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

of the American Association and to receive SCIENCE. In order that the work of the association may be carried forward effectively, its membership should be increased to at least ten thousand, and it does not seem to be impossible to accomplish this when we know that the National Geographic Society has by concerted efforts increased its membership to over twenty-five thousand. It would in fact be about accomplished if each member would send one nomination to the permanent secretary. ED.]

QUARTZ AFTER PROCHLORITE AT CRANSTON AND WORCESTER AND COAL PLANTS AT WORCESTER

TO THE EDITOR OF SCIENCE: During the recent field day of the New England geologists at Providence we were guided by Professor Brown to the graphite mine in the Carboniferous at Cranston. This mine interested me very greatly because of its close resemblance to the coal mine at Worcester, Mass., a resemblance which extended by chance even to the size and shape of the excavation and the dip of the rocks. There was the same greatly mashed and slickensided graphitic slate, the same white and yellow efflorescence of alumina and iron sulphates and a more abundant development of ottrelite in the adjacent schists. Our attention was especially attracted by a white to pale green mineral which filled fissures in the slate with its fine satiny fibers.

This was described as asbestus by Dr. J. W. Webster in the first volume of Silliman's Journal in 1819, and in a note the editor speaks of it as long known. It has been often mentioned since as asbestus, amianthus, or fibrolite. Its action under the microscope was so peculiar that I had it analyzed at Washington by Mr. L. G. Eakins. It proved to be a prochlorite changed in varying degrees to silica. The mean of the analyses roughly recalculated, to omit impurities, was: SiO_2, 23.13; Al^2O^3, 22.38; FeO, 28.76; MgO, 11.70; Alk, 1.57; H_2O, 12.45. The fibrous structure seems to be a parting developed in the chlorite by pressure as often happens in the case of muscovite.

The fact that this very peculiar metamorphosis of the carboniferous shales of the Rhode Island basin is exactly repeated at Worcester would be strong evidence that the rocks were of the same age without the coal plants which were found at the Worcester locality some years ago by Mr. J. H. Perry and determined to be Lepidodendron acuminatum by Lesquereux.

This note is written because doubt was expressed at the meeting as to the carboniferous age of the Worcester beds, and an old suggestion was brought up that the fossils were not authentic, that they were perhaps brought there to "salt" the mine. The slabs with fossils were dug up near the mine, one was a foot and a half long and several inches thick; and they were found by two persons at different times and were of exactly the same peculiar graphitic character as the rest of the rock at the mine and equally useless as a fuel, and there is no known locality showing exactly the same characteristics, since even at the Cranston locality the metamorphosis has been a little more severe and no fossils are found there.

The Worcester "coal mine" is the only fossiliferous locality between Providence and Bernardston on the Connecticut, and while there is no doubt that the fossils are coal plants and were found *in situ*, the common characteristics of the Worcester and Rhode Island beds are so many and so peculiar, and the succession is so similar that no doubt should arise as to their common age.

B. K. EMERSON

AMHERST, MASS.,
November 21, 1907

A SALAMANDER–SNAKE FIGHT

WHILE studying the geology of Buck Peak, twelve miles west of Riddle, Douglas Co., Oregon, last September, I saw a mortal combat that interested me very much because so anomalous. James Storrs, a mountaineer and trapper of California, well acquainted with the habits of wild animals, was with me at the time and remarked that it was "the first ring engagement he had ever seen in which the salamander showed any sand." In these