

NEWS and VIEWS

The European Organization for Nuclear Research :
Director-General

PROF. F. BLOCH is resigning from his appointment as director-general of the European Organization for Nuclear Research as from August 31, and will be succeeded by Prof. C. J. Bakker, professor of physics in the University of Amsterdam. Prof. Bakker was born in 1904 and studied physics under Zeeman in Amsterdam. In 1931 he took his doctorate (cum laude) for research on the Zeeman effect in the spectra of the noble gases. After this he spent a year in London at the Imperial College of Science and Technology, continuing his work in the field of spectroscopy. In the following year he became a member of the scientific staff of Philips of Eindhoven, where he did research on certain physical problems in relation to radio. However, his interests turned to nuclear physics, and during the War, in collaboration with Prof. Heyn, he started designing a cyclotron for Philips. In 1946 he succeeded Gorter as professor of physics and director of the Zeeman Laboratory of the University of Amsterdam. He also became director of the Institute of Nuclear Physics, the focal point of Dutch nuclear research.

Progress Medal of the Royal Photographic Society :
Dr. Julian H. Webb

DR. JULIAN H. WEBB, of the Research Laboratories, Eastman Kodak Company, Rochester, N.Y., has been awarded the Silver Progress Medal for 1954 of the Royal Photographic Society for an outstandingly important series of studies of the photographic process extending over many years. By a combination of theoretical argument and experiment, he has established some of the fundamental facts which must be accounted for by any theory of formation of the latent image, and followed this by important contributions to the main body of the theory of sensitivity which is accepted to-day, including one of the first discussions on modern lines using the wave-mechanical theory of crystals. He has also made investigations of great value into the connexions between the sensitivity properties of single grains and the *H.* and *D.* curve of photographic materials.

Felice Fontana (1720—1805)

FELICE FONTANA, who died at Florence one hundred and fifty years ago on March 9, 1805, was a versatile scientist who made many original contributions to anatomy, histology, botany and toxicology. He was born on April 15, 1720, at Pomarole, near Rovereto, in the Austrian Tyrol, and studied at Verona, Padua and Bologna. While he was professor of philosophy in the University of Pisa, he made a favourable impression on the Grand Duke of Tuscany, later Holy Roman Emperor Leopold II, who offered him the directorship of the Natural History Museum at Florence. This Museum housed the finest anatomical collection known at that time, including the world-famous coloured wax preparations modelled after Mascagni's dissections. Fontana's observant and creative mind expressed itself in many scientific pursuits. As a botanist he made a careful study of the rust of grain and of spurious ergot. As an ophthalmologist he described what is to-day universally known as Fontana's canal or space. As a histologist he was one of the first to recognize the cell nucleus, the tubules of the kidney, and the nerve

sheaths. As a toxicologist he investigated the actions of opium, of prussic acid and of snake poisons. His book, "Ricerche fisiche sopra il veleno della vipera" (1767), is a landmark in the study of serpent venoms. As a chemist, he found that carbon absorbs gases (this was afterwards confirmed by Priestley), and as a clinician he invented an apparatus for administering oxygen in phthisis. Fontana died at the advanced age of eighty-five and was buried in Santa Croce, Florence's Pantheon.

'Heavy Water' Project in New Zealand

A COMPANY known as Geothermal Development, Ltd., in which the New Zealand Government and the United Kingdom Atomic Energy Authority are the sole shareholders, has now been incorporated. This is a joint enterprise to undertake the construction of a factory and the subsequent production of heavy water and electric power from geothermal steam in the Wairakei district of North Island, New Zealand. The project has been under prolonged study by scientists and engineers in New Zealand and in the Atomic Energy Research Establishment at Harwell, in collaboration with Messrs. Merz and McLellan (consultants to the New Zealand Government on electric power) and Head Wrightson Processes, Ltd. (consultants to the Atomic Energy Research Establishment on heavy water), and last year a British mission including a number of scientists from Harwell went to New Zealand to discuss details. Geothermal Development, Ltd., is to have a nominal and paid-up capital of £30,000, one-third of which is to be provided by the Atomic Energy Authority and the rest by the New Zealand Government. The remainder of the capital requirements of the Company will be provided by loans; those for the heavy-water plant (estimated at £2,000,000) are to come from the Authority and those for the electric power equipment (estimated at £4,000,000) from the New Zealand Government. The board of directors comprises three representatives of the New Zealand Government and two from the United Kingdom Atomic Energy Authority, and Dr. E. Marsden, a former head of the New Zealand Department of Scientific and Industrial Research, will be associated with the Board. It is envisaged that production of heavy water will begin late in 1957 and of electric power a few months later. Initial plant will produce electric power at a rate of about 40,000 kW., and a useful tonnage of heavy water for nuclear power reactors. The Authority undertakes to purchase from the company the whole of the output of heavy water, and the New Zealand State Hydro-Electric Department the whole of net electric power available. Boring and development work at Wairakei have already begun.

Observations on the Palolo Worm of the Pacific

THE palolo worm of Polynesia and Melanesia has always been of intriguing interest to naturalists because of its so-called 'lunar periodicity', which is due to a rhythmic productivity of such consistency that spawning occurs each year in the month of November, always on a day or so following the full moon. Mr. C. Sorenson has observed the phenomena many times at Tokau Reef, Ovalau Island, Fiji. He describes in the *Australian Museum Magazine* (11, No. 6; June 1954) the brown-coloured scum suggesting an exudation from the hidden worms in the coral rock which appears in patches three to four days before the actual spawning. When this washes ashore and concentrates along the water line, it emits