

before the members of the various societies at the Academy of Natural Sciences by Professor W. B. Scott, on 'The Miocene Fauna of Patagonia and the Problem of the Southern Hemisphere.' After the lecture a brilliant and most enjoyable reception was given to the members of the societies by Dr. and Mrs. Horace Jayne.

About two hundred members of the various societies attended the meetings, and the papers presented were numerous and, in some of the societies at least, more than usually interesting.

The following officers were elected for the ensuing year:

Association of American Anatomists: *President*, Professor Charles S. Minot, of Harvard University; *First Vice-President*, Professor George A. Piersol, of the University of Pennsylvania; *Second Vice-President*, Professor J. M. Flint, of the University of California; *Secretary and Treasurer*, Dr. G. Carl Huber, of the University of Michigan; *Executive Committee*, Dr. Franklin P. Mall, Dr. George S. Huntington.

Society of American Bacteriologists: *President*, Dr. F. G. Novy, of the University of Michigan; *Vice-President*, Dr. E. O. Jordan, of the University of Chicago; *Secretary and Treasurer*, Dr. F. P. Gorham, of Brown University. Dr. William H. Welch was elected a delegate to the Council of the American Association for the Advancement of Science.

Society for Plant Morphology and Physiology: *President*, Dr. G. T. Moore; *Vice-President*, Professor Clara E. Cummings; *Secretary and Treasurer*, Professor W. F. Ganong.

American Physiological Society: *President*, Professor Russell H. Chittenden, of Yale University; *Secretary and Treasurer*, Professor Frederic S. Lee, of Columbia University; *Members of Council*, Professor William H. Howell, of Johns Hopkins University; Professor Warren P. Lombard, of the University of Michigan; Professor William T. Porter, of Harvard University; Professor Frederic S. Lee, of Columbia University.

American Society of Zoologists, Eastern Branch: *President*, Professor E. A. Andrews, of Johns Hopkins University; *Vice-President*, Professor W. E. Castle, of Harvard University; *Secretary and Treasurer*, G. A. Drew, of the University of Maine; *Executive Committee*, Professor H. S. Jennings, of the University of Pennsylvania; T. H. Mont-

gomery, Jr., of the University of Texas; H. C. Bumpus, of the American Museum of Natural History.

American Society of Vertebrate Paleontologists: *President*, Professor Henry F. Osborn, of Columbia University and the American Museum of Natural History; *Secretary*, Dr. O. P. Hay, American Museum of Natural History; *Executive Council*, Professor Bashford Dean, of Columbia University; Professor Loomis, of Amherst College; Dr. C. R. Eastman, of Harvard University.

AMERICAN MATHEMATICAL SOCIETY.

THREE meetings of the American Mathematical Society were held during the Christmas holidays. On December 19 the San Francisco Section met at the University of California; the annual meeting of the society was held at Columbia University, December 28-29; and the winter meeting of the Chicago Section was held at St. Louis, in connection with that of the American Association for the Advancement of Science December 31 to January 1.

Reports of the sectional meetings will appear in a later number of SCIENCE. At the annual meeting in New York officers for the society for 1904 and members of the council to serve for three years were elected as follows:

Vice-Presidents—Oskar Bolza and J. M. Van Vleck.

Secretary—F. N. Cole.

Treasurer—W. S. Dennett.

Librarian—D. E. Smith.

Committee of Publication.—F. N. Cole, Alexander Ziwet, D. E. Smith.

Members of the Council—Maxime Bôcher, Florian Cajori, M. B. Porter, J. H. Tanner.

The president of the society, Thomas S. Fiske, continues in office, the presidential term being two years.

The following persons were elected to membership in the society: R. F. Deimel, Columbia University; C. S. Forbes, Columbia University; O. T. Geckeler, Georgia School of Technology; E. A. Hook, Columbia University; L. A. Martin, Jr.,

Stevens Institute of Technology; Miss Virginia Ragsdale, New York City; S. E. Rasor, Ohio State University; A. E. Young, Purdue University; J. E. Wright, Bryn Mawr College. Six applications for membership were received.

Annual reports were received from the treasurer, librarian and secretary. The society continues to hold its own financially. It could accomplish more if larger funds were at its disposal. The library has increased to over 1,300 volumes, and now receives by exchange with the *Bulletin* and *Transactions* the current volumes of nearly every mathematical journal in the world. The membership of the society is now 455, a gain of 54 during the past year. The 'Annual Register' will be issued about the middle of January.

Committees were appointed to arrange for the publication of the course of lectures delivered at the Boston colloquium, September, 1903, and to consider the question of the future financial support of the *Transactions*, which has hitherto been published by the aid of subventions terminating in 1904.

The following papers were read at the annual meeting:

E. V. HUNTINGTON: 'A set of independent postulates for the algebra of logic (second paper).'

J. G. HUN: 'On certain invariants of two triangles.'

O. D. KELLOGG: 'Note on Cauchy's integral.'

J. I. HUTCHINSON: 'On certain automorphic functions.'

W. F. OSGOOD: 'On a gap in the usual presentation of Weierstrass's theory of functions.'

E. V. HUNTINGTON: 'Third complete set of postulates for the theory of positive integers.'

E. V. HUNTINGTON: 'Second complete set of postulates for the theory of magnitudes or positive real quantities.'

W. B. FITE: 'On some properties of groups whose orders are powers of a prime.'

E. J. WILCZYNSKI: 'On ruled surfaces whose flecnode curve intersects every generator in two coincident points.'

VIRGIL SNYDER: 'Complete enumeration of sextic scrolls having a rectilinear directrix.'

F. MORLEY: 'On the triplicity of 3-points in a plane.'

C. L. E. MOORE: 'Classification of surfaces of singularities in the quadratic spherical complex.'

L. D. AMES: 'On the theorem of analysis situs relating to the division of the plane or of space by a closed curve or surface.'

W. B. FORD: 'On the function defined by a Maclaurin series.'

P. F. SMITH: 'Linear transformations of a quadratic form into itself.'

E. B. WILSON: 'Projective and metrical geometry.'

C. H. SISAM: 'On the depiction of the lines of a special linear complex on the points of space.'

EDWARD KASNER: 'Investigations on isothermal systems.'

About fifty persons attended the meeting. On Monday evening an informal dinner contributed to the pleasures of the occasion.

The next meeting of the society will be held at Columbia University on February 27. The Chicago Section will meet again in April and the San Francisco Section in May.

F. N. COLE,
Secretary.

SCIENTIFIC BOOKS.

The General Principles of Physical Science.

By ARTHUR A. NOYES. New York, Henry Holt & Co. 1902. Pp. vii + 172.

This is the first volume of a work on which the author is engaged, entitled the 'General Principles of Chemistry.' The present volume is introductory and has for its purpose the setting forth of the laws and general principles of physics and chemistry, so far at least as these underlie the broad subject which the author has undertaken.

The present treatment is altogether systematic and not historical, and is intended for readers and students who are making special study of what is now generally known as physical chemistry.

The book contains four chapters: I., 'The Object, the Methods, and the Sub-divisions of Science'; II., 'The Fundamental Con-