

**THE PITTSBURGH MEETING OF THE  
AMERICAN ASSOCIATION FOR  
THE ADVANCEMENT OF  
SCIENCE**

THE opening session will be held on Thursday evening at 8 o'clock in the Carnegie Music Hall. After general announcements concerning the Convocation Week meetings, the retiring president of the Association, Dr. Charles R. Van Hise, will deliver his address on "The economic effects of the world war in the United States." Following the president's address, a reception will be tendered to the members of the association and the affiliated societies in the foyer of the Music Hall.

The addresses of the retiring vice-presidents, to be delivered throughout the week, are as follows:

- Section A. Luther P. Eisenhart. The Kinematical Generation of Surfaces.
- Section B. Henry A. Bumstead. Present Tendencies in Theoretical Physics.
- Section C. Julius Stieglitz. The Electron Theory of Valence and its Application to Problems of Inorganic and Organic Chemistry.
- Section D. Henry M. Howe. Some Needs of Engineering.
- Section E. Rollin D. Salisbury. The Educational Value of Geology.
- Section F. George H. Parker. An Underlying Principle in the Architecture of the Nervous System.
- Section G. C. Stuart Gager. The Near Future of Botany in America.
- Section H. Frederick W. Hodge. The Ancient Pueblo of Hawikuh.
- Section I. Louis I. Dublin. The Significance of our Declining Birth Rate.
- Section K. Edwin O. Jordan. Food-borne Infections.
- Section L. (Leonard P. Ayres absent—no address.)
- Section M. Whitman H. Jordan. The Future of Agricultural Education and Research in the United States.

The symposia, as far as announced, are as follows:

- Section F. The Value of Zoology to Humanity.
- Section E. Mineral Resources and Chemical Industries.

Section H. The Contributions of Psychology to the War.

Section G. Forestry Problems after the War, and War Work of the Botanical Committee of the Council of National Research.

Section I. Economic Problems based upon the World War.

Section K. The Food Problem of to-day (or the Lessons of the War in Medicine).

Section B. The Relationship of Physics to the War. (In cooperation with the Council of National Defense.)

The Council will meet daily at 9 A.M., at the Schenley Hotel, which will be the hotel headquarters.

Owing to the unprecedented demand for railroad service for the nation's defense, preferential rates for individual travel have been tentatively abandoned. The *New England Passenger Association*, however, has authorized local fares in each direction to its boundary points going and returning via same route only and over which one-way tickets are regularly sold—one and one half westbound differentials to apply, added to fares tendered. The *Trunk-Line Association* has authorized the following: "Two cents a mile in each direction, with minimum of \$1 for the round trip, going and returning via same route only; tickets to be sold and good, going, December 26 to 28, and returning to reach original starting point not later than January 5, 1918." All members living beyond the boundaries of the above passenger association territories should consult their local passenger ticket agents. Members from west of the Mississippi should consult their local ticket agents for trans-continental and winter tourist rates.

The following affiliated societies have indicated their intention to meet in Pittsburgh during Convocation Week:

*American Federation of Teachers of the Mathematical and the Natural Sciences.*—Will hold council meeting on Saturday, December 29, 1917, 10 A.M. President, C. Riborg Mann. Secretary, William A. Hedrick, Central High School, Washington, D. C.

*American Physical Society.*—Will hold meetings

on Thursday, Friday and Saturday, December 27 to 29, 1917, in joint session with Section B, A.A.A.S. President, R. A. Millikan. Secretary, Alfred D. Cole, Ohio State University, Columbus, Ohio.

*Optical Society of America.*—Will meet on Monday, December 31, 1917. President, Perley G. Nutting, Westinghouse Research Laboratory, East Pittsburgh, Pa.

*American Electrochemical Society.*—The Pittsburgh Section will meet on either Saturday, December 29, 1917, or Wednesday, January 2, 1918. President, Colin G. Fink. Secretary, Pittsburgh Section, C. G. Schleuderberg, East Pittsburgh, Pa.

