUGH MUSEUM EXPEDITIONS

Collection of invertebrates, arctic regions. Collected by Crocker Land Expedition.

2 Jars of Crustacea, Nicaragua; 2 Myriapods, Sabaneta, Dominica. Collected by Clarence R. Halter.

157 Vials of invertebrates, including annulates, myriapods, crustaceans and mollusks. Collected by F. E. Lutz.

Marine invertebrates and algæ, Woods Hole, Mass. Collected by Roy W. Miner.

#### MOLLUSKS

# By GIFT

H. G. BARBEY, New York City. 4 Specimens of Planorbis multivolvis, from Huron Mt., Marquette Co., Mich.

BARNUM BROWN, New York City. 87 Specimens of Land Shells, Cuba; fragments of shells from well 2,500 feet deep, 40 miles west of New Orleans. (Terebra, Turitella, Cardium, Ostrea, etc.)

GEORGE CHAMBERLAIN, New York City. 1 Oyster (Ostrea virginica), Fairfield Beach, Conn.

E. D. CRABB, Fort Worth, Tex.

44 Specimens of Bulimulus dealbatus (B. alternatus), var. mooreanus and patriarcha. Camp Bowie, Fort Worth.

Alfred Gale, Troy, N. Y. 1 Shell Basket, Central America.

Mrs. M. Hiddinta, New York City. 32 Specimens of miscellaneous shells.

Y. Hirase, Japan. Shell-rose, petals made of Anomia shells.

Mrs. A. H. Janes, Brooklyn, N. Y. 14 Specimens of miscellaneous species of shells.

MISS EDITH KUNZ, New Brighton, S. I.
2 Specimens of Cantharus tincta, 3
Egg-sacs of Melongena corona, Florida.

HERBERT LOWE, Long Beach, Cal.
2 Capsules of Truncatella californica, from San Diego Bay, Cal.

McKee & Bliven Button Co., Muscatine, Iowa.

Perforated button shells (24 blanks, 24 buttons and 6 shells).

Mrs. E. B. Peters, Brooklyn, N. Y. 42 Specimens of Marine shells.

MAXWELL SMITH, Scarsdale, N. Y. 8 Specimens of Oreohelix haydeni betheli, Glenwood Springs, Colo.

Fred Tableman, Newark, N. J.
4 Specimens of Strombus urecus, from Zanzibar.

Henry Thurston, New York City.
2 Specimens of *Crepidula fornicata*,
found on back of horseshoe crab, Fire Island.

W. H. WEEKS, Brooklyn, N. Y. I Pecten irradians, from Northport, N. Y., I specimen Boreotrophon tenuisculptus, 2 C. variegatum, 2 Chrysodomus liratus, 6 Nucula cartranse, 3 Pandora filosa, 1 Tritoni-fusus jordani, 7 V. ointrecosa, 3 Yoldia scessurata, 3 Y. amydalea.

## By Purchase

6 Argonauta hians, showing animal and shell; 6 Inioteuthis morsei, Misaki; 1 Jar containing the development of Loligo membranaceus, showing stages and embryo; 2 Argonauta hians beyrichi, with animal, Japan; 3 Argonauta oweni.

6 Specimens of Paludina melanoides, 8 specimens Tulotoma, 3 species, 26 specimens of Melamas, 8 specimens of Lymnæa suimhæi, China.

70 Specimens Japanese shell-work, useful, artistic, and toys.

I Voluta irvingi from West Australia; I Voluta kingi from Tasmania; I Voluta roadnightæ from Victoria, Australia.

3 Shell Necklaces (aboriginal), Tasmania; 3 shell Baskets from the Bahama Islands.

# By Exchange

MAXWELL SMITH, Scarsdale, N. Y.
About 150 specimens of Land shells
from North America, fully localized
and named, including Oreohelix,
Ashmunella, Polygyra, Planorbis.

W. H. WEEKS, Brooklyn, N. Y. Large *Voluta roadnightæ*, South Australia; series of Marine shells, numbering 402 specimens.

# DEPARTMENT OF ICHTHYOLOGY AND HERPETOLOGY

#### FISHES

# By GIFT

W. L. Brind, New York City.
11 Foreign aquarium fishes.

Barnum Brown, New York City. 30 Pœciliid fishes, Banos de Ciego Montero, 30 kilometers west of Cienfuegos, Cuba.

Russell J. Coles, Danville, Va. Set of Whip-ray teeth.

OTTO DEGENER, New York City.

1 Boleosoma nigrum (Darter), Bergen Co., N. J.

H. Hauft, Jr., South Haven, Mich.

15 Small fishes, 10 Silver-sided Minnows (Notropis atherinoides),

South Haven, Mich.

R. G. HAZARD, Peace Dale, R. I. Lophius jaw, Pt. Judith, R. I.

ROY LATHAM, Orient, L. I. 43 Long Island fishes, Orient, L. I.

A. LORD, New York City.

I Spiny Dogfish (Squalus acanthias),
Hudson River.

WILLIAM MACK, New York City.
Five fancy Goldfish (Carassius au-

Leo E. Miller, New York City.
12 Fragments of Characin dentition,
San Juan River, Colombia.

ROBERT C. MURPHY, Brooklyn, N. Y.
Young Chætodon ocellatus, Long
Beach, N. Y.

New York Aquarium, New York City.

1 New fish, to be called Eques granti,
Key West, Fla.

HENRY THURSTON, New York City.

Prionotus strigatus skeleton, Ocean
Beach, L. I.

Young Scad in alcohol, skeletons of

Young Scad in alcohol, skeletons of Silver Hake and Sea Robin, Fire Island Beach, N. Y.

H. S. TRULL, New York City.
Balanced aquarium containing one
Girardinus guppii.

United States Bureau of Fisheries, Washington, D. C. 25 Sculpins, Myoxocephalus, Maine.

# By Purchase

- II Specimens of fish bearing nodules, from the Waverly of Junction City, Boone Co., Ky.
- 2 Catfish, 60 fresh-water fishes and 10 cyprinid fishes, Yunnan-fu, China.
- Several fishes from Japan, purchased by Dr. Dean.

#### THROUGH MUSEUM EXPEDITIONS

- I Bottle of Sleeper-shark oil. Collected by W. Elmer Ekblaw, Crocker Land Expedition.
- 5 Shark jaws and 50 small fishes, including one undescribed *Gobiesox*, Florida Keys. Collected by J. T. Nichols.
- 35 Fishes from Fu-kien Province, China, including 2 new species. Collected by Roy C. Andrews.

#### AMPHIBIANS AND REPTILES

#### By GIFT

Roswell Baerman, New York City. I Milk-snake, Cold Spring, N. Y.

C. WILLIAM BEEBE, Bronx, N. Y. 5 Marine toads, 1 lizard and 3 snakes, Kalacoon, British Guiana.

JEAN BEQUAERT, New York City. I Lizard and I snake, Ft. Beni, Belgian Congo.

FREDERICK BLASCHKE, New York City. I Milk-snake, Cold Spring, N. Y.

BARNUM BROWN, New York City. I Lizard, Havana, Cuba; I salamander, I garter snake, Montana.

EDWARD BURNS, Nicaragua, C. A. I Cœcilian, I salamander, 6 snakes, Nicaragua.

CHARLES L. CAMP, New York City. 64 Salamanders, Napa, Cal.

R. D. CAMP, Brownsville, Texas.

I Frog, 4 turtles, 53 lizards, I snake, Padre Island and Brownsville, Texas.

SR. DIOCLECIANO CHAVES, Managua, Nicaragua, C. A.

3 Lizards, Nicaragua, C. A.

Morton L. Church, Marshall, N. C. II Toads, 8 frogs, 31 salamanders, 12 turtles, 2 lizards, 3 snakes, Marshall, N. C.

M. L. CRIMMINS, Fort Bliss, Texas. I Lizard, Fort Bliss.

JOHN DEMING, Redding, Conn. I Milk-snake, Redding.

D. K. Donovan, New York City. I Alligator head, Florida.

Mrs. Walter Douglas, New York City. I Lizard, Bisbee, Ariz.

WILLIAM A. ENGE, Santo Domingo,

I Rainbow boa, Santo Domingo. Fritz Fagot, Nicaragua, C. A. 5 Snakes, Big Falls, Nicaragua.

G. CLYDE FISHER, New York City. 2 Dusky salamanders, Slabsides, near

West Park, N. Y. Jas. Knox Hagar, San Jacinto, Cal. 3 Snakes, San Jacinto.

HERMAN HAUPT, JR., South Haven, Mich.

7 Toads, 2 frogs, I turtle, 2 snakes, South Haven.

A. B. Howell, Covina, California. I Western ring-necked snake, Covina.

DEPARTMENT OF ICHTHYOLOGY, Transfer. I Giant salamander, I sea snake, I burrowing snake, Japan.

DEPARTMENT OF INVERTEBRATE ZOÖLOGY, Transfer.

I Frog, Massachusetts; I frog, 2 burrowing snakes, West Indies.

R. D. O. Johnson, Phænix, Ariz. I Toad, 5 turtles, 19 lizards and 3 snakes, Phœnix.

CHARLES LANG, New York City. 2 Water snakes, Ashokan Dam, N. Y.

Mrs. W. H. Long, New Haven, Conn. I Painted turtle, New Haven, Conn.

F. A. Lucas, New York City.

X-Ray picture of a diamond-back rattlesnake, secured from Southern United States.

G. A. McCallum, New York City. I Lizard, Buitenzorg, Java.

Norman McInnis, Nicaragua, C. A. I Lizard and 4 snakes, Banbana River, Nicaragua.

LEO E. MILLER, New York City.

I Toad, 4 frogs, Colombia, and I lizard, Bolivia.

MUSEUM OF COMPARATIVE ZOÖLOGY, Cambridge, Mass.

