verified the author's identification. He suggested that because of its unusual color markings it might be a geographical subspecies. The markings were not typical for any of the three varieties described for the United States by Chamberlain and Ivie,[1] so it was then sent to Professor Chamberlain, who identified it as an extreme variation of *Latrodectus mactans texanus*. Since this spider was collected in a warehouse, it was thought that it might represent an import; but Professor Chamberlain stated that while this is a possibility it need not be true; that while Iowa would be the northern range for it, the form no doubt occurs here, as it is not uncommon in Kansas.

Field studies will be made next summer in an effort to determine the abundance and varieties of the black widow spider in this locality, and it will be especially interesting to observe whether the extreme variation of this first record will be found again in future investigations.

KARL A. STILES

COE COLLEGE
CEDAR RAPIDS, IOWA

SOCIETIES AND MEETINGS

THE PENNSYLVANIA ACADEMY OF SCIENCE

THE regular annual meeting of the Pennsylvania Academy of Science was held at Lancaster, Pa., in conjunction with the Pennsylvania Conference of College Physics Teachers and the Pennsylvania Junior Academy of Science, on Friday and Saturday, March 26 and 27. The meetings were all conducted on the campus of Franklin and Marshall College, President Thomas D. Cope, of the academy, ably presiding. The college and the Lancaster Branch of the American Association for the Advancement of Science were hosts. A total registration of 355 was recorded, including over 150 for the Junior Academy.

Friday was mainly devoted to the reading of papers before the academy. Thirty-six titles were presented, the distribution by subjects being as follows: Zoology 16, geology 10, botany 3, physics 2, education 2, miscellaneous 3. The Pennsylvania Conference of College Physics Teachers and the Junior Academy held independent sessions during Friday afternoon. At the former, thirteen, and at the latter, twenty-one titles were presented. The reading of the papers was supplemented by a number of exhibits and demonstrations, chiefly biological. There was a joint session of the academy and conference and guests on Saturday morning, at which seven invited papers were read. The sessions ended shortly after noon on Saturday.

Following the annual dinner on Friday evening at the Hotel Brunswick, the several organizations and guests assembled in Hensel Hall at the college to listen to the guest speaker for the annual academy lecture, Dr. F. R. Moulton, recently elected permanent secretary of the American Association for the Advancement of Science. Dr. Moulton chose for his subject "Science." He pointed out the present rapid growth of the value of applied science to human affairs and then indicated what a vast potentiality remains in this field for the future.

During the regular business meeting the following officers for 1937–38 were elected:

President: Dr. Geo. H. Ashley, state geologist of Pennsylvania.
Vice-President: Jaques Cattell, The Science Press.
Secretary: Dr. V. Earl Light, Lebanon Valley College.
Treasurer: Dr. C. W. Thurston, Pennsylvania State College.
Assistant Secretary: Charles E. Mohr, Reading Senior High School.
Editor: Ralph W. Stone, the Pennsylvania Topographic and Geologic Survey.
Press Secretary: Dr. Bradford Willard, the Pennsylvania Topographic and Geologic Survey.

The summer meeting for 1937 will be held at a date to be announced. It is planned to assemble at Wellsboro and visit Harrison State Park and the Coudersport ice mine. The regular annual meeting for 1938 is scheduled to be held at Bucknell College, Lewisburg, the date to be announced later.

The sessions just closed are considered to be among the most successful and best attended in the history of the academy. Much of this success is due to the efforts of the members of the Lancaster Branch of the American Association for the Advancement of Science and Franklin and Marshall College, particularly to Jaques Cattell, chairman of the Lancaster Branch and of the local committee on arrangements, and to Professors R. L. Charles and Howard M. Fry, of Franklin and Marshall College.

BRADFORD WILLARD,
Press Secretary

THE KANSAS ACADEMY OF SCIENCE[1]

THE Kansas Academy of Science was organized on September 1, 1868. For three years it was called the "State Natural History Society," but on October 25, 1871, the name was changed to the "Kansas Academy of Science." The society has held 68 annual meetings and has published 39 volumes of *Transactions*. These volumes comprise about 9,000 pages of printed matter, of which about 8,600 pages are devoted to scientific

[1] *Bull. of the University of Utah*, Vol. 25, No. 8, 1935.

