side at Amsterdam were the impressive parts of the congresses.

S. I. F.

JOINT MEETING OF MATHEMATICIANS AND ENGINEERS

On the occasion of the annual convocation of the American Association for the Advancement of Science in Chicago during the Christmas holidays, 1907, it is proposed to hold a meeting of mathematicians and engineers under the joint auspices of Sections A and D of the American Association and the Chicago Section of the American Mathematical Society.

The program includes (1) a session on Monday afternoon, December 30, to consider the present status of the teaching of mathematics to students of engineering, both in this country and abroad; (2) a banquet on Monday evening for the promotion of acquaintance and good fellowship among mathematicians and engineers; (3) a symposium on Tuesday morning, December 31, on the topic "What is needed in the teaching of mathematics to students of engineering?" (a) What range of subjects? (b) To what extent in the various subjects? (c) By what methods of presentation? (d) What should be the chief aims?

The joint sessions will be held in the Ryerson Physical Laboratory, University of Chicago. Prominent engineers and mathematicians have already promised to take part in this program. It is hoped that a large number of those interested may thus be brought together to discuss these matters of the highest mutual importance. Announcements giving full details of the program and speakers will be mailed in advance of the time of the meeting.

G. A. MILLER,

Secretary of Section A of the American Association

W. T. MAGRUDER,

Secretary of Section D of the American
Association

H. E. SLAUGHT,

Secretary of the Chicago Section of the American Mathematical Society

THE CONVOCATION WEEK MEETINGS OF SCIENTIFIC SOCIETIES

THE American Association for the Advancement of Science and the national scientific societies named below will meet at the University of Chicago during convocation week, beginning on December 30, 1906.

American Association for the Advancement of Science.—December 30-January 4. Retiring president, Professor W. H. Welch, The Johns Hopkins University, Baltimore, Md.; president-elect, Professor E. L. Nichols, Cornell University, Ithaca, N. Y.; permanent secretary, Dr. L. O. Howard, Cosmos Club, Washington, D. C.; general secretary, President F. W. McNair, Houghton, Mich.

Local Executive Committee.—Charles L. Hutchinson, chairman local committee; John M. Coulter, chairman executive committee; John R. Angell, Thomas C. Chamberlin, Joseph P. Iddings, Frank R. Lillie, Charles R. Mann, Robert A. Millikan, Charles F. Millspaugh, Alexander Smith, J. Paul Goode, local secretary.

Section A, Mathematics and Astronomy.—Vice-president, Professor E. O. Lovett, Princeton University; secretary, Professor G. A. Miller, University of Illinois, Urbana, Illinois.

Section B, Physics.—Vice-president, Professor Dayton C. Miller, Case School of Applied Science; secretary, Professor A. D. Cole, Vassar College, Poughkeepsie, N. Y.

Section U, Chemistry.—Vice-president, Professor H. P. Talbot, Massachusetts Institute of Technology; secretary, Professor Charles L. Parsons, New Hampshire College, Durham, N. H.

Section D, Mechanical Science and Engineering.
—Vice-president, Professor Olin H. Landreth,
Union College; secretary, Professor Wm. T. Magruder, Ohio State University, Columbus, Ohio.

Section E, Geology and Geography.—Vice-president, Professor J. P. Iddings, University of Chicago; secretary, Dr. Edmund O. Hovey, American Museum of Natural History, New York City.

Section F, Zoology.—Vice-president, Professor E. B. Wilson, Columbia University; secretary, Professor C. Judson Herrick, University of Chicago.

Section G, Botany.—Vice-president, Professor C. E. Bessey, University of Nebraska; secretary, Professor F. E. Lloyd, Desert Botanical Laboratory, Tucson, Arizona.

Section H, Anthropology.—Vice-president, Professor Franz Boas, Columbia University; secretary, George H. Pepper, American Museum of Natural History, New York City.

Section I, Social and Economic Science.—Vice-president, Dr. John Franklin Crowell, New York City; secretary, Professor J. P. Norton, Yale University, New Haven, Conn.

Section K, Physiology and Experimental Medicine.—Vice-president, Dr. Ludvig Hektoen, University of Chicago; secretary, Dr. Wm. J. Gies, College of Physicians and Surgeons, Columbia University, New York City.

Section L, Education.—Vice-president, Hon. Elmer E. Brown, U. S. Commissioner of Education; acting secretary, Professor Edward L. Thorndike, Teachers College, Columbia University, New York City.

The American Society of Naturalists.—December 28. President, Professor J. Playfair McMurrich, University of Toronto; secretary, Professor E. L. Thorndike, Teachers College, Columbia University, New York City. Central Branch, president, Professor R. A. Harper, University of Wisconsin; secretary, Professor Thomas G. Lee, University of Minnesota, Minneapolis, Minn.

The American Mathematical Society. Chicago Section, December 30, 31. Chairman, Professor Edward B. Van Vleck; secretary Herbert E. Slaught, 58th St., and Ellis Ave., Chicago, Ill.

The American Physical Society.—President, Professor E. L. Nichols, Cornell University; secretary, Professor Ernest Merritt, Cornell University, Ithaca, N. Y.

The American Chemical Society.—December 27-January 2. President, Professor Marston T. Bogert, Columbia University; secretary, Professor Charles L. Parsons, New Hampshire College, Durham, N. H.

The Association of American Geographers.— December 31-January 1. Acting-president, Professor R. S. Tarr, Cornell University, to whom correspondence should be addressed; secretary, Albert P. Brigham, 123 Pall Mall, London, Eng.

The Association of Economic Entomologists.— December 27, 28. President, Professor H. A. Morgan, Knoxville, Tenn.; secretary, A. F. Burgess, Columbus, Ohio.

