

VOL. VI, PP. 285-291, I-LXXXIII, PL. 15

OCTOBER 31, 1895

THE
NATIONAL GEOGRAPHIC
MAGAZINE



WASHINGTON

PUBLISHED BY THE NATIONAL GEOGRAPHIC SOCIETY

Price 25 cents

THE
NATIONAL
GEOGRAPHIC MAGAZINE

VOLUME VI

JANUARY, 1894, TO MAY, 1895

W. J. McGEE, Chairman

C. HART MERRIAM

Publication Committee



WASHINGTON

PUBLISHED BY THE NATIONAL GEOGRAPHIC SOCIETY

1895

OFFICERS OF THE NATIONAL GEOGRAPHIC SOCIETY

1894 AND TO MAY 31, 1895

GARDINER G. HUBBARD, *President*

T. C. MENDENHALL*	} <i>Vice-Presidents</i>
GEORGE W. MELVILLE	
A. W. GREELY	
C. HART MERRIAM	
W. B. POWELL	
HENRY GANNETT	

CHARLES J. BELL, *Treasurer*

CYRUS C. BABB,† *Recording Secretary*

ELIZA R. SCIDMORE, *Corresponding Secretary*

MARCUS BAKER	} <i>Managers</i>
H. E. BLOUNT	
G. K. GILBERT	
EVERETT HAYDEN	
JOHN HYDE	
W. J. MCGEE	
F. H. NEWELL	
EDWIN WILLITS	

* Resigned December 14, 1894; vacancy filled by the election January 31, 1895, of Charles W. Dalmay, Jr.

† Resigned January 31, 1895; vacancy filled by the election of Everett Hayden.

Printed
J. J. & D. W. WELLS
WASHINGTON

CONTENTS

	Page
Geographic Progress of Civilization: Annual Address by the President, GARDNER G. HUNYARD.....	1
Shawangunk Mountain; by N. H. DARTON.....	23
Weather-Making, Ancient and Modern; by MARK W. HAMMOND.....	35
Geomorphology of the Southern Appalachians; by CHANTRE WIL- LARD HAYES and MARCUS R. CAMPBELL.....	63
The Battle of the Forest; by B. E. FINNOW.....	127
Surveys and Maps of the District of Columbia; by MARCUS BAKER.....	149
The First Landfall of Columbus; by JACQUES W. REDWAY.....	179
Japan; by D. W. STEVENS.....	193
Geography of the Air: Annual Address by Vice-President A. W. GURNEY.....	200
Sir Francis Drake's Anchorage; by EDWARD L. BURROUGHS.....	208
Note on the Height of Mount Saint Elias; by ISAAC C. RUSSELL.....	215
Notes by C. C. BARN: The Antarctic Continent.....	217
Magnetic Observations in Iceland, Jan Mayen, and Spitzbergen in 1892.....	223
A New Light on the Discovery of America.....	224
Monographs of the National Geographic So- ciety.....	225
Laws of Temperature Control of the Geographic Distribution of Ter- restrial Animals and Plants: Annual Address by Vice-President C. HART MERRIAM.....	229
Oregon: its History, Geography, and Resources; by JOHN H. MERRIAM.....	239
Index to Volume VI.....	
Title-page and Imprimatur.....	i
Contents.....	iii
Illustrations.....	iv
Publications of the National Geographic Society.....	vi
Proceedings of the National Geographic Society.....	xiii
Seventh Annual Report of the Recording Secretary.....	xxi
Seventh Annual Report of the Treasurer.....	xxvi
Report of the Auditing Committee.....	xxviii
By-laws of the Society.....	xxix
Officers of the Society.....	xxxii
Honorary Members of the Society.....	xxxiii
Active Members of the Society.....	xxxiv
Corresponding Members of the Society.....	lxxii

ILLUSTRATIONS

		Page
Plate 1—	Stereogram of the Shawangunk Mountain.....	23
2—	Lake Mohonk, looking southward.....	27
3—	Eastern Face of Shawangunk Mountain, looking south- eastward.....	31
4—	Relief Map of the Chattanooga District.....	63
5—	Map of the Southern Appalachians, showing the deformed Cretaceous Peneplain.....	126
6—	Map of the Southern Appalachians, showing the deformed Tertiary Peneplain.....	126
7—	Drowning the Torrent.....	127
8—	Map showing the Natural Divisions of the North Ameri- can Forests.....	130
9—	District of Columbia.....	149
10—	A Part of the Map of Juan de la Cosa, 1500, with Vignette of Samaná, from a Modern Chart.....	186
11—	Mappa Munde peinte sur Parchemin par Ordre de Henri II, Roi de France, 1532.....	188
12—	Map of United States, showing Distribution of the Total Quantity of Heat during Season of Growth and Repro- ductive Activity.....	238
13—	Map of United States, showing Mean Temperature of Hottest Six Consecutive Weeks of Year.....	238
14—	Map of United States, showing Life Zones.....	238
15—	Membership Diagram, National Geographic Society....	lxxxiii
DAITON:	Figure 1—Cross-section of Eastern Ridges of Shawangunk Mountain through Lake Mohonk.....	27
	2—Cross-section of Eastern Ridges of Shawangunk Mountain through Lake Minnewaska.....	29
	3—Lake Awooting.....	30
HAYES and CAMPBELL:	Figure 1—Diagram showing Oscillations of Land Surface at Chattanooga, Tennessee.....	99
	2—Sketch Map of the Tennessee Gorge.....	116
	3—Diagram showing Variation in Character of Cretaceous and Tertiary Sediments in Alabama.....	125
FRANZ:	Figure 1—A German Spruce Forest under Management..	147
BANDER:	Figure 1—District of Columbia.....	152

Illustrations.

v

	Page
ROADWAY: Figure 1—A Part of the Map of Herrera, 1601, with Vignette of Watling Island (modern).....	187
2—Modern Map of Samaná, Crooked and Acklin Islands.....	191
BAND: Figure 3—The Antarctic Continent.....	221

PUBLICATIONS OF THE NATIONAL GEOGRAPHIC SOCIETY

REGULAR PUBLICATIONS

In addition to announcements of meetings and various circulars sent to members from time to time, the Society issues a single serial publication entitled THE NATIONAL GEOGRAPHIC MAGAZINE. During the first two years of the existence of the Society this serial was issued in quarterly numbers. With the beginning of the third year of the Society and the third volume of the *Magazine* the form of publication was changed, and the serial appeared at irregular intervals in parts or brochures (designated by pages and designed either for separate preservation or for gathering into volumes), consisting either of single memoirs or of magazine brochures made up of articles, notes, abstracts, and other geographic matter, together with the Proceedings and other administrative records of the Society. By reason of a change in the Society's season and fiscal year, volume VI extended from January 1, 1894, to May 31, 1895, and later volumes will coincide with the new season, namely, June 1 to May 31. Moreover, the numbers will be issued regularly hereafter, at periods to be announced in the first number of the new volume.

The *Magazine* is forwarded gratuitously to all members of the Society. The subscription price to the public will be, hereafter, \$2.00 a year. Members of the Society who want extra copies, and subscription agencies for the sale of the *Magazine*, are allowed a discount of thirty per cent.

NATIONAL GEOGRAPHIC MAGAZINE, VOLUMES I-VI

TABLE OF CONTENTS.	Prices.		Number of copies on hand for sale.
	To members and agents.	To the public.	
Volume I, 1889: 4 numbers, 337 pages, 16 plates, and 26 figures.....	\$1.40	\$2.00	
No. 1: pp. 1-98, 1-ii, 6 plates.....	35	50	171
Announcement. Introductory Address by the President, Gardiner G. Hubbard. Geographic Methods in Geologic Investigation; by W. M. Davis. The Classification of Geographic Forms by Genesis; by W. J. McGee. The Great Storm of March 11-14, 1888; Summary of Remarks by A. W. Groely. The Great Storm off the Atlantic Coast of the United States, March 11-14, 1888; by Everett Hayden. The Survey of the Coast; by Herbert G. Ogden. The Survey and Map of Massachusetts; by Henry Gauntlett. Proceedings. Certificate of Incorporation. By-laws. Officers, 1888. Members.			

TABLE OF CONTENTS:	Prices.		Number of copies on hand for sale.
	To members and agents.	To the public.	
No. 2: pp. 99-182, 1 plate..... Africa, its Past and Future: Annual Address by the President, Gardiner G. Hubbard. Report—Geography of the Land; by Vice-President Herbert G. Ogden. Report—Geography of the Sea; by Vice-President George L. Dyer. Report—Geography of the Air; by Vice-President A. W. Greely. Report—Geography of Life; by Vice-President C. Hart Merriam. Annual Report of the Treasurer, Auditing Committee, and Secretaries. Certificate of Incorporation. Officers, 1889. By-laws. Members.	80 35	80 50	*
No. 3: pp. 183-276, 2 plates and 26 figures..... The Rivers and Valleys of Pennsylvania; by William Morris Davis. Topographic Models; by Cosmos Mindeleff. Abstract of Minutes. International Literary Contest.	35	50	116
No. 4: pp. 277-335, 7 plates..... Irrigation in California; by William Hammond Hall. Round about Asheville; by Bailey Willis. A Trip to Panama and Darien; by Richard U. Goode. Across Sierragua with Transit and Machete; by R. E. Peary.	35	50	
Volume II, 1890: 5 numbers, 347 pages, 9 plates, and 11 figures.....	\$1 40	\$2 00	
No. 1: pp. 1-80..... On the Telegraphic Determinations of Longitudes by the Bureau of Navigation; by J. A. Norris. Report—Geography of the Land; by Vice-President Herbert G. Ogden. Report—Geography of the Air; by Vice-President A. W. Greely. Reports of Treasurer, Auditing Committee, and Recording Secretary. Abstract of Minutes. Officers, 1890. Members.	35	50	6
No. 2: pp. 81-170, 1 plate and 7 figures..... The Rivers of Northern New Jersey, with Notes on the Classification of Rivers in General; by William Morris Davis. A Critical Review of Bering's First Expedition, 1725-'30, together with a Translation of his Original Report; by Wm. H. Dall.	35	50	*
No. 3: pp. 171-239, 6 plates and 4 figures..... The Arctic Cruise of the U. S. S. <i>Thetis</i> in the Summer and Autumn of 1889; by Charles H. Stockton. The Law of Storms Considered with Special Reference to the North Atlantic; by Everett Hayden. The Irrigation Problem in Montana; by H. M. Wilson.	35	50	*

TABLE OF CONTENTS.	Prices.		Number of copies sent hand for sale.
	To mem- bers and agents.	To the public.	
No. 4: pp. 211-280, 2 plates Korea and the Koreans; by J. B. Bernadou. The Ordnance Survey of Great Britain; by Josiah Pierce, Jr. Geographic Nomenclature; by Herbert G. Ogden, Gustave Herrle, Marcus Baker, and A. H. Thompson.	\$0 35	\$0 50	12
No. 5: pp. 287-370, i-viii. Officers, 1890. Contents and Illustrations, vol- umes I and II. Announcement. Proceedings. Third Annual Report of the Secretaries. Report of the Treasurer and Auditing Committee. Summary of Reports on the Mount Saint Elias Expedition. By- laws. Standing Rules of the Board of Managers. Rules relating to Publication. Officers, 1891. Mem- bers, March 25, 1891. Index to Volumes I and II.	18	25	3
Volume III, 1891: 5 numbers, 296 pages, 21 plates, and 8 figures.	\$1 60	\$3 00	100
No. 1: pp. 1-30, plate 1, March 23, 1891. South America; Annual Address by the Presi- dent, Gardiner G. Hubbard.	15	25	193
No. 2: pp. 31-40, April 30, 1891. Geography of the Land; Annual Report by Vice- President Herbert G. Ogden.	10	25	176
No. 3: pp. 41-52, May 1, 1891. Geography of the Air; Annual Report by Vice- President A. W. Greedy.	10	25	100
No. 4: pp. 53-204 (with 8 figures), plates 2-20, May 29, 1891. An Expedition to Mount St Elias; by L. C. Rus- sell.	85	1 50	181
No. 5: Magazine brochure, pp. 205-261, i-xxxv, plate 21, February 19, 1892. The Cartography and Observations of Bering's First Voyage; by A. W. Greedy. Height and Posi- tion of Mount Saint Elias; by L. C. Russell. The Heart of Africa; by E. C. Hore. Report of Com- mittee on Exploration in Alaska. Notes. Index. Officers, 1891. Contents. Illustrations. Publica- tions. Proceedings. Officers, 1892. Members, 1892.	40	75	107

TABLE OF CONTENTS.	Prices.		Number of copies sent hand for sale.
	To mem- bers and agents.	To the public.	
Volume IV, 1892: 7 numbers, 237 pages, 20 plates, and 5 figures.	\$1 75	\$3 00	
No. 1: pp. 1-18, March 20, 1892. The Evolution of Commerce; Annual Address by the President, Gardner G. Hubbard.	10	25	*
No. 2: pp. 19-84 (with 5 figures), plates 1-16, March 21, 1892. Studies of Muir Glacier, Alaska; by Harry Field- ing Reid.	75	1 00	*
No. 3: pp. 85-100, March 18, 1892. Geography of the Air; Annual Report by Vice- President A. W. Greely.	10	25	*
No. 4: pp. 101-116, plate 17, March 31, 1892. The Mother Maps of the United States; by Henry Gannett.	15	25	*
No. 5: pp. 117-162, plates 18-20, May 15, 1892. An Expedition through the Yukon District; by C. Willard Hayes.	30	50	*
No. 6: Magazine brochure, pp. 163-208, February 8, 1893. The North American Deserts; by Johannes Walther. The Alaskan Boundary Survey; by T. C. Mendenhall, J. E. McGrath, and J. Henry Turner. Collinson's Arctic Journey; by A. W. Greely. Notes.	20	50	*
No. 7: Administrative brochure, pp. 209-213, 1-xvii, February 20, 1893. Officers, 1892. Contents. Illustrations. Publi- cations. Fourth Annual Report of the Secretaries and Treasurer. Report of the Auditing Committee. Proceedings. Fifth Annual Report of the Secre- taries and Treasurer. Report of the Auditing Com- mittee. Index.	15	25	*
Volume V, 1893: 6 numbers, 331 pages, 21 plates, and 5 figures.	\$1 95	\$3 00	24
No. 1: pp. 1-20 (with 2 figures), plates 1-5, April 7, 1893. Discoverers of America; Annual Address by the President, Gardner G. Hubbard.	35	50	24
No. 2: pp. 21-44, plates 6-10, March 20, 1893. The Movements of our Population; by Henry Gannett.	30	50	27

TABLE OF CONTENTS.	Prices.		Number of copies sent free of charge
	To mem- bers and agents.	To the public.	
No. 3: pp. 45-58, plate 20, April 23, 1893. Rainfall Types of the United States; Annual Report by Vice-President A. W. Groely.	\$0 15	25	47
No. 4: Magazine brochure, pp. 59-96 (with 3 figures), plate 21, July 10, 1893. The Natural Bridge of Virginia; by C. D. Walcott. The Geographical Position and Height of Mount Saint Elias; by T. C. Mendenhall. The Improvement of Geographical Teaching; by W. M. Davis. An Undiscovered Island off the Northern Coast of Alaska; by Marcus Baker, E. P. Herndon, and A. W. Groely. The Geologist at Blue Mountain, Maryland; by C. D. Walcott. The Great Populous Centers of the World; by A. W. Groely. Our Youngest Volcano; by J. S. Diller.	25	50	58
No. 5: pp. 97-256, January 31, 1894. Proceedings of the International Geographic Conference in Chicago, July 27-28, 1893: Introduction. Minutes of the Conference. Memoirs and Addresses. The Relations of Air and Water to Temperature and Life; by Gardiner G. Hubbard. The Relations of Geography to History; by Francis W. Parker. Norway and the Vikings; by Magnus Anderson. Geographic Instruction in the Public Schools; by W. B. Powell. The Relations of Geology to Physiography in our Educational System; by T. C. Chamberlin. The Relations of the Gulf Stream and the Labrador Current; by William Libbey, Jr. The Arid Regions of the United States; by F. H. Newell. Recent Explorations in Alaska; by Eliza Rahamali Seidmore. The Caravels of Columbus; by Victor Maria Cousas. In the Wake of Columbus; by Frederick A. Ober. Recent Discoveries concerning pre-Columbian Voyages to America in the Archives of the Vatican; by William Eleroy Curtis. Early Voyages along the Northwestern Coast of America; By George Davidson.	50	75	112
No. 6: Administrative brochure, pp. 257-263, i-lxviii, May 5, 1894. Officers, 1893. Contents. Illustrations. Publications. Proceedings. Sixth Annual Report of the Secretaries and Treasurer. Report of the Auditing Committee. By-laws. Officers, 1894. Honorary Members. Members, 1894. Index.	40	50	185

TABLE OF CONTENTS.	Prices.		Number of copies not bound for sale.
	To mem- bers and agents.	To the public.	
Volume VI, 1894 and to May 31, 1895: 9 numbers, 291 pages, 15 plates, and 11 figures.....	\$2 10	\$3 00	*
No. 1: pp. 1-22, February 17, 1894..... Geographic Progress of Civilization; Annual Ad- dress by the President, Gardiner G. Hubbard.	15	25	*
No. 2: pp. 23-34 (with 3 figures), plates 1-3, March 17, 1894..... Shawangunk Mountain; by N. H. Darton.	15	25	*
No. 3: pp. 35-62, April 25, 1894..... Weather Making, Ancient and Modern; by Mark W. Harrington.	15	25	*
No. 4: pp. 63-126 (with 3 figures), plates 4-6, May 23, 1894..... Geomorphology of the Southern Appalachians; by C. Willard Hayes and Marius R. Campbell.	40	75	*
No. 5: pp. 127-148 (with 1 figure), plates 7 and 8, June 22, 1894..... The Battle of the Forest; by B. E. Fernow.	15	25	*
No. 6: pp. 149-178 (with 1 figure), plate 9, Novem- ber 1, 1894..... Surveys and Maps of the District of Columbia; by Marcus Baker.	25	50	*
No. 7: Magazine brochure, pp. 179-238 (with 3 fig- ures), plates 10-14, December 20, 1894..... The First Landfall of Columbus; by J. W. Red- way. Japan; by D. W. Stevens. Geography of the Air; Annual Address by Vice-President A. W. Greely. Sir Francis Drake's Anchorage; by E. L. Berthoud. Note on the Height of Mount Saint Elias; by L. C. Russell. Geographic Notes; by Cyrus C. Babb. Laws of Temperature Control of the Geo- graphic Distribution of Terrestrial Animals and Plants; Annual Address by Vice-President C. Hart Merriam.	35	50	*
No. 8: pp. 239-284, April 20, 1895..... Oregon: its History, Geography, and Resources; by John H. Mitchell.	35	50	280
No. 9: Administrative brochure, pp. lxxxiii, plate 15, October 31, 1895..... Officers, 1894. Contents. Illustrations. Publi- cations. Proceedings. Seventh Annual Report of the Recording Secretary and Treasurer. Report of the Auditing Committee. By-laws. Officers, Ses- sion of 1895-'96. Members. Index.	15	25	500

* Edition exhausted. A limited number of copies will be purchased by the Society upon notification of copies for sale.

Orders for volumes or single numbers may be sent to booksellers or direct to the Secretary of the Society, 1515 H street N. W., Washington, D. C.

IRREGULAR PUBLICATIONS

In the interest of exact bibliography, the Society takes cognizance of all publications issued either wholly or partly under its auspices. Each author of a memoir published in *THE NATIONAL GEOGRAPHIC MAGAZINE* receives 25 copies, and is authorized to order any number of additional copies at a slight advance on the cost of press-work and paper. Contributors to the magazine are authorized to order any number of copies of their contributions at a slight advance on cost of presswork and paper, provided these separates bear the original pagination and a printed reference to the serial and volume from which they are extracted; such separates are, of course, bibliographically distinct. The *Magazine* is not copyrighted, and articles may be reprinted freely; a record of such reprints, so far as known, is kept.

PROCEEDINGS
OF THE
NATIONAL GEOGRAPHIC SOCIETY

JANUARY, 1894, TO MAY, 1895

Abstract of Minutes

January 12, 1894.

89th meeting.

Assembly Hall of Cosmos Club, 8 p. m. Vice-President Mendenhall in the chair. Attendance, 125.

Report of Auditing Committee, appointed the 5th instant, read and approved.

The general topic, "Surveys and Explorations in Southeastern Alaska for the Alaska Boundary Commission," was discussed by Dr T. C. Mendenhall, Mr J. E. McGrath, Mr H. G. Ogden, Mr W. C. Hodgkins, Mr P. A. Welker, and Mr H. P. Ritter. The subject was illustrated by maps and lantern slides.

January 19, 1894.

Special meeting.

National Rifles' Hall, 8 p. m. President Hubbard in the chair. Attendance, 700.

Rev E. C. Smith delivered an illustrated lecture on The Ascent of Mount Rainier.

January 8, 11, 15, 18, 22, and 25, 1894.

Special course of afternoon lectures.

Large Hall of Columbian University, 4.15 p. m.

Special course by Mr G. K. Gilbert on The Shaping of the Earth's Surface, under the divisions (1) Uplift and Erosion; (2 and 3) Water Work; (4) Interaction; (5) Ice Work; (6) Wind Work.

*January 20, 1894.**90th meeting.*

Assembly Hall of Cosmos Club, 8 p. m. President Hubbard in the chair. Attendance, 75.

The thanks of the Society were voted to Mr G. K. Gilbert for his able and instructive course of afternoon lectures.

The general topic, Alaskan Boundary Surveys, was discussed in detail by Mr J. A. Flemer, Mr E. F. Dickins, Mr O. H. Tittmann, Mr J. F. Pratt, and Lieutenant A. P. Niblack, U. S. N., the last three of whom used lantern-slide illustrations.

*February 2, 1894.**91st meeting.*

Builders' Exchange Hall, 8 p. m. Attendance, 300.

Annual address by the President, Hon Gardiner G. Hubbard, on The Geographic Progress of Civilization, illustrated by lantern slides.

*February 9, 1894.**92d meeting.*

Assembly Hall of Cosmos Club, 8 p. m. President Hubbard in the chair.

Hon Edwin Willits introduced the speaker, Dr C. Hart Merriam, who read a paper on Geographic Discoveries Made by the Biological Expeditions of the United States Department of Agriculture.

*February 16, 1894.**Special meeting.*

Builders' Exchange Hall, 8 p. m. President Hubbard in the chair. Attendance, 500.

Hon George C. Perkins, United States Senate, delivered an illustrated lecture on Pacific and Arctic Ocean Whaling Industry.

*February 23, 1894.**93d meeting.*

Assembly Hall of Cosmos Club, 8 p. m. President Hubbard in the chair. Attendance, 50.

Professor Mark W. Harrington read a paper on Weather Making, Ancient and Modern.

