

lings. (Read by title.) R. H. True, Bureau of Plant Industry, U. S. Department of Agriculture.

Duplication and cohesion in the main axis in chicory, A. B. Stout, New York Botanical Garden.

The sequence of life in peat bogs. (Read by title.) W. W. Rowlee, Cornell University.

Some observations on the sexuality of *Spirogyra*, H. H. York, Brown University.

The problem of the imported plant disease as illustrated by the White Pine Blister Rust. (Read by title.) Haven Metcalf, Bureau of Plant Industry, U. S. Department of Agriculture.

Outline of the history of the science of phytopathology, H. H. Whetzel, Cornell University.

Tubers within tubers of *Solanum tuberosum*, F. C. Stewart, New York Agricultural Experiment Station.

The rosy-spored Agarics of North America, W. A. Murrill, New York Botanical Garden.

Some botanical-pharmacognostical investigations, Henry Kraemer, Philadelphia College of Pharmacy.

The cytological structure of *Botryorhiza Hippocrateae*. (Read by title.) E. W. Olive, Brooklyn Botanic Garden.

#### APRIL 21

*Conference to consider Vacant Lot Gardening and how the Botanic Garden may become Most Helpful to Teachers*

Dr. C. A. King, Brooklyn Institute of Arts and Sciences and Erasmus Hall High School, presiding. Welcome, Dr. C. Stuart Gager, director of the Brooklyn Botanic Garden.

The possibilities of vacant lot gardening in Brooklyn, Mr. H. F. Button, professor in the New York State School of Agriculture on Long Island.

How may the Botanic Garden cooperate with local schools? Dr. Ralph C. Benedict, Bushwick High School; Miss Beatrice King, Public School No. 25; Miss Johanna Becker, Public School No. 36; Dr. Frederic Luqueer, Public School No. 152; Miss Margaret Kane, Public School No. 98; Mr. James O'Donnell, Public School No. 43; Mrs. Alice Ritter, Public School No. 89.

Opportunities offered by the Botanic Garden, Dr. E. W. Olive, curator of Public Instruction.

What the Botanic Garden is doing for Brooklyn boys and girls. (With brief statements by ten boys and girls.) Miss Ellen Eddy Shaw, curator of elementary instruction; Miss Jean Cross, assistant curator of elementary instruction.

Tea was served at 4:30 P.M. by the Woman's Auxiliary of the Botanic Garden.

#### THE STANFORD MEETING OF THE PACIFIC DIVISION OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE second annual meeting of the Pacific Division of the American Association for the Advancement of Science was held at Leland Stanford Junior University, California, between the dates, April 5 to 7, 1917. The headquarters of the Division were maintained in the rotunda of David

Starr Jordan Hall, and the sessions of the several societies participating in the meeting were held in lecture rooms of the departments to which the societies were closely related.

Three general sessions of the division were held, the first of which was a symposium on the afternoon of Thursday, April 5, Dr. J. C. Branner, president of the Pacific Division, presiding. This symposium had been prepared by Dr. D. T. MacDougal, director of the Desert Laboratory of the Carnegie Institution of Washington, Tucson, upon the subject, "Coordination and Cooperation in Research and in Applications of Science." Four addresses were presented as follows:

"Science, and an Organized Civilization," by Wm. E. Ritter, director, Scripps Institution for Biological Research, La Jolla, California.

"The National Research Council as an Agency of Cooperation," by Arthur A. Noyes, director of Chemical Research, Throop College of Technology, Pasadena, California.

"Plans for Cooperation in Research among the Scientific Societies of the Pacific Coast," by J. C. Merriam, professor of paleontology, University of California, Berkeley.

"The Applications of Science," by William F. Durand, professor of mechanical engineering, Stanford University, California.

On the evening of Thursday, April 5, a general session was held in the assembly hall of the Outer Quadrangle, Dr. J. C. Branner, president of the division, presiding. At this session, President R. L. Wilbur welcomed the association on the part of the university, and Dr. James A. B. Scherer, president of Throop College of Technology, responded. In this response President Scherer extended the invitation of Throop College of Technology and other institutions of southern California to the Pacific Division of the American Association to hold its 1918 meeting in Pasadena. The nominating committee presented its report, nominating the following members to serve upon the Executive Committee for a term of three years each: Dr. W. W. Campbell, director of the Lick Observatory, Mount Hamilton; Dr. Wm. E. Ritter, director of the Scripps Institution for Biological Research, La Jolla, California, and Mr. C. E. Grunsky, president of the American Engineering Corporation, San Francisco. This report was accepted and the secretary was instructed to cast the ballot for these names. Following the transaction of this business, Dr. J. C. Branner, the retiring president of the Pacific Division of the American Association, presented his presidential address upon the subject, "Some of

the Scientific Problems and Duties at Our Doors." This session was followed by an informal reception to the faculty of the university and to the visiting members of the association at the home of President and Mrs. R. L. Wilbur.

