SCIENTIFIC EVENTS

THE SCIENTIFIC LABORATORIES AND UNIVERSITY ASSISTANTS IN ITALY

PROFESSOR ERMANNO FIORETTI, in an address before the Italian Chamber of Deputies, has called attention, as reported by the correspondent of the *Journal* of the American Medical Association, to some problems of the Italian universities which are awaiting solution, namely, the mode of functioning of the scientific laboratories and the working conditions of the university assistants. The speaker emphasized that the university laboratories should receive larger appropriations, as at present they have not adequate resources for the researches that they are called on to conduct in the interest of scientific progress. Recently there was organized in Italy a campaign against experimental studies carried out on animals, and at a meeting in Rome of the Society for the Protection of Animals, which was attended by many Italian and foreign women, a protest against vivisection was launched. But, Professor Fioretti explained, experimental studies are the very basis of the progress of medical science and certain discoveries (for instance, that of Luciani on the function of the cerebellum) would not have been made without the aid of vivisection. It is necessary, however, that vivisection be well controlled and be carried out solely in authorized institutes. According to the speaker, reducing the number of Italian universities, as has been suggested in some quarters, should not be considered. That is the opinion held also by the head of the government. But there is need of distributing the various faculties in such a manner that there shall be fewer faculties of medicine but provided with greater resources than at present.

The university assistants, Professor Fioretti stated, have not only the duty of assisting in scientific researches and laboratory studies but also the complex task of directing the young students and starting them in their laboratory work. It is necessary, therefore, to consider their living conditions, in order to check the exodus of young men from the scientific institutes and the present scarcity of university assistants. In addition to giving them more pay there is need also of guaranteeing the stability of their career, which is at the mercy of the incumbent in the professorial chair, who may dismiss at his pleasure young men who have had years of experience as assistants. These conditions lower the scientific and didactic performance of the assistants, as is evident also from the results of the state examinations for admittance to the practice of medicine, which this year have shown thirty per cent. of failures. According to Professor Fioretti, the university career, which is long, should be shortened, so that there will be more chairs available for the young professors.

EXPEDITION OF THE DANA

THE *Dana* dropped anchor at Plymouth on June 22 on the conclusion of a two years' oceanographical cruise, which, according to a correspondent of the London *Times,* may prove to be the most important of its kind since *H.M.S. Challenger* returned from her famous quest in 1876. She had anchored at Plymouth on her outward journey precisely two years previously, on June 20, 1928.

The ship is the Royal Danish research ship *Dana,* purchased in 1921 and adapted by the Danish government for oceanographical research. She is "sister" to the *George Bligh* and the *Explorer,* research ships of the English Fisheries Department and the Fishery Board for Scotland, respectively. The cruise was not her first, nor is it likely to be her last, but it is improbable that, for some time to come, she will again undertake so long and extensive a voyage.

The leader of the expedition is Dr. Johannes Schmidt and the commander of the ship Captain G. Hansen. The expenses of the enterprise are shared between the Danish government and the Carlsberg Foundation, whose generosity to science is a household word in Denmark, and the expedition is under the direct patronage of Prince Valdemar of Denmark, the youngest brother of the late Queen Alexandra. The *Dana* left Copenhagen on June 14, 1928, and is expected to return to her home port in a few days, after calling, at the invitation of the Government of the French Republic, at Boulogne.

Although the route of the expedition was largely dictated by Dr. Schmidt's desire to study the eels, the main purpose of it was a general investigation of the oceans, and throughout the voyage the oceans have been studied from every point of view by means of the most up-to-date apparatus of marine research—apparatus undreamed of in the days of the *Challenger.* The *Dana* is equipped with echo-sounding gear, by means of which a large number of soundings have been taken; water samples have been taken at various depths from the surface to the bottom, and the temperature and chemical composition of the water at these depths observed and recorded. Collections have been made throughout of the abundant planktonic life of the sea and of the larger marine fauna, down to the greatest depths.

The full results of the expedition can not be known for years, because the mass of material collected will take years of work by many investigators to sort, identify and tabulate. In fact, it is only now, when this two years' cruise has reached an end, that reports are coming forward on the material collected in the cruise of the expeditions of 1920–22, by means

of which Dr. Schmidt established the facts of the life history of the Atlantic eels. There can be no doubt, however, that the voyage of 65,000 sea miles, from Copenhagen across the Atlantic, through the Panama Canal, to Tahiti, New Zealand and Australia, thence to the Dutch East Indies and China, across the Indian Ocean to East Africa, round the Cape and thence through the Straits of Gibraltar into the Mediterranean—where Dr. Schmidt was determined to check, by means of his most up-to-date apparatus, the findings of previous expeditions conducted by him in that sea—and finally back to her home port, will prove to have furnished contributions of the utmost importance in the science of the oceans.