*March 2, 1894.**Special meeting.*

Builders' Exchange Hall, 8 p. m. President Hubbard in the chair. Attendance, 300.

Major J. W. Powell delivered an address upon The Water Supply of the United States.

March 9, 1894.

94th meeting.

Assembly Hall of Cosmos Club, 8 p m. Vice-President Gannett in the chair. Attendance, 50.

Dr C. Willard Hayes delivered an address upon *The Physiography of a Portion of the Southern Appalachians, as Illustrated by a Relief Map of the Chattanooga District*; and Mr M. R. Campbell read a paper on *Tertiary Changes in the Drainage of Southwestern Virginia*.

March 16, 1894.

Special meeting.

National Rifles' Hall, 8 p m. President Hubbard in the chair. Attendance, 700.

Professor William H. Pickering delivered an illustrated lecture upon *Explorations in the Andes of South America*.

March 23, 1894.

95th meeting.

Assembly Hall of Cosmos Club, 8 p m. President Hubbard in the chair. Attendance, 125.

The amendments to the by-laws proposed February 23 were laid upon the table. (These proposed amendments created five classes of members—Active Members, Fellows, Honorary Members, Honorary Fellows, and Corresponding Members.)

Mr Marcus Baker delivered an address upon *The Survey and Maps of the District of Columbia*.

March 30, 1894.

Special meeting.

Builders' Exchange Hall, 8 p m. President Hubbard in the chair. Attendance, 550.

Mr Willard D. Johnson delivered an illustrated lecture upon *The Problem of the Yosemite*.

April 4, 1894.

Special meeting.

Assembly Hall of Cosmos Club, 8 p m. Mr W J McGee in the chair. Attendance, 125.

Dr Carl Lumholtz delivered an illustrated address upon *The Cliff-dwellers of Mexico*.

April 6, 1894.

96th meeting.

Assembly Hall of Cosmos Club, 8 p m. Mr G. K. Gilbert in the chair. Attendance, 50.

Mr Henry Gannett read a paper upon *Statistics of our Industries*.

*April 13, 1894.**Special meeting.*

Builders' Exchange Hall, 8 p m. President Hubbard in the chair.

Mr H. M. Wilson delivered an illustrated address entitled *From Bombay to the Himalayas.*

*April 19, 1894.**97th meeting.*

Assembly Hall of Cosmos Club, 8 p m. Mr Henry Gannett in the chair. Attendance, 75.

The general topic was *The Public Lands of the United States*, discussed under the following heads and by the following speakers: *The National Domain*, by Mr F. H. Newell; *The Texas Land System*, by Mr R. U. Goode; *The Public Lands of Idaho*, by E. T. Perkins, Jr.; and *The Public Domain in its Social Aspect*, by Mr Arthur P. Davis. The papers were discussed by Mr J. B. Thompson and Mr W. A. Croffut.

*April 20, 1894.**Field meeting.*

Eighty members and guests attended an excursion to Virginia Beach and the Dismal Swamp. Mr G. K. Gilbert and Dr David T. Day took charge of the two parties, and in the evening a meeting was held at the Princess Anne Hotel, Virginia Beach.

*April 21, 1894.**Special meeting.*

National Rifles' Hall, 8 p m. President Hubbard in the chair. Attendance, 500.

Mr Frank Hamilton Cushing delivered an illustrated lecture upon *The Geographic Origin and Distribution of the Pueblo Indians.*

*May 4, 1894.**98th meeting.*

Assembly Hall of Cosmos Club, 8 p m. Mr G. K. Gilbert in the chair. Attendance, 125.

Mr Henry Farquhar, in behalf of the excursion party to the Dismal Swamp, thanked the committee for the able and efficient manner in which the plans were carried out.

Mr R. T. Hill delivered an illustrated lecture upon *The Mountains of Mexico*, and remarks were made by Mr H. M. Wilson and Señor Don M. Romero, the Mexican minister.

May 11, 1894.

Special meeting.

Builders' Exchange Hall, 8 p m. President Hubbard in the chair. Attendance, 600.

Mr Paul B. Du Chaillu delivered an illustrated lecture upon *The Dwarfs and Forests of Central Africa.*

May 18, 1894.

59th meeting.

Assembly Hall of Cosmos Club, 8 p m. Dr C. Hart Merriam in the chair. Attendance, 75.

Dr T. C. Mendenhall read a paper upon *The Northeastern Boundary of the United States.*

Professor R. T. Hill spoke of *The Geography of Cuba*; and Professor G. V. Riley discussed *The Periodic Appearance of the Cicada.*

May 25, 1894.

Special meeting.

Builders' Exchange Hall, 8 p m. President Hubbard in the chair. Attendance, 500.

Mr Alfred F. Sears delivered an illustrated lecture upon *Peru.*

June 1, 1894.

100th meeting.

Large Hall of Columbian University, 8 p m. President Hubbard in the chair. Attendance, 250.

Letters of congratulation to the Society upon the occasion of its one hundredth regular meeting were read from Hon Charles P. Daly, president of the American Geographical Society, and from Mr P. S. Moxom, president of the Appalachian Mountain Club. General A. W. Greely, U. S. A., spoke upon *The Work of Foreign Geographic Societies*, and remarks were made by Bishop John J. Keane, Hon J. H. Outhwaite, Dr J. C. Welling, and Mr Charles D. Walcott.

(For remaining meetings, up to May 31, 1895, see accompanying Calendar, season of 1894-'95.)

NATIONAL GEOGRAPHIC SOCIETY CALENDAR, SEASON OF
1894-'95

- Oct. 19.* Japan: its Geography, Resources, and Future,
Hon D. W. Stevens
Introductory Remarks by His Excellency Mr Kurino, the
Japanese Minister.
- Oct. 26.* The Elements of Physiography.....Major J. W. Powell
- Nov. 2.† The Science of Geography... General A. W. Grosby, U. S. A.
The First Landfall of Columbus in the Light of Early Car-
tography.....Mr J. W. Redway
- Nov. 9.* Physiographic Processes..... Major J. W. Powell
- Nov. 16.† The Origin and Configuration of the Upper Alpine Passes,
Dr Lafayette C. Loömbis
- Nov. 21.* From Cape Town into the Countries of the Ma-Shukulumbé,
Dr Emil Holub
- Nov. 30.† Recent Results in Oceanography,
Ensign Everett Hayden, U. S. N.
The Sigsbee Deep-sea Sounding Machine,
Commander C. D. Sigsbee, U. S. N.
The Outfit and Cruises of the U. S. F. C. S. *Albatross*,
Commander Z. L. Tanner, U. S. N.
- ¶Dec. 7.* The Land of the Midnight Sun..... Mr Paul B. Du Chaillu
- Dec. 14.† The Geographic Distribution of Soils,
Professor Milton Whitney
The Geographic Distribution of Life... Dr C. Hart Merriam
- Dec. 21.* The Political Geography of Asia.....Hon John W. Foster
- Dec. 28. The Economic Aspects of Erosion.... Professor S. S. Shaler
Joint Meeting with American Forestry Association, in the
National Museum. Introductory Remarks, by Hon J.
Sterling Morton, Secretary of Agriculture.
- Jan. 4.* Labor and Industries of the South.... Hon Carroll D. Wright
- Jan. 11.† The Northern Appalachians..... Mr Bailey Willis
- Jan. 18.* The Nicaragua Canal..... Hon John R. Procter
- Jan. 25.† The Pilean, Julian, Plantagenian, and Itascan Sources of
the Mississippi.....Elliott Coues, M. D.
- ¶Feb. 1.* The Seine, the Meuse, and the Moselle,
Professor William M. Davis
- Feb. 8.† Topographic Forms,
Major Gilbert Thompson, Mr G. W. Littlehales
- ¶Feb. 15.* Shakespeare's England.....Rev G. Arbutnot
- Feb. 22.† Practical Results of the Bering Sea Arbitration,
Mr J. Stanley-Brown
- ¶Mar. 1.* Recent Discoveries in Assyria and Babylonia,
Rev Dr Francis Brown

- {Mar. 8.} The International Boundary between Mexico and the United States Mr A. T. Mosman,
Mr Stehman Forney,
Captain E. A. Mearns, U. S. A.
- {Mar. 15.*} The Ottoman Empire Dr Cyrus Adler
- {Mar. 18.} Washington to Pittsburg and to Niagara Falls:
Across the Appalachians Dr David T. Day
Side Trip to Niagara Falls Mr G. K. Gilbert
- Mar. 20. Reception at the Arlington Hotel, Washington, D. C.,
9 to 12 p m.
- {Mar. 22.} Pittsburgh to Yellowstone National Park:
Pittsburgh to St Paul, through the Oil and Gas Regions,
Professor Edward Orton
St Paul to Yellowstone National Park; Wonderland of
the Yellowstone..... Mr Henry Gannett
- {Mar. 22.} The Alaskan Boundary Survey,
Mr J. E. McGrath, Mr J. F. Pratt, Mr H. P. Ritter
- {Mar. 25.} Yellowstone National Park to Sacramento:
The Northern Rockies; Down the Columbia; Mount
Rainier and Portland..... Mr E. T. Perkins, Jr.
Portland to Crater Lake; Mount Shasta and Sacramento,
Mr J. S. Diller
- {Mar. 29.} Sacramento to Northern Arizona:
Sacramento; the Golden Gate; Yosemite; Los Angeles;
San Bernardino..... Mr Arthur P. Davis
From San Bernardino across the Deserts to San Francisco
Mountain, Arizona..... Major J. W. Powell
- Mar. 29.* Oregon: its Geography, History, and Resources,
Hon J. H. Mitchell
- {April 2.} The Grand Canyon and Sonora, Mexico:
Salt Lake City to the Grand Canyon; a Winter in the
Depths of the Canyon..... Mr Charles D. Walcott
Prescott, Phoenix, and Tucson, to Sonora, Mexico; Visit
to the So-called Cannibals..... Mr W J McGee
- {April 4.} The Zulu-Ma-Atabole, and Modes of Travel in South Africa,
Dr Emil Holub
- {April 5.} Across the Rocky Mountains to Denver:
Northern Arizona, the Rio Grande, and across the Moun-
tains to Denver..... Professor A. H. Thompson
The Home of the Pueblo Indians,
Mr Frank Hamilton Cushing
- April 5.† Some Physical Features of Lake Superior,
Professor Mark W. Harrington
- {April 8.} Denver to Washington:
Denver to Pueblo, down the Arkansas River, and across
the Plains to St Louis..... Mr F. H. Newell
St Louis to Washington; the Great Caves of Kentucky
and Virginia..... Major Jed. Hotchkiss

- April 12. || The Physical Geography, Geology, Agriculture, Religions, and Missionary Literary Institutions of the Turkish Empire,
Rev Henry H. Jessup, D. D.
- {April 19. † The Geography and Geology of Costa Rica and Panama,
Mr Robert T. Hill
- {April 26. * The Antiquities and Aborigines of Peru,
Mr Frank Hamilton Cushing
- {April 29. † Siberia: its Geography and Resources. . . Mr George Kennan
- May 3. * Fredericksburg and Vicinity; a Symposium Preparatory to the Field Day:
Geography and Geology (15 minutes). . . Mr N. H. Darton
Surveying, Mapping, and Bridging (15 minutes),
Major Gilbert Thompson
- The Battles:
As seen from the Northern Side (20 minutes),
General John Gibbon, U. S. A.
As seen from the Southern Side (20 minutes),
Major Jed. Hotchkiss, C. S. A.
- May 4. Excursion and Field Meeting, Fredericksburg, Virginia, 9 a m to 6 p m.
- {May 10. * President's Annual Address: Russia. (Joint Meeting of the Scientific Societies). Hon Gardiner G. Hubbard
- May 17. † The United States Commission of Fish and Fisheries and its Relations with the Navy. . . Commander Z. L. Tanner, U. S. N.
- {May 24. || The Geography and Geology of Costa Rica and Panama. (Repeated by request). Mr Robert T. Hill
- May 31. † Annual Meeting for Reports, Action on Amendments to By-laws, and Election of Officers.

* National Rifle's Hall, 8 to 9.15 p m.

† Cosmos Club Hall, 8 to 10 p m.

‡ National Rifle's Hall, 4.15 to 5.30 p m.

§ Lecture illustrated by lantern slides.

|| Columbian University, 8.15 to 9.30 p m.

¶ Columbian University, 4.15 to 5.30 p m.

SEVENTH ANNUAL REPORT OF THE RECORDING SECRETARY

(Presented to the Society May 31, 1895)

OFFICE OF THE SECRETARY,
1515 H STREET N. W.,
WASHINGTON, D. C., May 31, 1895.

The season ending today has been one of the most successful in the annals of the Society, not only as regards increase of membership, but by reason of the great interest shown in the meetings, the large attendance of members and guests, and the character and number of the papers read.

The present membership is 1,178, consisting of 893 active, 274 corresponding, and 11 honorary members. Of this total number 423 have been elected since January 1, 1894, and 365 since June 1, 1894, numbers largely in excess of those elected during a similar period at any former time in our history.

To illustrate graphically the number of members elected each month since the Society was organized (in January, 1888), the length of time each member has remained in the Society, and the present membership, the accompanying membership diagram has been prepared. A glance at this diagram indicates very clearly the fact that our membership has increased very rapidly, and that a comparatively small proportion of those elected discontinue their membership. (See Plate 15.)

The change in the Society's fiscal year from the calendar year to that of the year from June 1 to May 31, now in effect, has of course been attended with some little embarrassment in connection with the publication of the *Magazine*, the dues of members, etc, but the great advantages of the change more than outweigh such temporary difficulties. By far the greater part of the energy of the Society is expended during the winter season, and it is therefore very desirable that its management should be continuous from summer to summer, rather than that there should be a periodic change, or at least liability to change, of its Board of Managers in the midst of the season of its greatest activity.

Owing to this change, the period now under review covers the interval from January 1, 1894, to date, but for comparison with future seasons, and as a just indication of what may fairly be expected during each coming season, it is of interest to review some of the principal features of our operations during the period from October last up to the present time.

During this season we have had 17 regular meetings and 28 special meetings, the latter including the reception, field meeting, and joint meeting of the Scientific Societies, making a total of 45 meetings, with 75 speakers. The average attendance at the regular or technical meetings (held for the most part in the Assembly Hall of the Cosmos Club) has been 170, and at the special or popular meetings (in National Rifles' Hall), 777. As a comparative measure of the Society's activity it need only be added that in 1890 there were but 17 meetings held altogether, with far smaller average attendance.

Especial interest has been shown in a course of illustrated afternoon lectures descriptive of a trip across the continent and back again, each lecture by two speakers who took up the thread of the story, in turn, and described in a popular way, and with a very fine series of lantern illustrations, the geography and most striking natural and artificial features of the region traversed. Each speaker was a recognized authority regarding his portion of the route, and the course proved to be a brilliant and gratifying success—so much so, in fact, that a similar course will undoubtedly be a feature of each of our coming seasons.

The accompanying calendar gives a brief but complete résumé of the entire series of lectures, so that but little more need be said. Reference should be made, however, to the very successful reception at The Arlington the evening of March 20th, and the excursion to Fredericksburg, Va., on May 4th, where a field-meeting was held and the day passed amidst scenes of great natural beauty as well as of great geographic and historic interest. None of the expense of the reception or excursion was charged to the Society's treasury, but those who participated paid the entire cost, which was, of course, comparatively small, by reason of the excellent management by the committees and the facilities secured by the organization of the Society.

Mention should be made of a lecture delivered under the auspices of the Society by Mrs Robert E. Peary, in aid of the fund to equip an expedition to bring her husband, the distinguished

arctic explorer, home this summer, at the close of his season's work in northern Greenland, rather than leave him there to endure the useless delay and hardship of another arctic winter. Our Board of Managers, as a slight recognition of interest in and approval of the plan, voted to appropriate a sum sufficient to pay the expenses of a lecture by Mrs Peary and to give her the gross receipts, and in this way, thanks largely to her own energy and the interest of the public in her fascinating story of arctic life, the Society was enabled, at comparatively small expense, to add \$400 to the fund—a result especially gratifying by reason of the fact that Lieutenant Peary is one of our own members. This incident furnishes in itself a good example of the practical effectiveness of our organization in aiding actual geographic research, as well as in increasing and diffusing geographic knowledge.

Strong support has been given during past years by our Board of Managers to the project of uniting into a closer union the various scientific societies of this city, and during the past season this object has been consummated in a way that is gratifying to its earnest supporters and at the same time satisfactory to the more conservative. The present organization and powers of the Joint Commission seem to be worthy of strong support and approval, and there is every reason to believe that its practical results will be satisfactory and mutually advantageous to the societies represented.

The meeting this summer in London of the Sixth International Geographical Congress promises to mark an epoch in the history of geographic progress, and this Society will be represented by a delegation which, by authority of the Board of Managers, will extend a cordial invitation to the Congress to hold its next meeting in this city. It is hoped that this eminent and influential body will soon honor this country with its presence, and our Society can then justly claim to have aided very greatly in the advance of geographic knowledge in the United States, as the far-reaching influence of such a meeting can hardly be overestimated.

The library of the Society has received, in addition to the regular exchanges, a large number of valuable gifts, notable amongst which have been complete sets of Wheeler's and Ives' Reports, through the courtesy of the Chief of Engineers, U. S. Army; several very handsome volumes from His Imperial Highness the Archduke Ludwig Salvator, of Austria; and a

number of standard geographic works from Mr E. L. Berthoud, of Golden, Colorado. The library is now well worthy of a larger and more accessible room than has been available hitherto; this matter is now under consideration and will doubtless soon be settled in a way that will add greatly to our facilities for geographic study.

THE NATIONAL GEOGRAPHIC MAGAZINE, the official publication of the Society, has maintained its high standard in spite of the difficulties of publication by a committee whose members can ill afford the time and effort required. It is but fair to state that by far the greater part of the work and responsibility has fallen to the chairman of the committee, Mr W J McGee, to whom credit for results achieved, in spite of many difficulties, is therefore largely due. The accompanying complete statement of the contents of the *Magazine*, volumes I to VI, with a list of prices and number of copies on hand for sale, will, it is thought, be of general interest to members and others. From this statement it will be seen, too, that it is proposed to publish the *Magazine* hereafter bimonthly.

For the coming season it is thought desirable to secure still larger halls for both our popular and technical meetings, as we have entirely outgrown those hitherto used. Arrangements have already been made to bring about this result, and the coming season will doubtless show a still larger membership and attendance. It is likely, too, that a plan will be perfected by which regular notices of meetings can be sent to every member—if not weekly, at least every two weeks—in place of the calendars that have been issued from time to time, at irregular intervals, during the past year. It should be understood, however, that the advantages of such regular notices have not at any time been underestimated, but the item of expense for postage has been very heavy—indeed, far more so than one can realize at first thought. With 900 active members a weekly notice—even using postal cards—costs, including printing and addressing, about \$1200, or say \$400 a year, and it was thought that if half of this amount could be saved, without material inconvenience, it was well worth trying; the printing is a small item in comparison with the expense of postage, and the calendars that have been issued, in conjunction with the notices in the daily press each week, would seem to answer the purpose almost as well and at far less expense.

The thanks of the Society are due to the authorities of Columbian University for the use upon several occasions of their large hall free of expense; to the many able and eminent men who have contributed so largely to the value and success of our meetings, animated solely by their love of the subject and their appreciation of the objects of the Society; and to the members of the Board of Managers, who have devoted so much of their time and energy to the duties of their positions, feeling sufficiently rewarded by the growth and success of the Society. Without such earnest and voluntary assistance on every side it would, of course, be wholly impossible to accomplish what we are doing, even with largely increased annual dues, and the fact that this Society, although so young in years, is so firmly established and doing such effective work can justly be regarded as creditable to the United States, and especially to its birthplace, the city of Washington.

EVERETT HAYDEN,
Recording Secretary.

SEVENTH ANNUAL REPORT OF THE TREASURER

(Presented to the Society May 31, 1895)

WASHINGTON, D. C., *May 31, 1895.*

To the President and Members, National Geographic Society:

I have the honor to submit herewith my annual report, together with statement of assets as at the close of the year ending May 31.

On account of alterations made in the by-laws, by which the end of the fiscal year was changed from December 31 to May 31, the present account covers a period from January 1, 1894, to May 31, 1895.

The receipts for dues for the season of 1894 amounted to \$2,811, while those for that of 1895 amount to \$3,642, or an increase of nearly 30 per cent.

The assets of the Society consist of:

American Security and Trust Company 5 per cent bonds.....	\$450 00
Cash on hand, deposited with Bell & Co.....	\$107 40
in possession of Secretary.....	50 00
	<hr/>
	157 40
Unpaid dues for the years 1894 and 1895	1,321 00
	<hr/>
	\$1,928 40

All bills up to this date have been paid, and therefore there are no liabilities.

Respectfully submitted,

C. J. BELL,
Treasurer.

Report of the Treasurer.

De.

The Treasurer in account with The National Geographic Society.

Cr.

1895.	1895.	By cash paid for:	1895.
May 31. To balance on hand January 5, 1894.....	\$307 60	Publication of magazine.....	\$1,653 25
Cash received for dues: 1892..	830 00	Expenses of meetings.....	2,407 14
" " " " 1893..	223 00	Salaries of Secretaries.....	1,584 00
" " " " 1894..	2,809 00	Supplies, including printing, postage, freight, stationery, furniture, joint directory, etc.....	1,941 01
Cash received for dues: Season 1894-'95.....	3,042 00	Magazines for library.....	14 50
" " " " 1895-'96.....	00 00	Investment of life membership dues.....	150 00
Cash received for life mem- bership.....	50 00	Repayment of loan, \$150, and interest, \$2.24 (Bell & Co.).....	152 24
Interest on investment.....	6,803 00	Repayment of loan, \$250, and interest, \$9.41 (American Security and Trust Co.).....	259 41
Receipts from sale of magazine.....	17 70	Rent of Secretary's office.....	75 00
" " " " lecture tickets.....	136 37	Authors' rights in monographs.....	400 00
Proceeds from exhibit of Seila collection.....	29 50	Expenses of Peary lecture.....	75 00
Loan from American Security and Trust Co.....	15 55	Balance on hand with Bell & Co.....	\$107 49
Loan from Bell & Co.....	250 00	With Secretary.....	50 00
Amount received from American Book Co. for monographs.....	150 00		157 49
	400 00		<u>\$8,100 94</u>
	<u>\$8,100 94</u>		<u>\$8,100 94</u>

Washington, D. C., May 31, 1895.

C. J. BILL, Treasurer.

REPORT OF THE AUDITING COMMITTEE

(Presented to the Society May 31, 1895)

WASHINGTON, D. C., July 10, 1895.

The President and Members of the National Geographic Society:

We, a committee appointed at the annual meeting of May 31, 1895, to audit the accounts of the Treasurer for the period from January 1, 1894, to May 31, 1895, beg to submit the following report:

The Treasurer's statement of receipts, consisting of dues from members, life-membership fees, interest on investments, sale of magazines and tickets, and of amounts received from miscellaneous sources, has been examined and found correct, as shown by the books of his office.