1 Sea snake, Panama.

WILLIAM MYERS, New York City. I Alligator, Jacksonville, Florida.

NEW YORK AQUARIUM, New York City. I Salamander, I turtle, 3 alligators and I alligator's head, United States.

NEW YORK ZOÖLOGICAL SOCIETY, New

York City.

15 Snakes, New York; 11 snakes, South Carolina; 3 turtles, 3 snakes, Florida; 1 snake, Connecticut; 1 turtle, I snake, Louisiana; 2 snakes, Arizona; 9 snakes, Texas; 1 snake, California; 4 lizards, 4 snakes, West Indies; 22 snakes, Central America; I crocodile, 3 lizards, 3 snakes, South America; 3 turtles, 11 lizards, 15 snakes, Australia; 10 turtles, 1 crocodile, 6 lizards, 28 snakes, Africa; 4 lizards, 6 snakes, doubtful localities.

JOHN T. NICHOLS, New York City. I Turtle, Miami, Fla.

A. M. Nicholson, Orlando, Florida. 9 Blacksnake eggs, Orlando.

M. NISHIMURA, New York City.
15 Frogs, 5 salamanders, 3 turtles, 5 lizards and 8 snakes, Manchuria.

PHILIP H. POPE, Manchester, Maine. 11 Frogs, Eustis, Maine.

L. S. Quackenbush, New York City. 7 Frogs, 16 salamander larvæ, 3 turtles and 1 alligator.

Paul D. R. Rüthling, Los Angeles, Cal.

I Rattlesnake, I garter snake, Texas; 3 toads, 13 frogs, 13 salamanders, 2 turtles, 43 lizards and 37 snakes, Los Angeles, Cal.

KARL P. SCHMIDT, Stanley, Wisconsin. 3 Frogs and 1 snake, Stanley.

KARL SMITH, Nicaragua, C. A.

1 Schlegel's viper, Eden Mine, Nicaragua.

Percy Viosca, Jr., New Orleans, La. 11 Frogs, Covington, La.

F. Weinberg, Los Angeles, Cal.

2 Toads, 5 turtles, 22 lizards and 8 snakes, California; 1 lizard, Arizona; 2 lizards, Tasmania.

#### By Exchange

Albany Museum, Grahamstown, South Africa.

19 Frogs and toads, 27 lizards, 6 snakes, South Africa.

COMMERCIAL MUSEUM, Philadelphia.

I Tailed and II tailless batrachians,
IO lizards, II snakes, Central Amer-

ica and Colombia.

Louisiana State Museum, New Orleans, La.

2 Skins of the snowy heron, Cameron Parish, La.

Museum of Comparative Zoölogy, Cambridge, Mass.

2 Toads, Malaita Island, Solomon Islands; 2 lizards, Arkansas; 4 lizards, Utah; 1 lizard, Mexico, and 1 lizard, Africa.

#### By Purchase

C. S. Brimley, Raleigh, N. C.
I Salamander, I turtle, 2 snakes,
North Carolina; I salamander,
Missouri; I lizard, Panama.

R. D. CAMP, Brownsville, Texas. 4 Lizards, 1 snake, Brownsville.

JOHN GRAHAM, Yunnan, China. 18 Toads, 30 frogs, 5 salamanders, 6 lizards, 7 snakes, China.

J. W. Johnson, Charco, Texas. 8 Lizards, Charco.

W. Odell Learn & Co., San Antonio, Texas.

40 Lizards, San Antonio.

# THROUGH MUSEUM EXPEDITIONS

About 2,500 specimens from Nicaragua, collected by Clarence R. Halter and L. Alfred Mannhardt.

22 Toads, 13 frogs, 2 salamanders, 38 lizards, 58 snakes, China. Collected by Roy C. Andrews and Edmund Heller.

I Toad, 3 frogs, I salamander, 2 lizards, 2 snakes, Nicaragua. Collected by W. DeW. Miller and Wm. B. Richardson.

# DEPARTMENT OF MAMMALOGY AND ORNITHOLOGY

#### MAMMALS

# By GIFT

H. E. Anthony, New York City. 12 Bats in alcohol, Nicaragua.

A. H. Baldwin, New York City.

1 Set of Eland horns, 2 sets of Hartebeest horns.

C. W. BEEBE, Bronx, N. Y.

I Deer, near Kalacoon, British Guiana.
COURTENAY BRANDRETH Brandreth N. V.

COURTENAY BRANDRETH, Brandreth, N.Y. Deer skin and skull.

Frank M. Chapman, New York City.
4 Skins of dogs, Santiago and
Coquimbo, Chile.

Russell J. Coles, Danville, Va.
Pygmy Sperm Whale material; jaw
of Kogia, South Carolina.

Mrs. P. H. Downey, New York City. Mounted head of Tiger, India.

J. DWIGHT, New York City.
9 Small mammals, Lanesville, Greene

Co., N. Y.

J. M. Ellsworth, Hoboken, N. J.

J. M. ELLSWORTH, Hoboken, N. J. Horns of Alaskan Moose (spread 66 inches).

Mrs. H. J. Faulhaber, Mt. Vernon, N. Y.

Black Squirrel in the flesh, Mt. Vernon.

Mrs. M. F. Fischer, New York City. Set of Walrus tusks.

Walter Granger, New York City. I Mouse, Cornwall, N. Y.

U. S. Grant, 4th, New York City. 10 Bats, 5 mice, Salem Center, N. Y.

J. ALPIN GRAYDON, New York City. Newfoundland Dog in the flesh, England.

BERTRAM J. HALL, Hudson, N. Y. I Rabbit, Hudson, N. Y.

B. T. B. Hyde, New York City.

I Mounted Albino Mole, Brittany,
France.

Miss Jessica Lewis, New York City.

I Mounted thoroughbred Angora Cat.

Malcolm MacKay, Tenafly, N. J. Bear skull, Tenafly.

Leo E. MILLER, New York City.

2 Skins of Black Bear, Colombia; I skin of Puma, South America; I skin of Guanaco, Argentina; 4 skins and skulls of rodents, Indiana.

Eric Mjöberg, New York City. Skin of Green Phalanger, Malanda, North Queensland.

George F. Montgomery, New York City. Thoroughbred French Bulldog.

New York Zoölogical Society, Bronx,

N. Y. C.

I Fringe-eared Beiser Antelope, I Sable Antelope and Beatrix Antelope skeleton, I Beiser Antelope skeleton, I Tahr skin and skeleton, 5 Kangaroos, skins and skeletons, 3 Kangaroo skeletons, 3 Porcupine skeletons, 1 Porcupine skin and skeleton, 2 Ocelot skins and skeletons, Zebra skin and skeleton, 1 Columbian Blacktail Deer skin and skeleton, 2 Malay and I Eld's Deer skeletons, 2 Anteaters, skins and skeletons, Spotted Cavy skin and skeleton, Gray Fox, 8 Phalangers (5 skeletons and 3 skins and skeletons), 2 Bandicoot skeletons and 1 skin, 3 Hyrax skeletons and 2 skins, 3 Monkey skeletons and 1 skin, 4 Tasmanian Devil skeletons and 1 skin, 2 Buffalo skeletons, Black Buck skeleton, I Ibex and I skeleton, Herpestes skeleton, 4 Squirrel skeletons and 2 skins, Chimpanzee skeleton, White-tail Gnu skeleton, Wombat skin and skeleton, Marten

skeleton, Kangaroo Rat skeleton, 2 Water Rat skeletons, 2 South American Dog skeletons, Mouflon and Marsupial Rat skeletons, Echidna skin and skeleton, Sitatunga skeleton, Wild Ass skin and skeleton, 2 Woodchuck skins and skulls, Tapir and Mountain Goat skeletons, Guinea Pig and 2 skeletons, Fisher skin and skeleton, I Coati Mundi, I Baboon and I Raccoon skin and skeleton, Puma skin and skull, I Paca skeleton, Wild Cat skin and skeleton, 2 Meerkat skeletons, I Duiker, I Martin and I Wallaby skin and skeleton.

W. P. Norton, Goshen, N. Y.
I Bear skin, 6 bear skulls, Alaska.

HENRY FAIRFIELD OSBORN, New York City.

Skin of Yellow Dun Horse, Garrison, N. Y.

Department of Parks, New York City. Rhinoceros (skull and foot bones), 2 Buffalo skeletons, 2 Gray Fox skeletons, I Lemur skeleton, I Monkey skeleton, Baboon skin and skeleton, I Elk skeleton, Black Bear skull, I Ant Bear skeleton.

W. H. E. REINECKE, New York City.

I Mounted Armadillo, Mexican border.

Ernest Thompson Seton, New York City.

3 Minks, skins and skulls, St. Charles, Ill.

J. M. SUAREZ, New York City. I Marmoset, Brazil.

Mrs. C. W. Van Duser, Gardiner, N. Y. Star-nosed Mole, Gardiner.

REMSEN T. WILLIAMS, Long Island City, N. Y.

I Small Monkey, Axim, Gold Coast, West Africa.

Frank M. Wood, New Bedford, Mass. Malformed teeth of Sperm Whale.

### By Exchange

Museum of Comparative Zoölogy, Cambridge, Mass.

Bats, 18 specimens in alcohol, 24 skins with skulls.

Carlos S. Reeds, Mendoza, Argentina. 4 Rodents, 7 Armadillos, Mendoza.

