

science generally does, the matter of proper units and standards wherewith to gauge the performance and composition of the commodity in a manner that will have unity of meaning and universal acceptance, is very early of serious concern to applied science.

If, then, we must use the terms pure and applied science, a differentiation based on the grounds of subject-matter and relationships found in the subject-matter is the more preferable. Applied science deals with the properties of commodities, or with properties of materials more or less directly connected with the production, distribution or utilization of commodities. It is interested in pure science in so far as the latter may give the general formulas by which particular behavior may be foretold, or the behavior of one kind of material may be compared with that of another kind which is involved in a given commodity or may become a substitute for the commodity. In addition, applied science is interested in pure science in so far as any particular verifiers or falsifiers may suggest new kinds of commodities, or new ways of effecting the production, distribution and utilization of commodities. Pure science is concerned with the propositions and propositional functions of science. It is interested in applied science in so far as the latter may furnish particular verifiers and falsifiers of propositions and of propositional functions. In addition, it is interested in applied science in so far as the data may suggest new avenues to new propositions.

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### THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE THE LOS ANGELES MEETING

THE preliminary announcement of the seventy-seventh meeting of the American Association for the Advancement of Science to be held with the seventh annual meeting of the Pacific Division and the fourth annual meeting of the Southwestern Division at Los Angeles, from September 17 to 30, will shortly be mailed to the members. It is an attractive folder reflecting credit upon the Los Angeles committee on arrangements which assumed the entire expense of printing this announcement as well as the final program which will be distributed at the meeting in September. The well-known enterprise and hospitality of the Los Angeles people, together with its unique advantages as a convention city, gives assurance that the sojourner will be well taken care of and every provision made for the success of the meeting.

The total eclipse of September 10, which centers in the vicinity of Los Angeles, will occasion the presence of many distinguished astronomers from all

parts of the world. A diagram of the path of the eclipse is presented in the folder with a table showing the duration of totality for various places. Quoting from the announcement the eclipse "will be of especial interest to astronomers and other scientists because of the unusual opportunity it will afford for undertaking observations with exceptionally powerful and complete equipment. This is due to the accessibility of much of the area within which the eclipse is total. The path of totality passes close to Los Angeles and over San Diego and many other towns which have excellent transportation facilities. Furthermore, the eclipse occurs at a season of the year and at a time of day when the prospect of clear skies is very good, as is shown by records extending over many years."

Naturally, astronomy will be featured rather strongly at the Los Angeles meeting. Detailed reports of observations of the eclipse are of course not to be expected. The astronomers in attendance will however meet under the auspices of the association, holding joint sessions of Section D with the thirtieth meeting of the American Astronomical Society, and the summer meeting of the Astronomical Society of the Pacific. These sessions will be held at the University of Southern California, the Laboratory of the Mount Wilson Observatory and the California Institute of Technology.

A symposium on "Eclipses and Relativity," with Dr. W. W. Campbell, president of the University of California; Dr. Charles E. St. John, of Mount Wilson Observatory, and Dr. S. A. Mitchell, of the University of Virginia, as speakers, will be a feature of the general sessions at the University of Southern California.

A Research Conference will be held Monday at noon, September 17, during the luncheon period. The encouragement and coordination of research work on the Pacific Coast will be discussed and delegates will be heard from the various universities and research institutions in this field.

The Los Angeles meeting will be formally opened Monday evening, September 17, in the Bovard Auditorium, University of Southern California, with an address by President E. P. Lewis, of the Pacific Division of the American Association for the Advancement of Science, following which the usual public reception will be held.

On Monday afternoon, September 17, the symposium on "Eclipses and Relativity" will be held. It is represented that this discussion will be judiciously bereft of some of its inherent technicalities and suited to the comprehension of the average layman. It will prove a most attractive feature of the general sessions.