The vouchers for expenditures have been examined and found correct. The return checks (except fifteen which had not been cashed at time of the closing of the Treasurer's account) were compared with the vouchers and found to agree.

We have examined the bank book, showing the account with Messrs Bell & Co., and found the cash balance to be four hundred and twenty-nine dollars and sixty cents, which exceeded the Treasurer's reported balance of one hundred and seven dollars and forty-nine cents by three hundred and twenty-two dollars and eleven cents, the amount of the fifteen return checks referred to in the paragraph above, one of which represented \$50 advanced to the Secretary.

The amount of outstanding dues reported by the Treasurer as \$1,326 was carefully examined and found correct. We have prepared a full list of these outstanding dues for the use of the next Auditing Committee.

The four bonds of \$100 each and one of \$50, registered in the name of the Society, were inspected by us in the hands of the Treasurer.

WM. A. DECAISDRY,
H. C. RIZER,
Auditing Committee.
(xxviii)

BY-LAWS

AS ADOPTED WITH AMENDMENTS UP TO MAY 31, 1895

ARTICLE I. NAME.

The name of this Society is the "NATIONAL GEOGRAPHIC SOCIETY."

ARTICLE II. OBJECT.

The object of this Society is the increase and diffusion of geographic knowledge.

ARTICLE III. MEMBERSHIP.

The members of this Society shall be persons who are interested in geographic science. There may be three classes of members—active, corresponding, and honorary.

Active members only shall be members of the corporation; shall be entitled to vote and may hold office.

Persons residing at a distance from the District of Columbia may become corresponding members of the Society. They may attend its meetings, take part in its proceedings, and contribute to its publications.

Persons who have attained eminence by the promotion of geographic science may become honorary members.

Corresponding members may be transferred to active membership, and, conversely, active members may be transferred to corresponding membership by the Board of Managers.

The election of members shall be entrusted to the Board of Managers.

ARTICLE IV. OFFICERS.

The officers of the Society shall be a President, six Vice-Presidents, a Treasurer, a Recording Secretary, and a Corresponding Secretary.

The above-mentioned officers, together with eight other members of the Society, known as Managers, shall constitute a Board of Managers. Officers and Managers shall be elected annually, by ballot, a majority of the votes cast being necessary to an election; they shall hold office until their successors are elected; and shall have power to fill vacancies occurring during the year.

The President, or, in his absence, one of the Vice-Presidents, shall preside at the meetings of the Society and of the Board of Managers; he shall, together with the Recording Secretary, sign all written contracts and obligations of the Society, and attest its corporate seal; he shall deliver an annual address to the Society.

Each Vice-President shall represent in the Society and in the Board of Managers a department of geographic science, as follows:

Geography of the Land; Geography of the Sea; Geography of the Air; Geography of Life; Geographic Art; Commercial Geography.

The Vice-Presidents shall foster their respective departments within the Society; they shall present annually to the Society summaries of the work done throughout the world in their several departments.

They shall be elected to their respective departments by the Society.

The Treasurer shall have charge of the funds of the Society, shall collect the dues, and shall disburse under the direction of the Board of Managers; he shall make an annual report; and his accounts shall be audited annually by a committee of the Society and at such other times as the Board of Managers may direct.

The Secretaries shall record the proceedings of the Society and of the Board of Managers; shall conduct the correspondence of the Society; and shall make an annual report.

The Board of Managers shall transact all the business of the Society, except such as may be presented at the annual meeting. It shall formulate rules for the conduct of its business. Five members of the Board of Managers shall constitute a quorum at regular meetings and nine members at special meetings.

ARTICLE V. DUES.

The initiation fee for active members shall be two dollars, payable upon notice of election.

The annual dues of active members shall be five dollars, and of corresponding members two dollars.

The fiscal year and season of the Society shall begin on the first day of June and end on the thirty-first day of May, and the annual dues of members shall be payable on or before the last day of October, or, in the case of new members, within thirty days after election.

Annual dues may be commuted and life membership acquired by the payment of fifty dollars.

No member in arrears shall vote at the annual meeting, and the names of members two years in arrears shall be dropped from the roll of membership.

ARTICLE VI. MEETINGS.

Regular meetings of the Society shall be held on alternate Fridays, from November until May, and excepting the annual meeting they shall be devoted to communications. The Board of Managers shall, however, have power to postpone or omit meetings, when deemed desirable. Special meetings may be called by the President.

The annual meeting for the election of officers shall be the last regular meeting in May.

The Board of Managers shall set apart a time and place for the annual address of the President and Vice-Presidents.

A quorum for the transaction of business shall consist of twenty-five active members.

ARTICLE VII. PUBLICATIONS.

The Society shall publish a journal or periodical under the title *THE NATIONAL GEOGRAPHIC MAGAZINE*, which shall be sent to all members of the Society and may be placed on sale.

ARTICLE VIII. AMENDMENTS.

These by-laws may be amended by a two-thirds vote of the members present at any regular meeting, provided that written notice of the proposed amendment has been given, signed by at least ten active members, at a regular meeting held at least four weeks previously. They may also be amended by a two-thirds vote of the voters present at the annual meeting: provided, however, that written notice of the proposed amendment has been given at a regular meeting held at least four weeks previous to the annual meeting.

Printed notice shall be sent to all active members of amendments proposed for action at the annual meeting.

OFFICERS OF THE SOCIETY

SEASON OF 1895-'96

(Elected at the Annual Meeting, May 31, 1895)

President

GARDNER G. HUBBARD

Vice-Presidents

CHAS. W. DABNEY, Jr., *Land*

HERBERT G. OGDEN, *Sea*

A. W. GREELY, *Air*

C. HART MERRIAM, *Life*

W. W. ROCKHILL, *Geographic Art*

HENRY GANNETT, *Commercial Geography*

Treasurer

CHARLES J. BELL

Recording Secretary

EVERETT HAYDEN

Corresponding Secretary

ELIZA R. SCIDMORE

Managers

MARCUS BAKER

H. F. BLOUNT

G. K. GILBERT

JOHN HYDE

W. J. MCGEE

F. H. NEWELL

W. B. FOWELL

J. R. PROCTER

MEMBERS OF THE NATIONAL GEOGRAPHIC SOCIETY

MAY 31, 1895

HONORARY MEMBERS

HIS EXCELLENCY GROVER CLEVELAND,
PRESIDENT OF THE UNITED STATES,

Washington, D. C.

DON CRISTÓBAL COLÓN DE TOLEDO DE LA CERDA Y GANTE,
DUKE OF VERAGUA AND MARQUIS OF JAMAICA,

Madrid, Spain.

SIR ARCHIBALD GEIKIE,

28 Jernyn street, London, England.

HONORABLE CHARLES P. DALY,

64 Clinton place, New York, N. Y.

DR GEORGE M. DAWSON,

Canadian Geological Survey, Ottawa, Canada.

EMMANUEL DE MARGERIE

131 rue de Genesille, Paris, France.

DR JOHN MURRAY,

Challenger office, Edinburgh, Scotland.

BARON ADOLF E. NORDENSKIÖLD,

Stockholm, Sweden.

FERDINAND, FREIHERR VON RICHTHOFEN,

Karlstrassenstrasse 111, Berlin W., Germany.

HIS IMPERIAL HIGHNESS THE ARCHDUKE LEOPOLD SALVATOR
OF AUSTRIA,

Vienna, Austria.

DR D. ESPANIELAO S. ZERBALLOS,

Buenos Ayres, Argentina.

ACTIVE MEMBERS

ANNIE, PROFESSOR CLEVELAND,	Weather Bureau.
ANNOTT, Miss G. E.,	2011 Fourteenth street.
ARIST, S. T.,	722 Seventeenth street.
ABRAHAM, Miss L. C.,	1106 New Hampshire avenue.
ACKERMAN, LIEUTENANT A. A., U. S. Navy,	Navy Department.
ACKLEY, LIEUTENANT COMMANDER S. M., U. S. Navy,	Commanding U. S. S. <i>Faonia</i> .
ADAMS, CYRUS C.,	511 Madison street, Brooklyn, N. Y.
ADAMS, Miss JESSIE M.,	Fourth Auditor's office.
ADDISON, A. D.,	602 Seventeenth street.
ADDISON, Mrs MURRAY,	1706 N street.
ADLER, DR CYRUS,	Smithsonian Institution.
ALMIGHT, F. J.,	173 Fifth avenue, Chicago, Ill.
ALDEN, COLONEL C. H., U. S. Army,	War Department.
ALEXANDER, T. H.,	1267 K street.
ALLEN, Reverend ADOLPH,	303 L street.
ALLEN, Miss A. ANGELO,	Care of Miss Van Dyke, 1201 K street.
ALLEN, DR J. A.,	American Museum of Natural History, New York, N. Y.
ALLENDRUP, CHARLES H.,	706 Twelfth street N. E.
ALTON, EDMUND,	1706 Pennsylvania avenue.
ALYDOR, MAJOR HENRY E.,	Lynchville, Fairfax county, Virginia.
AMES, JOHN G.,	1650 Thirteenth street.
ANDERSON, Jos. W., M. D.,	1811 Eleventh street.

Active Members.

XXXV

ANDREWS, COLONEL G. L., U. S. Army,	2100 Columbia road.
ANDREWS, ESSON PHILIP, U. S. Navy,	U. S. S. Raleigh.
ANDREWS, WELLS F.,	Treasury Department.
APIAN, S. A., JUNIOR,	U. S. Geological Survey.
APPLEBY, J. E. R., M. D.,	1420 Thirty-third street.
ARRIAGA, SEÑOR DON A. LAZO, E. E. and M. P.,	1754 M street.
ASHLEY, GEORGE,	428 New Jersey avenue.
ASPENWALL, REVEREND J. A.,	17 Dupont circle.
ATKINSON, WADE H., M. D.,	618 Twelfth street.
AURIBACH, CARL,	800 Seventh street.
AULAGERS, WILHELM,	Naval Observatory.
AYDELOTTE, WM.,	1352 Q street.
AYERS, MISS SUSAN C.,	1813 Thirteenth street.
BARR, CYRUS C.,	U. S. Geological Survey.
BARCOCK, MAJOR J. B., U. S. Army,	2065 G street.
BACOS, MRS E. O.,	815 Sixteenth street.
BADGER, COMMODORE O. C., U. S. Navy,	1517 Twelfth street.
BAILEY, PAST ASSISTANT ENGINEER F. H., U. S. Navy,	Navy Department.
BAILEY, VERNON,	Agricultural Department.
BAKER, MARCUS,	U. S. Geological Survey.
BALDWIN, A. L.,	722 Sixth street N. E.
BALDWIN, H. L., JUNIOR,	U. S. Geological Survey.
BALDWIN, WM. D.,	25 Grant place.
BALL, CHARLES B.,	942 T street.

BALLANTYNE, WM.,	1129 Vermont avenue.
BALLINGER, MISS MADISON A.,	1202 Clifton street.
BALLOCH, GENERAL G. W.,	P. O. Box 457.
BARBER, A. L.,	802 F street.
BARBER, AMHERST W.,	1214 D street N. E.
BARCLAY, MISS MARY M.,	1771 Madison street.
BARKER, CAPTAIN A. S., U. S. NAVY,	Navy Yard, Mare Island, Cal.
BARNARD, E. C.,	U. S. Geological Survey.
BARNARD, JOH.,	1206 Rhode Island avenue.
BARNARD, R. P.,	1011 O street.
BARRINGTON, WM. L.,	3314 N street.
BARRY, CHARLES E.,	1421 H street.
BARTLE, R. F.,	Falls Church, Va.
BARTLETT, CAPTAIN J. R., U. S. NAVY,	Providence, R. I.
BARTON, MISS MARY L.,	Treasury Department.
BATCHELDER, GENERAL R. N., U. S. ARMY,	War Department.
BATES, MAJOR F. H., U. S. ARMY,	1519 Thirty-first street.
BATES, DR. HENRY H.,	The Portland.
BATES, MEDICAL DIRECTOR NEWTON L., U. S. NAVY,	The Shoshon.
BEAMAN, GEORGE HERBERT,	2272 Massachusetts avenue.
BEAMAN, WM. M.,	U. S. Geological Survey.
BEARDSLEY, MEDICAL DIRECTOR G. S., U. S. NAVY,	1701 Connecticut avenue.
BICKHAM, MISS BLANCHÉ,	2721 N street.
BELL, DR. A. GRAHAM,	1121 Connecticut avenue.

BELL, PROFESSOR A. MELVILLE,	1825 Third, - fifth street.
BELL, C. J.,	146 G street.
BELL, Miss GERTRUDE A.,	Takoma Park, D. C.
BELT, E. OLIVER, M. D.,	The Albany.
BENNETT, F. V.,	The Arlington.
BENTON, FRANK,	Agricultural Department.
BIRGEL, ADOLPH,	Pension Office.
BIRGMANN, H. H.,	611 Seventh street.
BISHOP, S. I.,	Navy Department.
BEVERIDGE, M. W.,	1018 H street.
BIES, JULIUS,	145 Sixth avenue, New York, N. Y.
BIES, JOSEPH R., C. E.,	140 Sixth avenue, New York, N. Y.
BIES, MORRIS,	General Land Office.
BIRLOW, PROFESSOR FRANK H.,	1025 Massachusetts avenue.
BIRLOW, OTIS,	Arcel, Md.
BIRCH, CHARLES E.,	Hydrographic office, Navy Department.
BLACK, H. CAMPBELL,	2514 Fourteenth street.
BLAIR, H. B.,	U. S. Geological Survey.
BLANCHARD, HONORABLE N. C.,	U. S. Senate.
BLOUNT, HENRY F.,	2101 U street.
BLOUNT, Miss L. E.,	2101 U street.
BOARDMAN, W. J.,	1401 P street.
BOCK, Miss M. C.,	619 Maryland avenue N. E.
BOND, Miss MARY E.,	812 First street.

BOND, SAMUEL R.,	31 Iowa circle.
BOSHAM, JOHN M.,	Coastal Club.
BOUDE, JOHN K., M. D.,	205 B street.
BOYLE, PEYTON,	1422 New York avenue.
BRACE, MRS HELEN D.,	1318 Thirtieth street.
BRADFORD, COMMANDER R. B., U. S. Navy,	1422 F street.
BRADLEY, HONORABLE A. C.,	2017 Q street.
BRADLEY, GEORGE L.,	2025 F street.
BRADLEY, MISS J. M.,	618 K street.
BRANNER, DR J. C.,	Lehigh Stanford Junior University, Cal.
BRECKINRIDGE, GENERAL J. C., U. S. Army,	War Department.
BREWER, MISS CLARA G.,	1000 Thirtieth street.
BREWER, MISS KATH,	1400 Thirtieth street.
BREWER, PROFESSOR WM. H.,	418 Orange street, New Haven, Conn.
BRIGHT, RICHARD R.,	130 B street S. E.
BURTON, MRS E. S.,	1414 Fourteenth street.
BURTON, A. T.,	622 F street.
BURCK, FRENELON,	618 North Carolina avenue S. E.
BURDICK, ALFRED H.,	U. S. Geological Survey.
BURDICK, NEWTON M.,	233 Second street S. E.
BURTON, DR B. W.,	The Grifton.
BURNS, EDWARD J.,	629 Twentieth street.
BURMAN, A. B.,	622 F street.
BURMAN, GENERAL WM. H.,	1445 K street.

BRYAN, SAMUEL M.,	222 Massachusetts avenue.
BUCK, Miss ADA P.,	625 Maryland Avenue S. E.
BUCKMAN, Mrs S. A.,	717 Tenth street.
BULL, HERBERT L.,	1707 V street.
BULKLEY, BARRY,	1133 N street.
BUNCE, ADMIRAL P. M., U. S. Navy,	Commanding U. S. Naval Forces, North Atlantic Station.
BURCHILL, N. L.,	1104 Vermont avenue.
BURDETT, GERALD S. S.,	925 F street.
BURGESS, CHARLES H.,	Eighth and O streets.
BURGESS, EDWARD S.,	Normal College, New York.
BURN, WM. H.,	1017 K street.
BURTON, PROFESSOR A. E.,	Massachusetts Institute of Technology, Boston, Mass.
BUSBY, S. C., M. D.,	1345 I street.
BUTLER, Miss JOY CHESTNEY,	1110 K street.
BUTLER, W. H.,	609 C street.
BYRNES, W. F., M. D.,	25 B street S. E.
CAHILL, TIMOTHY,	1801 Sixteenth street.
CALVEL, J. V., M. D.,	207 A street S. E.
CALVO, SEÑOR J. B.,	1500 Twentieth street.
CAMPBELL, Miss J. S.,	128 C street S. E.
CAMPBELL, M. R.,	U. S. Geological Survey.
CANTACUZIENE, PRINCE, E. E. and M. P.,	1420 I street.
CAPPS, ASSISTANT NAVAL CONSTRUCTOR W. L., U. S. Navy,	Navy Department.
CARLETON, M. A.,	Agricultural Department.

CADMAN, MISS ADA,	1331 Q street.
CARPENTER, FRANK G.,	1318 Vermont avenue.
CARR, GENERAL E. A., U. S. Army,	The Richmond.
CARDOTHEID, MISS C. F.,	1802 Twentieth street.
CAHILL, LIEUTENANT R. G., U. S. Army,	Sixteenth street, Mt Pleasant.
CATLIN, CAPTAIN ROBERT, U. S. Army,	1422 Euclid place.
CEQUEIRA, GENERAL,	Care Brazilian Legation, 1000 N street.
CHANDLER, G. V.,	215 C street S. E.
CHANSEY, HONORABLE J. C.,	1220 F street.
CHAPMAN, R. H.,	U. S. Geological Survey.
CHATARD, DR T. M.,	1728 K street.
CHERRY, CHARLES H.,	1115 S street.
CHESNEY, VICTOR K.,	Agricultural Department.
CHESTER, MISS J. M.,	1016 Eleventh street.
CHICKERING, PROFESSOR J. W.,	Kendall Green.
CHILD, REV. HENRY T. S.,	128 Connecticut avenue.
CHITON, WILLIAM B.,	U. S. Coast and Geodetic Survey.
CHRISTIE, ALEX. S.,	General Delivery.
CHUBB, P. H.,	1824 Fifth street.
CLARK, CHARLES S.,	Dennison school.
CLARK, EDWIN A., M. D.,	600 Thirteenth street.
CLARK, E. B.,	U. S. Geological Survey.
CLARK, PROFESSOR ISAAC,	Howard University.
CLARK, MISS MAY S.,	Bureau of Ethnology.

CLARKE, MRS F. W.,	1612 Biggs place.
CLEMENTS, MISS L. H.,	1616 Q street.
CLOVER, LIEUTENANT COMMANDER RICHARDSON, U. S. Navy,	1038 New Hampshire avenue.
COLBY, HONORABLE LEONARD W.,	1325 Tenth street.
COLL, G. R. LEE, M. D.,	421 Seventh street S. W.
COLL, T. L.,	12 Oregon Building.
COLMAN, MAJOR F. W.,	The Richmond.
COLTON, FRANCIS,	1225 Connecticut avenue.
COMSTOCK, MRS S. C.,	1404 Rhode Island avenue.
CONNELLY, MISS MARY,	1131 L street.
CONNOLLY, MISS LOUISE,	1416 Sixth street.
COOK, J. G.,	2220 N street.
COOK, CHARLES E.,	— — —
COYSON, MRS IDA,	614 Paragon square.
CORTHELL, E. L., C. E.,	71 Broadway, New York, N. Y.
COUES, DR ELLIOTT,	Smithsonian Institution.
COTARRUBIAS, SEÑOR DON M.,	1327 Connecticut avenue.
COVILL, I. W.,	Civil Service Commission.
COVILLE, FREDERICK V.,	Agricultural Department.
COWHILL, ARTHUR,	634 J street N. E.
COYLE, BERNARD J.,	521 Thirteenth street.
CRANE, AUGUSTUS, JUNIOR,	1344 F street.
CROSS, WHITMAN,	U. S. Geological Survey.
CROWELL, MRS A. S.,	105 I street.

CUMMINGS, PROFESSOR GEORGE J.,	Howard University.
CUMINGS, MISS M. B.,	209 Sixth street.
CUMINGS, MISS S. E.,	259 Sixth street.
CUNNINGHAM, MISS M. E.,	1234 Tenth street.
CUNNINGHAM, MRS W. O.,	1725 K street.
CURRY, W. W.,	1510 Ninth street.
CURTIS, WILLIAM ELMOR,	1801 Connecticut avenue.
CUSHING, FRANK HAMILTON,	Bureau of Ethnology.
CUSHING, MISS S. C.,	310 Indiana avenue.
CURTIS, G. W. N., M. D.,	111 East Capitol street.
CURTIS, MISS VILLA C.,	112 East Capitol street.
CUTLER, W. P.,	Agricultural Department.
DAHNEY, DR. C. W., JUNIOR,	The Concord.
DALEY, Z. LEWIS,	Civil Service Commission.
DALL, MRS CAROLINE H.,	1820 Eighteenth street.
DALL, DR WM. H.,	Smithsonian Institution.
DANA, GENERAL J. J., U. S. Army,	Cosmos Club.
DARTON, N. H.,	U. S. Geological Survey.
DAVIS, MISS ADELAIDE,	1220 Fifteenth street.
DAVIS, ALLAN,	Business High School, First street.
DAVIS, MRS J. T.,	1420 Q street.
DAVIS, PROFESSOR WM. M.,	2 Bond street, Cambridge, Mass.
DAWSON, MISS A. B.,	U. S. Geological Survey.
DAWSON, THOMAS F.,	U. S. Senate annex.

DAY, C. A.,	1405 G street.
DAY, DR. DAVID T.,	U. S. Geological Survey.
DAY, E. WARREN,	20 Times building, New York, N. Y.
DE CAINDRY, WM. A.,	War Department.
DECKERT, DR. E.,	1420 Howard avenue.
DE MERRITT, DR. J. H.,	1335 Vermont avenue.
DESMAN, COLONEL H.,	1025 Sixteenth street.
DETWILER, F. M.,	420 Eleventh street.
DUCKEN, COMMANDER F. W., U. S. Navy,	Commanding U. S. S. <i>Constellation</i> .
DIETRICH, EMIL, C. E.,	2014 Twelfth street.
DIUDONNI, FRANK J.,	Ohio National Bank building.
DILLER, J. S.,	U. S. Geological Survey.
DODGE, CHARLES C.,	Office Naval Intelligence, Navy Department.
DONN, E. W.,	1708 Sixteenth street.
DOOLITTLE, M. H.,	U. S. Coast and Geodetic Survey.
DOUGLASS, H. H.,	715 H street.
DOUGLAS, H. M.,	U. S. Geological Survey.
DOYLE, JOHN T.,	Civil Service Commission.
DUFFIELD, GENERAL W. W.,	U. S. Coast and Geodetic Survey.
DUNCLES, JOHN B.,	348 Westminster street.
DUTTON, MAJOR C. E., U. S. Army,	San Antonio, Tex.
DYER, FRANK L.,	618 F street.
DYER, LIEUTENANT G. L., U. S. Navy,	Annapolis, Md.
EASTWILING, H. V.,	Record and Pension Office.