THE SOLAR ECLIPSE EXPEDITION OF THE U. S. NAVAL OBSERVATORY

FURTHER details in regard to the expedition to observe the total eclipse of the sun on October 21 by the U. S. Naval Observatory have been given out by the Navy Department. The sun will enter the shadow at 9 o'clock in the morning, and be totally obscured for ninety-three seconds.

The expedition will leave Washington on July 19 and will sail from San Francisco on July 31 on the steamer *Sierra,* arriving at Tutuila, Samoa, on August 13. The following investigators will comprise the party:

Commander C. H. J. Keppler, in administrative charge; Commander Keppler headed the Navy's expedition which observed the solar eclipse of May 9, 1929, from the vicinity of Iloilo, Philippine Islands.

Lieutenant H. C. Kellers, Naval Medical Corps, who was a member of the naval eclipse expedition at Sumatra in 1926 and also of the 1929 expedition. Lieutenant Kellers will be medical officer and in charge of meteorological observations, and, at the request of the Smithsonian Institution, he will collect specimens of the island fauna and flora.

Professor S. A. Mitchell, director of the Leander McCormick Observatory at the University of Virginia, who will conduct spectrographic work.

Kempton Adams, assistant to Professor Mitchell.

Professor Ross W. Marriott, Swarthmore College astronomer, who will carry out coronal photography with a 63-foot camera and make observations to test the Einstein theory.

Dr. Weld Arnold, of the American Geographical Society, assistant to Professor Marriott.

J. J. Johnson, of the California Institute of Technology, who will make photometric observations.

B. P. Sharpless, junior astronomer at the Naval Observatory, who will do coronal photography with a 15-foot camera and other smaller ones.

Dr. T. A. Jaggar, Jr., of the Volcanic Observatory at Hawaii, who will study volcanic and seismic conditions on Niuafou Island.

In addition to this scientific personnel eleven enlisted men of the Navy and Marine Corps will go to assist in construction work and in taking observations. These men, selected from the personnel of the battle fleet, sailed from the Mare Island Navy Yard aboard the mine sweeper *Tanager* on June 25 and will arrive at Samoa about August 9. The enlisted personnel includes a rigger, an optical repair and instrument man, a carpenter to construct large cameras, an expert photographer, two general assistants, two radio operators, two cooks and an interpreter.

About 115 boxes and cases of scientific instruments and equipment have been shipped to Tutuila, besides camp equipage and food supplies sufficient for twenty men for sixty days, and about 8,000 board feet of lumber for the construction of various cameras. The largest of these cameras will have a focal length of sixty-five feet and include a photographic developing room.

Niuafou is a very small volcanic island about 300 miles west southwest of Tutuila. Primitive conditions prevail and only two white men and 1,100 natives live there.

About thirty craters are on the island. Many of them have recently been active, and a major eruption occurred in June, 1929, which destroyed one of the two villages. There are no good anchorages and only one precarious landing place.

THE LIFE SCIENCES BUILDING OF THE UNIVERSITY OF CALIFORNIA

THE work of moving thirteen departments from eleven wood-frame buildings into the new fireproof and earthquake proof Life Sciences Building at the University of California is practically completed. This building was the first to be built on the Berkeley campus under the provisions of the state bond issue of 1926, and cost $2,000,000.

The Life Sciences Building, said to be the largest academic building in America, is five stories in height, has a floor area of 321,000 square feet and provides 60 per cent. more space than the eleven buildings which it replaces, combined.

Among the old buildings which the completion and occupation of the Life Sciences Building will leave empty, are: Agricultural Chemistry, erected in 1908; Anatomy, erected originally as shops for the department of mining; Botany, erected in 1898; Budd Hall of Biochemistry, erected in 1896; California Museum of Vertebrate Zoology, a temporary structure of wood and corrugated iron which has been in service for twenty-one years; East Hall or Zoology Building, erected in 1898; Home Economics, a wooden building erected in 1916; Hygiene and Pathology, erected in 1913; Psychology Building, erected in 1898; Spreckels Physiology Laboratory, erected in 1903.