

vicinity, the one on Tuesday night, at 8 o'clock, being by Dr. Dayton C. Miller on "The Science of Musical Sounds." On Wednesday night, at 8 o'clock, Dr. William H. Nichols will lecture on "The War and the Chemical Industry." The titles of the addresses by the retiring vice-presidents of the sections, to be delivered during the week before the respective sections of the association are as follows:

Vice-president Alfred D. Cole, before the Section of Physics: "Recent Evidence for the Existence of the Nucleus Atom."

Vice-president Henry C. Cowles, before the Section of Botany: "The Economic Trend of Botany."

Vice-president Walter B. Pillsbury, before the Section of Anthropology and Psychology: "The Function and Test of Definition and Method in Psychology."

Vice-president Frank Schlesinger, before the Section of Mathematics and Astronomy: "The Object of Astronomical and Mathematical Research."

Vice-president L. H. Bailey, before the Section of Agriculture: "The Place of Research and of Publicity in the Forthcoming Country Life Development."

Vice-president P. P. Claxton, before the Section of Education: "The American Rural School."

Vice-president O. P. Hood, before the Section of Engineering: "Safety Engineering."

Vice-president Joseph S. Diller, before the Section of Geology and Geography: "The Relief of our Pacific Coast."

Vice-president Theodore Hough, before the Section of Physiology and Experimental Medicine: "The Classification of Nervous Reactions."

Vice-president Judson G. Wall, before the Section of Social and Economic Science: "Social and Economic Value of Industrial Museums."

Vice-president Alfred G. Mayer, before the Section of Zoology: "The Research Work of the Tortugas Laboratory of the Carnegie Institution of Washington."

Vice-president Carl S. Alsberg, before the Section of Chemistry: "Fermentation."

A notable event of the meeting will be the organization of the new Section of Agriculture. Vice-president L. H. Bailey will deliver his address this year, and the new section will

hold its symposium at 3 p.m. on Wednesday, December 30, on the subject of "The Field of Rural Economics."

Other symposia will be held as follows: Section B and the American Physical Society at 3 p.m., Tuesday, December 29, on The Use of Dimensional Equations; Section K, at 2.45 p.m., Thursday, December 31, on the subject of Ventilation; at the same time, one will be held by Section F, the American Society of Naturalists, the Botanical Society of America and the Society of American Bacteriologists, on The Value of Zoology to Humanity; and at 11 a.m., Friday, January 1, by Sections C and K on the subject of The Rôle of Nitro-Organisms.

An unusual number of affiliated societies will meet with the association this year and will hold their sessions as indicated in another article in this issue concerning the Philadelphia meeting. The hotel headquarters will be at the Hotel Adelphia, Philadelphia's newest hotel. General headquarters will be at the Houston Club, University of Pennsylvania.

L. O. HOWARD

#### THE CONVOCATION WEEK MEETING OF SCIENTIFIC SOCIETIES

THE American Association for the Advancement of Science and the national scientific societies named below will meet at Philadelphia, during convocation week, beginning on December 28, 1914:

*American Association for the Advancement of Science.*—President, Dr. Charles W. Eliot, Harvard University; retiring president, Professor Edmund B. Wilson, Columbia University; permanent secretary, Dr. L. O. Howard, Smithsonian Institution, Washington, D. C.; general secretary, Professor William A. Worsham, Jr., State College of Agriculture, Athens, Ga.; secretary of the council, Mr. Henry Skinner, Academy of Natural Sciences, Logan Square, Philadelphia, Pa.

*Section A—Mathematics and Astronomy.*—Vice-president, Professor Henry S. White, Vassar College; secretary, Professor Forest R. Moulton, University of Chicago, Chicago, Ill.

*Section B—Physics.*—Vice-president, Professor Anthony Zeleny, University of Minnesota; see-

retary, Dr. W. J. Humphreys, U. S. Weather Bureau, Washington, D. C.

*Section C—Chemistry.*—Vice-president, Provost Edgar F. Smith, University of Pennsylvania; secretary, Dr. John Johnston, Geophysical Laboratory, Washington, D. C.

*Section D—Mechanical Science and Engineering.*—Vice-president, Albert Noble, New York; secretary, Professor Arthur H. Blanchard, Columbia University, New York City.