The American Society of Biological Chemists.— December 30-January 2. President, Professor Russell H. Chittenden, Yale University; secretary, Professor William J. Gies, College of Physicians and Surgeons, Columbia University, New York City.

The Society of American Bacteriologists.—December 31-January 2. Vice-president, F. D. Chester, Delaware Agricultural College, Newark, Del.; secretary, Professor S. C. Prescott, Massachusetts Institute of Technology.

The American Physiological Society.—Beginning December 31. President, Professor W. H. Howell, Johns Hopkins University; secretary, Professor Lafayette B. Mendel, 18 Trumbull St., New Haven, Conn.

The Association of American Anatomists.—January 1-3. President, Professor Franklin P. Mall; secretary, Professor G. Carl Huber, 1330 Hill St., Ann Arbor, Mich.

The American Society of Zoologists.—Central Branch. Secretary, Professor Thomas G. Lee, University of Minnesota, Minneapolis, Minn.

The Botanical Society of America.—December 27-29. President, Professor George F. Atkinson, Cornell University; secretary, Dr. D. S. Johnson, Johns Hopkins University.

The Botanists of the Central States.—Business Meeting. President, Professor T. H. Macbride, University of Iowa; secretary, Professor H. C. Cowles, University of Chicago, Chicago, Ill.

The American Psychological Association.—December 27, 28. President, Dr. Henry Rutgers Marshall, New York City; acting secretary, Professor R. S. Woodworth, Columbia University, New York City.

The Western Philosophical Association.—Secretary, Dr. John E. Bowdoin, University of Kansas, Lawrence, Kans.

The American Anthropological Association.—December 30, January 4. President, Professor Franz Boas, Columbia University; secretary, Dr. Geo. Grant MacCurdy, Yale University, New Haven, Conn.

The American Folk-lore Society.—December 30-January 4. President, Professor Roland B. Dixon, Harvard University; secretary, Dr. Alfred M. Tozzer, Harvard University, Cambridge, Mass.

Other national societies will meet as follows:

NEW HAVEN

The American Society of Zoologists.—Eastern Branch. December 26, 28. President, Dr. C. B. Davenport, Cold Spring Harbor, N. Y.; secretary, Professor W. L. Coe, Yale University, New Haven, Conn.

The American Society of Vertebrate Paleontologists.—December 26-28. President, Professor Bashford Dean, Columbia University; secretary, Professor Frederick B. Loomis, Amherst College, Amherst, Mass.

NEW YORK

The American Mathematical Society.—December 27, 28. President, Professor H. S. White, Vassar College; secretary, Professor F. N. Cole, Columbia University.

ALBUQUERQUE, N. M.

The Geological Society of America.—December 30-January 4. President, President Charles R. Van Hise, University of Wisconsin; secretary, Dr. Edmund O. Hovey, American Museum of Natural History, New York City.

ITHACA

The American Philosophical Association.—December 26, 28. President, Professor H. N. Gardiner, Smith College; secretary, Professor Frank Thilly, Cornell University, Ithaca, N. Y.

NEXT SUMMER, AT SOME PLACE TO BE DETERMINED

The Astronomical and Astrophysical Society of America.—President, Professor Edward C. Pickering, Harvard College Observatory; secretary, Professor Geo. C. Comstock, Washburn Observatory, Madison, Wisconsin.

THE ANNUAL DUES OF MEMBERS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

The permanent secretary of the American Association for the Advancement of Science begs to call the attention of members to the fact that the annual dues (three dollars) for the year beginning January the first should now be sent to him. The financial year of the association will hereafter end on October 31, and the dues for the following calendar year should be paid as soon as possible after that date. The dues are so small and the membership of the association has become so large that the sending of statements involves an expenditure of time and money, which, so far as possible, should be saved. The office of the permanent secretary must be removed to the place of meeting at Chicago during the last week in December, and the dues should be paid prior to that time. If they are not paid before January 1, there are serious complications in regard to the sending of Science to members. The association can not make itself responsible for sending Science to those whose dues are in arrears, as there are some who may regard the non-payment of dues as equivalent to resignation from the association. The back numbers of Science will be sent to those who pay their dues after January the

first upon the payment to the publishers of postage, so far as the edition permits, but the publishers do not guarantee that this will be done. Should the edition threaten to become exhausted, it will be necessary for those who wish to keep their sets of Science complete to pay for the numbers.

The permanent secretary takes this occasion to remind members of the desirability of assuming life membership in the association. By the payment of fifty dollars at the present time, all future trouble and expense is avoided. The fees of life members are ultimately transferred to the permanent fund, the income of which is used exclusively for the encouragement of research, and those who assume life membership thus contribute materially to the advancement of science. L. O. Howard,

Permanent Secretary

SMITHSONIAN INSTITUTION, WASHINGTON, D. C.

SCIENTIFIC NOTES AND NEWS

An oil portrait of Professor James Mills Peirce, Perkins professor of mathematics at Harvard University until his death in 1905, has been presented to the university by his sister.

The gold medal of the British Institution of Mining and Metallurgy, has been awarded to Sir Archibald Geikie in recognition of his services to geological science. The Consolidated Gold Fields of South Africa gold medal and premium have been awarded to Dr. T. Kirke-Rose for researches on the metallurgy of gold.

Dr. ROBERT KOCH has been promoted to the rank of Wirklicher Geheimer Rath, with the title of Excellency, in recognition of his researches into the causes of the sleeping sickness.

Dr. J. A. Allen, curator of mammalogy and ornithology in the American Museum of Natural History and editor of *The Auk*, has been elected an honorary member of the Deutsche Ornithologische Gesellschaft; he has also been transferred from the foreign to the honorary class of members of the British Ornithologists' Union.