- Eaton, Lieutenant Commander J. G., U. S. Navy, Navy Department.
- Eddy, Mrs. Mary H., The Shoreham.
- Edwards, Professor J. R., Harvard University, Cambridge, Mass.
- Edson, John Joy, 1008 F street.
- Edson, Joseph R., 927 F street.
- Edwards, J. A., 1009 Thirteenth street.
- Edleston, N. H., M. D., 1200 Sixteenth street.
- Edrick, William, U. S. Coast and Geodetic Survey.
- Eldridge, George H., U. S. Geological Survey.
- Elliott, Charles, Brookline, Mass.
- Elliott, Miss Elizabeth, 1134 Fifteenth street.
- Elliott, W. St. George, M. D., 35 E. Forty-fourth street, New York, N. Y.
- Emross, Lieutenant George T., U. S. Navy, U. S. E. Post, Sitka, Alaska.
- Erbach, John, U. S. Geological Survey.
- Evans, H. C., U. S. Geological Survey.
- Evans, Mrs. John O., 1215 Sixteenth street.
- Evans, W. W., M. D., 1156 M street.
- Evermann, Professor B. W., 1820 Harvard avenue.
- Ewell, Reverend Professor J. L., Howard University.
- Von Eydorf, Richard, 318 N street.
- Fairfield, George A., 1407 Moughton street.
- Fairfield, W. B., U. S. Coast and Geodetic Survey.
- Faris, R. L., U. S. Coast and Geodetic Survey.
- Farquhar, Henry, Agricultural Department.

Active Members.

xlv

FERNOW, B. E.,	Agricultural Department.
FROULIE, CHARLES M.,	2012 Massachusetts avenue.
FISCHER, E. G.,	U. S. Coast and Geodetic Survey.
FISHER, LOUIS A.,	U. S. Coast and Geodetic Survey.
FISHER, ROBERT J.,	814 F street.
FITCH, CHARLES H.,	2025 S street.
FITCH, CHIEF ENGINEER H. W., U. S. Navy,	1418 Connecticut avenue.
FLAMER, J. A.,	414 A street S. E.
FLETCHER, MISS A. M.,	1427 Kansas avenue.
FLETCHER, L. C.,	U. S. Geological Survey.
FLETCHER, ROBERT, M. D.,	Army Medical Museum.
FLINT, MRS. LAURA A.,	1724 I street.
FLINT, DR. WILSON,	1211 K street.
FLYNN, HARRY F.,	U. S. Coast and Geodetic Survey.
FOOTE, ALLEN R.,	Takoma Park, D. C.
FOOTE, AUG. R. S.,	2021 H street.
FOUNSET, STEPHAN,	U. S. Coast and Geodetic Survey.
FOUNSET, JULIUS C.,	
FOURIE, HONORABLE JOHN W.,	Hydrographic Office, Navy Department. 1406 F street.
FOURIE, PROFESSOR RICHARD,	Howard University.
FOWLER, E. H.,	1128 East Capitol street.
FOWLER, FRANCIS,	1440 Q street.
FRASER, DANIEL,	458 Pennsylvania avenue.
FRENCH, GEORGE N., M. D.,	1624 I street.

FRENCH, OWEN B.,	201 F street.
FRIEHE, PROFESSOR EDGAR, U. S. Navy,	1007 Thirty-first street.
FROST, FLOYD T.,	Navy Department.
FULLER, MISS A. H.,	1331 Rhode Island avenue.
FULLER, THOMAS J. D.,	1108 H street.
GAGE, N. P.,	Seaton school.
GANNETT, HENRY,	U. S. Geological Survey.
GANNETT, S. S.,	U. S. Geological Survey.
GARDNER, C. L.,	1110 Q street.
GARNETT, HENRY WISE,	1210 New York avenue.
GARNIER, MISS M. A.,	6 Grant place.
GARRISON, MISS C. L.,	644 S street.
GERDINE, THOMAS G.,	General Land Office.
GIBSON, GENERAL JOHN, U. S. Army,	612 Nineteenth street.
GIBBS, EDWIN A., M. D.,	1008 Thirteenth street.
GIBBS, MISS H. H.,	200 N street.
GIBSON, GEORGE,	Thirteenth street and Pennsylvania avenue.
GILBERT, G. K.,	U. S. Geological Survey.
GILL, DR THEODORE N.,	Smithsonian Institution.
GILMAN, PRESIDENT D. C.,	Johns Hopkins University, Baltimore, Md.
GLAVIS, GEORGE O., JUNIOR.,	U. S. Geological Survey.
GODDARD, F. J.,	3077 Dunbarson avenue.
GOODE, DR G. BROWN,	National Museum.
GOODE, RICHARD U.,	U. S. Geological Survey.

Active Members.

xlvii

GOODFELLOW, EDWARD,	1614 Sixteenth street.
GOODRICH, HAROLD B.,	U. S. Geological Survey.
GOHLAM, GEORGE C.,	1701 Q street.
GOUGH, RIGHT HONORABLE VISCOUNT,	1721 J street.
GRAHAM, MISS AGNES M.,	1714 Q street.
GRAHAM, ANDREW B.,	1220 Pennsylvania avenue.
GRANGER, F. D.,	U. S. Coast and Geodetic Survey.
GRANT, MISS A. L.,	327 East Capitol street.
GRAVES, MISS A. E.,	319 East Capitol street.
GRAVES, LOUIS B.,	204 Fourteenth street.
GRAVES, WALTER H.,	Crow Indian Reservation, Mont.
GREEN, W. H.,	Fourteenth and G streets.
GURLEY, GENERAL A. W., U. S. Army,	War Department.
GURUS, BERNARD R.,	1718 N street.
GREEN, ASSISTANT ENGINEER C. M., U. S. Revenue Marine,	Treasury Department.
GREEN, DARIUS A.,	Navy Department.
GREENLEIS, ARCHIBALD,	3125 U street.
GRICE, FRANCIS E.,	Navy Department.
GRIFFING, DON H.,	Civil Service Commission.
GUYER, MISS C. C.,	1911 N street.
GUZMÁN, DR. DON HORACIO, E. E. and M. P.,	1623 Massachusetts avenue.
HACKETT, MERRILL,	U. S. Geological Survey.
HAGAN, MISS CORNELIA J.,	1112 V street.
HAGNER, JUDGE A. B.,	1818 H street.

HAGCK, DR. ARNOLD,	U. S. Geological Survey.
HAINES, MISS M. S.,	Eighth street and Pennsylvania avenue S. E.
HAINER, THOMAS L.,	175 Fifth avenue, Chicago, Ill.
HALDERMAN, GENERAL JOHN A.,	Metropolitan Club.
HAMILTON, WILLIAM,	Bureau of Education.
HAMLIN, DR. TRUMAN S.,	1100 Connecticut avenue.
HAMMA, REVEREND M. W.,	1220 Massachusetts avenue.
HANCE, T. E., M. D.,	Pension Office.
HANFORD, LEVI,	400 G street.
HANKS, H. M.,	400 L street.
HANSEN, JOHN,	600 H street.
HANSMANN, MAX,	1720 Corcoran street.
HANVEY, FRANK L.,	214 New Jersey avenue.
HARDING, MISS GENE B.,	The Shrubham.
HARDY, EDWARD D.,	Howard University.
HARLAN, MR. JUSTICE JOHN M.,	Fourteenth street and Euclid avenue.
HARRINGTON, PROFESSOR MARK W.,	State University, Seattle, Wash.
HARRIS, HONORABLE WM. T.,	Bureau of Education.
HARROD, MAJOR B. M.,	Masonic building, New Orleans, La.
HART, PROFESSOR A. B.,	13 Appian way, Cambridge, Mass.
HART, AMOS W.,	712 Tenth street.
HARROUX, E. M.,	154 A street N. E.
HAY, PROFESSOR ROBERT,	P. O. box 662, Junction City, Kans.
HAYDEN, ENSIGN EVERETT, U. S. Navy,	1807 Sixteenth street.

HAYDES, MISS LILLIAN,	Beyn Marx School, Baltimore, Md.
HAYES, MRS ANNIE M.,	Bureau of Engraving and Printing.
HAYES, DR. C. WILLARD,	U. S. Geological Survey.
HAYWARD, H. A.,	220 Massachusetts avenue.
HAZARD, DANIEL L.,	U. S. Coast and Geodetic Survey.
HEAD, COLONEL J. F., U. S. Army,	2044 B street.
HEARD, HONORABLE AUGUSTINE,	Metropolitan Club.
HEARST, MRS P. A.,	1400 New Hampshire avenue.
HEATON, A. G.,	1812 Seventeenth street.
HEIDICK, H. B.,	National Alumni Office.
HELPHIN, G. F.,	1227 Pennsylvania avenue.
HENDERSON, J. B., JUNIOR,	Sixteenth street and Florida avenue.
HENDON, MATTHEW,	General Land Office.
HENDERSON, PROFESSOR W. W., U. S. Navy,	1100 P street.
HENRY, A. J.,	248 H street.
HERBERT, HONORABLE HILARY A.,	Navy Department.
HERBLE, GUSTAVE,	Hydrographic Office, Navy Department.
HERRON, WILLIAM H.,	U. S. Geological Survey.
HEWITT, G. C.,	1744 Columbia street.
HICKY, MISS S. G.,	1222 Sixth street.
HIGGINS, M. T.,	Civil Service Commission.
HIGHT, SHERMAN,	1426 F street.
HILL, GEORGE WILLIAM,	Agricultural Department.
HILL, ROBERT T.,	U. S. Geological Survey.

HILDEBRAND, DR. W. F.,	U. S. Geological Survey.
HOLLER, A. H.,	Credit Service Commission.
HILLMAN, MYRA T.,	227 Third street.
HILLS, CHARLES W.,	1245 Vermont avenue.
HIXMAN, RUSSELL,	606 Broadway, New York, N. Y.
HITT, HONORABLE R. R.,	1307 K street.
HITZ, JOHN,	Thirty-fifth and Q streets.
HODKINS, W. C.,	U. S. Coast and Geodetic Survey.
HOFFMAN, EMIL O.,	Lighthouse Board, Treasury Department.
HOLDEN, MRS L. E.,	The Hollenden, Cleveland, Ohio.
HOLLERITH, HERMAN,	1224 Thirty-first street.
HOLT, HENRY PETER RESOUR,	Yakoma Park, W. C.
HOLTSMAN, R. O.,	Tenth and F streets.
HOOD, JAMES F.,	622 F street.
HOPKINS, J. H.,	1407 V street.
HOPKINS, MISS M. G.,	2324 G street.
HORSTLOWER, J. C.,	1403 M street.
HORSFORD, MISS CORNELIA,	27 Orange street, Cambridge, Mass.
HORMER, EDWARD S.,	29 Nassau street, New York, N. Y.
HOTCHKISS, MAJOR JED,	Staunton, Va.
HOTCH, MISS HELEN M.,	224 Indiana avenue.
HOUGH, WALTER,	National Museum.
HOVEY, REVEREND DR. H. C.,	60 High street, Newburyport, Mass.
HOWELL, D. J.,	918 F street.

Active Members.

ii

HOWELL, E. E.,	612 Seventeenth street.
HOYT, HONORABLE JOHN W.,	Pacific building.
HUBBARD, HONORABLE GARDNER G.,	"Twin Oaks," Woodley lane.
HEDDLISSON, S. M.,	Agricultural Department.
HUDSON, JOHN R., JUNIOR,	U. S. Geological Survey.
HUMK, FRANK,	484 Pennsylvania avenue.
HUNT, MRS ALICE U.,	Tenley, D. C.
HUNT, C. B.,	District building.
HUNT, HENRY M., M. D.,	Johns Hopkins Hospital, Baltimore, Md.
HUTCHISSON, JOHN,	1224 F street.
HUTCHISSON, W. J.,	1787 Massachusetts avenue.
HUTCHISON, MRS J. E.,	516 Third street.
HYAM, MISS V. W.,	1814 S street.
HYDE, MISS E. R.,	1228 I street.
HYDE, G. E.,	U. S. Geological Survey.
HYDE, JOHN,	Agricultural Department.
HYDE, MISS JOSEPHINE,	434 K street.
ISCH, CHIEF ENGINEER PHILIP, U. S. Navy,	1748 F street.
IRISH, GENERAL CHARLES W.,	Agricultural Department.
JACKSON, REVEREND SHERIDAN,	The Concord.
JACOBSON, MRS S. V.,	1311 F street.
JAMES, MRS J. F.,	1073 Kenesaw avenue.
JANNEY, R. T.,	1621 Thirty-first street.
JARVIS, LIEUTENANT D. H., U. S. Revenue Marine,	New Bedford, Mass.

JESTINGO, MRS H. R.,	1214 Johnson place.
JESTINGO, J. H.,	U. S. Geological Survey.
JEWELL, CLAUDINE B.,	1334 Vermont avenue.
JOHNSON, A. B.,	Lighthouse Board, Treasury Department.
JOHNSON, Miss A. B.,	501 Maple avenue.
JOHNSON, H. L. B., M. D.,	1400 L street.
JOHNSON, J. B.,	Howard University.
JOHNSON, JAMES L.,	U. S. Geological Survey.
JOHNSON, THEO. H.,	1115 E street.
JOHNSON, WILLARD D.,	U. S. Geological Survey.
JOHNSTON, A. D.,	1332 V street.
JOHNSTON, Miss E. B.,	1220 Florida avenue.
JOHNSTON, W. W., M. D.,	1000 K street.
JONES, EDWARD S., M. D.,	1200 H street.
JUDD, JOHN G.,*	420 Eleventh street.
KANON, HONORABLE JOHN A.,	1722 I street.
KAUFFMANN, S. H.,	1425 Massachusetts avenue.
KRASE, BISHOP J. J.,	Catholic University.
KREH, ARTHUR,	U. S. Geological Survey.
KILBY, Miss FANNIE L.,	1020 Seventeenth street.
KELLY, Miss M. G.,	715 East Capitol street.
KENNAN, GEORGE,	Care of J. B. Ford, Everett House, New York, N. Y.
KENNEDY, GEORGE G., M. D.,	261 Warren street, Roxbury, Mass.

* Died July 21, 1900.

Active Members.

liii

KENNES, LIEUTENANT L. W. V., U. S. Army,	1420 New York avenue.
KENT, MISS PRISCILLA,	1311 Connecticut avenue.
KETNER, MISS A. K.,	2570 Massachusetts avenue.
KIMBALL, E. F.,	1516 Rhode Island avenue.
KIMBALL, HONORABLE S. L.,	Life Saving Service, Treasury Department.
KING, MISS ANNA S.,	1315 Twelfth street.
KING, PROFESSOR F. H.,	1200 University avenue, Madison, Wis.
KING, GEORGE A.,	1420 New York avenue.
KING, MISS METELIA,	721 Irving street.
KING, R. A.,	1430 Concoran street.
KING, WILLIAM B.,	1225 Twelfth street.
KIU, SUIH BEUNG,	Korean Legation, Iowa circle.
KLARKING, ALFRED,	Hydrographic office, Navy Department.
KNAPP, HONORABLE M. A.,	Run building.
KNOWLTON, PROFESSOR F. H.,	National Museum.
KÜBEL, EDWARD,	326 First street N. E.
KÜBEL, S. J.,	U. S. Geological Survey.
KUMMELL, CHARLES H.,	U. S. Coast and Geodetic Survey.
KURINO, SHUNICHIRO, E. E. and M. P.,	Japanese Legation, 1310 K street.
LADD, GEORGE E.,	— — —
LANDER, MRS J. M. D.,	45 B street S. E.
LANDLET, DR S. P.,	Smithsonian Institution.
LAWRENCE, ROBERT M., M. D.,	1325 Eighteenth street.
LAWRENCE, MISS MARGARET,	1315 Concoran street.

LEDYARD, L. W.,	Cazenovia, N. Y.
LEE, REVEREND THOMAS S.,	21 Matthew's rectory, 1415 H street.
LEITER, L. Z.,	Dupont circle.
LEVMAN, MISS L. H.,	1100 Twelfth street.
LEYERING, THOMAS H.,	1435 Chapin street.
LINDENKOHLE, A.,	U. S. Coast and Geodetic Survey.
LINDENKOHLE, H.,	U. S. Coast and Geodetic Survey.
LITTLEHALES, G. W.,	Hydrographic Office, Navy Department.
LJUNGBERGT, O. A.,	U. S. Geological Survey.
LONG, CAPTAIN OSCAR F., U. S. Army,	War Department.
LOCKER, HENRY B., C. E.,	Surveyor's office.
LOOMIS, MISS A. E.,	Fernandina, Fla.
LOOMIS, DR LAFAYETTE C.,	Winthrop heights.
LORD, EDWIN C. E., M. D.,	2024 G street.
LORD, CAPTAIN THOMAS W., U. S. Army,	608 Twelfth street.
LORENTZ, FRED. A.,	Central School Supply House, Chicago, Ill.
LOURY, MISS H. S.,	1200 F street.
LOVELL, W. H.,	U. S. Geological Survey.
LOWE, CHIEF ENGINEER JOHN, U. S. Navy,	200 East Capitol street.
LUDINGTON, COLONEL M. I., U. S. Army,	Army building, Chicago, Ill.
LYMAN, HONORABLE CHARLES,	1241 New Jersey avenue.
LYNCH, JOHN A.,	201 A street S. E.
MACFARLAND, JOSEPH,	1727 F street.
MACK, MISS NELLIE M.,	604 A street S. E.

Active Members.

iv

MACKEY-SMITH, REVEREND DR. ALÉX.,	1225 Sixteenth street.
MAGUIRE, JOHN H.,	1644 Twenty-third street.
MAHON, MRS M. H. B.,	1229 Concord street.
MAHER, JOHN G.,	415 I street S. E.
MALHOTRA, MISS ANNA S.,	1404 Rhode Island avenue.
MANDERSON, HONORABLE CHARLES F.,	Omaha, Neb.
MANN, H. L., M. D.,	334 Indiana avenue.
MANN, MISS MARY E.,	477 Seventh street.
MANSINO, VAN H.,	U. S. Geological Survey.
MARSH, M.,	1200 Lincoln avenue S. E.
MARINDIN, HENRY L.,	U. S. Coast and Geodetic Survey.
MARSH, LIEUTENANT C. C., U. S. Navy,	U. S. F. S. New York.
MARSHALL, R. B.,	U. S. Geological Survey.
MARTIN, ARTHUR,	1334 Columbia street.
MARTIN, MISS FRANCIS,	1836 Wyoming avenue.
MARTIN, R. H.,	Columbia University.
MARVIN, MISS A. R.,	1323 N street.
MATSUI, K., SECRETARY,	Japanese Legation, 1010 N street.
MATTHEWS, COMMODORE E. O., U. S. Navy,	1791 Q street.
MATTHEWS, SURGEON WASHINGTON, U. S. Army,	1202 New Hampshire avenue.
MATTINGLY, WILLIAM F.,	435 Seventh street.
MAY, JUDGE W. A.,	1767 Massachusetts avenue.
MAY, F. E., M. D.,	18 Iowa circle.
MAYNARD, GEORGE C.,	1407 Fifteenth street.

- MAYNARD, COMMANDER W., U. S. Navy, Navy Department.
- MCADIE, ALEXANDER, U. S. Weather Bureau, San Francisco, Cal.
- MCALLISTER, C. A., Treasury Department.
- MCCARTY, MRS O. V., 1321 8 street.
- MCCENRY, MISS MARY E., The Shoreham.
- MCCORMICK, L. M., Glen Island, N. Y.
- MCCULLOCH, MISS MARY, P. O. box 646.
- MCCULLOUGH, MRS L. V., 821 Twelfth street N. E.
- MCCURDY, ARTHUR W., Baddeck, C. B.
- MCGEE, W. J., Bureau of Ethnology.
- MCGILL, MISS M. C., 1447 Q street.
- MCGRATH, JOHN E., — — —
- MCGUIRE, F. B., 1323 Connecticut avenue.
- McKee, REDICK H., U. S. Geological Survey.
- MCLANAHAN, G. W., 1001 Twenty-first street.
- MCLAUGHLIN, T. N., M. D., 1226 N street.
- McNEIL, EATON K., M. D., 230 K street.
- McPHERSON, MRS MARY E., 1227 I street.
- MEADE, ADMIRAL R. W., U. S. Navy, 228 Winona avenue, Germantown, Pa.
- MEANS, CAPTAIN E. A., U. S. Army, Fort Myer, Va.
- MELoy, WM. A., 118 C street.
- MELVILLE, ENGINEER-IN-CHIEF G. W., U. S. Navy, Navy Department.
- DE MENDONÇA, SENHOR M. D. F., Brazilian Legation, 1800 S street.
- DE MENDONÇA, SENHOR SALVADOR, E. E. and M. P., Brazilian Legation, 1800 S street.

Active Members.

lvii

- MESCAL, CIVIL ENGINEER A. G., U. S. Navy,
Norfolk Navy Yard, Va.
- MERRIAM, DR. C. HART,
Agricultural Department.
- MIRSWAGO, CAPTAIN D. T., Imperial Russian Navy,
1725 H street.
- MISTON, R. B.,
1227 L street.
- MITCHELL, F. B.,
1110 F street.
- MICHELLE, PAYMASTER A. K., U. S. Navy,
Navy Department.
- MIDDLETON, JEFFERSON,
U. S. Geological Survey.
- MILLER, E. H.,
1110 M street.
- MILLS, COLONEL ANSON, U. S. Army,
2 Dupont circle.
- MILMORE, MRS MARY L.,
1713 Coronan street.
- MISER, LIEUTENANT R. H., U. S. Navy,
Navy Yard, Mare Island, Cal.
- MICHELLI, PROFESSOR HENRI,
24 Dorougha street, Jamaica Plain, Mass.
- MITOAKA, CAPTAIN N., Imperial Japanese Navy,
Spanish Legation, 1310 X street.
- MONTAGUE, PROFESSOR A. P.,
Columbia University.
- MOORE, F. L.,
1160 Thirty-first street.
- MOORE, MRS M. R.,
P. O. box 500.
- MOQUE, J. OLIVER,
1009 Thirteenth street.
- MORGAN, GENERAL M. R., U. S. Army,
1823 Massachusetts avenue.
- MOHRON, J. R. D.,
1228 F street.
- MOHRON, W. C.,
1415 Rhode Island avenue.
- MOSEMAN, A. T.,
U. S. Coast and Geodetic Survey.
- MUIR, PROFESSOR JOHN,
Marines, Cal.
- MULLER, FRANK C.,
Agricultural Department.
- MUNCASTER, M., M. D.,
1010 H street.