*Section E—Geology and Geography.*—Vice-president, Professor U. S. Grant, Northwestern University; secretary, Professor George F. Kay, University of Iowa.

*Section F—Zoology.*—Vice-president, Professor Frank R. Lillie, University of Chicago; secretary, Professor Herbert V. Neal, Tufts College, Mass.

*Section G—Botany.*—Vice-president, Dr. G. P. Clinton, Connecticut Agricultural Experiment Station; secretary, Professor W. J. V. Osterhout, Harvard University, Cambridge, Mass.

*Section H—Anthropology and Psychology.*—Vice-president, Dr. Clark Wissler, American Museum of Natural History; secretary, Professor George Grant MacCurdy, Yale University, New Haven, Conn.

*Section I—Social and Economic Science.*—Secretary, Seymour C. Loomis, 69 Church St., New Haven, Conn.

*Section K—Physiology and Experimental Medicine.*—Vice-president, Professor Richard Mills Pearce, University of Pennsylvania; secretary, Dr. Donald R. Hooker, Johns Hopkins Medical School, Baltimore, Md.

*Section L—Education.*—Vice-president, Professor Paul H. Hanus, Harvard University; secretary, Dr. Stuart A. Courtis, Liggett School, Detroit, Mich.

*Section M—Agriculture.*—Vice-president, Professor L. H. Bailey, Cornell University; secretary, Dr. E. W. Allen, U. S. Department of Agriculture, Washington, D. C.

*The American Physical Society.*—Convocation Week. President, Professor Ernest Merritt, Cornell University; secretary, Professor A. D. Cole, Ohio State University, Columbus, Ohio.

*The American Federation of Teachers of the Mathematical and the Natural Sciences.*—December 29. President, Professor C. R. Mann, Carnegie Foundation, New York City; secretary, Dr. Wm. A. Hedrick, McKinley Manual Training School, Washington, D. C.

*The American Society of Naturalists.*—December 31. President, Professor Samuel F. Clarke,

Williams College; secretary, Dr. Bradley M. Davis, University of Pennsylvania, Philadelphia, Pa.

*The American Society of Zoologists.*—December 29–31. President, Professor C. E. McClung, University of Pennsylvania; secretary, Dr. Caswell Grave, The Johns Hopkins University, Baltimore, Md.

*The Society of American Bacteriologists.*—December 29–31. President, Professor Charles E. Marshall, Massachusetts Agricultural College; secretary, Dr. A. Parker Hitchens, Glenolden, Pa.

*The Entomological Society of America.*—December 31–January 1. President, Professor Philip P. Calvert, University of Pennsylvania; secretary, Professor Alexander D. MacGillivray, University of Illinois, Urbana, Ill.

*The American Association of Economic Entomologists.*—December 28–31. President, Professor H. T. Fernald, Amherst College; secretary, A. F. Burgess, Melrose Highlands, Mass.

*The Geological Society of America.*—December 29–31. President, Dr. George F. Becker, U. S. Geological Survey, Washington, D. C.; secretary, Dr. Edmund Otis Hovey, American Museum of Natural History, New York City.

*The Paleontological Society.*—December 29–31. President, Dr. Henry F. Osborn, American Museum of Natural History, New York City; secretary, Dr. R. S. Bassler, U. S. National Museum, Washington, D. C.

*The Botanical Society of America.*—December 29–January 1. President, Dr. A. S. Hitchcock, U. S. Department of Agriculture; secretary, Dr. George T. Moore, Botanical Garden, St. Louis, Mo.

*The American Phytopathological Society.*—December 29–January 1. President, Dr. Haven Metcalf, U. S. Department of Agriculture; secretary, Dr. C. L. Shear, U. S. Department of Agriculture, Washington, D. C.

*American Fern Society.*—December 28–29. Secretary, Charles A. Weatherby, 749 Main St., East Hartford, Conn.

*Sullivant Moss Society.*—December 30. Secretary, Edward B. Chamberlain, 18 West 89th St., New York, N. Y.

*American Nature-Study Society.*—December 30–31. Secretary, Professor E. R. Downing, University of Chicago, Chicago, Ill.

*School Garden Association of America.*—December 29–30. President, Van Evrie Kilpatrick, 124 West 30th St., New York, N. Y.