A banquet will be arranged for Tuesday evening, September 18, at 6:30 for all members of the asso-

ciation and affiliated societies. Following the dinner, adjournment will be taken to Bovard Auditorium, where at 8:00 P. M. an address will be given by Dr. John C. Merriam, president of the Carnegie Institution of Washington. Dr. Merriam has chosen for his subject the famous La Brea Deposits with the discovery and exploitation of which he has been closely connected. A wonderful display of fossils from Rancho La Brea is on exhibit at the Museum of History, Science and Art, a short distance from Bovard Auditorium.

On Wednesday evening, September 19, an address will be given by Dr. R. B. von Kleinsmid, president of the University of Southern California, "Science in its Relationship to Liberal Education."

#### MEETINGS OF SOCIETIES

Twenty-five affiliated societies announce meetings to be held under the general auspices of the association. Except in the case of the astronomical societies, some of whose meetings will be held in Pasadena, these meetings will all be accommodated in the George Finley Bovard Administration Building of the University of Southern California. The American Association of Petroleum Geologists will hold its regular meetings from September 20 to 22, immediately following the period announced for the other meetings.

The following societies are planning to hold meetings:

The American Association of Economic Entomologists  
 The American Association of Petroleum Geologists  
 The American Astronomical Society  
 Section D (Astronomy), The American Association for the Advancement of Science  
 The Astronomical Society of the Pacific  
 The American Chemical Society, California Section  
 The American Chemical Society, Southern California Section  
 The American Meteorological Society  
 The American Physical Society  
 The American Phytopathological Society, Pacific Division  
 The Cooper Ornithological Club, Northern Division  
 The Cooper Ornithological Club, Southern Division  
 The Cordilleran Section, The Geological Society of America  
 The Ecological Society of America  
 The Lorquin Natural History Club of the Southwest Museum  
 The Pacific Coast Branch Paleontological Society  
 The Pacific Coast Entomological Society  
 The Pacific Division of the Plant Physiological Section of the Botanical Society of America  
 The Pacific Fisheries Society  
 The San Francisco Section, The American Mathematical Society  
 The San Francisco Society, The Archeological Institute of America  
 The Seismological Society of America

The Southern California Section, The American Society of Mammalogists  
 The Western Psychological Association  
 The Western Society of Naturalists

W. W. SARGEANT,  
*Secretary, Pacific Division*

#### THE NEW MARINE BIOLOGICAL RESEARCH STATION OF THE BERGEN MUSEUM, NORWAY

THE first marine biological station in Norway was built in 1891. It was situated in the city of Bergen and was connected with the museum there, where investigations of the particularly rich marine fauna of the west coast of Norway have formed the chief part of the zoological work for almost one hundred years.

For thirty years this first biological station was of great importance to Norwegian and foreign scientists; but it then became necessary to discontinue it, owing to the increasing pollution of the available sea-water, caused by the growth of the city.

Thanks to the generosity of private individuals it has been possible for the Bergen Museum to build a new and larger biological station, now finished and open for workers.

The station is situated on the island of Herdla in the archipelago, about 17 miles from Bergen. This locality has been chosen so as to assure a perfect supply of sea-water, and so that the laboratories are situated as close to the working field as possible. From this place one is able to reach any of the biological localities typical of the west coast of Norway in the course of two hours' sailing at most. Furthermore, the short distances to be covered are important because the greatest difficulties attend the transport of the more frail marine organisms from the place of capture to the aquaria in the laboratories, and the animals are often dying or dead when they reach there. It has thus been possible to keep for eight months in the aquaria crustaceans caught at a depth of 300 metres.

The west coast of Norway offers a very rich field for marine biological work, and owing to the great variety of bottom and depth, the fauna is correspondingly varied. The archipelago, consisting of many smaller and larger islands, also makes the sea-surface calm enough for this kind of investigation, in spite of the proximity of the open Norwegian Sea. Finally, this locality has the great advantage that the sea never freezes over, and it is thus possible to collect material throughout the winter, while at places even further south ice conditions prevent this.

The station building contains five laboratories and a larger room for instruction purposes. During the summer ten scientists can be accommodated, and dur-