MURCH, B. W.,	Puzeo school.
MURLIN, A. E.,	U. S. Geological Survey.
MURPHY, REVEREND JOSEPH W.,	927 N street.
MURPHY, CAPTAIN P. ST. CLAIR, U. S. M. C.,	U. S. Marine Barracks.
MURRAY, B. P.,	10 Third street S. E.
MYTINGER, MISS CAROLINE,	1214 O street.
NASSAU, WM. B.,	224 Arthur place.
NEEDHAM, JUDGE CHARLES W.,	1720 Sixteenth street.
NELSON, COMMANDER THOMAS, U. S. NAVY,	Navy Yard, Portsmouth, N. H.
NEUBOLD, CAPTAIN CHARLES,	1025 Vermont avenue.
NEWCOMB, PROFESSOR SIMON, U. S. NAVY,	1020 P street.
NEWELL, F. H.,	U. S. Geological Survey.
NILES, PROFESSOR WILLIAM H.,	Massachusetts Institute of Technology, Boston, Mass.
NOBIGHIAN, M., EFFENDI,	Turkish Legation, 1611 Q street.
NOYES, CROSBY S.,	Editor Evening Star.
NOYES, THEODORE W.,	Office of The Evening Star.
OAKES, GENERAL JAMES, U. S. ARMY,	The Portland.
OGDEN, HERBERT G.,	U. S. Coast and Geodetic Survey.
OLBRICH, CHARLES R.,	810 H street.
O'LEARY, T. S.,	Hydrographic office, Navy Department.
OLIVER, MISS M. E.,	922 Nineteenth street.
OLNEY, CHARLES E.,	137 Jennings avenue, Cleveland, O.
OWEN, F. D.,	103 New York avenue.
OWEN, COLONEL WM. H.,	2211 Washington circle.

PAINTER, Mrs U. H.,	200 Fourteenth street.
PALMER, T. S.,	Agricultural Department.
PANCOAST, Miss M. E.,	1277 Cursonia street.
PARKER, GENERAL JOHN G., U. S. Army,	16 Lafayette square.
PARKER, E. W.,	U. S. Geological Survey.
PARKER, MEDICAL INSPECTOR J. B., U. S. Navy,	Navy Yard, Portsmouth, N. H.
PARKER, Miss L. M.,	1021 Seventeenth street.
PARKER, MYRON M.,	1029 Vermont avenue.
PARKER, MAJOR RICHARD C., U. S. Army,	Soldiers' Home.
PARDEN, ESTON H. E., U. S. Navy,	1715 G street.
PARSONS, F. H.,	215 First street S. H.
PARSONS, Miss K.,	1329 O street.
PATEN, JOHN D.,	3003 P street.
PATERSON, Mrs A. M.,	29 Iowa circle.
PATERSON, H. J.,	Maryland Agricultural Experiment Station, College Park, Md.
PATERSON, Miss M. A.,	307 New York avenue.
PATERSON, Miss M. E.,	1100 Vermont avenue.
PAUL, HENRY M.,	Naval Observatory.
PAWLING, JESSE, JUNIOR,	Johns Hopkins University, Baltimore, Md.
PAYNE, JAMES G.,	2112 Massachusetts avenue.
PEADODY, W. F.,	U. S. Coast and Geodetic Survey.
PEABY, CIVIL ENGINEER R. E., U. S. Navy,	2014 Twelfth street.
PELLER, JUDGE STANTON J.,	The Concord.
PELLER, HENRY E.,	1012 Massachusetts avenue.

- PENROSE, E. A. F., JUNIOR, M. D.,
1311 Spruce street, Philadelphia, Pa.
- PERCINS, E. T., JUNIOR,
U. S. Geological Survey.
- PERKINS, HONORABLE G. C.,
U. S. Senate.
- PERRY, R. ROSS,
428 F street.
- PERRY, SEATON,
1212 Rhode Island avenue.
- PETERS, EDUENE,
418 Pennsylvania avenue.
- PETERS, LIEUTENANT G. H., U. S. NAVY,
U. S. S. *Mississippi*.
- PETERS, WILLIAM J.,
U. S. Geological Survey.
- PHILLIPS, R. H.,
1422 New York avenue.
- PHILLIPS, HONORABLE T. W.,
1122 Vermont avenue.
- PICKERING, PROFESSOR E. C.,
Harvard Observatory, Cambridge, Mass.
- PICKING, CAPTAIN HENRY F., U. S. NAVY,
Navy Department.
- PINCE, JOSIAH, JUNIOR,
1125 Massachusetts avenue.
- PILLING, J. W.,
1301 Massachusetts avenue.
- PLATT, HONORABLE O. H.,
U. S. Senate.
- PLEASANTON, GENERAL A., U. S. ARMY,
1201 F street.
- POLLAK, ANTHONY,
629 F street.
- POND, MRS E. J.,
429 C street S. E.
- POOLE, MAJOR DE W. C., U. S. ARMY,
220 F street.
- PORTER, MISCOTT E.,
Hydrographic Office, Navy Department.
- POWELL, MAJOR C. F., U. S. ARMY,
District building.
- POWELL, MRS DIANA KEARNEY,
1734 K street.
- POWELL, MAJOR J. W.,
507 M street.
- POWELL, PROFESSOR W. B.,
Franklin school.

POTTIS, Miss LYDIA M.,	138 Chapin street.
PRANO, LOUIS,	840 Washington street, Boston, Mass.
PRATT, J. F.,	U. S. Coast and Geodetic Survey.
PRESTISS, D. W., M. D.,	1101 Fourteenth street.
PROCTER, HONORABLE JOHN R.,	Civil Service Commission.
PURNAM, GEORGE R.,	U. S. Coast and Geodetic Survey.
PYLE, FRED. B.,	Washington Loan and Trust building.
PYLE, WALTER L., M. D.,	The Albany.
RABER, MRS KATHERINE,	1814 Third street.
RAND, CHARLES F., M. D.,	1228 Fifteenth street.
RAND, PAYMASTER STEPHEN, U. S. Navy,	Navy Yard.
RANKIN, PRESIDENT J. E.,	Howard University.
RANKIN, JOHN M.,	Atlantic building.
RAYMOND, EDWARD S.,	Washington Loan and Trust building.
REED, LIEUTENANT B. L., U. S. Revenue Marine, Life Saving Service, Treasury Department.	
REED, Miss TEMPERANCE P.,	1610 Rhode Island avenue.
REISS, Miss ELLA,	Brookland, D. C.
REILY, PHILIP K.,	2221 Pennsylvania avenue.
REYNOLDS, Count F., E. E. and M. P.,	1409 Twentieth street.
REYBURN, ROBERT, M. D.,	714 Thirtieth street.
REYNOLDS, GENERAL J. J., U. S. Army,	1001 S street.
RICHARDSON, C. W., M. D.,	1102 L street.
RICHARDSON, F. A.,	1200 Vermont avenue.
RICHARDSON, J. J., M. D.,	1017 Fourteenth street.

- RICHMOND, CHARLES W.,
1307 T street.
- RITCHIE, MISS CLARA M.,
220 A street S. E.
- ROBERTS, W. W.,
Civil Service Commission.
- RILEY, OWEN,
Post Office Department.
- RITTENHOUSE, MAJOR B. F., U. S. Army,
1763 M street.
- RITTER, HOMER P.,
U. S. Coast and Geodetic Survey.
- RIZZI, COLONEL H. C.,
U. S. Geological Survey.
- ROBERTS, A. C.,
Hydrographic Office, Navy Department.
- ROBERTS, W. F.,
1421 G street.
- ROBINSON, MISS GAY,
1122 Seventeenth street.
- ROBINSON, HONORABLE H. A.,
Agricultural Department.
- ROCHESTER, GENERAL W. B., U. S. Army,
1220 Eighteenth street.
- ROCK, MILDS, C. E.,
1447 Staughton street.
- ROCKWELL, HONORABLE W. W.,
Department of State.
- ROMERO, SEÑOR DON M., E. E. and M. P.,
1412 I street.
- ROOME, MISS LILLIAN K.,
1245 Princeton street.
- ROSS, HONORABLE JOHN W.,
The Varium.
- ROTCHE, A. LAWRENCE,
Rendville, Mass.
- RUSSELL, CAPTAIN A. H., U. S. Army,
U. S. Arsenal, Rock Island, Ill.
- RUSSELL, E. E.,
104 B street.
- SANDERS, HENRY P.,
1504 Twenty-first street.
- SANDS, MISS MAHIE,
1222 Connecticut avenue.
- SANGER, MAJOR J. P., U. S. Army,
War Department.
- SARGENT, PROFESSOR C. S.,
Arnold Arboretum, Jamaica Plain, Mass.

Active Members.

Ixiii

SAWYER, MRS C. B.,	Goods House.
SAFTER, MRS N. C.,	Brattleboro, Vt.
SCAFFE, WALTER B.,	142 North avenue, Allegheny, Pa.
SCHLEY, CAPTAIN W. S., U. S. Navy,	Commanding U. S. F. S. <i>New York</i> .
SCHMIDT, FERDINAND,	1317 Wallach place.
SCHMIDT, FRED A.,	504 Sixth street.
SCHOEFF, W. KESEY, C. E.,	Echington, D. C.
SCHOULER, COMMANDEER JOHN, U. S. Navy,	U. S. F. S. <i>New York</i> .
DE SCHWEINITZ, DR. E. A.,	Agricultural Department.
SCHODDE, MISS ELIEA RUTAMA,	The Barchain.
SCOTT, MISS FANNIE T.,	2217 O street.
SCOTT, S. MATHEWSON,	188 24 Nicholas avenue, New York.
SCOTT, W. O. N.,	1711 Connecticut avenue.
SEAMAN, PROFESSOR WILLIAM H.,	1424 Eleventh street.
SEAVEY, MISS J. M.,	Internal Revenue Office, Treasury Department.
SEIGLEY, MISS ISABEL,	1772 Massachusetts avenue.
SHALER, PROFESSOR N. S.,	23 Quincy street, Cambridge, Mass.
SHATTUCK, GEORGE B.,	Johns Hopkins University, Baltimore, Md.
SHAW, GEORGE CLYMER,	311 C street S. E.
SHAW, JOHN W., M. D.,	908 Fifteenth street.
SHEDD, MISS S. S.,	Takoma Park, D. C.
SHERMAN, HONORABLE JOHN,	U. S. Senate.
SIDDY, LELAND P.,	U. S. Coast and Geodetic Survey.
SIBB-CLEFF, WILLIAM H.,	54 H street N. E.

- SHOCK, CHIEF ENGINEER W. H., U. S. Navy,
1400 Fifteenth street.
- SHOMAKER, CAPTAIN C. F., U. S. Revenue Marine,
Treasury Department.
- SIDWELL, THOMAS W.,
1311 I street.
- SIGHEE, COMMANDER CHARLES D., U. S. Navy,
Hydrographic Office, Navy Department.
- SINCLAIR, C. H.,
U. S. Coast and Geodetic Survey, El Paso, Tex.
- SINCLAIR, J. C.,
718 Arch street, Philadelphia, Pa.
- SITES, C. M. LACY,
1315 Clifton street.
- SMALL, J. H., JR.,
Fourteenth and G streets.
- SMITH, GENERAL C. H., U. S. Army,
1728 Q street.
- SMITH, MRS E. L.,
222 Third street.
- SMITH, GEORGE LAURENT,
1200 K street.
- SMITH, LINCOLN A.,
1631 Massachusetts avenue.
- SMITH, MIDDLETON,
1018 Nineteenth street.
- SMITH, GENERAL WILLIAM, U. S. Army,
1000 K street.
- SOMERS, MRS E. J.,
1100 M street.
- SOMMER, E. J.,
U. S. Coast and Geodetic Survey.
- SOTHOMAN, JAMES T., M. D.,
1011 I street.
- SOUTHERLAND, LIEUTENANT W. H. H., U. S. Navy,
1003 S street.
- SPEAR, GENERAL ELLIS,
1002 F street.
- SPENCER, MISS MARY A.,
200 Second street N. E.
- SPOTTORD, A. R.,
Library of Congress.
- SPRING-RICE, CECIL A.,
British Embassy.
- SQUIRE, HONORABLE WATSON C.,
U. S. Senate.
- STANLEY-BROWN, JOSEPH,
1034 Massachusetts avenue.

Active Members.

LXV

STAPLES, W. R.,	General Land Office.
STAVELY, ALBERT L., M. D.,	Garfield Hospital.
STEAD, ROBERT,	1220 Seventeenth street.
STEVENS, CAPTAIN E. Z., U. S. Army,	1429 New York avenue.
STINGER, GEORGE,	U. S. Geological Survey.
STEIN, ROBERT,	U. S. Geological Survey.
STILLWAGEN, EDWARD J.,	1214 F street.
STURMERS, SURGEON GENERAL GEORGE M., U. S. Army,	War Department.
STURMUT, DR J. MACHINE,	Columbia University.
STEVENS, HONORABLE D. W.,	Japanese Legation.
STEVENS, F. C.,	1415 G street.
STEVENS, HONORABLE M. T.,	North Andover, Mass.
STEVENS, HONORABLE A. F.,	The Normandie.
STEVENS, MRS M. C.,	1010 H street.
STOKES, DR H. N.,	U. S. Geological Survey.
STONE, LIEUTENANT C. A., U. S. Navy,	1821 M street.
STONE, I. S., M. D.,	1440 Rhode Island avenue.
STONER, MISS LILLIAN,	1013 I street.
STRATTON, J. A.,	Civil Service Commission.
STRIDER, MRS L. C.,	1420 Rhode Island avenue.
STRONG, MR JUSTICE W.,*	1411 H street.
STUDS, COLIN,	Baltimore and Potomac depot.
STURTEVANT, MRS A. L.,	Howard avenue, Mt Pleasant.

* Died August 16, 1885.

SUMMERS, MILO C.,	War Department.
SUTTON, FRANK,	U. S. Geological Survey.
SWANN, MISS THOMAS,	1415 I street.
SWARTZELL, G. W. F.,	916 F street.
SWRAT, L. D. M.,	The Normandie.
TAINTRÉ, CHARLES S.,	1200 E street.
TANNER, COMMANDER Z. L., U. S. Navy,	U. S. Fish Commission.
TARBELL, MISS ADA M.,	910 I street.
TAYLOR, DANIEL F.,	910 F street.
TAYLOR, H. W.,	100 Fifth street N. E.
TRAYNE, JUDGE REPOS H.,	910 F street.
TROOP, WM. TAYLOR,	1100 M street.
THOMAS, LIEUTENANT CAUCHEY, U. S. Navy,	Hydrographic Office, Navy Department.
THOMAS, FRANCIS, M. D.,	Ednor, Montgomery county, Md.
THOMAS, MISS M. VON E.,	1200 N street.
THOMAS, MRS R. R. D.,	200 S street N. E.
THOMSON, PROFESSOR A. H.,	U. S. Geological Survey.
THOMSON, MAJOR GILBERT,	U. S. Geological Survey.
THOMSON, J. B.,	1716 Cassman street.
THOMPSON, JOHN W.,	National Metropolitan Bank.
THOMPSON, MISS M. IDA,	1410 I street.
THURSTON, HONORABLE L. A.,	Honolulu, Hawaiian Islands.
TILTON, LIEUTENANT PALMER, U. S. Army,	1042 Thirteenth street.
TILTON, R. N.,	221 Second street N. E.

Active Members.

lxvii

TISDELL, WILLARD P.,	1331 Thirteenth street.
TOHRETT, J. B.,	435 Ninth street.
TOWSEND, MRS J. C.,	1411 Staughton street.
TRUESDELL, HONORABLE GEORGE,	District building.
TURSER, H. W.,	U. S. Geological Survey.
TWEDDALE, JOHN,	War Department.
TWEEDY, FRANK,	U. S. Geological Survey.
UPTON, LIEUTENANT FRED E., U. S. Navy,	Bureau of Education.
URQUHART, CHARLES F.,	U. S. Geological Survey.
VAN DYKE, W. M.,	1111 N street.
VAN HISE, PROFESSOR C. R.,	University of Wisconsin, Madison, Wis.
VAN HOOK, MISS ANTOINETTE,	1618 Nineteenth street.
VASEY, MRS GEORGE,	1297 Riggs street.
VADGIAN, T. WAYLAND,	U. S. Geological Survey.
VILAS, HONORABLE WILLIAM F.,	The ARGO.
VINAL, W. IRVING,	1106 East Capitol street.
VINCENT, GENERAL T. M., U. S. Army,	War Department.
WADDEY, JOHN A.,	Hydrographic Office, Navy Department.
WAGNER, F. H.,	Civil Service Commission.
WAINWRIGHT, DALLAS B.,	1400 Chapin street.
WAITE, MISS MARY F.,	1616 Rhode Island avenue.
WALCOTT, CHARLES D.,	U. S. Geological Survey.
WALES, GEORGE R.,	Civil Service Commission.
WALKER ALBERT M.,	1000 New Hampshire avenue.

- WALKER, ADMIRAL J. G., U. S. Navy,
1772 Eighteenth street.
- WALKER, HONORABLE J. H.,
The Shoreham.
- WALL, COLONEL WILLIAM,
St Cloud Hotel, New York, N. Y.
- WALLACE, MRS E. E.,
120 East Capitol street.
- WALLACE, MRS E. R.,
1321 Massachusetts avenue.
- WALLACE, WILLIAM J.,
1107 E street.
- WALTON, MISS FLORENCE,
106 Fourth street S. E.
- WANAMAKER, FRED,
Civil Service Commission.
- WANAMAKER, HONORABLE JOHN,
Philadelphia, Pa.
- WARD, MISS ELIZA T.,
5 Grand place.
- WARD, MRS FANNIE B.,
1537 Eighth street.
- WARD, H. P.,
The Hamilton.
- WARD, ROBERT DE C.,
Harvard University, Cambridge, Mass.
- WARDER, MRS E. B.,
Harvard University.
- WARREN, P. C.,
U. S. Geological Survey.
- WARNER, B. H.,
2100 Massachusetts avenue.
- WARREN, MISS M. B.,
12 Second street, Troy, N. Y.
- WARDEN, W. S.,
Civil Service Commission.
- WASHINGTON, COLONEL L. Q.,
1109 Ninth street.
- WATKINS, J. ELPHETH,
Care of Secretary National Geographic Society, 1413 H street.
- WEBB, H. RANDALL,
777 Nineteenth street.
- WEBB, W. H.,
411 Fifth avenue, New York, N. Y.
- WEBSTER, MAJOR WILLIAM H.,
Civil Service Commission.
- WEIR, JOHN B.,
The Clarendon.

Active Members.

IXIX

- WILD, GEORGE F.,
Altamaha and Chesapeake Canal Company, Norfolk, Va.
- WILKER, P. A.,
U. S. Coast and Geodetic Survey, 2348 Lawrence avenue, Toledo, O.
- WILLIAMS, WALTER,
1036 Massachusetts avenue.
- WILLS, E. HAROLD,
Office of The Cincinnati Post, Cincinnati, O.
- WEST, CAPTAIN F., U. S. Army,
Fort Myer, Va.
- WHICORY, MISS EDITH C.,
1333 L street.
- WHITE, MEDICAL INSPECTOR C. H., U. S. Navy,
Naval Laboratory, Brooklyn, N. Y.
- WHITE, DAVID,
141 North Carolina avenue.
- WHITE, MISS ELIZABETH WALKER,
Lawrence, Mass.
- WHITE, GEORGE H. B.,
National Metropolitan Bank.
- WHITE, PROFESSOR E. C.,
Morgantown, W. Va.
- WHITNEY, JOSEPH N.,
1412 H street.
- WHITMORE, W. C.,
1520 New Hampshire avenue.
- WHITLOCK, GEORGE P.,
1430 Staughton street.
- WIGHT, E. B.,
1323 F street.
- WIGHT, JOHN R.,
1410 G street.
- WIGHT, LLOYD B.,
25 Grant place.
- WILDER, MISS F. ISABEL,
1719 Fifteenth street.
- WILDE, COMMANDER G. F. F., U. S. Navy,
Light-house Board, Treasury Department.
- WILDER, GENERAL J. T.,
Johnson City, Tenn.
- WILKES, MISS JANE,
814 Connecticut avenue.
- WILKINS, HONORABLE BERTAM,
Editor Washington Post.
- WILKINSON, A. G., M. D.,
1537 K street.
- WILLINGBACHER, WILLIAM C.,
428 New Jersey avenue S. E.

WILLIAMS, CHARLES A.,	1501 Eighteenth street.
WILLIAMS, MAJOR J. M., U. S. Army,	1842 Thirteenth street.
WILLIAMS, MAJOR L. P.,	P. O. box 227.
WILLIAMSON, MISS HAIDEE,	100 Nineteenth street.
WILLIS, BAILEY,	U. S. Geological Survey.
WILLIS, F. L.,	War Department.
WILLETS, HONORABLE EDWIN,	Washington Loan and Trust building.
WILSON, MISS ALBEN,	The Hamrock.
WILSON, MAJOR C. I., U. S. Army,	War Department.
WILSON, H. M.,	U. S. Geological Survey.
WILSON, COLONEL J. M., U. S. Army,	War Department.
WILSON, JOSEPH F.,	1313 Clifton street.
WILSON, MISS LIZZIE,	1116 Fifteenth street.
WILSON, DR THOMAS,	1218 Connecticut street.
WINSLOW, PROFESSOR ARTHUR,	Boe building, Fifth and Pine streets, St Louis, Mo.
WINTON, ISAAC,	1255 Corcoran street.
WINTER, JOHN T., M. D.,	1328 Ninth street.
WINTERHALTER, LIEUTENANT A. G., U. S. Navy,	U. S. S. Bevington.
WISE, CAPTAIN W. C., U. S. Navy,	1014 Seventeenth street.
WITMER, A. H., M. D.,	Government Hospital for the Insane.
WOOD, LIEUTENANT A. N., U. S. Navy,	Navy Department.
WOODWARD, S. W.,	Wyoming avenue.
WOODWORTH, MILTON,	1424 S street.
WOOLWORTH, JAMES,	Burdusky, Ohio.

Active Members.

lxxi

WOOSTER, W. M., M. D.,	1228 Fourteenth street.
WORTHINGTON, A. S.,	2312 Massachusetts avenue.
WRIGHT, JOHN J.,	1223 O street.
WRIGHT, MORIS H.,	25 Trowbridge street, Cambridge, Mass.
WRIGHT, MRS S. B.,	1025 O street.
WYMAN, WALTER, M. D.,	Martin Hospital.
YOUNG, F. A.,	U. S. Coast and Geodetic Survey.
YOUNG, JOHN R.,	1214 B street S. W.
YAGOVIS, DR DAS J. M.,	Peruvian Legation.