*Society for the Promotion of Engineering Education.*—Will hold meetings on dates to be announced. President Milo S. Ketcham. Secretary, F. L. Bishop, University of Pittsburgh, Pittsburgh, Pa.

*Illuminating Engineering Society.*—Will hold meetings on dates to be announced. President, G. H. Stickney. Chairman, Committee on Reciprocal Relations, W. A. Durgin, 72 West Adams St., Chicago, Ill.

*Paleontological Society of America.*—Will meet on Monday to Wednesday, December 31, 1917, to January 2, 1918. President, John C. Merriam. Secretary, R. S. Bassler, U. S. National Museum, Washington, D. C.

*Seismological Society of America.*—Will meet on dates to be announced. President, J. B. Woodworth. Secretary, S. D. Townley, Stanford University, Cal.

*American Society of Naturalists.*—Will meet on Tuesday and Wednesday, January 1 and 2, 1918. President, George H. Shull. Secretary, Bradley M. Davis, University of Pennsylvania, Philadelphia, Pa.

*Entomological Society of America.*—Will meet on Friday and Saturday, December 28 and 29, 1917. President, Lawrence Bruner. Secretary, J. M. Aldrich, U. S. Bureau of Entomology, West Lafayette, Ind.

*American Association of Economic Entomologists.*—Will meet Monday to Wednesday, December 31, 1917, to January 2, 1918. President, R. A. Cooley. Secretary, Albert F. Burgess, Melrose Highlands, Mass.

*Ecological Society of America.*—Will meet Saturday, Monday and Tuesday, December 29, 31, 1917, and January 1, 1918. President, Ellsworth Huntington. Secretary, Forrest Shreve, Easton, Maryland.

*American Nature-Study Society.*—Will meet on

dates to be announced. Secretary, Mrs. Anna B. Comstock, Cornell University, Ithaca, N. Y.

*Wilson Ornithological Club.*—Will meet on Tuesday and Wednesday, January 1 and 2, 1918. President, W. F. Henninger. Acting Secretary, T. C. Stephens, Morningside College, Sioux City, Iowa.

*Botanical Society of America.*—Will meet on Friday, Saturday, Monday and Tuesday, December 28, 29 and 31, 1917, and January 1. President, F. C. Newcombe. Secretary, H. H. Bartlett, University of Michigan, Ann Arbor, Mich.

*American Phytopathological Society.*—Will meet Friday to Wednesday, December 28, 1917, to January 2, 1918. President, Mel T. Cook. Secretary, C. L. Shear, U. S. Department of Agriculture, Washington, D. C.

*Society for Horticultural Science.*—Will meet Thursday to Saturday, December 27 to 29, 1917. President, T. C. Johnson. Secretary, C. P. Close, College Park, Maryland.

*American Microscopical Society.*—Will hold meetings on Saturday, December 29, 1917, for transaction of business only. President, M. F. Guyer. Secretary, T. W. Galloway, Beloit College, Beloit, Wis.

*American Fern Society.*—Will meet on dates to be announced. President, William Palmer. Secretary, C. A. Weatherby, 1062 Main St., East Hartford, Conn.

*American Psychological Association.*—Will meet on Thursday to Saturday, December 27 to 29, 1917. President, R. M. Yerkes. Secretary, H. S. Langfeld, Harvard University, Cambridge, Mass.

*American Metric Association.*—Will meet on dates to be announced. President, George Frederick Kunz. Secretary, Howard Richards, Jr., 156 5th Avenue, New York, N. Y.

*Society of American Foresters.*—Will meet on dates to be announced. President, Filibert Roth. Secretary, Elmer R. Hodson, U. S. Forest Service, Washington, D. C.

*School Garden Association of America.*—Will meet on Monday, December 31, 1917. President, Evrie Kilpatrick, 124 West 30th Street, New York, N. Y.

