A similar account might be recorded of his participation in the councils of the American Association for the Advancement of Science and of the National Academy of Sciences. In 1927 he was elected to the presidency of the former organization.

The trek to Noyes's first Research Laboratory began immediately after its establishment. The roster of these youthful investigators—"which now reads like a membership list of the National Academy of Sciences"—has been too often cited to require mention here. Through this distinguished group Noyes's influence spread in ever-widening circles.

It was, however, George Hale who first fully appreciated the potentialities of Noyes as a leader in education, and solicited his aid in the reorganization of Throop College in Pasadena. In securing also the cooperation of Millikan he brought together with himself two men whose combined qualities were ideal. Under the guidance of this trio has been created one of the greatest research and educational centers of the world.

Here Noyes brought to fulfilment some of his most cherished ideals of education. To cite but one, he introduced as a general policy his own life-long practice of *selecting* the ablest students, of *interesting* them in discovery and of *training* them in research early in their undergraduate course. The yield of effective research men obtained by this treatment of so-called honors students was a matter of great significance to him.

The last, and almost the greatest departmental interest of Noyes was the development of a division of bio-organic chemistry. Realizing that the applications of chemistry to biological problems would become more and more important, he became deeply interested in the study of chemical compounds having biological import. He published with H. W. Estill (1925) a paper on "Effect of Insulin on the Lactic Fermentation," and sponsored the extensive work on insulin conducted by J. J. Abel at the institute. (R. C. Tolman writes that it is the hope of the department to develop further this last-mentioned interest of Noyes, when the Crellin Wing of the Gates Laboratory is completed.)

During the years spent in California, Noyes's interest in science in general widened. He was devoted to Hale and to the success of the 200-inch telescope. He was a member, not only of the executive council of the institute, but of the observatory council, which has direct responsibility for the telescope. In his quiet and unobtrusive way, he exerted a profound influence in all departments. The educational policies, both graduate and undergraduate, were largely due to him. As Millikan has said, "he spent more time than any other man on the campus trying to create here outstanding departments of physics, of mathematics, of the humanities, of geology, of biology and of the various branches of engineering, and what these departments are to-day they owe, more than they themselves know, to Arthur A. Noyes."

SCIENTIFIC EVENTS

THE CROCKER EXPEDITION OF THE AMERICAN MUSEUM OF NATURAL HISTORY

THE American Museum of Natural History, through the generosity and with the collaboration of Templeton Crocker, of San Francisco, is planning an expedition to Christmas Island, Samoa, and, incidentally, certain islands of Hawaii, to obtain material for new group exhibits for the Hall of Ocean Life and the new Whitney Memorial Hall of Pacific Bird Life.

Mr. Crocker sailed on the yacht *Zaca* from San Francisco on August 18 for Honolulu, where he will be joined by Dr. Roy Waldo Miner, curator of marine life in the museum, and his party, consisting of Chris E. Olsen, artist and modeler, and Wyllys Rossiter Betts, associate on Dr. Miner's staff. William F. Coultas, of the department of birds, will accompany the expedition and will have charge of the ornithological work. Mr. Crocker will be accompanied by Toshio Asaeda, a skilled artist and photographer.

Dr. Miner plans to collect materials and make observations for a pearl fisheries group, to be installed near the great coral reef group he has recently completed after twelve years' work and five expeditions to the Bahamas. The proposed new group will represent a pearl bed on the floor of the sea, with native divers engaged in collecting the pearl shell. For this purpose the expedition will visit Christmas Island, a large coral atoll situated about 2° north of the Equator and 1,200 miles south of Honolulu; it is about 40 miles in diameter, with a central lagoon where pearl shell grows in the midst of the coral formation. Paul Rougier, the owner, has put the island and all its facilities at the service of the museum for the purposes of the trip. Dr. Miner and his assistants will utilize diving helmets and undersea cameras to obtain motion and still pictures of the undersea life of the lagoon for faithful reproduction in the new American Museum exhibit. Oil-color sketches will be made under sea by Mr. Olsen on specially prepared and mounted oiled canvas, and wax models of the brilliant fishes of the region will be constructed as part of the group setting.

After completing this phase of the work the expedition will proceed to Samoa, where Mr. Coultas will make special studies of the birds of that region and

obtain accessories and photographs for a Samoan bird group, while the marine division of the party will make a collection of marine life. The party will then return to Honolulu, possibly stopping at Fanning Island for a short time. Mr. Coultas will then go to Kauai and Laysan Islands to collect material for two additional oceanic bird exhibits, while Dr. Miner and his party will return to San Francisco by steamship and reach New York in December.