CORRESPONDING MEMBERS

- ABBE, CLEVELAND, JUNIOR, 2017 I street.
- ADAMS, PROFESSOR FRANK D., McGill University, Montreal, Canada.
- ADAMS, F. G., Kansas Historical Society, Topeka, Kan.
- AUBEN, LIEUTENANT GEORGE P., U. S. Army, Fort Missoula, Mont.
- ANDERSON, SURGEON FRANK, U. S. Navy, U. S. S. *Asphérite*.
- ANDERSON, MARY L., P. O. box 977, Salt Lake City, Utah.
- ANDREWS, C. L., P. O. box 109, Fremont, Wash.
- ATKINS, THOMAS B., Maritime Canal Company, 34 Broad street, New York, N. Y.
- AUSTIN, PROFESSOR E. P., 109 South Eighth West street, Salt Lake City, Utah.
- AYERS, H. B., Carlton, Minn.
- BABB, CYRUS K., 12 Somerset street, Boston, Mass.
- BABER, MISS ZOSTA, 477 Lafayette avenue, Englewood, Ill.
- BADLEY, MISS MARY S., Windsor, Mo.
- BAGG, R. M., JUNIOR, Johns Hopkins University, Baltimore, Md.
- BAIRD, DAVID, Sparrow Point, Md.
- BAKER, LUCIUS, P. O. drawer 206, Fresno, Cal.
- BANBROFT, DR. C. F. P., Phillips Academy, Andover, Mass.
- BANNISTER, CHARLES K., Ogden, Utah.
- BARNARD, CHARLES, Ventura, Cal.
- BARROLL, LIEUTENANT H. H., U. S. Navy, Homestead Steel Works, Marshall, Pa.
- BARTON, GEORGE H., Massachusetts Institute of Technology, Boston, Mass.
- BASCOS, DR. FLORENCE, Ohio State University, Columbus, Ohio.

Corresponding Members.

lxxiii

- BATCHELDER, C. F., M. D.,
7 Kirkland street, Cambridge, Mass.
- BATLEY, DR. W. S.,
Colby University, Waterville, Me.
- BAYLEN, JUDITH Z.,
Case School of Applied Science, Cleveland, Ohio
- BEARDSLEE, ADMIRAL L. A., U. S. NAVY,
Commanding U. S. Naval Force, Pacific Station.
- BERNARDI, LIEUTENANT J. B., U. S. NAVY,
Turpin Station, Newport, R. I.
- BERTHOUD, EDWARD L.,
P. O. box 45, Golden, Colo.
- BERRY, MARGIE W. H., U. S. ARMY,
Post Office building, Philadelphia, Pa.
- BOWEN, R. A.,
106 Adams street, Chicago, Ill.
- BROOKMAN, PROFESSOR A. P.,
Colgate University, Hamilton, N. Y.
- BROADFIELD, PROFESSOR G. C.,
Columbia, Mo.
- BROWN, WILL Q.,
Kiddine, Ore.
- BULKLEY, FRED G.,
Aspen, Colo.
- BURR, J. H. TEN EYCK,
Cazenovia, N. Y.
- CANTWELL, LIEUTENANT J. C., U. S. Revenue Marine,
1818 Sacramento street, San Francisco, Cal.
- CARLTON, P. J.,
Rockport, Me.
- CARROLL, CAPTAIN JAMES,
Juneau, Alaska.
- CARY, AUSTIN,
Agricultural Department.
- CHAMBERLIN, PROFESSOR T. C.,
University of Chicago, Chicago, Ill.
- CHERRY, LIEUTENANT COMMANDER L., U. S. NAVY,
University City, New York, N. Y.
- CHESTER, COMMANDER C. M., U. S. NAVY,
Navy Yard, Brooklyn, N. Y.
- CLAPP, GEORGE H.,
101 Water street, Pittsburg, Pa.
- CLARK, DR. W. R.,
Johns Hopkins University, Baltimore, Md.
- CLATFOLD, PROFESSOR E. W.,
Bucktail College, Akron, Ohio.
- CLEMENTS, PROFESSOR W. W.,
Louisiana State Experiment Station, Baton Rouge, La.

COLLIER, PROFESSOR G. L.,	Beloit College, Beloit, Wis.
COMSTOCK, PROFESSOR T. B.,	University of Arizona, Tucson, Ariz.
CONGER, CHARLES T.,	University of Chicago, Chicago, Ill.
CONLEY, MISS M. J.,	Yosemite, Cal.
COOK, FREDERICK A., M. D.,	15 Hart street, Brooklyn, N. Y.
COOK, FRED W.,	412 Power building, Helena, Mont.
COOLEY, MISS GRACE E.,	Wellesley College, Wellesley, Mass.
CRAGIN, PROFESSOR F. W.,	Colorado College, Colorado Springs, Colo.
CRIMMINS, MARTIN I.,	University of Virginia, Charlottesville, Va.
CROUCH, A. L. E.,	"Mount Atry," Philadelphia, Pa.
CULBERTSON, EMMA B., M. D.,	33 Newbury street, Boston, Mass.
CULVER, PROFESSOR G. E.,	Stevens Point, Wis.
CUNNINGHAM, JOHN M.,	Comics Club, San Francisco, Cal.
CURTIS, G. CARROLL,	68 Thayer Hall, Cambridge, Mass.
DALY, REGINALD A.,	60 Perkins Hall, Cambridge, Mass.
DAVIDSON, PROFESSOR GEORGE,	San Francisco, Cal.
DAVIS, ARTHUR P.,	U. S. Geological Survey, P. O. box 786, Denver, Colo.
DAVIS, W. T.,	American Bank building, Kansas City, Mo.
DAVIS, WALTER W.,	615 Main street, Kansas City, Mo.
DEKING, MISS C. E.,	State Normal School, Providence, R. I.
DESSY, ARTHUR A.,	1120 Front street, Seattle, Wash.
DOHR, R. E.,	Teachers' College, 120th street west, New York, N. Y.
DOOLEY, CHARLES S., M. D.,	2707 Woodland avenue, Philadelphia, Pa.
DOHR, R. E. ARTHUR,	Hall and Express, 202 Broadway, New York, N. Y.

Corresponding Members.

lxxv

- DREWRY, W. S.,
Department of Land and Works, Victoria, British Columbia.
- DRYER, CHARLES B., M. D.,
Fort Wayne, Ind.
- DUMBLE, PROFESSOR E. T.,
State Geological Survey, Austin, Tex.
- EASTMAN, CHARLES B.,
207 Laurel avenue, Saint Paul, Minn.
- EDSON, HONORABLE OBEID,
Hinsdaleville, N. Y.
- EMERSON, DR. B. K.,
Amherst, Mass.
- EVANS, SAMUEL G.,
211 Main street, Evansville, Ind.
- EYERMAN, JOHN,
"Oskunet," Easton, Pa.
- FAIRCHILD, PROFESSOR H. LE ROY,
University of Rochester, Rochester, N. Y.
- FAIRCHILD, JOHN P.,
Bank building, Mount Vernon, N. Y.
- FENNEMAN, N. M.,
State Normal School, Greeley, Colo.
- FORBES, W. H.,
222 Chestnut avenue, Jamaica Plain, Mass.
- FRANK, GEORGE W., JUNIOR,
Keosauqua, Neb.
- GANN, H. S.,
Johns Hopkins University, Baltimore, Md.
- GANONG, PROFESSOR W. F.,
119 Gaford street, Cambridge, Mass.
- GARDNER, JOHN L., 2d,
22 Congress street, Boston, Mass.
- GARRETT, H. G.,
Orlando, Fla.
- GOODE, J. PAUL,
Moorhead, Minn.
- GODMAN, M. W.,
73 North Fourteenth street, Portland, Ore.
- GOUCHER, DR. J. F.,
Woman's College, Baltimore, Md.
- GRANT, ULYSSES S.,
State Geological Survey, Minneapolis, Minn.
- GREENE, ROGER S., JUNIOR,
Seattle, Wash.
- GREGORY, E. J.,
Fort Collins, Colo.
- GUMSLEY, G. P.,
87 Hubbard avenue, Columbus, Ohio.

- GRINNELL, GEORGE B., M. D.,
218 Broadway, New York, N. Y.
- GRISWOLD, L. S.,
238 Boston street, Dorchester, Mass.
- GRUBER, G. G.,
210 Chamber of Commerce Building, Chicago, Ill.
- GULLIVER, F. P.,
195 Cambridge street, Cambridge, Mass.
- HAGADORN, LIEUTENANT C. B., U. S. Army,
Springfield, Mass.
- HARRIS, DR. T. W.,
Harvard University, Cambridge, Mass.
- HARRISON, THOMAS F.,
221 West Forty-fifth street, New York, N. Y.
- HARVEY, F. H.,
Galt, Sacramento county, Cal.
- HASKELL, E. E.,
U. S. Engineer's office, Sault de Sainte Marie, Mich.
- HASTINGS, JOHN B.,
Bellevue, Idaho.
- HAWLEY, LIEUTENANT COMMANDER J. M., U. S. Navy,
U. S. S. Detroit.
- HAYDEN, JOHN ELKHORN VANSALL,
Milton, Mass.
- HAYES, PROFESSOR ELLEN,
Wellesley College, Wellesley, Mass.
- HAYNES, F. JAY,
202 Jackson street, Saint Paul, Minn.
- HENSHAW, H. W.,
Chicago, Cal.
- HILL, HARRY C.,
P. O. box 1005, Salt Lake City, Utah.
- HILLS, VICTOR G.,
P. O. box D, Cripple Creek, Colo.
- HITCHCOCK, PROFESSOR C. H.,
Dartmouth College, Hanover, N. H.
- HOBBS, DR. W. H.,
University of Wisconsin, Madison, Wis.
- HOGGINS, CURTIS W.,
Earlham College, Richmond, Ind.
- HOLDEN, LUTHER L.,
9 Saint John street, Jamaica Plain, Mass.
- HOLMES, PROFESSOR J. A.,
University of North Carolina, Chapel Hill, N. C.
- HOOPER, CAPTAIN C. L., U. S. Revenue Marine,
220 East Main street, Santa Barbara, Cal.
- HORE, CAPTAIN E. C.,
Care of Thomas Pratt, Bridge street, Sydney, N. S. W.

Corresponding Members.

lxxvii

- HOWE, EDWARD G.,
204 Columbus avenue, Champaign, Ill.
- HOVE, FRANK D.,
Care of Secretary National Geographic Society, 1315 H street.
- HOWSON, CAPTAIN H. L., U. S. Navy,
Navy Yard, Mare Island, Cal.
- HOXIE, CAPTAIN R. L., U. S. Army,
P. O. box 1240, Pittsburg, Pa.
- HUBBARD, W. H.,
308 "The Hookery," Chicago, Ill.
- HERRICH, CHARLES H.,
P. O. box 66, San Antonio, Tex.
- HUD, ARTHUR W., M. D.,
Buffalo State Hospital, Buffalo, N. Y.
- IDDINGS, PROFESSOR J. P.,
University of Chicago, Chicago, Ill.
- VAN INGEN, GILBERT,
Vassar College, Poughkeepsie, N. Y.
- JACOB, JOSEPH,
Los Angeles, Cal.
- JAGGER, T. A., JUNIOR,
Care of Drexel Harjes et Cie, Paris, France.
- JEWETT, W. P.,
161 East Third street, Saint Paul, Minn.
- JOHNSON, MRS MARY D.,
Sitka, Alaska.
- KELLEY, W. D.,
619 Hartmeyer building, New York, N. Y.
- KEMP, PROFESSOR J. F.,
Columbia College, New York, N. Y.
- KEMP, JAMES S.,
225 Union street, Brooklyn, N. Y.
- KENYAN, K. K.,
Manhattan, Mont.
- KENNEDY, GILBERT F.,
10 Rolland street, Cambridge, Mass.
- KERR, H. S.,
Manti, Utah.
- KERR, MAHE B.,
402 Front street, San Francisco, Cal.
- KERR, W. H.,
Hepster, Md.
- KING, W. F.,
Department of the Interior, Ottawa, Canada.
- KLOPP, DE OTTO J.,
457 Albert street, Ottawa, Canada.
- KOHLER, S. R.,
Museum of Fine Arts, Back Bay P. O., Boston, Mass.

- KEMMEL, HENRY B.,
University of Chicago, Chicago, Ill.
- LAND, MISS LAVINIA,
179 Broadway, Saint Paul, Minn.
- LAURENT, M. B.,
220 Clinton street, Brooklyn, N. Y.
- LEONARD, A. G.,
Bureau Geological Survey, Des Moines, Iowa.
- LEVINETT, FRANK,
Denmark, Iowa.
- LEWIS, JESSE,
Warrensburg, Mo.
- LEWIS, J. V.,
Chapel Hill, N. C.
- LIBBY, PROFESSOR WILLIAM, JUNIOR,
22 Bayard avenue, Princeton, N. J.
- LIDDELL, HENRY, M. D.,
Care of Secretary National Geographic Society, 1015 H street.
- LLOYD, FRANCIS E.,
Pacific University, Forest Grove, Ore.
- LOOMIS, HENRY B.,
Seattle, Wash.
- LORE, JOSEPH, E. M.,
25 South Sixth East street, Salt Lake City, Utah.
- MACFARLANE, PROFESSOR A.,
University of Texas, Austin, Texas.
- MACKAYE, JAMES M.,
Shirley, Mass.
- MACKINDER, H. J.,
1 Bradmore road, Oxford, England.
- MAHER, JAMES A.,
P. O. box 23, Johnson City, Tenn.
- MALONE, MISS M. J.,
Hyattsville, Md.
- MARRET, CURTIS F.,
Care of Secretary National Geographic Society, 1015 H street.
- MARCY, PROFESSOR OLIVER,
701 Chicago avenue, Evanston, Ill.
- MAIRS, A. J., M. D.,
115 Madison street, Toledo, Ohio.
- MASON, MRS A. LIVINGSTON,
"Halidon Hall," Newport, R. I.
- MCAURTHUR, J. J.,
Topographical Survey, Ottawa, Canada.
- MCCRACKEN, R. H.,
P. O. box 426, San Antonio, Tex.
- MCCURDY, GEORGE G.,
Care Professor E. E. Salisbury, New Haven, Conn.

Corresponding Members.

lxxix

- McDOWELL, WILLIAM O.,
Lincoln Park, Newark, N. J.
- McLAUGHLIN, MAJOR FRANK,
Oenville, Cal.
- MILL, PROFESSOR P. H.,
Auburn, Ala.
- MENDENHALL, DR. T. C.,
Polytechnic Institute, Worcester, Mass.
- MERRILL, CHARLES A.,
Holden, Mass.
- MERRILL, F. J. H.,
State Museum, Albany, N. Y.
- MERRILL, PROFESSOR J. A.,
Warrensburg, Mo.
- MILLER, CHARLES C.,
501 Russ street, Hamilton, Ohio.
- MONROE, CLEOPHAS,
Middletown, Ohio.
- MONTGOMERY, PROFESSOR J. H.,
Allegheny College, Meadville, Penn.
- MORRIS, MISS L. W.,
311 Milan street, Shreveport, La.
- NITZE, H. B. C.,
1011 Edmondson avenue, Baltimore, Md.
- NIXON, J. H., M. D.,
314 Saint Louis street, Springfield, Mo.
- NORDHOFF, CHARLES,
Ceresado, Cal.
- NORMAN-NICHOLS, L.,
Devonshire Club, Saint James street, London, England.
- O'BRIEN, J. T.,
Kearney, Neb.
- OPPEHEIM, MRS. ANSEL,
27 Summit avenue, Saint Paul, Minn.
- OSBORN, LIEUTENANT A. P., U. S. Navy,
Commanding Coast Survey Steamer *Geology*.
- OSBORNE, DR. GEORGE L.,
State Normal School, Warrensburg, Mo.
- OTIS, HAMILTON,
Gardens, Cal.
- OWEN, W. O.,
Laramie, Wyo.
- PARKER, COLONEL FRANCIS W.,
6142 Roxton street, Englewood, Ill.
- PARMELEE, H. P.,
Charlevoix, Mich.
- PAYLOW, PROFESSOR ALEX. W.,
Siberia, Great Spassky Perlovsk, Hamn Lebedoff No 2, Mysow, Russia.

- PEABE, DR. A. C.,
1200 Chestnut street, Philadelphia, Pa.
- PECKHAM, GRACE, M. D.,
The Madison, New York, N. Y.
- PERRY, PROFESSOR W. J.,
Bradford, Pa.
- PILSBURY, LIEUTENANT COMMANDER J. E., U. S. NAVY,
Naval War College, Newport, R. I.
- POOLER, HOWARD W.,
Worcester Academy, Worcester, Mass.
- POWER, GEORGE C.,
P. O. box K, Ventura, Cal.
- POWERS, FRED PERCY,
22 Broadway, New York, N. Y.
- PRICE, JOSEPH M.,
56 West Seventy-first street, New York, N. Y.
- PRINCE, JOHN D., M. D.,
9 East Tenth street, New York, N. Y.
- PRINCE, HONORABLE L. BRADFORD,
Santa Fe, N. M.
- READ, MOTTIE A.,
Logans P. O., Tex.
- RECLUS, PROFESSOR ELIASE,
17 rue du Lac, Brussels, Belgium.
- REID, PROFESSOR HARRY FIELDING,
Johns Hopkins University, Baltimore, Md.
- REITER, COMMANDER G. C., U. S. NAVY,
Light-house inspector, Philadelphia, Pa.
- RICE, PROFESSOR WILLIAM NORTH,
Wesleyan University, Middletown, Conn.
- RICHARDSON, T. J.,
121 East Fifteenth street, Minneapolis, Minn.
- RICKSICKEL, EUGENE,
P. O. box 209, Seattle, Wash.
- RICHMAN, D. M.,
Flagstaff, Ariz.
- ROBESS, ARTHUR G.,
Massachusetts Institute of Technology, Boston, Mass.
- ROBINSON, MISS F. PAOR,
Forest Glen, Md.
- ROCKWOOD, PROFESSOR C. G., JUNIOR,
24 Bayard avenue, Princeton, N. J.
- ROTHROCK, J. T., M. D.,
Wheaton, Pa.
- RUSHY, H. H., M. D.,
222 West 122d street, New York, N. Y.
- RUSSEL, LIEUTENANT EDGAR, U. S. ARMY,
West Point, N. Y.

Corresponding Members.

lxxxix

- RUSSELL, PROFESSOR ISRAEL C.,
University of Michigan, Ann Arbor, Mich.
- SAFFORD, M. VICTOR, M. D.,
Kittery, Me.
- SALSBURY, PROFESSOR R. D.,
University of Chicago, Chicago, Ill.
- SASSEVILLE, ERNEST M.,
Care of Union National Bank, Denver, Colo.
- SAWYER, PROFESSOR JAMES M.,
Point Street Grammar School, Providence, R. I.
- SCHAAP, C. H.,
P. O. box 24, Sitka, Alaska.
- SCHUBINGER, JOHN J.,
Morgan park, Cook county, Ill.
- SCHUBNER, F. G.,
68 Thayer hall, Cambridge, Mass.
- SCHUYVER, MISS A. A.,
Teachers' College, 120th street west, New York, N. Y.
- SCOTT, GEORGE M.,
108 Main street, Salt Lake City, Utah.
- SHEPARD, PROFESSOR E. M.,
Drury College, Springfield, Ma.
- SIEDWICZ, SURGEON C. A., U. S. Navy,
U. S. S. Chocoma.
- SILL, LIEUTENANT JAMES L., U. S. Revenue Marine,
U. S. R. M. S. Rowlett, Savannah, Ga.
- SIZEE, FRANK L.,
Helena, Mont.
- SMILE, EDWARD S.,
Eliot block, Newton, Mass.
- SMITH, PROFESSOR EUGENE A.,
University of Alabama, University, Ala.
- SMITH, JACOB,
Topographic Survey of Canada, Ottawa, Canada.
- SMOCK, DR. JOHN C.,
State Geological Survey, Trenton, N. J.
- SNOWDEN, LIEUTENANT THOMAS, U. S. Navy,
U. S. Naval Academy, Annapolis, Md.
- SNYDER, W. H.,
27 Mellon street, Cambridge, Mass.
- STANWOOD, JAMES H.,
Massachusetts Institute of Technology, Boston, Mass.
- SPEDMAN, JOHN M.,
Alabama Polytechnic Institute, Auburn, Ala.
- STOCKTON, COMMANDER C. H., U. S. Navy,
30 Ray street, Newport, R. I.
- STONE, JAMES S.,
111 Vernon street, Newton, Mass.

- SWAN, HONORABLE JAMES G.,
Port Townsend, Wash.
- TABBELI, HORACE S.,
Providence, R. I.
- TARR, RALPH S.,
Cornell University, Ithaca, N. Y.
- TAYLOR, CHARLES E., M. D.,
Saint Thomas, D. W. I.
- TAYLOR, JOHN M.,
Idaho Falls, Idaho
- TILMAN, COLONEL S. E., U. S. Army,
West Point, N. Y.
- TOWER, G. W., JUNIOR,
17 College house, Cambridge, Mass.
- TRAUD, LIEUTENANT P. E., U. S. Army,
West Point, N. Y.
- TRAUTWINE, JOHN C., JUNIOR,
418 Locust street, Philadelphia, Pa.
- TUCKER, PROFESSOR WM. J.,
Andover, Mass.
- ULICH, J. C.,
P. O. box 1201, Denver, Colo.
- UPHAM, WARREN,
100 Oskdale avenue, Cleveland, Ohio.
- UTTER, REVEREND DAVID,
Salt Lake City, Utah.
- VERMULE, C. C.,
71 Broadway, New York, N. Y.
- WADSWORTH, LIEUTENANT COMMANDER A. V., U. S. Navy,
Care of Navy Pay Office, San Francisco, Cal.
- WALKER, E. D.,
408 Union street, Schenectady, N. Y.
- WALLACH, GEORGE Y.,
Salt Lake City, Utah.
- WARD, L. B.,
Taylor's Hotel, Jersey City, N. J.
- WARREN, WILLIAM M.,
229 Broadway, Cambridgeport, Mass.
- WASHBURN, PROFESSOR F. L.,
State University, Eugene, Ore.
- WELLS, WILLIAM H.,
271 Ashland avenue, Chicago, Ill.
- WEST, PRISTON C. F.,
Calumet, Mich.
- WESTGATE, LEWIS G.,
1203 Chicago avenue, Evanston, Ill.
- WHITCOMB, F. J.,
Raymond & Whitcomb, 31 East Fourteenth street, New York, N. Y.

