

by the respiration of a hundred active lungs, even when the closeness of the air becomes oppressive. The possibility of recognizing spore production, however minute, from cultures made in dust-free air, may not be without interest.

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### SOCIETIES AND ACADEMIES

#### THE AMERICAN MATHEMATICAL SOCIETY

THE one hundred and forty-third regular meeting of the society was held at Columbia University on Saturday, April 24, 1909, extending through a morning and an afternoon session. The attendance was about thirty-five persons, including twenty-six members of the society. President Bôcher occupied the chair, being relieved at the afternoon session by Vice-President Kasner. The council announced the election of the following persons to membership in the society: Miss W. B. Bauer, High School, Topeka, Kan.; Mr. W. W. Denton, University of Illinois; Mr. Meyer Gaba, University of Kansas; Professor W. H. Garrett, Baker University; Miss S. E. Graham, High School, Topeka, Kan.; Mr. G. F. Gundelfinger, Sheffield Scientific School; Professor W. A. Harshbarger, Washburn College; Mr. L. T. W. Hogrefe, Milwaukee, Wis.; Professor L. A. Howland, Wesleyan University; Mr. George Melcher, State Normal School, Springfield, Mo. Three applications for membership in the society were received.

Professor H. S. White was reelected a member of the editorial committee of the *Transactions* for a term of three years beginning October 1, 1909.

The following papers were read at this meeting:

R. D. Carmichael: "On certain functional equations."

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W. H. Jackson: "A theorem concerning simple continued fractions."

W. H. Jackson: "Shadow rails."

L. P. Eisenhart: "The twelve surfaces of Darboux and the transformations of Moutard."

W. F. Osgood: "On Cantor's theorem concerning the coefficients of a convergent trigonometric series, with generalizations."

L. S. Dederick: "Certain singularities of transformations of two real variables."

Paul Saurel: "On Fredholm's equation."

J. E. Wright: "On abelian functions of genus 3."

J. C. Morehead: "A simplification of Lagrange's method for the solution of numerical equations (second paper)."

A. S. Chessin: "On gyroscopic couples."

Edward Kasner: "The interpretation of differential equations in line coordinates."

E. D. Roe, Jr.: "On the extension of the exponential theorem."

Mr. Dederick's paper was presented to the society through Professor Bouton. In the absence of the authors Mr. Dederick's paper was read by Professor Bôcher, and the papers of Professors Carmichael, Saurel, Chessin, Kasner and Roe, and Dr. Morehead were read by title.

The Chicago section of the society held its spring meeting at the University of Chicago on Friday and Saturday, April 9-10. The summer meeting and colloquium of the society will be held at Princeton University in the week September 13-18.

F. N. COLE,  
Secretary

#### THE UTAH ACADEMY OF SCIENCES

THE second annual meeting of the Utah Academy of Sciences was held in the auditorium of the Packard Library, Salt Lake City, on Friday evening, April 9, and Saturday afternoon, April 10.

The Friday evening meeting was a "Darwin Centennial" memorial, as indicated by the program:

"Darwin the Man," by Professor W. W. Henderson.

"Factors in Zoological Evolution," by Dr. John Sundwall.

"Factors in Botanical Evolution," by Dr. C. T. Vorhies.

Discussion, led by Dr. E. D. Ball.

The Saturday afternoon program consisted of the following papers:

"The Adaptation of Insects, with Special Reference to Arid Conditions," by Dr. E. D. Ball.

"The Alfalfa Leaf Weevil," by Professor E. G. Titus.

"The Honey Ants of Utah," by A. O. Garrett.

"Orbital Glands of Amphibians," by P. G. Snow.

"Note on Geological Survey Bulletin No. 371," by J. B. Forrester.

"High Temperature Measurement," by Dr. L. W. Hartman.

"Pottery Glaze Coloring," by A. F. Greaves-Walker.

"The Valuation of Fuel according to Analysis," by Dr. William Blum.

"Philippine Birds," by Chaplain Joseph Clemens, Ft. Douglas.

