

The program of the organization meeting was as follows:

Friday, April 13, 3:00 to 5:00 P. M.: Open house by scientific departments of University of Missouri, to welcome visitors and to discuss plans for formation of sections.

4:00 P. M.: Meeting of Temporary Council.

6:15 P. M.: Dinner, Tiger Hotel; Address of Welcome, Dean Wm. J. Robbins, Graduate School, University of Missouri, representing President Walter Williams.

8:00 P. M.: General Session:

(a) "Scientific Investigation as a State Asset," Professor Wm. J. Robbins (Botany), University of Missouri.

(b) "Cooperation in Scientific Research," Professor W. C. Curtis (Zoology), University of Missouri.

(c) "The Advent of Anesthesia," motion pictures, by courtesy of Mallinckrodt Chemical Works, St. Louis.

Saturday, April 14: General Session:

(a) "The Feeding of Nestling Birds," Professor Albert E. Shirling (Biology), Teachers College, Kansas City.

(b) "Properties of the Operator $\sqrt{-1}$ in Expressions for Power in Alternating Current Circuits," Dean A. S. Langsdorf, School of Engineering and Architecture, Washington University, St. Louis; Vice-president, Academy of Science of St. Louis.

(c) "The Scientific Basis of Low-cost Road Building," Dr. Hans F. Winterkorn, State Highway Department, Jefferson City, Mo.; formerly of Heidelberg University, Germany.

(d) "Is there a Calcium-Iron Antagonism between Soil and Wood?" Professor A. C. Magill (Chemistry), Southeast Missouri State Teachers College, Cape Girardeau, Mo.

(e) "Possible Functions and Activities of a Missouri Academy of Science," Professor John H. Harty (Physics), Northeast Missouri State Teachers College, Kirksville, Mo.

(f) Business Meeting:

(1) Adoption of Constitution and By-laws.

(2) Election of Officers.

The temporary council was made up of one representative from each school, selected by the school at the request of the committee on arrangements. At its meeting, the tentative constitution and by-laws were discussed and recommended for adoption as amended, together with other plans recommended for carrying them into effect. The final adoption is to occur at the first annual meeting, in the fall of 1934; a committee is to be formed which will receive suggestions and formulate any amendments which appear desirable. The amended constitution and by-laws were adopted, as recommended at the business meeting on Saturday morning.

The following officers were elected, to serve until the fall meeting: *President*, Dean A. S. Langsdorf, Washington University, St. Louis; *Vice-president*, Dr. F. T. H'Doubler, Springfield, Mo.; *Secretary*,

Professor R. T. Dufford, University of Missouri, Columbia, Mo.; *Treasurer*, Professor R. A. Wells, Park College, Parkville, Mo.

The committee on arrangements consisted of Professors Louis Ingold (mathematics), *chairman*; Rudolf Bennett (zoology), *secretary*; R. T. Dufford (physics); E. B. Branson (geology); W. C. Curtis (zoology); Addison Gulick (physiological chemistry); E. S. Haynes (astronomy); Wm. J. Robbins (botany); L. J. Stadler (field crops); A. E. Stearn (chemistry); W. A. Tarr (geology); C. J. Tucker (botany); Herman Schlundt (chemistry); G. E. Wahlin (mathematics). The subcommittee on program was headed by Professor Stearn; and the subcommittee on constitution and organization by Professor Dufford, who also served as temporary chairman of the committee on arrangements after Professor Ingold was compelled by ill health to take a leave of absence.

The committee on arrangements originally invited the Academy of Science of St. Louis to reorganize and expand into a state-wide organization; but this plan was found upon conference not to be feasible, on account of certain legal complications, and it was felt that it was undesirable for the St. Louis Academy to lose its identity. The St. Louis Academy therefore has cooperated in the formation of the Missouri Academy, and plans to become affiliated with it.

The Audubon Society of Missouri has already become affiliated with the academy, and will probably meet concurrently with it.

R. T. DUFFORD,
Secretary

THE IOWA ACADEMY OF SCIENCE

THE forty-eighth annual meeting of the Iowa Academy of Science was held at Drake University at Des Moines on April 20 and 21, with 258 members and visitors in registered attendance.

The presidential address, "The Future of Science," was presented by Dr. E. J. Cable, of Iowa State Teachers College. The remainder of the general meeting was devoted to a demonstration of the cathode ray oscillograph and its application to the study of acoustic phenomena. Drs. Joseph Tiffin and Don Lewis, of the department of psychology of the State University of Iowa, were in charge of the demonstration. The annual academy lecture was given by Dr. Julius Stieglitz, of the department of chemistry of the University of Chicago, on "Chemistry and Recent Progress in Medicine." Dr. C. P. Gillette, of the department of entomology of the Colorado State College at Fort Collins, was elected to honorary fellowship in the academy. The academy convened in eight sections for the presentation of 149 papers of special interest.