#### By Purchase

- 5 Coyote pups (skins and skulls).
- 2 Mounted specimens of Tapirus indicus, 1 specimen of Manis dalmanni, in alcohol, Malay and Formosa.
- 3 Skins, skulls, pelvis and 2 paper casts of Pocket Gopher, Johnson County, Iowa; 3 mammals, Venezuela.
- 9 Lemurs, Madagascar.
- Portion of African Elephant containing wrought iron bullet.
- I Skeleton each of Hedgehog, Musk Deer and large Fox Bat.
- Mounted skeleton of Tasmanian Devil, Orang-utan skeleton, Chimpanzee skeleton, skeleton of a child, skeleton of Young Orangutan.
- 7 Squirrels, 3 Philander Opossums, Motag Hill, Nicaragua.
- Siamanga syndactylus skin; Chiromys madagascariensis skin, skull and thorax.
- Piked Whale skeleton, Provincetown, Mass.
- 6 Jack Rabbits, 6 Kangaroo Rats, 6 Muskrats, 6 Prairie Dogs, 6 Pack Rats, 14 Chipmunks, 12 Voles, 6 White-footed Mice, 18 small mammals, 1 Ferret, Montana.

Human skeleton.

- Mounted skeletons as follows: Myrmecobius fasciatus, Felis domestica, Perameles legotis, Didelphis virginiana, Hapale sp.; half a skeleton of Erinaceus europeus.
- 3 Skins with horns and hoofs of Goat-antelope, Japan.

#### THROUGH MUSEUM EXPEDITIONS

- 2,100 Specimens of Chinese mammals, China. Collected by Roy C. Andrews.
- 130 Bats, skins, skulls and alcoholics, I lot of fossil bones of small mammals, Cuba. Collected by H. E. Anthony.
- I Tamandua, 3 Dogs, 10 Cats, 1 Anteater, 2 Dasyproctas, 8 Deer, Matto Grosso, Brazil. Collected by George K. Cherrie.

- 81 Bats, 29 Mice, 15 Rats, 3 Squirrels, 2 Sloths, 1 Paca, 1 Coati, 6 Monkeys, 1 Cat, 1 Tayra, 7 Llamas, Bolivia and Brazil. Collected by R. H. Beck and G. K. Cherrie.
- 17 Small mammals, Nicaragua. Collected by W. deW. Miller.
- Young Rabbit, Mound Key, Florida. Collected by John T. Nichols.

#### BIRDS

#### By GIFT

- Anonymous.

  Specimen of Horned Grebe in the flesh, Oyster Bay, N. Y.
- Anonymous.
  - Catbird in the flesh, Far Rockaway, N. Y.
- Anonymous.
- Starling in the flesh.
- Mrs. Otto Bartel, New York City. 3 Hummingbird skins, Venezuela.
- A. S. Bechstein, New Rochelle, N. Y. Mounted Silver Pheasant.
- Frederick Blaschke, New York City. 3 Rouen Ducks.
- B. S. Bowdish, Demarest, N. J.
  - 3 Warblers and I Parrot in the flesh; I Grackle in the flesh, Mexico; Evening Grosbeak in flesh.
- Joe Brandt, New York City. Mute Swan, mounted as flying.
- E. P. CLARK, New York City. 17 Mounted birds, Florida.
- Miss Florence Cristadoro, New York City.
  - Fox Sparrow in the flesh, New York City.
- Miss Adelaide Crowley, New York
  City.
  - Hermit Thrush in the flesh.
- E. W. Deming, Topstone, Conn.
  Marsh Hawk in the flesh, Topstone.
- JONATHAN DWIGHT, New York City. 3 Skins of Horned Larks; 7 mounted birds, Staten Island, N. Y.
- P. C. FISHER, New York City. Old-squaw Duck in the flesh, Oyster Bay, L. I.
- WILLIAM FLOYD, Mastic, L. I. 2 Greater Yellow Legs in the flesh, Mastic.

CHARLES A. GIANINI, Poland, N. Y.
I Jay skin, Continental Divide, Wyoming.

MISS MARGARET S. GREEN, Far Rocka-

way, N. Y.

Hermit Thrush and I Cedar Wax
Wing in the flesh, Far Rockaway.

Ludlow Griscom, New York City.
Labrador Chickadee in the flesh, New Dorp, S. I.

CLARENCE R. HALTER and L. ALFRED MANNHARDT, New York City. 12 Birdskins from Nicaragua.

G. E. Hix, New York City. Bird in the flesh, New York City.

Miss Helen L. Kennedy, Maplewood, N. J.

I Chimney Swift in flesh, Schroon Lake, Adirondacks.

WILLIAM LAVARRE.

2 Jacamar skins and I Hummingbird skin; I Macaw and I Parakeet in the flesh, British Guiana.

F. A. Lucas, New York City.

Duck's head in flesh, Plymouth, Mass.

E. A. McIlhenny, Avery Island, La.2 Mallard Ducks, 3 live Mallards, Avery Island.

CHARLES J. MEEKS, Putnam Co., N. Y. Holboell's Grebe in the flesh, Cold Spring, N. Y.

W. DEW. MILLER, New York City. Downy Woodpecker in the flesh.

L. L. Mowbray, New York City. Parasitic Jaeger skin, Bermuda.

J. Neilson, New York City. Mounted Cormorant, Lake Ontario.

New York Zoölogical Society, Bronx, N. Y. C.

I Black-footed Penguin, I Kea Parrot, 2 Cranes, I Scarlet Ibis, I Ani Cuckoo, 2 Plovers, I Parakeet, I Fruit Pigeon, I Starling, I Megapode, I Jay, I Blue Jay, 2 Secretary Birds, I Senegal Bustard, I Browncap Tanager, 2 Blackbirds, I Emu, I Songbird, I Partridge, I Hawk, I Lory, I Bulbul, 2 Condors, I Giant Fulmar, I Ostrich skeleton.

J. T. Nichols, New York City.
I Hummingbird in the flesh.

DEPARTMENT OF PARKS, New York City.
7 Birds in the flesh, 2 Parakeets, Java
Sparrow, Parrot, Starling, Swan,
Goose, Macaw.

Wm. B. Richardson, Matagalpa, Nicaragua.

517 Birdskins from Ecuador. Collected by Wm. B. Richardson.

Francis B. Robinson, Newburgh, N. Y. Evening Grosbeak, Cornwall, N. Y.

Mrs. Roy M. Robinson, Pt. Pleasant, N. J.

I Yellow Warbler in the flesh.

WILLIAM ROCKEFELLER, Tarrytown, N.Y. Blue-headed Quail-dove in the flesh.

CHARLES H. ROGERS, New York City.

I Horned Grebe in the flesh, Long
Beach, N. Y.; I Turkey Vulture
skeleton, Mercer Co., N. J.

L. C. Sanford, New Haven, Conn.
Body of King Eider in flesh, 39 birdskins, California; 3 birdskins from
British Columbia; 3 from Wyoming
and Colorado; Goshawk in the
flesh; 5 specimens of birds from
Lower California.

Mrs. J. D. Savage and Mrs. L. S. Padbock, Summit, N. J. Panama Parrot in the flesh.

SCIAMA, DAVIS & COMPANY, New York City.

2 Blue-eared Pheasant skins, Canton, China.

P. T. SEALEY, South Bethlehem, Pa. 9 Birdskins, 4 bird skeletons, 37 birds' eggs, Chile.

F. D. Skeel, Thomaston, Conn.
I Grosbeak skin and I Bobolink skin.

SELAH B. STRONG, Setauket, L. I. I. Cooper's Hawk.

Justus von Lengerke, New York City. 2 Goshawks and 12 other Hawks in the flesh, Stag Lake, N. J.

WILLIAM WIEDERHOLD, New York City. Sparrow in the flesh, New York City.

R. ZULOAGA, Caracas, Venezuela.

Nest of a Dendrocolaptid, the Guaiti,
Venezuela.

### By Exchange

Colorado Museum of Natural History, Denver, Colo.

2 Skins of Snowy Egret, Buzzards Islands, S. C.

F. S. HERSEY, New York City. Skin of *Pteroglossus aracari* (Toucan), Paramaribo, Dutch Guiana. MUSEO NACIONAL DE HISTORIA NATU-RELLE, Buenos Aires, Argentina. 123 Birdskins.

Museu Paulista, São Paulo, Brazil. 290 Birdskins, Brazil.

J. T. Nichols, New York City. Summer Tanager, Mastic, L. I.

CARLOS REEDS, Mendoza, Argentina. A number of birdskins.

L. C. Sanford, New York City. Skin of Caspian Tern, Nueces County, Texas; 16 birdskins.

#### By Purchase

Fossil egg of Struthiolithus chersonensis.

6 Mounted birds, Japan.

2 Skins of Golden Eagle.

2 Skins of Golden Eagle, skin of Goshawk.

294 Birdskins, Peru.

# THROUGH MUSEUM EXPEDITIONS

658 Birdskins, 34 skeletons from China. Collected by Roy C. Andrews.

750 Birdskins from South America. Collected by George K. Cherrie.

1,168 Birdskins, 65 complete bird skeletons, 272 body skeletons of birds, 6 birds' nests, 5 sets of birds' eggs, 9 birds' eggs from Nicaragua. Collected by Leo E. Miller, Ludlow Griscom and Wm. B. Richardson.

# DEPARTMENT OF VERTEBRATE PALÆONTOLOGY

#### By GIFT

COLORADO MUSEUM OF NATURAL HISTORY, Denver, Colo.

Casts of 2 molar teeth of a Miocene Mastodon from Virginia Valley, Nevada.

ROBERT F. GILDER, Omaha, Nebraska. Fragmentary skull of fossil elk, Washington County, Neb.

J. H. MacGregor, New York City. Braincast of Gibraltar skull.

New York Zoölogical Society, New York City.

Chapman's Zebra (skeleton only); I Horse head in the flesh, N. Y. C. L. S. QUACKENBUSH, New York City. Collection of specimens of modern vertebrates (skulls, etc.).

FREDERICK B. SIMPSON, New York City. Skeleton of trotting horse "McKinney" in the flesh, Cuba, N. Y.