At the business session, the following officers were elected for the ensuing year:

*President*—Dr. W. C. Ebaugh, University of Utah.

*First Vice-President*—Dr. E. D. Ball, Utah Experiment Station.

*Second Vice-president*—W. D. Neal, Weber Stake Academy.

*Secretary*—A. O. Garrett, Salt Lake High School.

*Treasurer*—Dr. Philena Fletcher Homer, Brigham Young University.

*Councillors*—Professor J. L. Gibson, University of Utah, Dr. S. H. Goodwin, Proctor Academy; and Professor W. W. Henderson, Brigham Young College.

A. O. GARRETT,  
*Secretary*

#### THE ANTHROPOLOGICAL SOCIETY OF WASHINGTON

THE 433d regular meeting of the society was held April 20, 1909, President Hough in the chair.

The first part of the evening was devoted to a paper on "The Peoples of the Philippines," by Dr. Daniel Folkmar, formerly lieutenant-governor of the province of Bontoc, and consisted principally in the presentation of the results of anthropometric studies of 800 to 1,000 Filipinos in the prison of Bilbid. While the Negritos and other interior tribes were touched upon, Dr. Folkmar confined himself in the main to the Moros and the eight principal Christian peoples—the Tagalogs, Bisayas, Pampangas, Ilocanos, Pangasinans, Cagayans, Zambals and Bicol. The investigations seemed to show a division of the Filipinos into two principal types, exclusive of the Negritos, a southern, or perhaps we should rather say coastal, and a northern or interior type, the Moros, curiously enough, occupying an exact intermediate position. At the same time Dr. Folkmar expressed greater confidence in language as a means of classification in the Philippine group than physical characteristics. He considered that, with the exception of the Negritos, all Philippine tribes were affiliated with the Malayan race and constituted part of the Malay problem. In discussing this paper Dr. Boas stated that the anthropological problems of south-eastern Asia were concerned with three races, the Malayan, the Negrito, and a short but light people represented by the Veddahs of Ceylon.

The society then listened to reports of its officers for the past year, and proceeded to the election of officers for 1909 to 1910, which resulted as follows:

*President*—J. Walter Fewkes.

*Vice-president*—James Mooney.

*Secretary*—John R. Swanton.

*Treasurer*—George C. Maynard.

*Additional Members of the Board of Managers*—I. M. Casanowicz, J. N. B. Hewitt, F. W. Hodge, C. H. Robinson, Mrs. M. P. Seaman.

JOHN R. SWANTON,  
*Secretary*

#### THE AMERICAN CHEMICAL SOCIETY. NEW YORK SECTION

THE seventh regular meeting of the session of 1908-9 was held at the Chemists' Club on April 9.

The following papers were presented:

"The Municipal Explosives Commission of New York," by A. A. Breneman.

"Note on the Nitration of Triphenylmethane," by R. Schwartz.

"The Volumetric Determination of Cerium," by F. J. Metzger.

"Does Thorium exist as Silicate in Monazite?" by O. Kress and F. J. Metzger.

"The Reversal of the Photographic Image," by Wilder D. Bancroft.

Owing to the interference of the dates of the American Electrochemical Society meeting and the Congress of Applied Chemistry, there will be but one more meeting this season, to be held May 14.

C. M. JOYCE,  
*Secretary*

#### THE TORREY BOTANICAL CLUB

THE meeting of April 13 was held at the American Museum of Natural History at 8:30 P.M. and was called to order by Mr. Charles Louis Pollard, who presided in the absence of the president and both vice-presidents.

Mr. Norman Taylor, chairman of the field committee, asked that authority be given him to issue a circular letter requesting the members to vote relative to the continuance of the field meetings. The club voted that this authority be given.

The announced paper of the evening on "Botanizing on the Headwaters of the Saskatchewan and Athabasca Rivers" was then presented by Mr. Stewardson Brown. The lecture was illustrated by lantern slides.

PERCY WILSON,  
*Secretary*