

SOCIETIES AND ACADEMIES

THE AMERICAN MATHEMATICAL SOCIETY

THE one hundred and eighty-ninth regular meeting of the society was held at Columbia University on Saturday, February 24. The morning session sufficed for the presentation of the brief list of papers. The attendance included twenty-six members. Professor H. S. White occupied the chair, being relieved by Professor Kasner. The council announced the election of the following persons to membership in the society: Professor H. P. Kean, McHenry College; Mr. Ralph Keffer, Harvard University; Mr. H. C. M. Morse, Harvard University; Dr. F. D. Murnaghan, Rice Institute; Mr. G. E. Raynor, University of Washington; Dr. S. P. Shugert, University of Pennsylvania; Mr. G. W. Smith, University of Illinois; Mr. J. S. Taylor, University of California; Dr. L. E. Wear, University of Washington; Dr. H. N. Wright, University of California. Four applications for admission to membership were received.

It was decided to hold the next summer meeting of the society at Cleveland, Ohio, on September 4-5. The Mathematical Association of America will meet at Cleveland on September 6-7.

By the will of the late Professor L. L. Conant, of the Worcester Polytechnic Institute, who was a member of the society from 1892 to his death in 1916, the sum of \$10,000 is left to the society, subject to Mrs. Conant's life interest. The will provides that the income of this bequest "shall be offered once in five years as a prize for original work in pure mathematics." This generous gift, a noble monument to the donor, should do much for the promotion of higher mathematical aims in this country. For many years the society has consistently pursued these aims, with a success far outrunning what might have been expected from its modest financial resources. With greater means in the way of general or special funds, it could accomplish still more. To anyone who is able to give for science, the society presents itself as an experienced and beneficent administrator.

At the annual meeting, the council placed itself on record as desiring to cooperate with the National Research Council in forwarding the interests of research. At the February meeting a committee was appointed to confer with the chairman of the Mathematics Committee of the Research Council, Professor E. H. Moore, in regard to the selection of the members of that committee.

The following papers were read at this meeting:

A. R. Schweitzer: "The iterative compositions of a function of $n + 1$ variables ($n = 1, 2, 3 \dots$)."

A. R. Schweitzer: "Functional equations based on iterative compositions."

D. F. Barrow: "An application of Fourier's series to probability."

Edward Kasner: "Degenerate cases in the theory of the conduction of heat."

J. E. Rowe: "The equation of a rational plane cubic derived from its parametric equations (second paper)."

R. L. Moore and J. R. Kline: "The most general closed plane point set through which it is possible to pass a simple continuous plane arc."

H. S. White: "New proof of a theorem of von Staudt and Hurwitz."

Henry Taber: "On the structure of finite continuous groups."

The next meeting of the society will be held at the University of Chicago on April 6-7. The San Francisco Section will meet at Stanford University on April 7.

F. N. COLE,
Secretary

OKLAHOMA ACADEMY OF SCIENCE

THE Oklahoma Academy of Science held its eighth annual meeting in Oklahoma City, December first and second, with President C. N. Gould in the chair. The following papers were presented:

AGRICULTURE

"Effects of Soil Types on the Root Development of Cotton and Kafir," by Wallace MacFarlane.

ARCHEOLOGY

"Types of Stone Implements," by J. B. Thoburn.

CHEMISTRY

"Errors in the Determination of the Coefficient of Viscosity Gases by the Capillary Method," by I. M. Rapp.

"Sulfur in Petroleum," by Chas. K. Francis.

"Effect of Para Substituents in the Acylation of Aromatic Amines," by L. Chas. Raiford and A. F. Whipple.

"Oxidation of Ethyl Alcohol to Acetaldehyde," by Wm. J. Becker.

"Infra-red Absorption of Naphthalene," by A. H. Stang.

"Visibility Curves of the Green Mercury Line and Its Satellites," by A. F. Reiter.

ECONOMICS

"Setting the Clock Ahead," by Joseph M. Perkins.

"The Lumber Industry of Oklahoma," by John Cullen.