*Society of the Sigma Xi.*—Will meet on Saturday, December 29, 1917. President, Julius Stieglitz. Secretary, Henry B. Ward, University of Illinois, Urbana, Ill.

*Gamma Alpha Graduate Scientific Fraternity.*—Will hold annual convention and dinner on date to be announced. President, Norman E. Gilbert, Dartmouth College, Hanover, N. H.

*Phi Kappa Phi Fraternity*.—Will meet on Saturday, December 29, 1917. President General, Edwin E. Sparks. Secretary General, L. H. Pammel, Iowa State College, Ames, Iowa.

*Gamma Sigma Delta*.—Will meet on dates to be announced. President, A. V. Storm. Secretary, L. H. Pammel, Iowa State College, Ames, Iowa.

### SCIENTIFIC EVENTS

#### SMITHSONIAN EXCAVATIONS IN NEW MEXICO

AN expedition organized by the Bureau of American Ethnology of the Smithsonian Institution and the Museum of the American Indian, Heye Foundation of New York City, under the immediate direction of Mr. F. W. Hodge, ethnologist-in-charge of the Bureau mentioned has concluded its first season of excavating among the ruins of Hawikuh in western New Mexico. This pueblo was one of the famed "Seven Cities of Cibola" which was seen by Marcos de Niza, a Franciscan Friar, in 1539 and was the scene of the death of his negro guide and companion. In the following year the pueblo was stormed by Francisco Vasquez Coronado, the celebrated Spanish explorer, who almost lost his life in the attack. The Zuni occupants of Hawikuh fled to their stronghold a few miles away; the Spanish took possession of their village, which Coronado called Grenada, and while there wrote his report to the Viceroy of Mexico, giving an account of his expedition up to that time and sending various products of the country and examples of native art.

The excavations were commenced at the close of May by Mr. Hodge, assisted by Mr. Alanson Skinner and Mr. E. F. Coffin of the Museum of the American Indian. Work was begun in a great refuse heap forming the western slope of the elevation on which Hawikuh is situated. This refuse was found to contain many burials of Zuni dead, of which there were three types—remains cremated and deposited in cinerary vessels accompanied by food and water vessels; others buried at length, or in abnormal postures without accompaniments; and usually dismembered; others still deposited at length with head directed eastward and with them numerous vessels of earthenware, great quantities of

food, and the personal tools and ornaments of the deceased. In all, 237 graves were opened during the three months devoted to the work, in which quantities of pottery vessels of various forms and with a great range of decorative painting, were uncovered. Among burials of the third type mentioned were several skeletons of members of the Zuni Priesthood of the Bow, with their war paraphernalia, including bows and arrows, sacred paint, war clubs, and their personal or ceremonial belongings.

A Franciscan mission was established at Hawikuh in 1639 and continued in operation until 1670 when the pueblo was abandoned on account of Apache depredations. Considering the length of time since the village was forsaken by its inhabitants, the remains were in a remarkably good state of preservation. The deposit of great quantities of food in the graves, especially boiled corn on the cob, had the effect of decaying the bones but of preserving the materials that usually more readily perish, such as baskets, fabrics, and objects of wood, many of which were saved by immediate treatment. Many very beautiful things found in association with the remains include 8 objects of turquoise mosaic, consisting of ornamental hair combs, ear pendants, and hair ornaments, some of which are so well executed as to be among the finest examples of encrusted turquoise ever found in America, and far exceeding the mosaic work of the Hopi Indians in Arizona to-day. Of the fabrics various examples were recovered, and indeed in one instance the clothing of a woman was so well preserved that it was possible to study the character of her dress from neck to feet.

The pottery of the Hawikuh people, as mentioned, possesses a wide range of decoration and coloring. Most of the designs are geometric, but numerous highly conventionalized figures of birds, as well as many lifelike forms of quadrupeds, the eagle, the butterfly, the tadpole, and the corn plant were found. Many of the vessels are decorated with a distinct glaze, black and green predominating. The vessels consist chiefly of bowls, ranging