

by H. J. H. Fenton; Homocyclic Division, by J. B. Cohen; Heterocyclic Division, by J. T. Hewitt; Stereochemistry, by W. J. Pope; Analytical Chemistry, by A. C. Chapman; Physiological Chemistry, by W. D. Halliburton; Agricultural Chemistry and Vegetable Physiology, by J. A. Voelcker; Mineralogical Chemistry, by Arthur Hutchinson, and Radioactivity, by Frederick Soddy. It will be seen at once that many of these authors are well known authorities in their various fields. The topics chosen for presentation are well selected and the treatment is clear and concise. The copious references to the literature render the book a valuable index for one who wishes to follow any subject further, while the discussions are sufficiently full, in most cases, to be extremely useful to those who read for the purpose of broadening their general knowledge of the science.

W. A. NOYES

SCIENTIFIC JOURNALS AND ARTICLES

The American Naturalist for November opens with an article on the "Response of Toads to Sound Stimuli" by S. A. Courtis showing that there is very little response to anything save the mating call. But—why should there be? The sound of a bell, a whistle or any similar noise carries with it no association. Why not feed the toad each time the bell is rung and note what the result would be after a month or two? Max Morse contributes "Further Notes on the Behavior of *Gonionemus*," mainly in respect to the influence of light, and Edward W. Berry has a paper on "Pleistocene Plants from Alabama," noting that they indicate a climate about the same as at the present time. Frederic T. Lewis has "A Further Study of Leaf Development," concluding that there is a determinate evolution of leaf forms. E. A. Andrews discusses "Earthworms as Planters of Trees," showing that they do this by gathering seeds, such as those of the maple, with which to plug the openings of their burrows. T. H. Morgan considers "The Cause of Gynandromorphism in Insects." There are various points of interest in the notes and reviews. We think few will agree with Professor Mont-

gomery that physiological evidence is better calculated to show relationships or differences that are anatomical or, what is the same thing, paleontological.

LABORATORY Bulletin No. 13, of Oberlin College, is on "The Development of Nestling Feathers," by Lynds Jones. It contains a series of detailed observations, and notes among other things that the first down has no shaft and no quill, the barb vanes passing without interruption into the first definitive feather vanes, the seeming quill being due to the coalescence of the vanes of the down.

THE first number of the *Bulletin of the Brooklyn Conchological Club* has just been issued. It contains among other papers articles on "Abnormal Shells" and a "List of Long Island Shells," by S. C. Wheat, and "Suggestions for the Organization of a National Conchological Society," by W. H. Dall.

SOCIETIES AND ACADEMIES

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 the University of Chicago during convocation week, beginning on December 30, 1907.

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. Millsbaugh, 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 C, 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 and Psychology.—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 McMurich, 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. Slaughter, 58th St. and Ellis Ave., Chicago, Ill.

The American Physical Society.—President, Professor E. L. Nichols, Cornell University; sec-

retary, 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 Entomological Society of America.—Secretary, J. Chester Bradley, Cornell University.

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 31 and January 1, 2 and 3. 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 31, January 1 and 2. President, Dr. Henry Rutgers Marshall, New York City; acting secretary, Professor R. S. Woodworth, Columbia University, New York City.

The Western Philosophical Association.—Secre-

tary, 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.

DISCUSSION AND CORRESPONDENCE

BADGES AND EXPENSES OF THE AMERICAN ASSOCIATION

TO THE EDITOR OF SCIENCE: I am interested in Professor C. L. Speyer's letter on pages

834–835 of the last number of SCIENCE. His idea of posting an alphabetical list with numbers corresponding to those on the badges, in a conspicuous, accessible place on the wall of the registration room is an excellent one. I was not poking fun at him when I expressed myself as pleased with the idea, at the New York meeting, and, in fact, I made a memorandum of the suggestion for possible use at Chicago. The alphabetical list is an excellent thing, but the expense of publication is very considerable and the Association is far from rich. Of the three dollars a year dues paid by each member, two dollars go to the publishers of SCIENCE, leaving one dollar from each member to pay the entire expenses of the association. It is quite possible that the council will direct the publication of a numbered list of members in attendance at Chicago, and then of course it will be done. The buttons for this year have already been ordered and delivered, so that it is too late to change the style. The delay by which Professor Speyers and others were inconvenienced last year occurred through the failure of the contractors to deliver the buttons at the specified time.

L. O. HOWARD,

Permanent Secretary

[It should perhaps be added that since SCIENCE has been sent to members of the American Association, beginning in 1901, about 4,000 new members have joined and their entrance fees, amounting to about \$20,000, have been available for current expenses. But it is, of course true that a dollar from each member, even if the sum of \$3,000 a year from entrance fees is added, does not adequately defray the expenses of the office of the permanent secretary, of the arrangements for the meetings and of publication of the proceedings. It is also true that \$2 from each member does not pay the cost of printing SCIENCE. In Great Britain it costs \$12.50 a year to be a member of the British Association and to receive *Nature*; in France it costs \$10 a year to be a member of the French Association and receive the *Revue Scientifique*. Here where the purchasing power of money is less it costs \$3 a year to be a member