S. A. Smith, Australia. Cast of skull of Talgai fossil man.

E. L. TROXELL, Ann Arbor, Mich. Skull and jaws of *Hyracodon*, skull and jaws of *Pæbrotherium andersonii*, type specimen; South Dakota.

#### By Exchange

L. H. MILLER, Berkeley, Cal.
Collection of *Mylodon* bones from
Rancho-la-Brea, Cal.

#### By PURCHASE

Collection of models of dinosaurs. Skeleton of Tertiary Mastodon from Pliocene of South Dakota; collection of fossil mammals, chiefly Pliocene mastodons and rhinoceros, Springview, Neb.

# DEPARTMENT OF ANTHROPOLOGY

#### By GIFT

Anonymous.
Collection of 10 bone- and metal-tipped poison arrows, Venezuela.

H. E. Anthony, New York City.

8 Fragments of a pot from cave at Daiquiri; parts of 3 crania, and I mandible; parts of long bones of 3 skeletons, from a cave near Morovis; fragments of phalanges, ribs, etc.; fragments of human bones from cave on Hacienda Toba, Porto Rico.

A. V. Armour, New York City. Carved piece of whale bone, Alaska.

Frank B. Barnes, Amagansett, N. Y. 3 Arrowheads, Long Island, N. Y.

M. H. Blakeslee, Buffalo, N. Y.
I Stone implement, found on bank of
Mohawk River, N. Y.

Mrs. Theo. Boettger, Hackensack, N. J. Collection of 9 specimens of pottery from Central America.

Hubert J. Burrows, Vernon, N. J.
3 Potsherds, Iroquoian, and I hammerstone, Hamburg, Sussex Co.,
N. J.

M. Chamberlain, Prague, Okla.

Collection of archæological specimens, arrow points, pottery fragments, etc., Southwest.

Luis Febres Cordero, North Santander, Colombia.

2 Arrows, Sardinata Region, North Santander.

MISS FRANCES DEL MAR, New York

I Piece of tapa, Samoa.

Mrs. J. A. Finn, New York City. Chinese Costume.

Mrs. Mary F. Fischer, New York City. Collection of 4 Chinese garments and textiles from China.

George A. Fournier, New York City. Model of a canoe, Manawin, Quebec, Canada.

DEPARTMENT OF GEOLOGY AND INVERTE-BRATE PALÆONTOLOGY, Transfer. Stone Ball, Mar del Plata, Buenos

Aires, Argentina.

H. K. HAEBERLIN, Columbia University. Collection of 6 phonograph records of Indian songs, Puget Sound Salish.

Mrs. E. H. HARRIMAN, New York City. Fur coat made up in parka fashion, skins, probably brown marten, Alaska.

G. HAZARD, Peace Dale, Rhode Island.

7 Skulls in fragments, El Capitan, near Santa Barbara, Cal.

WILLIAM W. HEATON, New York City. Collection of arrowheads, found near Lake Geneva.

WILLIAM TOD HELMUTH, New York City.

Ancestral tablet (for worship). China; Tibetan sacred belt, apron and headdress (made of human bone), Darjeeling.

WALTER L. HILDBURGH, New York City. Archæological collection (about 3,500 specimens), New York; a series of ethnological specimens from North American Indians.

A. M. Hocart, England. Wooden tally used by bakers, Thiers,

HENRY HORNBOSTEL, New York City. Collection of photographs of Maya architecture.

MISS GENIE A. HUNT, St. Albans, Vt. Dakota redstone pipe bowl, Minnesota.

Mrs. Austin Huntington, New York City.

I Halibut hook.

Marshall C. Lefferts, New York City.

4 Effigies dressed in Japanese armor, 2 cases containing helmets and other accessories, 1 gun, 2 swords, 1 spear.

Mrs. J. E. Lopez, New York City. Collection of 25 baskets, fans, etc., Egypt, Abyssinia and Colombia.

F. A. Lucas, New York City.

Birchbark dish with quill work decoration, Eastport, Me.

W. G. MACCALLUM, New York City.

1 Parang, Borneo; 1 Navajo Buckskin shirt, Western United States.

Mrs. Florence Magee, New York City. First note issued in Lhasa, Tibet.

DEPARTMENT OF MAMMALOGY, Transfer. Complete human skeleton from the Warren Collection.

Edgar A. Mearns, U. S. A.

I Woven fiber bag (Mexican), I pair of snowshoes (Ojibwa), Mexico and Manitoba.

LEO E. MILLER, New York City.

6 Stone implements, Indiana; 3 ears of corn, Colombia.

Mrs. Clarence Blair Mitchell, Far Hills, N. J.

Wooden pillow (Zulu), wooden spoon (South Africa), wooden images (South Africa), sword (Java).

GEORGE OLSEN, New York City. Miniature carved effigy, San Juan Valley, N. Mex.

T. MITCHELL PRUDDEN, New York City. Collection of archæological specimens, Colorado.

L. S. QUACKENBUSH, New York City. 4 Chipped points, Lower California; Indian paddle, vicinity of Chicoutimi, Quebec.

F. J. Rebman, New York City. 16 Stone implements, Fort Independence, Giles Place, Kingsbridge, N.Y. JAMES T. RYAN, New York City.

Carved cocoanut shell, Guatemala.

M. F. Savage, New York City.

I Tomahawk with copper blade, I oyster shell, found in Washington Street.

Société Internationale Forestière et Minière du Congo.

22 Stone implements from southwestern part of the Belgian Congo.

FRANK G. Speck, Philadelphia, Pa. 3 Small baskets from the Jackson-Whites.

MISS KATE STEPHENS, New York City-2 Pieces of tapa cloth, Samoa.

S. M. Strong, Atlanta, Georgia.

Mummified body of a man with rabbit-skin blanket and some bone fragments, cliff cave in Tularosa Mountains, New Mexico.

W. E. Sullivan, Boston, Mass. Human skull and mandible.

MISS MAUD THOMPSON, Glen Ridge,

N. J.

2 Halibut hooks, Alaska; fragment of a child's skull with arrow protruding, Texas; 2 wooden spoons, I rattle, 2 knives, I piece carved wood, pieces of harness, I piece of beadwork.

Dr. T. Wingate Todd, Western Reserve University, Cleveland, Ohio.

Samples of human hair.

#### By Exchange

Franklin Smith, Salisbury, N. C. Skull and mandible, southeast of Salisbury.

FRANK WOOD, New Bedford, Mass. 4 Baskets.

#### By Purchase

10 Images, 9 krises, 1 puppet, Java. Collection of textiles and pottery from Alvarado collection.

Wampum Belt (belt of Oka).

100 Baskets, model of a boat, model of a fish trap, basket hat, Chitimacha, Choctaw.

4 Barrels (162 specimens) of ancient pottery, 10 miles southeast of Adamana, Ariz.

1 Sealskin canoe.

Collection of 52 face casts, Cape Fullerton, Hudson Bay.

Collection of Japanese material.

One egg from the Patagonian Ostrich, Patagonia; archæological collection (about 1,000 specimens), Europe and North America; Guanche collection of archæological and skeletal material, Canary Islands.

I Square piece of pottery, I small carved face, Teotihucan, Mexico.

1 Stone figure, Guatemala.

r Piece of Samoan tapa cloth, Samoa.

I Skull (East Indies) with gold plugs in the incisors; 3 negro skulls; 6 human skulls, Europe.

I Sacred Tibetan book, Pharijong.

11 Baskets, California.

I Painted buffalo robe.3 Restorations (Human cranium and mandible, La Chapelle aux Saints,

Heidelberg, Gibraltar).

I Hausa robe, Cameroon, West Africa.

156 Pieces of pottery, Chiriqui, Panama.

I Mummy (Indian woman), 40 miles from Custer battlefield.

6 Pieces of Battik from Java.

Canoe, said to be 180 years old, Ulster County, N. Y.

5 Catawba pots; ethnological specimens from the Micmac and other Eastern tribes.

Cedarbark skirt, Fort Madison Reservation.

Ethnological collection (30 specimens), Mackenzie River and vicinity.

Decorated elk skin, Navajo Springs Agency.

Piece of tapa, Hawaii.

Blackfoot Beaver bundle (31 specimens).

6 Fœtal skulls, 8 human skulls.

Piece of tapa, Samoa or Tahiti.

5 Boxes of archæological specimens, Mandan, N. D.

# THROUGH MUSEUM EXPEDITIONS

Ethnological and archæological collections, northwestern Greenland, collected by George Comer; I bone drill, near North Star Bay, collected by H. J. Hunt; 10 fur coats, 4 women's trunks, I baby's hood and coat; collection of Eskimo clothing, South Upernivik, collected by W. Elmer Ekblaw.

7 Boxes of ethnological specimens, Washington; I Mountain goat blanket, Tulalip Reservation. Collected by H. K. Haeberlin.

16 Boxes of archæological material, 8 boxes and 1 barrel of archæological specimens, Aztec Ruin, N. Mex. Collected by Earl H. Morris.

I Box of archæological specimens from Florida; 6 boxes of archæological specimens from the Southwest. Collected by N. C. Nelson.

I Box of archæological specimens from the Southwest. Collected by

Leslie Spier.

Embroidered robe from the Mandan. Collected by Gilbert L. Wilson.

2 Shipments of ethnological specimens from Central America. Collected by Herbert J. Spinden.

# DEPARTMENT OF PUBLIC HEALTH

#### By GIFT

George E. Brown, New York City. 4 Loaves of war bread.

CORNELL UNIVERSITY MEDICAL SCHOOL, New York City.

I Bacterial specimen.

CORN PRODUCTS REFINING Co., Edgewater, N. J.

Set of 22 different corn products.

H. S. CUMMINGS, Washington, D. C. Eggs of yellow fever mosquito, Havana.

WILFRED G. FRALICK, New York City. Picture of gangrenous foot.