The third general session of the meeting was held on the evening of Friday, April 6, Dr. J. C. Branner, president of the Pacific Division, presiding. At this session the executive committee reported the choice of Pasadena as the place for the 1918 meeting of the division, in response to the invitation given by President Scherer, the time for the meeting to be determined later. The executive committee also reported the election of Dr. D. T. MacDougal, director of the Desert Laboratory, Carnegie Institution of Washington, Tucson, Arizona, as president of the Pacific Division for the ensuing year, and Dr. Barton W. Evermann, director of the Museum of the California Academy of Sciences, San Francisco, as vice-president of the division and chairman of the executive committee for a term of three years. Together with the president and vice-president of the division, the executive committee for the ensuing year includes the three members elected at the previous general session of this meeting, and four members whose terms of office had not yet expired, as follows:

W. W. Campbell, director, Lick Observatory, Mount Hamilton, California,  
E. C. Franklin, professor of chemistry, Stanford University, California,  
T. C. Frye, professor of botany, University of Washington, Seattle,  
C. E. Grunsky, president, American Engineering Corporation, San Francisco,  
Vernon L. Kellogg, professor of entomology, Stanford University, California,  
E. P. Lewis, professor of physics, University of California, Berkeley,  
Wm. E. Ritter, director, Scripps Institution for Biological Research, La Jolla, California.

The following resolution introduced from the Pacific Coast Research Committee was unanimously adopted:

Since experimentation upon animals is indispensable to progress in the biological sciences, for the conquest of disease and for the relief of human suffering,

*Be it resolved*, That the Pacific Division of the American Association for the Advancement of Science hereby heartily endorses the use, under proper precautions, of unclaimed, impounded animals by the medical schools and universities of the state of California as contemplated in the Prendergast Bill (before the legislature of California).

Professor F. J. E. Woodbridge, of the department of philosophy of Columbia University, then presented a general address upon the subject, "History and Evolution."

At a meeting of the Pacific Coast Research Committee on Friday afternoon, April 6, together with representatives of the societies affiliated with the Pacific Division, a Pacific Coast Research Conference was organized. The purpose of this conference is expressed in the following resolution, which was introduced from the Pacific Coast Research Committee, and which was unanimously adopted:

"WHEREAS, It is the opinion of this committee that the important scientific problems before men of science to-day are those problems relating to preparation for war, which require scientific research,

*"Therefore, be it resolved*, That this committee, representing the scientific interests of the Pacific Division of the American Association for the Advancement of Science, offer to the State Council of Defense already formed in California, and to such other similar state or national organizations as may be organized, the full support and assistance of this committee in so far as it may be desired for the direction of research upon problems arising out of a condition of preparation for war."

Among memorable occasions of the meeting were a series of luncheons given through the courtesy of the university in the Stanford Union on Thursday, Friday and Saturday, April 5 to 7, to which all members of the American Association and affiliated societies were invited. The opportunity for thus meeting in an informal social hour was greatly appreciated by every one.

Eleven societies held sessions on the occasion of this meeting. These were:

California Academy of Sciences,  
Astronomical Society of the Pacific,  
Pacific Section, American Mathematical Society,  
American Physical Society,  
Cordilleran Section, Geological Society of America,  
Pacific Coast Branch, Paleontological Society,  
California Section, American Chemical Society,  
Seismological Society of America,  
Le Conte Club,  
Western Society of Naturalists,  
Pacific Slope Branch, American Association of Economic Entomologists.

On the evening of Saturday, April 7, a dinner was held at the Hotel Sutter, San Francisco, under the auspices of the California Academy of Sciences, which was attended by about 85 members of the societies affiliated with the Pacific Division. Mr. C. E. Grunsky, president of the Academy, presided, and informal addresses were given by the following men: Dr. Wm. E. Ritter, Scripps Institution for Biological Research, La Jolla, California; Dr. D. T. MacDougal, Desert Botanical Laboratory, Carnegie Institution of Washington, Tucson; Professor Douglas H. Campbell, Leland Stanford Junior University, California, and J. C. Merriam, University of California, Berkeley.