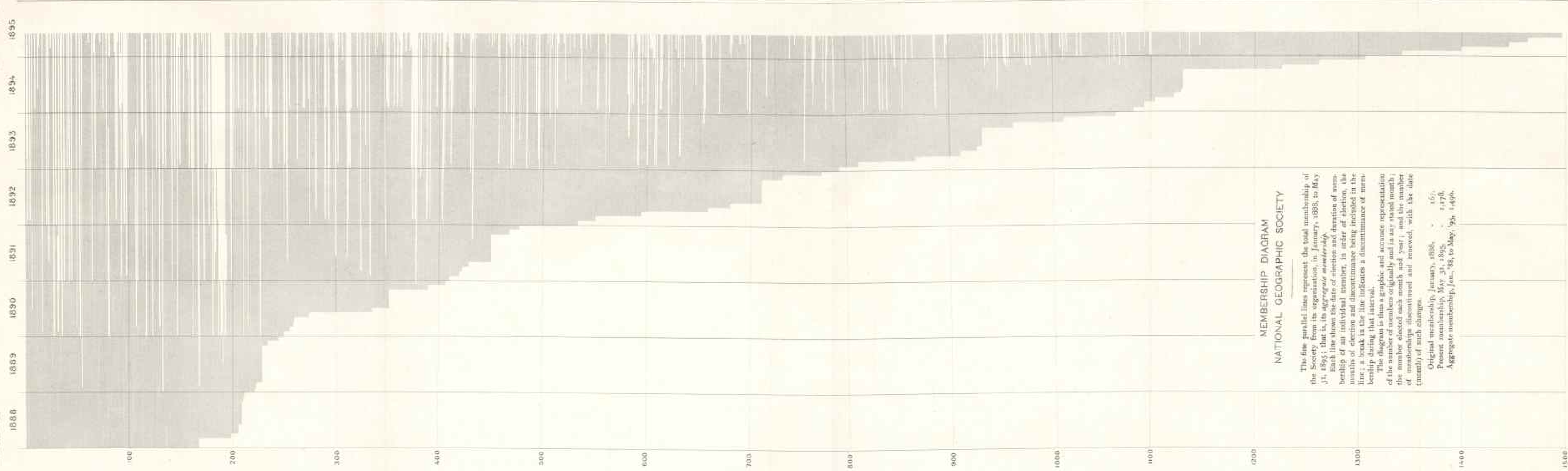
Corresponding Members.

Ixxxiii

WHITE, T. BROOK,	14 Worcester block, Portland, Ore.
WHITTLE, C. L.,	West Medford, Mass.
WILLARD, DANIEL E.,	State Normal School, Myrtle, S. C.
WILLIAMS, PROFESSOR H. S.,	Yale University, New Haven, Conn.
WILLIAMS, WILLIAM,	University Club, New York, N. Y.
WINCHELL, HORACE V.,	100 Southeast Seventh street, Minneapolis, Minn.
WINCHELL, PROFESSOR N. H.,	120 State street, Minneapolis, Minn.
WOODWARD, PROFESSOR R. S.,	Columbia College, New York, N. Y.
WOODWORTH, J. B.,	7 Rutland square, Cambridge, Mass.
WORTHINGTON, ERASTUS, JUNIOR,	327 Exchange building, Boston, Mass.
WRIGHT, PROFESSOR G. FREDERICK,	11 Elm street, Oberlin, Ohio.
YEATES, CHARLES M.,	Fayetteville, Ark.

SUMMARY.

Honorary members	11
Active members	803
Corresponding members	274
Total membership, May 31, 1896	<u>1,178</u>



MEMBERSHIP DIAGRAM
NATIONAL GEOGRAPHIC SOCIETY

The fine parallel lines represent the total membership of the Society from its organization, in January, 1888, to May 31, 1895; that is, its *aggregate membership*.

Each line shows the date of election and duration of membership of an individual member, in order of election, the months of election and discontinuance being indicated in the line; a break in the line indicates a discontinuance of membership during that interval.

The diagram is thus a graphic and accurate representation of the number of members originally and in any stated month; the number elected each month and year; and the number of memberships discontinued and renewed, with the date (monthly) of such changes.

Original membership, January, 1888, 167.
Present membership, May 31, 1895, 1,175.
Aggregate membership, Jan. '88, to May, '95, 1,456.

INDEX

	Page		Page
ARABIA, Current money of.....	204	ARABIA, Destruction of.....	16
ARABIA, Reference to writings of.....	211	ARYAN conquest of India and Persia.....	10
— cited on weather-making among Peruvians.....	20	— migration.....	9
— — — rain-making among the Santa Cruz Indians.....	47	ASHURITES treaty.....	250
ARIZONA the deserts to San Francisco mountain. Arizona, Record of lecture on.....	xix	ASIA, political geography of, Record of lecture on.....	xviii
ADLER, CYRUS, Record of lecture by.....	xix	ASYRIA, Cuneiform characters used in.....	5
ADOLPH, Invocation to.....	46	—, Extent of.....	7
ADORNATION, Processes of.....	143	—, Indistinctness of the world to.....	6
AFRICA, central, dwarfs and forests of, Record of lecture on.....	xvii	— and Babylonia, recent discoveries in, Record of lecture on.....	xviii
—, Civilization of.....	10	ASTORIA, Founding of.....	240
—, Former occupants of.....	10	ARMY, cited on local superstition.....	46
—, Inhabitants of.....	10	ARMYING Committee, Report of the; Wm. A. DeCaindry and A. C. Kiser, xxxviii	
—, Slow progress of.....	17	AWOOTING LAKA, Geographic features of.....	20
AFRICAN slave trade found profitable.....	10	BABYLON, City walls of.....	6
AGES of human development.....	2	—, Civilization of.....	6
AGRICULTURE, Egyptian.....	7	—, Palaces, etc., of.....	6
AID, Geography of the.....	200	BABYLONIA, Extent of.....	7
AIRIES, Reference to experiments of.....	20	BAGDA, MAJORS, Record of address by.....	xv
ALASKA Boundary Commission, Record of discussion on work of.....	xiii	—; Surveys and maps of the District of Columbia.....	109
ALASKAN Boundary Surveys, Record of discussion on.....	xiv, xix	BALBOA, Voyage of.....	241
ALBATROSS and the wind.....	45	BALDWIN, Reference to discoveries of.....	218
ALEXANDER, Conquests of.....	7	BALDWIN, —, cited on discovery of the Columbia.....	246
ALGERIA, Climate of.....	17	BALDWIN, CARL, Reference to experiments of.....	20
—, Conquest of, by French.....	17	BATTLE (The) of the Puma; R. K. Fenlow.....	137
—, Mortality in.....	17	BATTLES of Fredericksburg, Record of addresses on.....	xx
—, Population of.....	17	BARTON, —, Experiments of, in Algeria.....	46
AMAZON, Rich valley of.....	18	BARTON, CAPTAIN, cited on identity of Waialeale island.....	100-104
AMENDMENTS to by-laws, Record of tabling of.....	xv	BARTON'S Poetry and Romance.....	6
AMERICA, Physical geography of.....	17	BILLINGSLAKE, Reference to voyage of.....	217
—, Discovery of.....	16	BAXTON, T. H., cited on joint occupation of Oregon.....	252
—, New light on the.....	224	— — — Rocky mountains as natural boundary.....	255
AMERICAN Forestry Association, Record of joint meeting with.....	xviii	BENNETT, Miss F. D., cited on call of robin.....	41
ANDERSON, W. W., cited on negro folklore.....	44	BENSON, Reference to discoveries of.....	217
ANDS of South America, explorations in, Record of lecture on.....	xv	BERING SEA Arbitration, practical results of, Record of address on.....	xviii
ANGEL, —, Reference to writings of.....	211	BERTHOUD, EDWARD L., Sir Francis Drake's anchorage.....	208
ANIMALS, Geographic distribution of.....	220	BUTCHERIES of artificial production of rainfall.....	80-81
ANTARCTIC continent, Note on the.....	217	BEXAM, CAPTAIN, Reference to voyage of.....	221
ANTIQUITIES and aborigines of Peru, Record of lecture on.....	xx	BIRTHPLACE of commerce and letters.....	9
APPALACHIANS, Across the, Record of lecture on.....	xix	BIRCH, Reference to discoveries of.....	218
—, northern, Record of address on.....	xviii	BLACKFEET, Rain-making among the.....	20
—, southern, Geomorphology of.....	53	BOBAY to the Himalayas, Record of lecture on.....	xvi
ARABIA, Physical features of.....	5	BOGDANSKY, international, between Mexico and United States, Record of discussion on.....	xix
ARABIA, Indistinctness of the world to the.....	6	— survey, Alaskan, Record of discussion on.....	xix
—, Nomadic character of.....	6	BOGERT, J. G., cited on rain-making among the Moqui.....	20
ARBUZZO, G., Record of lecture by.....	xviii	BOUSSINGAULT, —, Reference to work of.....	231
ARCHITECTURE, Egyptian.....	7		
ARGENTINA, Climate of.....	17		
—, Immigration into.....	17		
—, Population of.....	17		
ARIZONA, Rainfall season in.....	57		
—, northern, and the Rio Grande, Record of lecture on.....	xix		
ARKANSAS river and the plains, Record of lecture on.....	xix		

	Page		Page
BEAUVAIS, LIÉUT., Reference to work of.....	213	DARWIN —, cited on weather-making	
BRONZE AGE.....		among the Illinois.....	41
BROWN, FRANCIS, Record of lecture by.....	xviii	DAKOTA INDIANS, Weather-making	
BROWN, J. HENRY, cited on history of		among the.....	40
Oregon.....	229	DALLMAN, —, Reference to discoveries	
BRUCE, DR., Reference to report of.....	229	of.....	218
BRYANT, W. C., Reference to writings of.....	210	DALY, C. P., Record of letter from.....	xvii
—, Quotation from.....	207	DARTON, N. H., Record of address by.....	xx
BUCKLE, H. T., Quotation from.....	18	—, Shawangunk mountain.....	23
BY-LAWS of the National Geographic So-		DAVIDSON, G., Reference to researches of.....	213
ciety.....	xxix	DAVIS, A. P., Record of discussion by.....	xvi
		—, Record of lecture by.....	xix
CABRILLO's explorations.....	112	DAVIS, WM. M., Record of lecture by.....	xviii
CALIFORNIA COAST, Old map of.....	111	—, Reference to writings of..... 65, 56, 75, 73,	
—, represented as an island.....	111	79, 20	
CALL of birds for rain.....	43	DAY, D. T., conductor of excursion.....	xvi
CAMBRIDGE, Tardy recognition of geog-		—, Record of lecture by.....	xix
raphy at.....	221	DE KROUVELS, —, Reference to voy-	
CAMBRES, Conquests of.....	7	age of.....	117
CAMPBELL, M. R., Record of address by.....	25	DICKINS, H. F., Record of discussion by.....	xv
—, and C. WILLARD HAYES; Geomor-		DILLON, J. S., Record of lecture by.....	xix
phology of the southern Appalachians	45	—, Reference to writings of.....	126
CANADIAN Northwest Fur Company.....	231	Discovery of America, New light on the.....	224
CAPE COLONY, Climate of.....	17	DISTRIBUTION (Geographic) of animals	
—, Population of.....	17	and plants.....	109
CASTELLAR, Reference to article by.....	150	DISTRICT of Columbia, Alleged center	
CATLIN, GEORGE, cited on rain-making		of.....	152
among the Mandans.....	37	—, Boundary monuments of.....	152
CATH and the weather.....	44	—, Corner-stone of.....	149
CAVENDISH, T., Voyages of.....	208	—, Errors in survey of.....	152
CARVER, JONATHAN, Reference to writ-		—, First survey of.....	151
ings of.....	207	—, Geological survey map of.....	153
CENTRAL AMERICA, Settlement of.....	19	—, Original dimensions of.....	153
CHALLENGER expedition, Reference to.....	218-223	—, Original limits of.....	159
CHANCELLOR, Reference to voyage of.....	207	—, Retraction of portion of.....	152, 157
CHARLEVOIX, P. F. X., cited as to weather-		—, Surveys and maps of.....	149
making among the Sutchas.....	30	—, True center of.....	163, 164
CHINA, Civilization of.....	4	DONATHOFFER, —, Reference to writ-	
—, Crystallized culture of.....	5	ings of.....	49
—, Physical geography of.....	4	DONOVAN, J. OWEN, cited on weather-mak-	
CHINESE inventions.....	5	ing among the Omahas.....	35, 41
CHICTAWS, Rain-making among the.....	38	—, cited on weather-making among the	
CICADA, periodic appearance of, Record		Kahe (Omaha).....	40
of address on.....	xvii	DRAGON TREES, Longevity of.....	125
CIVILIZATION, Arrested development of.....	12	DRAKE, SIR FRANCIS, Anchorage of.....	208
—, Decay of.....	14	—, Bravery of.....	208
—, European, Birthplace of.....	10	—, Connection of, with slavery.....	16
—, Geographic progress of.....	1	—, Explorations of.....	141
CLARK, W. P., cited on rain-making		—, Raids on Spanish colonies by.....	208
among the Black-foot.....	35	DE CHAMPE, PAUL B., Record of lecture	
CLIFF-DWELLERS of Mexico, Record of		by.....	xvii, xviii
address on.....	xx	DECK, Call of, for rain.....	43
COLBRIDGE, S. T., Quotation from.....	43	D'UNVILLAN, Reference to voyage of.....	218, 222
COLUMBUS, Publication of log by.....	150	DWAKES, African, habits of.....	7
—, First landfall of.....	179	—, and Forests of Central Africa, Record	
COMAS, MISS CORA, Honorable mention		of lecture on.....	xvii
of.....	128	DYER, S. A., Reference to report of.....	33
COMMERCE, Birthplace of.....	9	DYRENBORTH, R. G., Rain-making ex-	
COMPASS, Undetermined variation of.....	181	periments by.....	54-56
CONCUSSION theory of rain-making.....	33-36		
CONTINUATION of Bosche's map.....	157	EARTH'S SURFACE, shaping of the, Re-	
CONSTANTINOPLE, Fall of.....	15	cord of lectures on.....	xiii
COOK, CAPTAIN JAMES, Reference to dis-		ECONOMIC aspects of erosion, Record of	
coveries of.....	207, 217, 242-243	lecture on.....	xviii
COFFEE MINES, Ancient.....	1	EGYPT, Agriculture of.....	7
COSTA RICA AND PANAMA, Record of lec-		—, Architecture of.....	7
ture on.....	xx	—, Civilization of.....	4
COTES, RICHARD, Record of address by.....	xviii	—, Geographic features of.....	6
—, Reference to writings of.....	247	EGYPTIANS, Indebtedness of the world to	
CRATER LAKE, Mount Shasta and Sacra-		the.....	7
mento, Record of lecture on.....	218	ELLIOTT, A., Reference to work of.....	150, 160
CROFT, W. A., Record of discussion by.....	xvi	ELLIS, JOHN T., Reference to report of.....	55
CROW, R., Reference to writings of.....	153	ERONT, —, Reference to writings of.....	213
CROW, Call of, for rain.....	43	ESOLANS, Colonies founded by.....	12
CUBA, geography of, Record of address on.....	xvii	—, Foreign possessions of.....	15
CURTIS, G. R., Reference to report of.....	33	—, Its beginning as a maritime power.....	15
CUSHING, F. H., Record of lecture by.....	xvi,	—, Mineral wealth of.....	15
xix, xx		—, Shakespeare's, Record of lecture on.....	xviii

- | | Page | | Page |
|---|----------|--|-------------|
| ENGLISH NAVY, Supremacy of..... | 208 | GEOGRAPHY of the air; A. W. Greeley..... | 266 |
| — reforms in India..... | 11 | —, etc. of Oregon..... | 239 |
| FROST, uplift and, Record of lecture
on..... | xiii | —, physical, broad field of..... | 264 |
| ESRY, JAMES P., Reference to writings
of..... | 49, 52 | —, political, Scope of..... | 264 |
| EXCURSION to Ushant swamp, Record of..... | xvi | —, Proper restriction of..... | 261 |
| FRELMANN, LIEUTENANT, Reference to
work of..... | 22 | —, science of, Record of address on..... | xviii |
| FAIRCHILD, EUGENE, Reference to report
of..... | 55 | GEOLOGY of Ulster county, New York..... | 24 |
| FABRIZIO, Voyage of..... | 241 | GEOMORPHOLOGY of the southern Appa-
lachians; C. Willard Hayes and Ma-
rius R. Campbell..... | 61 |
| FARWELL, SENATOR, Interest of, in rain-
making experiments..... | 54 | GEORGETOWN, Early existence of..... | 151 |
| FERRON, R. E.; The battle of the forest..... | 127 | GERMAN method of forest management..... | 147 |
| FIELD MEETING, Record of..... | 22 | GERMANY, Study of geography in..... | 266 |
| FIRST landfall (The) of Columbus, Jacques
W. Melway..... | 179 | GIBSON, GENERAL JOHN, Record of ad-
dress by..... | 22 |
| FISKE, JOHN, Reference to writings of..... | 183 | GILBERT, G. K., conductor of excursion..... | xvi |
| FLEMING, J. A., Record of discussion by..... | xiv | —, Record of lectures by..... | xiii, xix |
| FLETCHER, ROBERT, explanation of local
superstition..... | 46 | —, thanks to..... | xiv |
| —, cited on call of quail..... | 41 | —, Reference to writings of..... | 226 |
| FLETCHER, —, cited on Drake's voy-
ages..... | 208-212 | GOLD medal of National Geographic So-
ciety..... | 217 |
| FLORA, early, Types of..... | 129-131 | GOLDEN GATE, Yosemite, Los Angeles
and San Bernardino, Record of lec-
ture on..... | xix |
| — of the Pacific coast..... | 140, 141 | GOODE, R. U., Record of discussion by..... | xvi |
| FLORIDA treaty..... | 244 | GOOSE dancing for rain..... | 41 |
| FOLK-LORE remnants..... | 43 | GOVERNMENT, Patriarchal..... | 5 |
| FOREST, battle of the..... | 127 | GRAY, ASA, cited on growth of trees..... | 177 |
| — management, German method of..... | 147 | GRAY, CAPTAIN, Explorations by..... | 245 |
| —, North American, Subdivisions of..... | 139 | GREAT BRITAIN, Geographic features of..... | 15 |
| — trees, eastern, Dimensions of..... | 136 | —, Study of geography in..... | 261 |
| —, Petrified, in Yellowstone National
Park..... | 130 | GREUCE, Geographic features of..... | 11 |
| FORESTRY, Intelligent..... | 146 | —, Indeliteness of the world to..... | 12 |
| FORNEY, S., Record of address by..... | xix | GREYS, Different characteristics of..... | 12 |
| FOSTER, JOHN W., Record of lecture by..... | xviii | GRIELEY, A. W., Geography of the air..... | 266 |
| FOX, C. J., cited on Neosho treaty..... | 242 | —, Record of address by..... | xvii, xviii |
| FOX, CAPTAIN G. V., Reference to writ-
ings of..... | 182 | —, to judge essays..... | 225 |
| —, cited on first landfall of Columbus..... | 179 | GREENHOW, R., cited on possession of
Oregon..... | 254 |
| FREDEBURG and vicinity, Record of
symposium on..... | 22 | —, Reference to writings of..... | 212 |
| —, Record of field meeting at..... | 22 | GRINWELL, G. B., cited on weather-mak-
ing among the Pawnee..... | 40 |
| FREMONT, the Path-finder..... | 264 | GULF STATES, Increase of negroes in..... | 20 |
| FROM Cape Town into the countries of the
Ma-shukulambe, Record of lecture
on..... | xviii | GOYER, P., Reference to work of..... | 266 |
| FROST, JOHN, cited on rain-making
among the Mandans..... | 57 | HATT, Degradation of inhabitants of..... | 21 |
| FROSTS, killing, Effects of, on Distribu-
tion..... | 211 | —, Revolution in..... | 21 |
| GALIANO, Voyage of..... | 241 | HALE, Reference to writings of..... | 211 |
| GALILEO, Reference to discoveries of..... | 46 | HARRINGTON, MARK W., Record of lec-
ture by..... | xix |
| GANNETT, HENRY, Record of lecture by..... | xix | —, Record of paper by..... | xvi |
| —, paper by..... | 27 | —, Weather-making, ancient and mod-
ern..... | 35 |
| GARDNER, L., Method of, for obtaining
rain..... | 52 | HARVEY, FRED L., Acknowledgment to..... | 210 |
| —, Rain-making experiments of..... | 51 | HAWKINS, Connection of, with slavery..... | 16 |
| GEOMORPHOLOGY, Meeting of..... | 126 | HAYDEN, EVERETT, Record of address
by..... | xviii |
| GEOMORPHIC distribution of animals and
plants..... | 259 | HAYES, C. WILLARD, Record of address
by..... | 27 |
| — life, Record of address on..... | xviii | — and MARIUS R. CAMPBELL; Geomor-
phology of the southern Appalach-
ians..... | 61 |
| — soils, Record of address on..... | xviii | HECETA, Voyages of..... | 141 |
| — progress of civilization; Gardiner G.
Hubbard..... | 1 | HECKWELDER, J. G. H., cited as to
weather-making among Muskingum
Indians..... | 36 |
| — societies, work of foreign, Record of
address on..... | xvii | HILL, Reference to work of..... | 267 |
| GEOGRAPHY, commercial, Field of..... | 261 | HEMPEL of Mount Saint Elias; Israel C.
Russell..... | 213 |
| —, Distinct branches of..... | 264 | HERODOTUS, Quotation from..... | 7 |
| — Educational neglect of, in the United
States..... | 266 | HERRERA, Reference to writings of..... | 185, 187 |
| —, Importance of..... | 261 | HILL, R. A., Record of address by..... | xvii |
| —, mathematical, Relation of..... | 264 | —, Record of lecture by..... | xvi, 22 |
| — of Cuba, Record of address on..... | xvii | HISTORY, etc. of Oregon..... | 222 |
| | | HOTCHKISS, W. C., Record of discussion
by..... | xiii |
| | | HOLDEN, EMER, Record of lecture by..... | xix |
| | | HOMER, Reference to poems of..... | 12 |