During the entire trip special attention will be given to the collection of oceanic marine invertebrates, with particular emphasis on the forms found in comparatively shallow waters and the life of the sea surface. It is expected that many valuable additions to the scientific collections of the museum will be made in this way.

The yacht *Zaca,* which has been put at the disposal of the American Museum for this expedition by Templeton Crocker, has already made four scientific trips, one of which was also in the interests of the American Museum—the 1934 expedition to the Tuamotus, Easter and Pitcairn islands. She is a two-masted gaffrigged schooner with topsails, with the general lines of a Newfoundland Bank fishing-schooner, 118 feet over all, 96 feet water line, 23 feet beam, 14 feet draught, gross tonnage of 84 and is equipped with two Hill Diesel engines, each developing 120 horse power. She is very strongly built, for any ocean travel in any weather, a cruising yacht well adapted for both comfort and utility, with a well-trained crew of twelve men.

LECTURES AT THE UNIVERSITY OF OREGON

THE comparative isolation of the Pacific Northwest from the great centers of population and their accompanying large universities and research institutions makes the problem of securing speakers for scientific meetings a difficult one. During the past academic year the University of Oregon was unusually successful in overcoming this difficulty, largely because of the efforts of the local Sigma Xi chapter and the science faculty.

Dr. C. G. S. de Villiers, dean of sciences, University of Stellenbosch, South Africa, while a guest of the university under the auspices of the Carnegie Foundation for the Promotion of Peace, provided many illuminating lectures and discussions, including "New Theories of Evolution."

Jiro Harada, commissioner of the Imperial Household Museum at Tokyo, while guest of the university as professor of oriental art, gave an address entitled "The Pre-history of Japan."

Dr. Ralph Chaney, head of the department of paleontology, University of California, invited by Sigma Xi, spoke on "Ancient Forests of Oregon," and (at a student assembly) on "A Scientist's Adventures in Mongolia and Central America."

Dr. Robert H. Lowie, professor of anthropology, University of California, delivered the address at the annual joint Phi Beta Kappa-Sigma Xi initiation banquet. His subject was "Cultural Anthropology."

While visiting the Sigma Xi chapter at the university and the Sigma Xi club at Oregon State Agricultural College (Corvallis, Ore.), Dr. Armin O. Leuschner, professor of astronomy in the University of California, gave an address at Corvallis, entitled "Long Range Prediction of the Orbits of the Minor Planets."

Other Sigma Xi lectures were: "Some Experiments in the Attempt to Understand Inefficient Reading," Professor H. R. Crosland (psychology), retiring president of Sigma Xi; "Ultimate Theories of Matter," Professor A. E. Caswell (physics); "Philosophy and Science," Professor H. G. Townsend (philosophy); and "Forensic Applications of Blood Groupings," Dr. S. B. Osgood (medicine).

In addition, the science faculty sponsored a series of popular science lectures which were very well attended by townspeople as well as faculty and students of the university. Most of the lectures were given by resident members of the faculty. The program follows:

"Scenic Resources of Oregon," Professor W. D. Smith (geology); "The Universe around Us," Professor A. E. Caswell (physics); "Problems of South Africa," Dean C. G. S. de Villiers, Stellenbosch University, South Africa; "Some Elements of Small Arms Ballistics," Major R. H. Back (R. O. T. C.); "Rambles of a Naturalist in Oregon Winter Time," Professor F. P. Sipe (botany); "Daylight Ghosts or Fantasms of Everyday Life," Professor H. R. Crosland (psychology); "Natural History of Oregon Birds and Mammals," Professor R. R. Huestis (zoology); "Liquid Air," Elliott James (demonstrator at Century of Progress Exposition).

Finally, the university community had the pleasure of having an illustrated lecture on Alaska by Father Hubbard, the Glacier priest. This lecture was sponsored by the Active Club of Eugene, the proceeds going to the support of a summer camp for underprivileged boys.

A. H. KUNZ

PHYSICS SYMPOSIUM AT CORNELL UNIVERSITY

NUCLEAR physics was the subject of the discussions at the second Cornell University physics symposium. The meetings were held in Ithaca on July 2, 3 and 4, and the attendance was about a hundred and thirty. At the first meeting on Thursday morning, July 2, Pro-