*American Alpine Club.*—January 2. Secretary, Howard Palmer, New London, Conn.

*American Association of Official Horticultural*

*Inspectors.*—December 29–30. Chairman, Dr. W. E. Britton, New Haven; secretary, Professor J. G. Saunders, Madison, Wis.

*The American Microscopical Society.*—December 29. President, Professor Charles Brookover, Little Rock, Ark.; secretary, T. W. Galloway, James Millikin University, Decatur, Ill.

*The American Anthropological Association.*—December 28–31. President, Professor Roland B. Dixon, Harvard University; secretary, Professor George Grant MacCurdy, Yale University, New Haven, Conn.

*The American Folk-Lore Society.*—Convocation Week. Secretary, Dr. Charles Peabody, 197 Brattle St., Cambridge, Mass.

*The American Psychological Association.*—December 30–January 1. President, Professor R. S. Woodworth, Columbia University; secretary, Professor R. M. Ogden, University of Tennessee, Nashville, Tenn.

*The Southern Society for Philosophy and Psychology.*—December 31–January 1. President, Professor John B. Watson, The Johns Hopkins University; secretary, Professor W. C. Ruediger, George Washington University, Washington, D. C.

*The American Association for Labor Legislation.*—December 28–29. President, Professor Henry R. Seager, Columbia University; secretary, Dr. John B. Andrews, 131 East 23d St., New York City.

*Society of Sigma XI.*—December 29. President, Professor J. McKeen Cattell, Columbia University; secretary, Professor Henry B. Ward, University of Illinois, Urbana, Ill.

#### ST. LOUIS

*The American Physiological Society.*—December 28–30. President, Professor W. B. Cannon, Harvard Medical School, Boston, Mass.; secretary, Professor A. J. Carlson, University of Chicago, Chicago, Ill.

*The Association of American Anatomists.*—December 28–30. President, Professor G. Carl Huber, University of Michigan; secretary, Dr. Charles R. Stockard, Cornell University Medical School, New York City.

*The American Society of Biological Chemists.*—December 28–30. President, Professor Graham Lusk, Cornell University Medical School; secretary, Professor Philip A. Shaffer, Washington University Medical School, St. Louis, Mo.

*The Society for Pharmacology and Experimental Therapeutics.*—December 28–30. President, Dr. Torald Sollmann, Western Reserve University

Medical School, Cleveland, Ohio; secretary, Dr. John Auer, Rockefeller Institute for Medical Research, New York City.

#### CHICAGO

*American Mathematical Society.*—December 28–29. President, Professor E. B. Van Vleck, University of Wisconsin.

*The Association of American Geographers.*—December 29–31. President, Professor A. P. Brigham, Colgate University; secretary, Professor Isaiah Bowman, Yale University, New Haven, Conn.

*The American Philosophical Association.*—December 28–30. President, Professor J. H. Tufts, University of Chicago; secretary, Professor E. G. Spaulding, Princeton, N. J.

#### PRINCETON

*The American Economic Association.*—December 28–31. President, Professor John D. Gray, University of Minnesota; secretary, Professor Allyn A. Young, Cornell University, Ithaca, N. Y.

*The American Sociological Society.*—December 28–31. President, Professor E. A. Ross, University of Wisconsin; secretary, Professor Scott E. W. Bedford, University of Chicago, Chicago, Ill.

#### NEW YORK CITY

*The American Mathematical Society.*—January 1–2. President, Professor E. B. Van Vleck, University of Wisconsin; secretary, Professor F. N. Cole, 501 West 116th St., New York City.

#### SCIENTIFIC NOTES AND NEWS

IN addition to the award of a Royal medal to Professor E. W. Brown, F.R.S., for his investigations in astronomy, chiefly in lunar theory, recently announced in *SCIENCE*, the president and council of the Royal Society have awarded a Royal medal to Professor W. J. Sollas, F.R.S., for his researches in paleontology, especially in the development of new methods; the Copley medal to Sir Joseph Thomson, O.M., F.R.S., for his discoveries in physical science; the Rumford medal to the Rt. Hon. the Lord Rayleigh, O.M., F.R.S., for his numerous researches in optics; the Davy medal to Professor W. J. Pope, F.R.S., for his researches on stereochemistry and on the rela-