On the same evening a dinner was held by the American Physical Society at the Stanford Union, Stanford University, and by members of the American Psychological Association at the Hotel Stewart, San Francisco.

On Saturday, April 7, an automobile excursion was conducted under the auspices of the Western Society of Naturalists, into the Coast Range foothills near Stanford University, which was attended by over forty biologists. Luncheon was provided by courtesy of the university at the recently completed field laboratory of the Department of Zoology.

Altogether twenty-two sessions were held during this meeting and over 130 papers were presented. The total registered attendance, in addition to a large local attendance from Stanford University and the vicinity, included 173 members of the association and of affiliated societies from other parts of the state and coast.

ALBERT L. BARROWS,  
*Secretary*

## SOCIETIES AND ACADEMIES

### ANTHROPOLOGICAL SOCIETY OF WASHINGTON

At the 510th meeting of the society, held at the New National Museum, Dr. Leo J. Frachtenberg, of the Bureau of American Ethnology, Smithsonian Institution, Washington, D. C., presented a paper on "The Religious Ideas of the Northwest Coast Indians."

Dr. Frachtenberg stated that four important features of the religious ideas noted among the tribes of this region are (1) an intensive animism; (2) a belief in the powers of supernatural beings, as dwarfs and giants; (3) a belief in the existence of guardian spirits, and (4) a complete absence of the social phase of religion.

According to Dr. Frachtenberg many religious ideas are common to all the tribes of the northwest coast, yet the northern and southern portions of this area differ in cosmogony. The tribes in the extreme southern portion believe that the world was created out of a watery mist, the Transformer enlarging a small piece of land until it became large enough for habitation. The tribes of the northern portion are satisfied with a world whose origin is not explained, they hold, however, that the Transformer (Creator) first made men, and members of the faunal and floral kingdoms, and later revisited and improved his creation. In the south the Transformer and Trickster are separate individuals; in the north they are unified. In the south the Transformer creates all that is good while

the Trickster is held responsible for the bad elements; in the north there is no such disassociation, both good and evil things being regarded as the work of the Transformer.

The northwest coast Indians believe that an individual comprises a body inhabited by two "souls" and a "ghost." In a slight illness the "outer soul" becomes separated from the body, in a serious illness the "inner soul" wanders to the "country of souls" but may be recalled by a shaman. When death occurs the "ghost" also leaves the body and the shaman has no further power.

No ritual or systematic form of supplication is found among these Indians, indeed it may be said that guardian spirits take the place of deities. Every man and woman possesses one or more guardian spirits, each of which has its special sphere of influence. The shamans receive their power from a multitude of such spirits and are both respected and feared. Large gifts are exacted by the shamans, many of whom are believed to possess occult powers of evil.

THE 511th regular and 38th annual meeting of the society was held at the New National Museum on April 17. After approving the reports of the secretary, treasurer and auditing committee the society elected the following officers for the ensuing year: *President*, Mr. William H. Babcock; *Vice-president*, Mr. Francis LaFlesche; *Secretary*, Miss Frances Densmore; *Treasurer*, Mr. J. N. B. Hewitt; *Councillors*, Mr. E. T. Williams, Mr. Neil M. Judd, Dr. Truman Michelson, Mr. Felix Neumann and Dr. I. M. Casanowicz.

Tributes to members of the society deceased during the previous year were then read, memorials to General Ellis Spear, an active member, and Mr. S. M. Gronberger, an associate member, being presented by Mr. William H. Babcock and Mr. James Mooney. A memorial to Mr. J. D. McGuire, an honorary member, was presented by Dr. J. W. Fewkes; and tributes to Professor Johannes Ranke and Professor Gustave Schwalbe, of Germany, honorary members, and Sir Edward Burnett Tylor, a corresponding member of the society, were given by Dr. Aleš Hrdlička, Dr. John R. Swanton, Dr. Truman Michelson and Dr. Leo J. Frachtenberg.

The delivery of the address of the retiring president, Dr. John R. Swanton, on "Some Anthropological Misconceptions," was postponed to a special meeting of the society to be held on May 1 for that purpose.

FRANCES DENSMORE  
*Secretary*