The following officers and section chairmen were

elected for the forthcoming year: *President*, Edward Bartow, State University of Iowa; *Vice-president*, R. E. Buchanan, Iowa State College; *Secretary-Treasurer* and *American Association for the Advancement of Science Representative*, J. C. Gilman, of Iowa State College; *Editor*, Mrs. F. W. Nichols, Ames; *Botany and bacteriology*, Louisa Sargent, Grinnell College; *chemistry, general and physical*, Ben H. Peterson, Coe College; *chemistry, organic and biological*, L. Chas. Raiford, State University of Iowa; *zoology*, J. J. Runner, State University of Iowa; *mathematics*, M. E. Graber, Morningside College; *physics*, A. W. Meyer, Coe College; *psychology*, George D. Stoddard, State University of Iowa; *Zoology*, R. L. King, State University of Iowa.

J. C. GILMAN,
Secretary

THE KANSAS ACADEMY OF SCIENCE

THE sixty-sixth annual meeting of the Kansas Academy of Science was held at the Municipal University of Wichita and Wichita High School East from April 26 to 28. The program consisted of approximately 123 papers, given in the general sessions on the forenoons of April 27 and 28, and in sectional programs. The biology, chemistry, physics, psychology and Junior Academy sectional meetings were held in the afternoon of April 27. The entomology sectional program was held in the afternoon of April 28, under the auspices of the Kansas Entomological Society. The registered attendance at the programs was 218, and the total attendance at the sectional meetings was estimated at about 300. Four lectures were delivered during the course of the meetings. Mr. S. D. Flora, of the U. S. Weather Bureau, lectured on "Kansas Weather and its Effects on Crops"; Dr. F. L. Duley, of the U. S. Department of the Interior, gave a lecture on the "Kansas Soil Erosion Demonstration"; Dr. R. C. Moore, state geologist of Kansas, gave an illustrated lecture on "A Boat Trip through the Grand Canyon of Colorado." The presidential address was delivered at the annual banquet by Dr. J. Willard Hershey, of McPherson College. His subject was "The Historical Development of the Relationship of Gases to Animal Life."

The officers elected for 1934-35 are: *President*, Wm. H. Matthews, Kansas State Teachers College, Pittsburg; *First Vice-president*, E. A. Marten, University of Wichita, Wichita; *Second Vice-president*,

W. J. Baumgartner, University of Kansas, Lawrence; *Secretary*, George E. Johnson, Kansas State College, Manhattan; *Treasurer*, Harvey A. Zinszer, Fort Hays Kansas State College, Hays. The following chairmen of sections were elected: *Biology*, L. E. Melchers, Kansas State College, Manhattan, and (*Vice-chairman*) C. E. Burt, Southwestern College, Winfield; *chemistry*, L. Oneley, Southwestern College, Winfield; *physics*, G. W. Maxwell, Kansas State College, Manhattan; *psychology*, Paul Murphy, Kansas State Teachers College, Pittsburg; *entomology*, H. R. Bryson, Kansas State College, Manhattan. Additional members of the executive council are: J. W. Hershey, McPherson College, McPherson; J. B. Stroud, Kansas State Teachers College, Emporia; R. H. Beamer, University of Kansas, Lawrence. Dr. F. C. Gates, of Kansas State College at Manhattan, was reappointed editor. The 1935 meeting will probably be held either at Topeka or Lawrence.

GEORGE E. JOHNSON,
Secretary

THE PENNSYLVANIA ACADEMY OF SCIENCE

THE tenth annual meeting of the Pennsylvania Academy of Science was held on March 30 and 31 at Albright College, Reading, Pa. Dr. John C. Johnson, State Teachers College, West Chester, Pennsylvania, presided. Sixty-four papers were read at the meeting. One hundred and ten members registered.

A junior academy was organized and sponsored by the senior organization. This young organization was well attended, and the program was enthusiastically received. Mr. Karl F. Oerlein, Upper Darby Senior High School, Upper Darby, Pa., was elected president of the junior body.

In the senior body the following officers were elected: *President*, Dr. S. H. Derickson, Lebanon Valley College, Annville, Pa.; *Vice-president*, Dr. Edgar T. Wherry, University of Pennsylvania, Philadelphia, Pa.; *Treasurer*, Dr. H. W. Thurston, Pennsylvania State College, State College, Pa.; *Secretary*, Dr. T. L. Guyton, Department of Agriculture, Harrisburg, Pa.; *Assistant secretary*, Dr. V. Earl Light, Lebanon Valley College, Annville, Pa.; *Editor*, Mr. R. W. Stone, Pennsylvania Geological Survey, Harrisburg, Pa.

The place for the summer meeting was fixed for the Mount Gretna district in Lebanon County.

SCIENTIFIC APPARATUS AND LABORATORY METHODS

AVIAN MALARIAL INFECTIONS AS CLASS-ROOM MATERIAL¹

It is often a problem to secure suitable material

¹From the Department of Zoology, Syracuse University.

for the study of important types of parasites in courses in zoology, protozoology and parasitology. The malarial parasites illustrate this, for although human malaria is a disease of great importance, it