[1] Report to the Annual Conference of the Academies, December 28, 1936.

reports and the other pages to reports of officers and business matters. Many of the papers report details of local plants, animals, insects and minerals, but a very large number are concerned with matters of general scientific interest, both theoretical and practical. The cost of publication, except for the years 1921–33, has been borne by state appropriation.

The academy had accumulated about 20,000 volumes of scientific magazines and books, largely by exchanges. Six years ago the academy allocated this library to three of the state schools. These institutions are cataloging and integrating the exchange journals into their libraries. By a system of mutual loaning, all books and periodicals are available to every one of the academy members from any one of the cooperating institutional libraries.

The annual meetings are held in odd years alternately at the State University at Lawrence and the State College at Manhattan and on even years at the various smaller colleges. The meetings are usually held a week after Easter and last from Thursday evening through Saturday afternoon. The evening meetings are given over to special lectures and the afternoons and parts of the forenoons to sectional meetings. The following sciences hold sectional meetings: Chemistry, physics, botany, zoology, entomology, psychology, medical sciences—bacteriology, physiology and anatomy and the Junior Academy.

In 1935, 150 papers were presented in the different sections and in 1936 meetings in a smaller college there were 120 papers. At the end of the 1936 session there were 430 members.

The Junior Academy has a number of very active clubs and holds an enthusiastic meeting on Friday afternoon. The organization of new clubs is being actively pushed by the academy. A special committee is handling this phase of the work.

A special committee has been appointed to study out the best plan of encouraging research work by the use of the research award of the American Association for the Advancement of Science. They are also finding ways and means to add to the amount of the award.

The committee on conservation of plants and animals is setting aside natural preserves in various parts of the state. It already has some "state parks" to its credit.

Another committee is working out a plan by which all the scientists of the state shall have some means of cooperating for the welfare of the state. It is hoped to create some kind of a super-council, a Kansas Association for the Advancement of Science, to include: The Kansas Engineering Society, the Kansas Horticultural Society, the Kansas Medical Association, the Kansas Dental Association, the Kansas Home Economics Association, the Kansas Mathematical Society (partly concerned with teaching), the Kansas Geological Society (partly commercial) and any others who are carrying on research or investigations. The Kansas delegate to the American Association for the Advancement of Science meeting is anxious to receive any and all suggestions for getting more cooperation among state scientists. It is believed that if the scientists of a state act as an aggregate they could add much to the efficiency of state governments and that they could often be of great benefit to each other and their respective societies.

W. J. BAUMGARTNER,
Delegate from Kansas Academy of Science

SPECIAL ARTICLES

TOXOPLASMA AND OBLIGATE INTRACELLULAR PARASITISM

TOXOPLASMA have been described as the causative agents of various pathologic conditions in birds and mammals, including man, in various parts of the world, but hitherto almost unnoticed in North America. The accidental isolation of toxoplasma early in 1935[1] in the course of experimental work with viruses has led to a study of these parasites by methods and procedures commonly used in virus work. The purpose of this communication is to call attention to some of the more striking results which were thus obtained, particularly their apparent obligate intracellular parasitism, and to indicate that as a result of this property these highly organized parasites (about $6–7 \times 3–4\ \mu$) have many features in common with certain ultramicroscopic viruses. Many of the problems encountered in the study of virus diseases, such as cultivation, pathogenesis, immunity, etc., are, to a great extent, influenced by the obligate intracellular "parasitism" which is an outstanding characteristic of the filtrable viruses.

In the course of tests for virus in guinea pig brains, two mice, injected intracerebrally, exhibited signs of encephalomyelitis nine days later, which proved not to be due to the virus under investigation. The disease was readily transmissible in series by intracerebral injection[2] of mice and was shown by extensive subsequent studies to be caused by a parasite which, in

[1] Toxoplasma were observed in guinea pigs in Mexico (H. Mooser, *J. Inf. Dis.*, 44: 186, 1929) and in birds of the Syracuse, N. Y., region, also in English sparrows kept in the laboratory and in canaries (R. D. Manwell and C. Herman, *J. Parasitol.*, 21: 415, 1935).

[2] All such operations were done with the aid of ether anesthesia.