

ized or not, without regard to whether or not it can advantageously be linked up with other sites on the same or neighboring streams, or without regard to where transmission lines go. This means the future non-utilization of a great deal of energy that will be sorely needed. The other is the systematic plan, by which all these things are worked out in detail. This means the ultimate utilization of most of the available water power, and this can be secured only by the assistance of the state through legislative enactment. As all with experience know, this is so difficult that it is well-nigh hopeless. Likewise, conservation of forests, fuel supply and possibly the soil, need to be encouraged by legislative enactment. In part or all of these, depending upon the scope of his duties as defined by statute, the state geologist is expected to take the initiative, by deliberately calling the attention of those charged with administrative and legislative affairs to those resources which the state can aid in conserving.

THE SCIENTIFIC SPIRIT

The object of most legislators in supporting geological surveys is to develop the natural resources; that is, to increase the wealth of the state. We have no fault to find with this attitude, and we willingly exert our energies to that end; but geological work, whether for economic or scientific purposes, requires the strictly scientific spirit as its impelling force, without which no results can be relied upon. For this reason we must ask the public to indulge us if, occasionally, a bulletin appears that does not seem to have economic importance. Such may in the end prove to be of the greatest economic value. The state geologist should be a man who can make his work practical, but he should at the same time be a scientist with irresist-

ible inclinations toward the purely scientific problems that confront him. Only such a geologist can effectually serve a state.

A. H. PURDUE

STATE GEOLOGICAL SURVEY,
NASHVILLE, TENN.

STANFORD MEETING OF THE PACIFIC DIVISION OF THE AMERICAN ASSO- CIATION FOR THE ADVANCE- MENT OF SCIENCE

THE second annual meeting of the Pacific Division of the American Association for the Advancement of Science will be held at Leland Stanford Junior University during the period, April 4 to 7.

General Sessions.—Among the general sessions of the division on this occasion will be the address of the retiring president of the division, Dr. J. C. Branner, president emeritus of Leland Stanford Junior University, on the evening of Thursday, April 5. Dr. F. J. E. Woodbridge, professor of philosophy at Columbia University and lecturer in philosophy on the Mills Foundation at the University of California this spring, will present an address on Friday evening, April 6, on the subject, "History and Evolution." This address will be followed by a general reception on the part of the university to the visiting members of the American Association and of affiliated societies.

On Thursday afternoon, April 5, a symposium will be held upon the general subject, "Coordination and Cooperation in Research and in Applications of Science," under the direction of Dr. D. T. MacDougal, director of the Desert Laboratory of the Carnegie Institution of Washington, at Tucson. Among the speakers at this symposium will be Dr. William E. Ritter, director of the Scripps Institution for Biological Research, at La Jolla, who will present a paper on "Closer Organization of Scientific Men of the World."

Meetings of Societies.—The following announcements are made concerning the meetings of societies participating in this occasion.

On Saturday evening, April 7, a dinner will

be given in San Francisco under the auspices of the California Academy of Sciences, at which the visiting members of the American Association and of affiliated societies will be welcome. The president of the academy, Mr. C. E. Grunsky, of San Francisco, will preside, and a number of men of science in various fields of investigation have been invited to give informal addresses.

The Astronomical Society of the Pacific will hold sessions on Thursday and Friday, April 5 and 6. Some twenty papers are expected from the staff members of the Lick Observatory, the Mount Wilson Solar Observatory, the department of astronomy at the University of California, and from others. A feature of especial interest will be a paper by Dr. George E. Hale, director of the Mount Wilson Solar Observatory, covering many details of the investigational work being carried on at this observatory, illustrated with motion pictures.

The Pacific Section of the American Mathematical Society will hold sessions on Saturday, April 7.

The American Physical Society will hold sessions on Saturday, April 7, and a dinner for physicists will be arranged at Stanford University for Saturday evening.

The California Section of the American Chemical Society will hold sessions on Saturday, April 7.

The Cordilleran Section of the Geological Society of America will hold sessions on Thursday and Friday, April 5 and 6. Certain of the sessions will be correlated with those of the Seismological Society of America, and of the Pacific Coast Branch of the Paleontological Society of America, which will also meet upon the same days. The program of the Seismological Society will include a paper by Dr. H. O. Wood, of the Hawaiian Volcano Observatory, on "The Earthquake Problem in Western United States," and a paper by Mr. A. H. Palmer, of the United States Weather Bureau, San Francisco, on "Earthquakes in California in 1916." An extensive program for the Paleontological Society is in preparation dealing with Tertiary

faunas of the Pacific coast and the influence of climate upon certain of these faunas.

