Dr. John C. Krantz, Jr., chairman; University of Maryland School of Medicine. Baltimore. Md.

Dean R. A. Lyman, University of Nebraska, Lincoln, Nebr.

Dean Wortley F. Rudd, School of Pharmacy, Medical College of Virginia, Richmond, Va.

The president (Dr. E. C. Conklin) was authorized to represent the American Association at the meeting of the British Association for the Advancement of Science to be held at Blackpool, England, on September 9 to 16, 1936.

Dr. Oswald Veblen, Princeton University, was appointed the representative of the American Association at the International Congress of Mathematics to be held in Oslo, from July 13 to 18, 1936.

The chairman of the executive committee was appointed the representative of the American Association for the Harvard Tercentenary Celebration to be held from September 16 to 18, 1936.

Election of fellows on recommendations of the respective sections were as follows: Section on Psychology, 2; Section on Medical Sciences, 2; Section on Education, 1.

Dr. J. McKeen Cattell was appointed to serve for another term of seven years as trustee of the Institute of International Education representing the American Association.

Dr. O. W. Caldwell was appointed to succeed himself as the representative of the American Association on the council of the National Parks Association.

The chairman, Dr. Caldwell, and Dr. J. C. Merriam were appointed to serve as representatives of the American Association at the tenth anniversary meeting of the American Association for Adult Education.

The committee adjourned to meet in Rochester, N. Y., on Monday, June 15, at 2 P. M.

HENRY B. WARD, Permanent Secretary

### SOCIETIES AND MEETINGS

#### THE KANSAS ACADEMY OF SCIENCE

The sixty-eighth annual meeting of the Kansas Academy of Science was held at the Kansas State Teachers College, Emporia, Kansas, on April 2, 3 and 4. A total of 306 persons, mostly from the colleges and secondary schools of the state, registered and the attendance at all sessions slightly exceeded that of former meetings.

The opening address was by Professor George A. Dean, head of the department of entomology, Kansas State College of Agriculture and Applied Science, Manhattan, on the subject, "The Practical Use of Insects for the Control of Insect Pests and Noxious Weeds." The academy members were invited to attend, with the students of the college, the showing of the sound film, "The Human Adventure," at the Granada Theater on April 3.

The annual banquet held in the Memorial Union ball room was attended by 154 persons. Adjourning to the auditorium, President T. W. Butcher, of the college, gave the address of welcome. This was followed by the annual address of the president of the academy, which was delivered by Dr. W. J. Baumgartner on the subject, "The Cell in Growth and Reproduction." The lecture, which was illustrated by slides and motion pictures of living cells, included much of the author's own research in the field of cytology. This address was followed by the annual invitation address by the Honorable William Allen White on the subject "Glimpses of the Orient."

Exhibits by educational supply firms and instrument dealers were a feature of the meeting.

Sectional meetings in botany, chemistry, physics,

zoology, psychology and the junior academy were conducted on Friday afternoon, with continued sessions in zoology and psychology on Saturday morning. The entomology section met on Saturday after the academy business meeting. The program included 112 papers listed to be read and six presented by title. The total active membership at the time of the meeting was 386. A total of 65 joined the academy during the year, the net increase being 42. Two deaths during the year in the academy membership were reported: Dr. A. S. Hitchcock, an honorary member, and A. E. Oman.

The research fund of \$75 from the American Association for the Advancement of Science will be augmented by \$25 from the academy treasury for allotment during the coming year. This fund will be awarded by a special committee, consisting of Dr. L. D. Wooster, Hays; Dr. R. Q. Brewster, Lawrence, and Dr. J. C. Peterson, Manhattan. Dr. W. H. Schoewe reported progress in the committee on natural areas, particularly in regard to the movement to have a small area containing unusual rock formations near Minneapolis, Kansas, set aside for a state park.

A few advance copies of Volume 38, which is the *Transactions* for 1935, were distributed at the meeting. Especial credit for the success of the meetings was given to Frank Agrelius and J. B. Stroud, of the teachers college, who constituted the committee on arrangements.