EDUCATION

"The Educational Survey," by T. Earl Sulinger.

"Seeing Oklahoma," by C. W. Shannon.

"The Teaching of Physiography and Geography in Our Common Schools," by C. W. Shannon.

ENGINEERING

"Oklahoma City's New Water Plant," by W. L. Benham.

"Appraisal of Public Utilities" (by title), by A. L. Mullergren.

GEOLOGY

"The Practicality of Using the Diamond Drill in Exploring for Oil and Gas Structures," by Geo. E. Burton.

"New Anticlines," by Chas. N. Gould.

"Concretions in Caddo County," by Chas. N. Gould.

"Origin of the Ferruginous Sandstones of Southeastern Oklahoma," by Chas. W. Honess.

"The Occurrence of Coal in Cimarron County," by Fritz Aurin.

"Progress of Work in the Cretaceous Area of Oklahoma," by C. W. Shannon.

"New Volcanic Ash Theory," by Chas. N. Gould.

"Manganese Deposits Near Bromide, Oklahoma," by Geo. E. Burton.

"The Distribution of the Sand Dunes of Oklahoma," by Bryan Hendon.

"Oil Seeps," by Elbert E. Boylan.

"A 'Gas Blow-out,'" by V. V. Waite.

"The Elephants of Oklahoma" (by title), by E. B. Wilson.

"The Early Vertebrates of Oklahoma" (by title), by M. G. Mehl.

"Granite Situation in North-Central Kansas" (by title), by Everett Carpenter.

MATHEMATICS

"English Experiences in Teaching Calculus to Trades-school Students," by A. Press.

"A Shorter Proof of a Theorem on Fourier's Series" (by title), by W. H. Cramblet.

BIOLOGY

"A Flock of Hawks," by Chas. N. Gould.

"*Platanus occidentalis*," by Chas. N. Gould.

"Past and Future of the Buffalo," by Frank Rush.

"Reproductive Organs of Birds and Their Activities" (by title), by T. C. Carter.

"Biological Significance of Bones, Teeth and

Shells Found in the Caves of Eastern Oklahoma," by H. H. Lane.

"Further Observations on the Effect of Alcohol on White Mice," by L. B. Nice.

"Speech Development of a Child from Eighteen Months to Six Years," by Mrs. Margaret Morse Nice.

"The Murine Opossum, an Accidental Immigrant in Oklahoma," by H. H. Lane.

"On a Collection of Moths and Butterflies from Costa Rica," by H. H. Lane.

"Some Personal Observations on the Habits of the Butcher's Shrike," by C. W. Shannon.

"Observations on *Demoder folliculorum*" (by title), by G. K. Stanton.

"The Relation of Vegetation to Stratigraphy" (by title), by Floyd Absher.

"The Hawks of Oklahoma" (by title), by Joe Matthews.

The Committee on Publications reported that arrangements had been made whereby the University of Oklahoma would assume responsibility for publishing the proceedings, the academy paying what it can and the state assuming the balance. The report was accepted. The committee appointed on publication for the coming year consists of the president, treasurer, secretary and curator.

The committee on membership presented the names of forty new members which were accepted.

Professor C. W. Shannon, director of the Oklahoma Geological Survey reported that the Biological Survey working in connection with the academy had established many nature study clubs in the public schools of the state during the past year. Report accepted.

A committee was appointed to work to get better laws passed in Oklahoma for the protection of wild life. Mr. Frank Rush, United States forester, in charge of the buffalo herd, in the Washita Mountain Reservation, was made chairman of this committee.

The treasurer's report was read and accepted.

The following officers were elected for the coming year:

President, L. Chas Raiford, A. & M. College; *First Vice-president*, M. M. Wickham, Southeastern State Normal School; *Second Vice-president*, A. F. Reiter, Phillips University; *Treasurer*, H. H. Lane, University of Oklahoma; *Secretary*, L. B. Nice, University of Oklahoma; *Curator*, Fritz Aurin, Oklahoma Geological Survey.

L. B. NICE,
Secretary