JOHNS HOPKINS MEDICAL SCHOOL, Baltimore, Md.

9 Bacterial specimens.

ROY E. JONES, Storrs, Conn. Corn stalks and wheat.

YAMEI KIN, New York City. Chinese foods.

LEDERLE ANTITOXIN LABORATORY, Pearl River, N. Y.

3 Bacterial specimens.

E. H. MEYERS, Cincinnati, Ohio.

5 Bacterial specimens.

MICHIGAN AGRICULTURAL COLLEGE, East Lansing, Mich.

I Bacterial specimen.

New York Agricultural Experiments Station, Geneva, N. Y. 6 Bacterial specimens.

NEW YORK CITY BOARD OF HEALTH. 3 Bacterial specimens.

Augustus Nulle, New York City. Wild rice, raw and cooked.

PILLSBURY FLOUR MILLS Co., Minneapolis, Minn.

12 Sample packages of flour, bran,

PLASTIC ART NOVELTY & SPECIALTY Co.,

New York City. Set of food models consisting of 74 one-hundred-calorie portions.

SHEFFIELD SCIENTIFIC School. New Haven, Conn.

2 Bacterial specimens.

WILFRID SUDLER, Quebec, Canada. 7 Bacterial specimens.

R. W. Tower, New York City. Bacteriological chart.

UNITED STATES DEPARTMENT OF AGRI-CULTURE, Washington, D. C. 15 Bacterial specimens.

BENJAMIN WHITE, Otisville, N. Y. 2 Bacterial specimens.

#### By Exchange

Brooklyn Museum, Brooklyn, N. Y. 2 Reproductions of mushrooms.

## By Purchase

Canteen, mess kit, blanket, poncho, half tent, haversack, belt.

12 Transparencies.

4 Groups of wax reproductions of edible fungi (mushrooms).

I Campaign hat, I pair of shoes.

## ART

#### By GIFT

AMERICAN NUMISMATIC SOCIETY, New York City.

Bronze medal commemorating declaration of war on Germany by United States. Eli Harvey fecit.

Louis Agassiz Fuertes, Ithaca, N. Y. Four paintings of South American

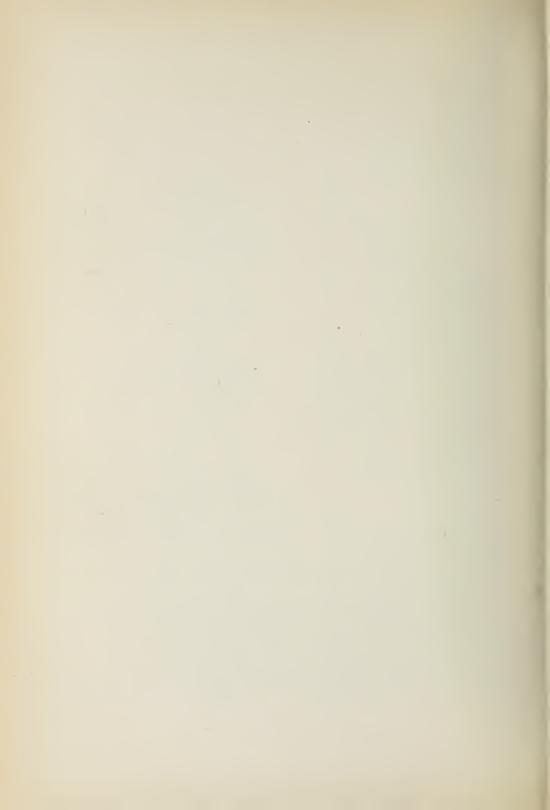
RODMAN GILDER, New York City. Lithograph. Portrait of James E. DeKay.

J. M. Hoffmire, Newark, N. J., and C.

W. MACMULLEN, New York City.
Oil painting of Bison Herd, Pike's
Peak in background. Painted by
Titian R. Peale.

ROBERT HAVELL LOCKWOOD, Yonkers, N. Y.

Oil painting of Black Vultures, after Painted by Robert Audubon. Havell. 24 colored plates of Insects.



# 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 I. 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, Chas. 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.\*

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 take and hold by gift, devise, bequest, purchase or lease, either absolutely or in trust, for any purpose comprised in the objects of the Corporation, any real or personal estate, necessary or proper for the purposes of its incorporation.†

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, and shall be and be classed as an educational corporation.\*

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

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

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

<sup>†</sup> Section 3. As amended by Chapter 303, Laws of 1898, of the State of New York, entitled "An Act to amend chapter one hundred and nineteen, laws of eighteen hundred and sixty-nine, entitled 'An Act to incorporate the American Museum of Natural History,' relative to its charter."

<sup>\*</sup> Sections 1 and 4. As amended by Chapter 162 of the Laws of 1909, entitled "An Act to amend chapter one hundred and nineteen of the laws of eighteen hundred and sixty-nine, entitled 'An Act to incorporate the American Museum of Natural History,' in relation to classifying said corporation and modifying its corporate purposes."

# 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 lastnamed 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 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 the 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 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.

208 Contract

Seventhly.—That said party of the first part shall have, at all times, access to every part of the 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 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 reënter, 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 here 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 canceled 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, in the year of our Lord one thousand eight hundred and seventy-eight; 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, in the year of our Lord one thousand eight hundred and seventy-seven.

In presence of D. Porter Lord.

JAMES F. WENMAN,

President Department of Public Parks

of the City of New York.

WILLIAM IRWIN,

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

SEAL of the American Museum of Natural History

ROBERT L. STUART,

President American Museum of
Natural 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.

[SEAL.]

W. C. BESSON, (73) Notary Public N. Y. Co.

STATE OF NEW YORK,
City and County of New York,

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,

Register.

[SEAL.]

Note.—July 25, 1892, by consent of the Trustees, section fourth was modified to enable the Trustees to open the Museum free to the public "throughout the year, excepting Mondays, but including Sunday afternoons and two evenings of each week."

June 29, 1893, by consent of the Trustees, section fourth was modified to enable the Trustees to open the Museum free of charge to the public "throughout the year for five days in each week, one of which shall be Sunday afternoon, and also two evenings of each week."

# CONSTITUTION

OF THE

# AMERICAN MUSEUM OF NATURAL HISTORY

IN THE CITY OF NEW YORK

REVISED AND AMENDED TO FEBRUARY 7, 1916

# 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, and in addition, the Mayor, the Comptroller, and the President of the Department of Public Parks, of the City of New York, for the time being, ex-officio, shall be the Trustees to manage the affairs, property and business of the Corporation.

The members of the Board of Trustees holding office at the time of the regular quarterly meeting of November, 1905, shall then, or at the first meeting of the Board thereafter, be divided by lot into five classes of five members each, to serve for the terms of one, two, three, four and five years respectively from the date of the annual meeting of February, 1906. The Board of Trustees at each annual meeting thereafter, or an adjournment thereof, shall by ballot, by a majority vote of the Trustees present at the meeting, elect five Trustees to supply the places of the class whose term expires at that meeting; said newly elected Trustees to hold office for five years or until their successors are elected. In case of a vacancy in the Board by death, resignation, disqualification or otherwise, the vacancy shall be filled by ballot, in like manner, by the Board of Trustees at any regular meeting or special meeting, for the unexpired term. No person shall be eligible for election as Trustee unless his name shall be presented by the Nominating Committee at a regular or special meeting of the Board previous to the meeting at which his name shall be acted upon. Written notice of such election and the vacancy to be filled shall be sent to the Trustees at least one week prior to said meeting.

# ARTICLE III

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

# ARTICLE IV

Section 1. The officers of said Corporation shall be a President, a First Vice-President, a Second Vice-President, a Treasurer and a Secretary, who shall be elected from among the Trustees. These officers shall be elected by ballot, and the persons having a majority of the votes cast shall be deemed duly elected. They shall hold their offices for one year or until their successors shall be elected.

SEC. 2. The Board of Trustees shall appoint each year, in such manner as it may direct, the following Standing Committees: an Executive Committee, an Auditing Committee, a Finance Committee and a Nominating Committee. These Committees are all to be elected from the Trustees, and the members shall hold office for one year or until their successors shall be elected.

The Board of Trustees shall also have authority to appoint such other committees or officers as they may at any time deem desirable, and to delegate to them such powers as may be necessary. The Board of Trustees shall have power to appoint a Director who, acting under the authority and control of the President, shall be the chief administrative officer of the Museum; but shall not be a member of the Board. He shall hold office during the pleasure of the Board.

# ARTICLE V

Section 1. The President shall have the general supervision, direction and control of the affairs of the Corporation, and shall preside at all the meetings of the Museum and of the Trustees. In his absence or inability to act, the First or Second Vice-President shall act in his place, or in the absence of these officers, a Trustee appointed by the Executive Committee.

SEC. 2. The Secretary shall be present, unless otherwise ordered by the Board, at all the meetings of the Museum and Trustees, of the Executive Committee and such other Committees as the Board may direct. He shall keep a careful record of the proceedings of such meetings, shall preserve the seal, archives and correspondence of the Museum, shall issue notices for all meetings of the Trustees and various committees, and shall perform such other duties as the Board may direct.

The Board of Trustees shall have power to appoint an Assistant Secretary, who, under its direction, shall perform the duties of the Secretary in his absence or inability to act. The Assistant Secretary shall be an administrative officer of the Museum and shall act under the direction of the President or the Secretary. He shall hold office during the pleasure of the Board.

SEC. 3. The Treasurer shall receive and disburse the funds of the Museum. He shall report in writing, at each regular 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.

The Board of Trustees shall have power to appoint an Assistant Treasurer, who shall perform such duties as it may direct, and who shall hold office during its pleasure.

SEC. 4. The accounts of the Museum shall be kept at the General Office, in books belonging to it, which shall at all times be open to the inspection of the Trustees.