The following officers were elected: President, Lawrence Oncley, Winfield; First Vice-President, George A. Dean, Manhattan; Second Vice-President, W. H. Schoewe, Lawrence; Secretary, Roger C. Smith, Man-

hattan; Treasurer, H. A. Zinszer, Hays. Additional members to the executive council: W. J. Baumgartner, Lawrence; H. H. Hall, Pittsburg; W. B. Wilson, Ottawa. Editorial board: E. O. Deere, Lindsborg, and W. W. Floyd, Ottawa. The following section chairmen were elected: J. H. Doell, Newton, botany; L. E. Blackman, Emporia, chemistry; Louis R. Weber, Wichita, physics; F. C. Sauer, Wichita, zoology, who, however, died of scarlet fever about a week after the academy meeting, and John Breukelman of Emporia was appointed to the chairmanship of this section; Edwina A. Cowan, Wichita, psychology; Donald A. Wilbur, Manhattan, entomology; and Hazel Branch, Wichita, junior academy. Frank C. Gates continues as editor of the Transactions.

A new committee, consisting of O. W. Alm, Manhattan, A. C. Carpenter, Ottawa, and Miss Dale Zeller, Emporia, was appointed to study educational trends in the secondary schools of the state with respect to the basic sciences.

The next meeting of the academy will be held at Kansas State College, Manhattan, during the spring of 1937.

Roger C. Smith, Secretary

## THE PENNSYLVANIA ACADEMY OF SCIENCE

The twelfth annual meeting of the Pennsylvania Academy of Science was held at the State Teachers

College, Indiana, Pennsylvania, on April 10 and 11. About 60 papers were presented and a number of demonstrations shown. The address by the retiring president, Professor Edgar T. Wherry, University of Pennsylvania, was entitled "Reflections on the Origin of Life." Following the annual dinner, Dr. Austin L. Patrick, regional conservator, Soil Conservation Service, U. S. Department of Agriculture, spoke on "Soil Erosion and its Control." A total of 90 registered for the meetings, besides about 40 who attended the junior academy.

The following officers were elected for 1936–1937: President, Dr. Thomas D. Cope (physics), University of Pennsylvania; Vice-President, Dr. George H. Ashley (geology), Pennsylvania Topographic and Geologic Survey; Secretary, Dr. V. Earl Light (biology), Lebanon Valley College; Treasurer, Professor H. W. Thurston (botany), Pennsylvania State College; Assistant Secretary, Charles E. Mohr (education), Reading Museum; Editor, Ralph W. Stone (geology), Pennsylvania Topographic and Geologic Survey; Press Secretary, Dr. Bradford Willard (geology), Pennsylvania Topographic and Geologic Survey.

The 1937 meeting is scheduled to be held at Franklin and Marshall College, Lancaster, Pennsylvania. The regular summer meeting, with botanic and geologic field trips, will take place at Somerset on August 14 and 15.

Bradford Willard,
Press-Secretary

#### SPECIAL ARTICLES

# PLEISTOCENE ALLUVIAL STAGES IN NORTHWESTERN OREGON

SUFFICIENT progress has been made in the distinction of subdivisions of Pleistocene glacial alluvium in the Pacific Northwest that it seems appropriate to make an announcement for the benefit of workers in archeology, pedology, vertebrate paleontology, stratigraphy and physiography, and possibly other to whom the data may be useful. With present interest in the possibilities of Pleistocene man in North America at high pitch, the dating of Quaternary materials becomes particularly important. The following descriptions apply primarily to Willamette Valley but are known to be applicable to other areas in Oregon and Washington.

Alluvial deposits corresponding to Kansan, Illinoian and Wisconsin ages of glaciation in the Cascade Mountains of Oregon and Washington are recognizable over wide areas. A few scattered remnants sug-

gest another, yet older Pleistocene age, but as the deposits are rather local, limited to small areas on drainage divides, and are of uncertain importance, they may be dismissed briefly. An example is the gravel deposit on the hilltops in T. 6 S., R. 6 W., Polk County, Oregon. Their high topographic position, deep weathering and advanced degree of erosion suggest Early Pleistocene (Nebraskan ?) age. As a corollary of this interpretation the bulk of the andesitic lavas and pyroclastics of the Cascade Mountains must be pre-Pleistocene, probably Pliocene, and the fluviatile quartzite conglomerate near Troutdale, included by Bretz<sup>1</sup> in his Satsop formation, must be still older—perhaps the equivalent of the Miocene Ellensburg formation and the Hood River formation of Buwalda and Moore.2

The oldest of the well-defined Pleistocene stages is

- <sup>1</sup> J Harlen Bretz, Jour. Geol., 25: 446-458, 1917.
- <sup>2</sup> J. P. Buwalda and B. N. Moore, Science, n.s., 66: 236, 1927.