The Le Conte Club will hold its customary dinner for geologists, paleontologists, geographers and seismologists on the evening of Friday, April 6.

The Western Society of Naturalists will hold sessions on Friday, April 6. Contributions from members of the society will occupy the morning session of Friday and the afternoon session will be devoted to a group of special papers upon the general topic, "The Present-Day Bases for the Evolution Theory."

On Saturday, April 7, an excursion will be conducted, under the auspices of the Zoological Field Club of Stanford University, to the recently completed bungalow of this club in the Coast Range foothills, which all visiting members of the biological societies participating in this meeting are cordially invited to attend. Members of the Cooper Ornithological Club will also join in this excursion.

The Pacific Slope Branch of the American Association of Economic Entomologists will hold sessions on Thursday and Friday, April 5 and 6.

Headquarters and Registration.—The registration headquarters of the Pacific Division for this meeting will be in the rotunda of the zoology building, Stanford University. All those attending sessions of the Stanford meeting, whether members of the American Association or participating societies or not, are requested to register at the headquarters office, and to secure there the general program for the meetings.

Mail and Telegrams.—Mail for persons attending the Stanford meeting should be addressed in care of the American Association for the Advancement of Science, Stanford University, California. Attention is called to the fact that mail should be addressed to the post office known as "Stanford University," and not to Palo Alto, while telegrams should be sent to the Palo Alto office of the Western Union Telegraph Company, marked, "to be delivered at Stanford University, care of the American Association for the Advancement

of Science." Every effort will be made to deliver promptly all mail and telegrams thus addressed to those who have registered.

Election of Officers.—According to the provisions of the constitution of the Pacific Division of the American Association, the election of three members of the executive committee from nominations prepared by a duly appointed nominating committee or received from the floor at the time of election will be held at the evening session of the Pacific Division on Thursday, April 5, preceding the general address of that evening.

Papers and Abstracts.—Those desiring to offer papers at the sessions of any of the participating societies should submit the titles of their papers to the secretaries of their respective societies at as early a date as possible, in order to be accorded a place upon the program. Abstracts limited to 300 words should also be forwarded with the titles of the paper. In case the papers are of a technical nature second abstracts in popular phraseology are requested which may be used in the press reports of the meetings.

Hotel Accommodations.—Rooms may be secured at moderate rates in Encina Hall on the campus of Stanford University by those who wish to stay over night at the university. Applications for lodging should be made in advance to Professor J. P. Mitchell, Stanford University, California. Among hotels in Palo Alto may be mentioned the following:

	Rates per Day, Single Room	European Plan, Double Room
Palo Alto Hotel	\$1.00	\$1.50
Hotel Larkin, without bath	1.00	1.50
with bath	1.50	2.50
University Hotel, single rooms	50c., 75c. and \$1.00.	

Railroad Rates.—It has not been possible to make satisfactory arrangements for special railroad rates on the occasion of this meeting. Members are advised to inquire of local agents for round-trip rates which may be in force at the time of the meeting, or to make use of mileage books.

SCIENTIFIC EVENTS

ADVISORY BOARD ON WILD LIFE PROTECTION IN CANADA

THE Canadian government, by an order in council dated December 28, 1916, has appointed an interdepartmental advisory board on life protection for the purpose of formulating plans regarding the protection and use of the wild life—by which term is meant the furbearing and big game mammals, the wild fowl and other animal life—of the northwestern territories, and of advising in the administration of the Northwest Game Act and of the legislation under the recently ratified international treaty for the protection of migratory birds in Canada and the United States, and generally, for the purpose of advising it on questions relating to the protection of and use of wild life in Canada. The advisory board is constituted as follows: James White, assistant to the chairman of the commission of conservation; D. C. Scott, deputy superintendent general of Indian affairs; Dr. C. G. Hewitt, Dominion entomologist; Dr. R. M. Anderson, geological survey; J. B. Harkin, commissioner of Dominion parks.

Mr. James White is chairman and Dr. Hewitt is secretary of the board; Mr. White and Dr. Hewitt are also representatives of the government on the permanent consultative commission for the international protection of nature.

PROFESSOR BLANCHARD ON THE GEOGRAPHY OF FRANCE

DR. RAOUL BLANCHARD, professor of geography at the University of Grenoble, and exchange professor at Harvard University, is now delivering a series of lectures on urban geography. The cities to be considered in this course are: Lyons, Marseilles, Bordeaux, Rouen, Nantes, Nice, Nancy, Lille and Grenoble.

After a careful detailed description of the geography of the region tributary to each city, and of the exact site of the city, Professor Blanchard sketches the history, emphasizing how the geographic conditions in the environs, and the immediate conditions within the boundaries of the city, have influenced the