# ARTICLE VI

The Executive Committee shall consist of nine Trustees, the President, the Secretary and the Treasurer *ex-officio* and six others, to be appointed each year in the manner provided in Article IV. They shall have the control and regulation of the collections, library and other property of the Museum; and shall have power generally to conduct the business of the Museum, subject to the approval of the Board. Five members of the Committee shall constitute a quorum for the transaction of business.

# ARTICLE VII

The Auditing Committee shall consist of three Trustees. They shall have the books of the Museum duly audited, at least once in six months, by an authorized public accountant to be selected by them.

## ARTICLE VIII

The Finance Committee shall consist of five Trustees, the Treasurer *ex-officio* and four others to be elected each year in the manner provided in Article IV. They shall have general charge of the moneys and securities of the Endowment and other permanent funds of the Museum, and such real estate as may become the property of the Corporation, with authority to invest, sell and reinvest the same, subject to the approval of the Board of Trustees.

Three members shall constitute a quorum.

# ARTICLE IX

The Nominating Committee shall be composed of three Trustees, to whom shall be first submitted the names of any persons proposed as candidates for election to membership in

the Board of Trustees. The Committee shall report on such candidates from time to time, as it may deem to be for the interest of the Museum. A fortnight before the annual meeting they shall prepare and mail to each member of the Board of Trustees a list of the candidates for officers and Trustees to be balloted for at the said meeting.

# ARTICLE X

Nine Trustees 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 XI

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

The incorporators of The American Museum of Natural History shall be designated as Founders of the Museum.

Any person contributing or devising \$50,000 in cash, securities or property to the funds of the Museum may be elected a Benefactor of the Museum.

Any person contributing \$25,000 in cash, securities or property to the funds of the Museum may be elected an Associate Founder of the Museum, who after being so elected shall have the right in perpetuity to appoint the successor in such associate foundership.

Any person contributing \$10,000 to the funds of the Museum may be elected an Associate Benefactor of the Museum, who after being so elected shall have the right in perpetuity to appoint the successor in such associate benefactorship.

Any person contributing \$1,000 to the funds of the Museum, at one time, may be elected a Patron of the Museum, who

after being so elected shall have the right in perpetuity to appoint the successor in such patronship.

Any person contributing \$500 to the funds of the Museum, at one time, may be elected a Fellow of the Museum, who after being so elected shall have the right to appoint one successor in such fellowship.

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

Any person contributing \$100 to the funds of the Museum, at one time, may be elected a Life Member of the Museum.

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

Benefactors, Associate Founders, Associate Benefactors, Patrons, Fellows and Life Members shall be elected by the Board of Trustees or by the Executive Committee, and the President and Secretary shall issue diplomas accordingly under the seal of the Museum.

In recognition of scientific services rendered, the Trustees may also elect Honorary Fellows of the Museum in their discretion.

# ARTICLE XIII

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

# ARTICLE XIV

No alterations shall be made in this Constitution, unless at a regular meeting of the Trustees, or at a special meeting called for this purpose; nor by the votes of less than a majority of all the Trustees; nor without notice in writing of the proposed alterations, embodying the amendment proposed to be made, having been given at a previous regular meeting.

# **BY-LAWS**

# REVISED AND AMENDED TO FEBRUARY 7, 1916

Ι

If any Trustee shall accept a salary from this Corporation he shall thereby be disqualified for the time being from acting as a Trustee thereof; provided, that the Board of Trustees shall have power to suspend the operation of this law in any special case.

### II

Any vacancies occurring in the membership of the several committees during the interval between the regular meetings of the Board of Trustees may be filled at a regular meeting of the Executive Committee, until the next meeting of the Board.

# III

The regular meetings of the Executive Committee shall be held on the third Wednesday of each month, but special meetings may be held at any other time on a two days' call issued by order of the President, or at the request of three of its members.

#### IV

All bequests or legacies, not especially designated, and all membership fees, excepting Sustaining, Annual and Associate Membership fees, shall hereafter be applied to the *Permanent Endowment Fund*, the interest only of which shall be applied to the use of the Museum as the Board shall direct.

#### V

SECTION I. No indebtedness (other than for current expenses) shall be incurred by any committee, officer or employee of the Museum, except as provided for in the Constitution.

- SEC. 2. No bills shall be paid unless approved by the Director or, in his absence, the Assistant Secretary, and countersigned by one of the following named Trustees: President, Chairman of the Executive Committee, or Treasurer.
- SEC. 3. The accounts of the Museum shall be under the care of a Bursar, who, on recommendation of the President and the Treasurer, shall be appointed by the Board of Trustees and be under its direction. He shall give such bonds for the faithful performance of his duties as the Board may direct, and shall hold office during the pleasure of the Board. The Bursar, acting under the direction of the President or Treasurer, shall be the official representative of the Treasurer at the Museum, and as such shall be the head of the Treasurer's office there.

### VI

The Board of Trustees shall have power to appoint, on recommendation of the Director, a Superintendent of Building and such other officers as may be deemed necessary, who, acting under the instruction of the Director, shall have charge of the construction, maintenance, alterations and repairs of the buildings, and shall be responsible for their sanitary condition. They shall hold office during the pleasure of the Board.

## VII

The Board of Trustees shall have power to appoint a Registrar, who, acting under the instruction of the Director or Assistant Secretary, shall inspect all incoming and outgoing shipments, and shall attend to the details of matters relating to customs.

## VIII

Benefactors, giving \$50,000, are each entitled to I Subscriber's Ticket, 10 Complimentary Season Tickets and 10 Tickets for a single admission.

Associate Benefactors, giving \$10,000, are each entitled to I Subscriber's Ticket, 10 Complimentary Season Tickets and 10 Tickets for a single admission.

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

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

Life Members, giving \$100, are each entitled to I Subscriber's Ticket and 7 Tickets for a single admission.

Sustaining Members, paying \$25 yearly, are each entitled to I Subscriber's Ticket and 5 Tickets for a single admission.

Annual Members, paying \$10 yearly, are each entitled to I Subscriber's Ticket and 4 Tickets for a single admission.

Associate Members, paying \$3.00 yearly, are each entitled to I Subscriber's Ticket, admitting to the Members' Room, and 2 Tickets for a single admission; also to current copies of the Museum Journal and the Annual Report.

Note.—A Subscriber's Ticket admits to the Members' Room, also to all Receptions and Special Exhibitions, and may be used by any member of the Subscriber's family.

family.

The Single Admission Tickets admit the bearers to the Members' Room, and are issued to Subscribers for distribution among friends and visitors.

#### FOR EQUIPMENT AND CASE CONSTRUCTION

#### LEGAL ENACTMENTS OF 1915

#### By the Board of Estimate

Resolved, That subject to concurrence herewith by the Board of Aldermen, the resolution adopted by the Board of Estimate and Apportionment on July 17, 1911, amended on February 21, 1912, and concurred in by the Board of Aldermen on July 31, 1911, and on March 12, 1912, respectively, to read as follows:

"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of corporate stock of The City of New York to an amount not exceeding two hundred thousand dollars (\$200,000), to provide means for the construction of a foundation for the southeast wing and court building, and for architect's fees for designing, planning, and supervising the work of constructing the entire southeast wing and court building of the American Museum of Natural History, under the jurisdiction of the Department of Parks, Boroughs of Manhattan and Richmond, and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller be and is hereby authorized to issue said corporate stock of The City of New York in the manner provided by section 169 of the Greater New York Charter, the proceeds thereof to the amount of the par value of the stock to be applied to the purposes aforesaid."

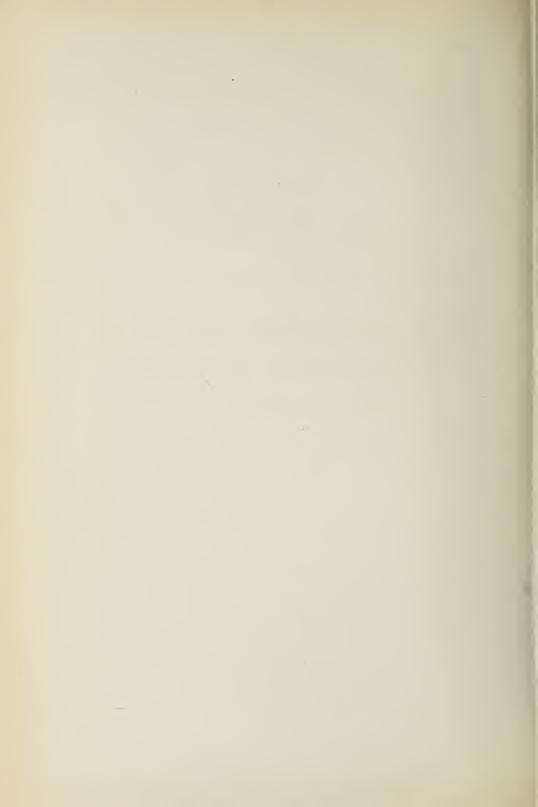
—be and the same is further amended by adding after the words "Natural History" the words "to the extent of eighty-eight thousand one hundred and ninety-one dollars and twenty-three cents (\$88,191.23), and for the purchase of cases, bookstacks and other equipment for said Museum, to the extent of one hundred and eleven thousand, eight hundred and eight dollars and seventy-seven cents (\$111,808.77); provided, however, that no encumbrances or expenditures shall be made against the proceeds of corporate stock herein authorized, nor shall bids upon such contracts be advertised for until after approval by the Board of Estimate and Apportionment of the plans, specifications, estimates of cost and forms of such contracts which shall be submitted to said Board by the Commissioner of Parks, Boroughs of Manhattan and Richmond, nor shall any architect, engineer, expert or departmental employee be engaged or employed as a charge against such proceeds except after approval by said Board of such employment and of the fee or wage to be paid by preliminary and final contracts, voucher or budget schedule, which are to be similarly submitted, unless in the case of departmental employees, such employment is in accordance with schedules approved by said Board; the amendment herein, having the effect of rescinding \$111,808.77 in the corporate stock authorization for the fund C. D. P. 3-B; which sum is herein reauthorized for another purpose.