	Page		Page
HOOKER, Reference to work of.....	207	KENTUCKY and Virginia, great caves of, Record of lecture on.....	xix
HORACE, Quotation from, on time.....	261	KERVIN, Reference to discoveries of.....	48
HOTCHKISS, JED, Record of address by.....	xix, xx	KERR, W. C., Reference to writings of.....	75
HOUTON, EDWIN J., Reference to writings of.....	21	KILMER, Call of, for wind.....	44
HUBBARD, GARDNER G., Geographic progress of civilization.....	1	KILPATRICK, Important effects of.....	221
—, Record of address by.....	xiv, xx	KING, NICHOLAS, Letter from.....	161
Hudson Bay company.....	250	—, Reference to letter from.....	160
HUMPHREY, Reference to discoveries of.....	207	—, work of.....	160-161
HUMBOLDT, cited on climatic factors.....	209	KIRKIN, S., Record of remarks by.....	xvii
—, cited on early navigation of North Pacific.....	241	LAWIE, and Industries of the South, Record of lecture on.....	xviii
HUMPHREY, Effect of on distribution.....	218	LAKE AWOORISU, Geographic features of.....	30
HURON, Rain-making among the.....	41	LAKE MISSISSIPPI, Geographic features of.....	69
HYKSON, Conquests of.....	7	LAKE MICHIGAN, Geographic features of.....	27
ICELAND, Magnetic observations in, in 1892.....	221	LAKE SUPERIOR, Some physical features of, Record of lecture on.....	xix
Ice-work, Record of lecture on.....	xiii	LANDING PLACE, Second, of Columbus.....	191
ILLINOIS, Weather-making among the.....	40	LAND of the Midnight Sun, Record of lecture on.....	xviii
INCANTATIONS in weather-making.....	26	LANDTAG of Prussia, Reference to debate in.....	147
INDIA, Diversity of population of.....	11	LA ROCHE, —, Reference to voyage of.....	217
—, English reforms in.....	41	LARREN, C. A., Reference to voyage of.....	220-222
—, Original arts of.....	11	LATITUDE, Disagreement as to.....	209
—, Physical geography of.....	10	—, Parallels of, and peculiarities of nations.....	20
—, Population of.....	10	LAW of temperature control of the geographic distribution of terrestrial animals and plants; C. Hart Merriam.....	109
—, Various civilizations of.....	11	LEHMAN, R., Reference to suggestions by.....	224
INDIANS, Degrees of civilization among.....	15	LESTYANT, P. C., Reference to work of.....	150, 154, 159, 160
—, equatorial, Habits of.....	3	Letters, Birthplace of.....	9
—, Mexican, Habits of.....	3	LEWIS and CLARK, Explorations of.....	246
—, Organized government of.....	15	LINCOLN, —, Reference to work of.....	231
—, Reliance of, for support.....	15	LITERATURE on artificial production of rainfall.....	60-62
—, Variety of race and language among.....	15	LITTLEHALES, G. W., Record of address by.....	xviii
INDUSTRIAL statistics, Record of paper on.....	xv	LOG BOOK, Falsification of, by Columbus.....	180
INTERACTION, Record of lecture on.....	xiii	LOOMIS, L. C., Record of address by.....	xviii
INVENTIONS of the Chinese.....	5	LOON, Call of, for rain.....	43
IRANIAN PLATEAU, Population of.....	10	LOUISIANA purchase.....	244
IRIGONS, Weather-making among the.....	11	LUMHOLTZ, CARL, Record of address by.....	xv
IRRIGATION of Babylonia.....	7	MCDUFFIE, SENATOR, cited on supposed worthlessness of Oregon.....	254
—, in the far west.....	20	MACPARKLAND, A., cited on Dytenforth's experiments.....	60
IRVING, WASHINGTON, cited on founding of Astoria.....	240	MCGEE, W. J., Record of lecture by.....	xix
—, —, first landing of Columbus.....	179	—, Reference to writings of.....	48, 72, 81, 82, 83, 91
ITALY, Geographic position of.....	12	MCGEE, J. H., Record of address by.....	xix
—, New civilization in.....	14	—, Record of discussion by.....	xiii
—, Study of geography in.....	201	—, Reference to work of.....	215
JAMAICA, Geographic features of.....	20	MCGEE, —, cited on formation of Mississippi land lands.....	141
—, Population of.....	21	MACKAY, GEORGE, Story of.....	46
—, Slavery in.....	21	MAGNETIC observations in Iceland, Jan Mayen and Spitzbergen in 1892, Note on.....	221
JAN MAYEN, Magnetic observations in, in 1892.....	221	MAJOR, R. H., Reference to researches of.....	181
JAPAN, Abolition of feudal despotism in.....	103	MALDONADO, Voyage of.....	241
—, D. W. Stevens.....	103	MAN, the master of his environment.....	11
—, Educational institutions in.....	103	MANDAN, Rain-making among the.....	27
—, Executive government of.....	103	MANDARA, ELVARO, Reference to voyage of.....	217
—, Imperial Diet of.....	103	MAP, Bosche's, Confession of.....	157
—, Laws of.....	103	MAPS, etc., of the District of Columbia.....	109
—, Newspaper press of.....	103	MARIN-DRUY, Reference to writings of.....	231
—, Public administration of.....	103	MARSHALL, C. R., cited on first landing of Columbus.....	184, 185
—, Religious liberty in.....	104	MARTEL, CHARLES, of Tours.....	6
—, Restoration of imperial government in.....	103	MELBY, M. F., Reference to work of.....	206
—, Transportation facilities in.....	103	MEARNS, E. A., Record of address by.....	xix
JESSUP, A. A., Record of lecture by.....	83		
JUNSON, L. C., Reference to writings of.....	110		
JOHNSON, W. D., Record of lecture by.....	xv		
JULIEN, —, cited as to direction of glacial scorings.....	23		
KAMCHATKA, Habits of natives of.....	3		
KANE, JOHN J., Record of remarks by.....	xvii		
KARLEN, LUCY E., cited on weather-making among the Dakotas.....	40		
KENNAN, GEORGE, Record of lecture by.....	xx		

- | | Page | | Page |
|---|--------------------|--|----------|
| MEANS, CAPTAIN, Reference to discoveries of..... | 245, 245, 245, 245 | NEGRO population of United States..... | 20 |
| MICCA, Annual pilgrimages to..... | 5 | NEUMAYER, DR., Reference to writings of..... | 222 |
| MIDENA, Annual pilgrimages to..... | 5 | NEWCOMB, SIMON, Reference to writings of..... | 52, 53 |
| MILDENHALL, FRANK, Alleged rain-making by..... | 48 | NEWELL, P. H., Record of discussion by..... | xvi |
| MEMBERS, Active, List of..... | xxiv | —, Record of lecture by..... | xix |
| —, Corresponding, List of..... | lxxii | New light on the discovery of America..... | 224 |
| —, Honorary, List of..... | xxviii | New Mexico, Rainfall season in..... | 57 |
| MENDENHALL, T. C., Acknowledgment to..... | 42 | NEWTON, Reference to discoveries of..... | 48 |
| —, Record of discussion by..... | xvii | NIAGARA FALLS, Side trip to, Record of lecture on..... | xix |
| —, Record of paper by..... | xvii | NIBLACK, A. P., Record of discussion by..... | xix |
| —, to judge essay..... | 228 | NICARAGUA CANAL, Record of lecture on..... | xxvii |
| MERIDIAN, The initial..... | 159 | NILE, Length and breadth of the..... | 7 |
| MERRIAM, C. HART; Laws of temperature control of the geographic distribution of terrestrial animals and plants..... | 226 | — valley, People of the..... | 7 |
| —, Record of address by..... | xviii | NINEVAN, City walls of..... | 8 |
| —, Record of papers by..... | xix | —, Palaces of..... | 8 |
| MESOPOTAMIA, Geographic features of..... | 7 | NOBLE, W., cited on rain-making among the Choctaws..... | 38 |
| —, Great cities of..... | 8 | NOOKA convention..... | 242 |
| —, Successive rulers of..... | 8 | NORTH AMERICA, Settlement of..... | 19 |
| MEXICO, Cliff-dwellers of, Record of address on..... | xy | NORTHWESTERN boundary of United States, Record of paper on..... | xvii |
| —, mountains of, Record of lecture on..... | xvi | NORTHERN ROCKIES, down the Columbia, Mount Rainier and Portland, Record of lecture on..... | xix |
| MINYVASSI LAKE, Geographic features of..... | 25 | NORWAY, Physical features of..... | 14 |
| MISSISSIPPI, bad lands, Formation of..... | 143 | OBSERVATIONS, Magnetic, in Iceland, Jan Mayen, and Spitzbergen in 1850..... | 223 |
| —, sources of, Record of address on..... | xviii | OCEANOGRAPHY, recent results in, Record of address on..... | xxviii |
| — valley a factor in growth and prosperity of United States..... | 19 | OFFICERS of the National Geographic Society..... | xxvii |
| —, Immigration into..... | 19 | OLSON, H. G., Record of discussion by..... | xiii |
| MITCHELL, JOHN H., Oregon: Its history, geography, and resources..... | 259 | Oil and gas regions, trip through, Record of lecture on..... | xix |
| —, Record of lecture by..... | xix | OLDHAM, V., Reference to paper by..... | 202 |
| MIXED RACES, Adaptation of South America to..... | 23 | OMAHA, Weather-making among the..... | 35 |
| MONTANENPASS and the sciences..... | 6 | OMEGA admitted as a state..... | 206 |
| — as law-givers..... | 6 | —, Claim of Great Britain to..... | 247 |
| MOHUNK LAKE, Geographic features of..... | 27 | —, Claim of Spain to..... | 247 |
| MUSKOGANS of the National Geographic Society..... | 225 | —, Discovery of..... | 240 |
| MOONEY, JAMES, cited on Indian belief concerning snakes and rain..... | 44 | —, First governor of..... | 266 |
| — cited on supposed influence of killdeer..... | 44 | —, Historical sketch of..... | 240 |
| MOUNT, Rain-making among the..... | 38, 39 | —: Its geography, history and resources, Record of lecture on..... | xix, 252 |
| MOUTON, J. STURLING, Record of remarks by..... | xxvii | —, Origin of name of..... | 266 |
| MORMAN, A. T., Record of address by..... | xix | — territory, Original dimensions of..... | 240 |
| MOUNT RAINIER, Ascent of, Record of lecture on..... | xiii | Origin and configuration of the upper Alpine passes, Record of lecture on..... | xxviii |
| MOUNT SAINT ELIAS, Great depth of snow on..... | 215 | ORTIZO, Rich valley of..... | 18 |
| —, Height of..... | 215 | ORTON, EDWARD, Record of lecture by..... | xix |
| MOUNTAINS of Mexico, Record of lecture on..... | xvi | OTTOMAN EMPIRE, Record of lecture on..... | xix |
| MUXON, P. S., Record of letter from..... | xvii | OUTFIT and cruises of the Albatross, Record of address on..... | xxviii |
| MUSTO cited on first landfall of Columbus..... | 179 | OUTWAITE, J. H., Record of remarks by..... | xxvii |
| MURDOCH, LIEUTENANT, Reference to researches of..... | 252 | OXFORD, Tardy recognition of geography at..... | 201 |
| MURRAY, J., Reference to work of..... | 219, 221, 227 | PACIFIC and Arctic whaling industry, Record of lecture on..... | xiv |
| NATAL, Climate of..... | 17 | PARKER, WM. H., Reference to researches of..... | 252 |
| —, Government of..... | 17 | PARKMAN, FRANCIS, cited on rain-making among the Hurons..... | 41 |
| —, Immigration into..... | 17 | PERRA, JUAN, Voyage of..... | 241 |
| —, Population of..... | 17 | PERIODIC appearance of cicada, Record of address on..... | xxvii |
| NATURE, Weather-making among the..... | 35 | PERRINS, G. C., Record of lecture by..... | xix |
| NATIONAL domain, Record of discussion on..... | xxi | PERRINS, R. T., JR., Record of discussion by..... | xvi |
| NATIONAL GEOGRAPHIC SOCIETY, Monographs of..... | 225 | —, Record of lecture by..... | xix |
| NAVARETE, M. J. DE, cited on first landfall of Columbus..... | 179 | PERRA, Physical geography of..... | 18 |
| NEKO folk-lore on Santee river..... | 44 | PERRIANS, Character of the..... | 11 |
| —, Free in equatorial regions supplants white man..... | 44 | | |

	Page		Page
PERU, Antiquities and aborigines of, Record of lecture on.....	xx	REDWAY, JACQUES W.; The first landfall of Columbus.....	179
—, Record of lecture on.....	xvii	REPORT of the Auditing Committee.....	xxvii
PERUVIANS, Rain-making among the.....	39	— Recording Secretary.....	xxi
PHENICIA, Indebtedness of the world to.....	9	— Treasurer.....	xxvi
—, Wealthy cities of.....	9	RESPONDENTS etc. of Oregon.....	139
PHENICIANS, Colonies of.....	9	RILEY, C. V., Record of address by.....	xvii
—, Manufactures of.....	9	RITTER, H. P., Record of address by.....	xix
—, Mercantile career of.....	9	— discussion by.....	xiii
PHYSICAL methods of weather-making.....	46	RODIS, Call of, for rain.....	43
PHYSIOGRAPHIC processes, Record of address on.....	xviii	ROCKY MOUNTAINS, Mineral wealth of.....	19
PHYSIOGRAPHY, elements of, Record of address on.....	xviii	ROME, Conquest of.....	13
— of southern Appalachians, Record of address on.....	xx	—, Indebtedness of the world to.....	13
PICKERING, W. H., Record of lecture by.....	xx	—, Commerce of, with distant countries.....	13
PIT-SMOKING in weather-making.....	36	—, Genius of, for government.....	13
PLANTS, Geographic distribution of.....	299	—, Renaissance of.....	13
PLUTARCH cited on rainfalls after battles.....	53	ROMERO, M., Record of remarks by.....	xxv
POLITICAL geography of Asia, Record of lecture on.....	xviii	ROSS, J. C., Reference to voyages of.....	217, 218
POPE ALEXANDER'S bull.....	212	RODOLPH, DANIEL, Patent for rain-making granted to.....	54
PORTUGAL, Physical features of.....	15	RYSELL, L. C., Reference to writings of.....	226
PORTUGUESE traders and discoverers.....	15	—; On height of mount Saint Elias.....	175
POWELL, J. W., Record of address by.....	xix, xviii	RUSSELL, Record of presidential address on.....	xx
—, Record of lecture by.....	xix		
—, Reference to writings of.....	226	SAINTE ELIAS, MOUNT, Great depth of snow on.....	175
POWELL, W. D., 10 judge essays.....	228	—, Height of.....	175
POWERS, EDWARD, Reference to writings of.....	22	SAINTE LAWRENCE RIVER, French settlements on.....	19
PRACTICAL results of Bering Sea arbitration, Record of address on.....	xviii	SAINTE LAWRENCE VALLEY, Character of inhabitants of.....	19
PRATT, J. F., Record of address by.....	xix	SALT LAKE CITY and the Grand Canyon, Record of lecture on.....	xix
—, Discussion by.....	xix	SAMANA, Identity of.....	186
PRAYERS in weather-making.....	36	—, probable first landing place of Columbus.....	186
PRESIDENT'S annual address: Russia, Record of delivery of.....	xx	SAN ANTONIO, Rain-making experiments at.....	57
PRETTY, —, Reference to writings of.....	226-210	SAN DOMINGO, Degradation of inhabitants of.....	21
PRINTING PRESS, Invention of.....	15	—, Disappearance of Indians from.....	21
PRINCE, —, Reference to writings of.....	210	—, First European settlement of.....	21
PRIZE ESSAYS: National Geographic Society.....	227	—, Former carrying trade of.....	21
PROBLEMS of the Yosemite, Record of lecture on.....	xx	—, Geographic features of.....	21
PROCTOR, JOHN R., Record of address by.....	xviii	—, Revolution in.....	21
PROGRESS of civilization.....	1	SAN FRANCISCO BAY.....	210-214
PUBLICATIONS of the Society.....	vi	SAN JUAN DE PUCA, Voyage of.....	241
PUBLIC domain in its social aspect, Record of discussion on.....	xxi	SANTA CRUZ INDIANS, Rain-making among the.....	47
— lands of Idaho, Record of discussion on.....	xxi	SAVAGE, Decadence of the.....	19
— the United States, Record of discussion on.....	xxi	SCANDINAVIA, Revival of civilization in.....	14
PUEBLO INDIANS, home of, Record of lecture on.....	xix	SCHOOLCRAFT, H. R., cited on rain-making among the Moqui.....	25
—, Record of lecture on.....	xvi	SCHROCK, WILLIAM, cited.....	43
		SCYTHIAN incursions into Mesopotamia.....	8
Quail, Call of, for rain.....	43	SEARS, ALFRED F., Record of lecture by.....	xvii
RACES, Struggle of the.....	17	SECRETARY, Recording, Annual report of the.....	xxi
RAIN produced by prairie fires.....	19	SEINE, Meuse, and Moselle, Record of lecture on.....	xviii
RAIN-MAKING, Bibliography of.....	60-62	SEIGNIAR, Longevity of.....	128
— and stopping by superstitious and religious methods.....	58	SHAKESPEARE'S England, Record of lecture on.....	xviii
— by artificial means.....	49	SHALER, N. S., Record of address by.....	xvii
— atmospheric concussion.....	50-55, 59	—, Reference to writings of.....	12, 129
— chilling atmosphere.....	52, 59	SHAPING of the earth's surface, Record of lectures on.....	xiii
— means of great fires.....	49-51, 52	SHAWANONG MOUNTAIN: N. H. Dutton.....	15
— use of kite, in Algeria.....	49	SIBERIA, Record of lecture on.....	13
— experiments, Congressional appropriation for.....	54	SIGHEE, C. D., Record of address by.....	xviii
—, Literature of.....	60-62	SIGHEE deep-sea sounding machine, Record of address on.....	xviii
— Secret method of.....	58	SINCLAIR, C. H., Reference to work of.....	152
RAISING, MOUNT, ascent of, Record of lecture on.....	xiii	SIR FRANCIS DRAKE'S anchorage: Edward L. Berthoud.....	208
HAVEN, Call of, for rain.....	43	SLAVERY in the United States.....	20
RECEPTION at Arlington hotel, Record of.....	xix	SLAVE trade found profitable.....	16
RECENT discoveries in Assyria and Babylonia, Record of lecture on.....	xviii	SMITH, C. A., cited on call of loon.....	43

	Page		Page
SMITH, HERMINIE A., cited as to weather-making among the Iroquois.	76	UNITED STATES, Peculiarities of inhabitants of.	20
SMITH, ROBERT A., Reference to writings of.	119	—, Slavery introduced into.	20
SMITH, E. C., Record of lecture by.	xiii	UPPER and lower, Record of lecture on.	xiii
SNAKES and the weather.	44	UTRECHT, Treaty of.	263
SONORA, Mexico, Record of lecture on.	xix	VALDES, Voyage of.	241
SOPATER, Superstition concerning.	45	VANCOUVER, CAPTAIN, Reference to discoveries of.	222, 223
SOUTH AMERICA, Adaptation of, to mixed races.	19	VEDAS, Antiquity of the.	19
—, Disappearance of pure Indians from.	19	VENEZUELA, MICHIGI, Reference to writings of.	214
—, Inhabitants of.	18	VIKINGS, Colonies founded by.	14
—, Luxuriant vegetation of.	18	—, Home of the.	14
—, Settlement of.	19	VIRGINIA BEACH, Record of meeting at.	xvi
SOUTHERN APPALACHIANS, Geomorphology of.	65	VISCANO, Survey of.	212
SPAIN, Commercial monopoly of.	206	WALCOTT, C. D., Record of lecture by.	xix
—, Physical features of.	15	—, Record of remarks by.	xvii
—, Slavery in.	15	WALKER, FULLER, Acknowledgment to.	25
—, War of, with the Moors.	15	WASHINGTON CITY, Rain-making experiments near.	54
SPITZBERGEN, Magnetic observations in, in 1872.	221	—, First map of.	154
STANLEY, H. M., Reference to discoveries of.	207	—, in embryo, Reference to.	153
STANLEY-BROWN, J., Record of address by.	xviii	—, to Pittsburg and Niagara Falls, Record of lecture on.	xix
STATISTICS of our industries, Record of paper on.	xv	Water supply of the United States, Record of lecture on.	xiv
STEELE, —, cited on people of Finland.	46	Water work, Record of lecture on.	xiii
STEVENS, D. W., Japan.	233	WEATHER-CHANGING, Absurd schemes for.	47
STEVENSON, M. C., cited on rain-making among the Zulu.	39	WEATHER-MAKING, Ancient and modern; Mark W. Harrington.	35
STONE AGE.	2	—, Record of paper on.	xiv
SUPERSTITIONS of Indians regarding weather.	35-44	WERN, W. B., Reference to writings of.	162
— of negroes regarding weather.	44	WIDDOWELL, J., Reference to voyages of.	217
— of sailors regarding weather.	44-45	WILKER, F. A., Record of discussion by.	xiii
SUPERSTITIOUS methods of rain-making and stopping.	35	WILLING, J. C., Record of remarks by.	xvii
SURVEYS and maps of the District of Columbia; Marcus Baker.	140	WEST, FAR, Irrigation in.	19
SYRIA a civilizing agency.	9	WEST INDIES, Climate of.	29
— a great battlefield.	9	—, Fertility of soil of.	29
—, Physical features of.	8	—, Introduction of negroes into.	18
TANNER, J. L., Record of address by.	xviii, xx	WHALING industry, Record of lecture on.	xiv
TATAKS of Asia, Habits of.	2	WHITMAN Memorial College.	200
TEMPERATURE control of geographic distribution of animals and plants.	139	WHITMAN, M., Mission of, to Washington.	257
TEXTILE changes in drainage of southwestern Virginia, Record of paper on.	25	—, Tardy appreciation of.	250
TEXAS land system, Record of discussion on.	xvi	—, the real path-finder.	255
—, Rain-making experiments in.	54-57	WILNEY, MILTON, Record of address by.	xviii
—, Western, Rainfall in.	57	WILKES, Reference to voyage of.	218, 222
THOMPSON, A. H., Record of lecture by.	xix	WILLIS, HARRY, Record of address by.	xviii
THOMPSON, GEORGE, Record of address by.	xvii, xx	—, Reference to writings of.	72, 74, 226
THOMPSON, J. B., Record of discussion by.	xvi	WILSON, H. M., Record of lecture by.	xvi
TIERRA DEL PUERTO, Habits of natives of.	2	—, remarks by.	xvi
TIGER, species of, Economic value of.	143	WIND-MAKING, Methods of.	35, 44, 45
—, found in markets.	142	WIND-WORK, Record of lecture on.	xiii
TITMANN, O. H., Record of discussion by.	xiv	WINSHIP, N., Voyage of.	220
TOBACCO-BURNING in weather-making.	28	WINSON, JUSTIN, Reference to writings of.	219
TOPOGRAPHIC forms, Record of address on.	xviii	WINTER (A) in the depths of the Grand Canyon, Record of lecture on.	xix
TORNADOES, Proposed destruction of.	47	WINTERSTON, —, cited as to retention of Oregon.	255
TOUR, Battle of.	6	WITCHES, Influence of, on weather.	46
TREASURY, Annual report of the.	xxvi	WISH, J. W., Reference to writings of.	55
TREE LIFE, Persistence of.	137	WRIGHT, CARROLL D., Record of lecture by.	xviii
TURKISH EMPIRE, Record of lecture on.	22	YELLOWSTONE NATIONAL PARK, Forest remains in.	120
TURNER, J. H., Reference to work of.	213	YELLOWSTONE, wonderland of the, Record of lecture on.	xix
TWISS, PROFESSOR, cited on discovery of the Columbia.	246	Yosemite, problem of the, Record of lecture on.	xv
Types of early flora.	149	ZASTENAR, Money recognized at.	204
ULSTER COUNTY, N. Y., Geology of.	24	ZONES of civilization.	1
UNITED STATES, northeastern boundary of, Record of paper on.	xvii	—, faunal and floral distribution.	229
		—, production.	1
		ZULU-BA, AY-SHELD and modes of travel in South Africa, Record of lecture on.	216
		ZULU, Rain-making among the.	39