A true copy of resolution adopted by the Board of Estimate and Apportionment, December 10, 1915.

James Manchester,
Assistant Secretary.

## APPROPRIATION AND EXPENDITURES THEREON TO

DECEMBER 3			014 10
RECEIPTS:	1-1 -2-1		
By Direct Appropriation, C.D.P. 3e C.D.P. 3b)	(by Tran	sfer from	\$111,808.77
Expenditures, 1916:			
Alcohol Storage Racks (Van Dorn			
Iron Works Co.) Storage Cases (Van Dorn Iron	\$2,450.00		
Works Co.)	14,222.90		
Pillar Shaper (Hendey Machine Co.)	400.00		
Vacuum Cleaner (American Radiator			
Co.)	344.00		
Portable Power Plant (United Mfg.			
Co.)	135.00		
Materials	9,227.71	\$20.07# ##	
Labor Items	5,535.94	\$32,315.55	
Expenditures, 1917:			
Boring Machine (Manning, Maxwell			
and Moore)	212.30		
Shunt Wound Motor (Western Elec-			
tric Co.)	272.70		
Materials	6,401.52		0.4
Labor Items	9,493.25	16,379.77	48,695.32
Balance on hand December 31,1917			\$63,113.45



# FIFTH ANNUAL REPORT OF THE PENSION BOARD

OF

# THE AMERICAN MUSEUM OF NATURAL HISTORY

FOR THE YEAR 1917

# OFFICERS AND MEMBERS OF PENSION BOARD

1917

Chairman
Felix M. Warburg

Vice-Chairman RALPH W. Tower

Treasurer
HENRY P. DAVISON

Secretary
George N. Pindar

#### TRUSTEE MEMBERS

Adrian Iselin Walter B. James PERCY R. PYNE FELIX M. WARBURG

#### EMPLOYEE MEMBERS

HARRY F. BEERS

RALPH W. TOWER

GEORGE N. PINDAR

Bursar Frederick H. Smyth

Consulting Actuary
S. Herbert Wolfe

Counsel
Lewis L. Delafield

Medical Examiners
GEORGE M. MACKENZIE, M.D.
WALTER P. ANDERTON, M.D.

To the President and Trustees of The American Museum of Natural History and to the Subscribers to the Fund:

In accordance with the Rules and Regulations, I have the honor to present herewith the Fifth Annual Report of the activities of the Pension Board and of its financial operations for the fiscal year ending December 31, 1917.

FELIX M. WARBURG
Chairman

February 1, 1918

Since the organization of the Pension Plan, it has been the custom for the Director of the Museum to certify to the Pension Board as permanent the names of those employees whose services were to be retained. More recently, as it was found best to adopt a system of physical examination, a change of procedure in methods of certification was necessitated, inasmuch as occasionally certifications of permanent employment had to be cancelled, in the cases of employees who were found to be physically unsuited, from an insurance standpoint, to participate in the Pension Plan. Remedial changes have therefore been effected, so that now the Director indicates his willingness to certify temporary employees as permanent in their relation to the institution, providing they first pass the physical examination required by the Board. At the satisfactory completion of this physical examination, the employee is certified as permanent. This simplification obviates the necessity of cancelling any permanency certification once given.

The following is the status of the membership of the Fund as constituted December 31, 1917:

Number of Subscribers, January 1, 1917 241
New Subscribers during the year 1917 34
Reinstatements made during the year 1917 2
277
Resignations and Dismissals
Retirements 2
Deaths 4 21
Number of Subscribers, December 31, 1917 256

During the year we have had the misfortune to lose by death four members, as noted above, particular mention of whom will be found in another part of the report, as will also the names of those members who have retired from active service.

As in previous years, it is a pleasure to record that through the good offices of friends of the institution, employment has been found for members of certain deserving families of deceased subscribers, supervising medical attention provided for those who have been ill, and other forms of relief afforded.

Serious thought and discussion have been given to the desirability of obtaining an endowed bed under the control of this Board, in some hospital of the city, but after careful consideration it was felt best to solicit from friends of the Museum the privilege of nominating occupants to beds already endowed. so as to offer to employees a choice of hospitals. Our endeavor in this direction has already proved successful, and we desire to record here our sincere appreciation to those friends who have so kindly placed at the disposition of the Secretary endowed beds in two of the prominent hospitals of the city, for occupancy by employees in need of surgical attention and medical care. We take this opportunity to notify the employees that, should it become necessary for any of them to undergo hospital treatment, a notification to the Secretary to that effect will secure for them, barring prior claims, free attendance at Mount Sinai or the Presbyterian Hospital. Should preference be expressed for treatment in other hospitals, attempts will be made to conclude similar arrangements for beds in hospitals chosen by employees.

In early June, the President, with forethought and a keen appreciation of the benefit which would accrue to employees from participating in the Liberty Loans, appointed a committee consisting of the Chairman, Mr. Iselin, the Bursar, and the Secretary, to formulate a plan whereby the employees generally might be given the opportunity of subscribing and paying for bonds by some easy payment method. Through the generosity of certain Trustees, who advanced the necessary funds, such a course was made possible, and we desire to express our gratitude not only to those Trustees who formulated and made possible such an operative plan, but as well to the Bursar of the Fund, Mr. Smyth, who has given his time and painstaking efforts to secure subscriptions and to prepare and keep such books as are necessary in carrying on this work. That the plan was successful is best evidenced by the fact that 164 subscriptions, in the amount of \$13,150.00, were received to the first issue of bonds, and 95 subscriptions, amounting to \$9,100.00. were received to the second issue of bonds.

Although the report of the Pension Board is confined in the main to a statement of the current business of the Board, it

has been thought well to include a brief description of the activities of those of our associated officers and members who, through a deep sense of patriotic duty, have enlisted or otherwise volunteered their services to our country.

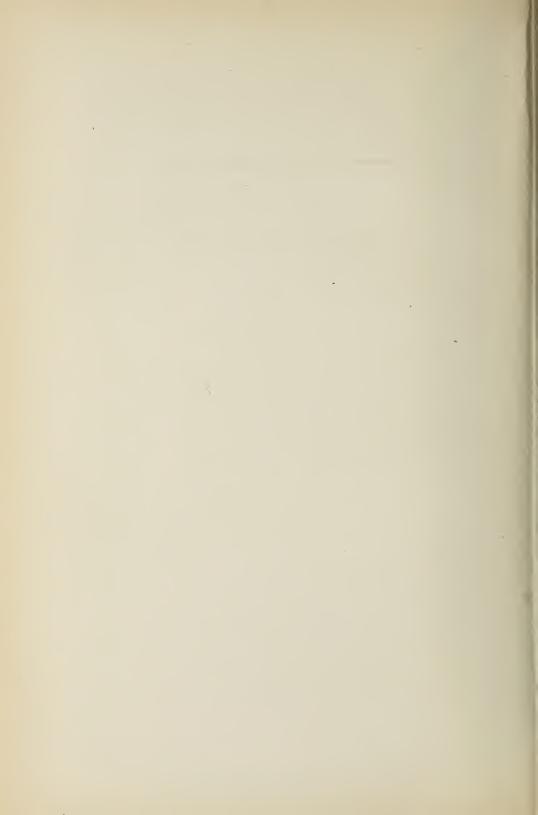
Early in the year, Dr. George M. Mackenzie, who had been acting for some time as medical examiner for the Pension Board, found it necessary temporarily to sever his relations with the Board, owing to the acceptance of his offer to serve as a medical examiner for the Naval Reserve Force. He is now located at the Brooklyn Navy Yard, and in his stead Dr. Walter P. Anderton, who has for a long time been attached to the Presbyterian Hospital, has been selected, and is giving to the Board most efficient and satisfactory service.

The patriotic activities of our Consulting Actuary, Mr. S. Herbert Wolfe, have been varied and considerable. Early in May, at the instigation of the United States Department of Labor, he visited Canada for the purpose of ascertaining the care given by that country to the dependents of enlisted men. The results of his work there have been incorporated in a report issued by the Department. After the satisfactory completion of this duty, Mr. Wolfe received an appointment as Captain in the Quartermaster's Department. He was detailed to Washington, where he assisted in drafting the present measure for soldiers' insurance and compensation in the United States, and while thus occupied directed the compilation of a report entitled "Governmental Provisions in the United States and Foreign Countries for Members of the Military Forces and Their Dependents." This report includes a review of the pension situation in the United States, a brief analysis of provisions peculiar to foreign countries and comparative charts of rates in the United States and twelve other countries, and is amplified by an exhaustive report of the Pension systems of the United States and of all the foreign countries except Canada. Having completed this task, Captain Wolfe was sent abroad, and is at present located in France. Through the intermedium of his office, however, Captain Wolfe is continuing his services as Consulting Actuary to the Pension Board.

A number of our members have been prompt in offering themselves for active service to our country. Some of these

have entered the Federal Service from the National Guard; some, including a number of graduates of the Plattsburg camps, have enrolled in various branches of the Army, and others have entered the Navy. Of all we can attest that they are fulfilling man's highest duty and privilege in giving their aid, their personalities, their influence, and their lives, if need be, in the cause of liberty, humanity and justice. Great indeed is our debt to those of our members who have responded to their country's call, and it is with a deep sense of appreciation that we enumerate those members at this time on our Roll of Honor:

HAROLD E. ANTHONY
FELIX A. BARBARITO
JAMES P. CHAPIN
CHARLES A. CONNOLLY
JOSEPH F. CONNOLLY
LAURENCE FERRI
JOHN J. FINN
ALBERT J. KELLY
DANIEL J. McGARTY
JOSEPH S. McGARTY
EDWIN C. MEYENBERG
LEO E. MILLER
BARRINGTON MOORE



### Deceased Subscribers

It is with deep regret that we record the deaths of the following members during the year 1917:

#### LOUIS POPE GRATACAP

Louis Pope Gratacap was born November 1, 1851, in Brooklyn. He attended the public schools, and graduated from the College of the City of New York in 1869 with the degree of Bachelor of Arts, and from the Columbia School of Mines in 1876 with the degree of Bachelor of Philosophy. In 1880 he received the degree of Master of Arts from the College of the City of New York. He entered the service of the Museum in 1876, when the collections were housed in the old Arsenal in Central Park. In 1880 he was appointed Assistant Curator of Mineralogy, and in 1883 Assistant Curator of the Department of Geology. In 1900 he was made Curator of Mineralogy, also in charge of Conchology, becoming Curator of Conchology in 1901. In 1909 he received the appointment of Curator of the division of Mollusca in the Department of Invertebrate Zoölogy, and held this office, together with his curatorship of Mineralogy, until the time of his death. Mr. Gratacap, who was wonderfully versatile, was a fluent speaker and brilliant lecturer, and possessed rare personal charm. His numerous works of fiction bear witness to his remarkable powers of imagination and elegance of literary style. In his knowledge of gems, minerals and shells he was without a peer. Combined with this attainment he possessed the rare faculty

of arranging the specimens under his control so artistically and so revealingly of their beauties of color and splendors of light that layman and scientist alike were attracted and fascinated by the elegance and perfection of the display. His last few years he devoted to the classification and rearrangement of the specimens of Mollusca, having already completed that of the gems and minerals, and this work will stand through the years to come as an enduring monument to his scientific and artistic attainments. Generous of heart, steadfast and warm in friendship, his loss is irremediable. He died on December 19, 1917.

#### WILLIAM J. HAYES

William J. Hayes was born on November 12, 1868, in this city. He entered the service of the Museum nearly six years ago and was assigned the duties of night-watchman. He was conspicuous for faithfulness in the performance of his duties and the regularity of his attendance. Those who associated with him have a deep sense of personal loss, for in addition to his other attributes he had the faculty of maintaining firm and hearty friendships. He died on April 8, 1917.

#### Francis S. McGuire

Francis S. McGuire was born on July 5, 1837, in East Troy, New York. On October 24, 1861, he enlisted in the United States Navy, where he served with honor and distinction as gunner's mate on the Barque Fernandina, receiving his discharge February 23, 1865. As an evidence of his integrity and the respect in which he was held by his comrades, it may be stated that later he was commander for more than twelve years of William D. Kennedy Post, G.A.R. In 1898 Mr. Mc-Guire entered the employ of the Museum and was assigned to the engineering force, where he faithfully and conscientiously served as night engineer for nearly sixteen years. Age and declining health caused him to ask for his retirement by the Museum in 1914. Mr. McGuire was a most likeable man, of happy disposition, and true in friendship. Seldom complaining through years of continuous illness, he was released from his sufferings on December 15, 1917.

#### Augustus R. Strader

Augustus R. Strader was born May 28, 1848, in Asbury, New Jersey. For a number of years prior to his entering the service of the Museum in 1899, he was employed by contractors engaged in constructing cases and other equipment for this institution. Upon the organization of a Museum construction department, he was placed in charge of the carpentry force, where he not only supervised the work of repairs, but as a draughtsman prepared all the plans for new exhibition cases and for alterations required in the building. This position he held at the time of his death. Possessed of a most agreeable personality, genial and friendly to all, his sudden death was a great shock to his numerous associates, who will ever cherish memories of this sincere friend and enjoyable companion. He died on December 24, 1917.

#### RETIREMENTS

Name	Position	Date Effective	Period of Service
John T. Davis	Carpenter	March 1, 1917	. 15 yrs.
John Jordan	Attendant	April 1, 1917	. 15 yrs.

#### FINANCIAL STATEMENT

OF THE

#### Pension Fund

OF THE

#### AMERICAN MUSEUM OF NATURAL HISTORY

#### 1917

#### INVESTED FUNDS

Endowment Fund	1 / 0 0/	Book Value \$1,140 39 69,622 11
Total	\$76,000 <b>00</b>	\$70,762 50

#### PENSION FUND ACCOUNT

#### RECEIPTS

1917

Cash on Hand January I, 1917	\$5,102	66
Contributions of Subscribing Employees:		
Deductions of 3% from Payrolls of		
City Maintenance Account \$4,409 30		
General Account 2,121 00		
Special Funds Account 41 74		
Corporate Stock Account 227 49		
Incidental Account 4 98		
Morris K. Jesup Fund Account . 2,767 81		
\$9,572 32		
Personal Contributions of Subscribing		
Employees 621 86		
	10,194	18
Contributions of Board of Trustees:		
To Equal Contributions of Subscribing Employees		-
RETURN OF CONTRIBUTIONS (PREVIOUSLY REFUNDED)	54	-
Interest on Investment Fund	2,661	
INTEREST ON ENDOWMENT FUND	50	•
Interest on Contributions Returned	7	•••
Interest on Repayment of Contributions and Interests		53 64
Interest on Credit Balances	194	
Bursar's Account	500	
DORSAR'S TECOUNT	300	
	\$28,935	04
Examined {ADRIAN ISELIN Auditing and Approved {PERCY R. PYNE} Committee		

#### PENSION FUND ACCOUNT

#### DISBURSEMENTS

#### 1917

RETURN OF CONTRIBUTIONS	\$1,259 42
Service Pensions	φ1,259 42
DEATH GRATUITIES PAID UNDER SECTION 13 3,979 15	
DEATH GRATUITIES PAID UNDER SECTION 18 777 00	
	5,434 66
Purchase of Securities:	
Investment Fund	13,995 88
Expenses	88 29
LOAN ACCOUNT	500 00
Cash on Hand December 31, 1917: Deposited with the United States Trust	
Company of New York	
Account) 500 00	
	7,656 79

\$28,935 04

E. & O. E. New York, December 31, 1917

H. P. DAVISON, Treasurer

#### PENSION FUND—SPECIAL FUNDS ACCOUNT

#### RECEIPTS

1917

*9*/		
SPECIAL CONTRIBUTIONS No. 2:		
Cash on Hand January 1, 1917	\$20 00	
Interest on Credit Balances	12 16	
· · · · · · · · · · · · · · · · · · ·		\$32 16
LIBERTY LOAN ACCOUNTS: Interest on Credit Balances		35 35
American Museum Liberty Loan No. 1: Subscribers' Payments:		
Personal \$3,865 50		
Deducted from Salaries 3,559 00		
	\$7,424 50	
INTEREST ON UNPAID BALANCES:		
Personal Payment \$7 93		
Deducted from Salaries 131 05	0 0	
-	138 98	
LOAN ACCOUNT	10,250 00	00
A		17,813 48
American Museum Liberty Loan No. 2: Subscribers' Payments:		
Personal \$2,563 10		
Deducted from Salaries 1,186 50		
	\$3,749 60	
INTEREST ON UNPAID BALANCES:		
Personal Payment \$1 64		
Deducted from Salaries 18 32		
	19 96	
LOAN ACCOUNT	6,050 00	0.0=0.=6
		9,819 56
		\$27,700 55
Examined (ADRIAN ISELIN) Auditing	=	
and Approved (PERCY R. PYNE) Comm	ittee	

#### PENSION FUND—SPECIAL FUNDS ACCOUNT

#### DISBURSEMENTS

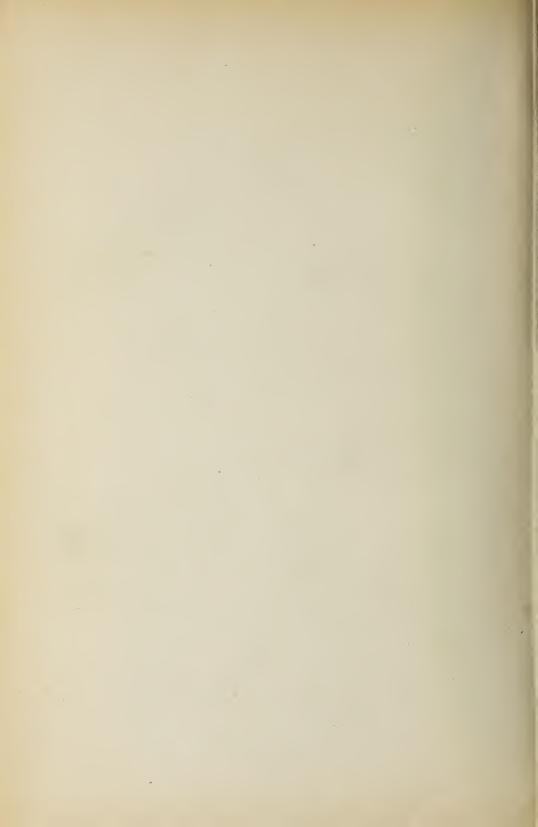
1917			
AMERICAN MUSEUM LIBERTY LOAN No. 1:			
Purchase of Bonds\$13,150	00		
Loan Account 4,519	50		
Interest on Loans	78		
	-\$17	,808,	28
AMERICAN MUSEUM LIBERTY LOAN No. 2:			
Purchase of Bonds	ç	,100	00
Cash on Hand December 31, 1917:			
Deposited with the United States Trust Company	of		
New York		792	27
			_

\$27,700 55

E. & O. E.

NEW YORK, December 31, 1917

H. P. DAVISON, Treasurer





## From the Charter of 1869

"For the purpose of establishing and mainstaining in said city a Museum and Library of Natural Pistory; 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."

