

About two years later, Mme. Joliot-Curie was appointed by M. Blum as Under-Secretary of State for Scientific Research. This office and her numerous other duties must have absorbed a great deal of her time and attention; moreover, her health was showing signs of having been affected by her exposure to radiation during years of work with strongly radioactive materials. But her scientific work continued without abatement. With P. Savić, she examined in detail the artificial radioelements produced by the irradiation of uranium by slow neutrons, analysing the products and identifying them chemically, and she came within a hair's-breadth of recognizing that the phenomenon involved in the production of these elements was that of fission. Then came the Second World War and the German occupation of France, during the last year or two of which she retired to Switzerland with her two children.

When the French atomic energy project was started in late 1945, she was appointed one of the four scientific commissioners, the others being F. Joliot-Curie, P. Auger and F. Perrin. When Joliot was dismissed in 1950 on account of his Communist activities, she retained her post and served the full term of five years; but on the reorganization of the Commission early in 1951 she was no longer

included. During these years she was the chief link between the Commission and the Institut du Radium and the University of Paris, and she served as the Commission's representative on several committees. She continued at the same time to publish work on various aspects of radioactivity, for her ardour for scientific research was such that neither administrative duties nor failing health could keep her from her laboratory.

Her parents were both persons of strong and independent mind, and Mme. Joliot-Curie inherited much of their character as well as their scientific genius. She had a powerful personality, simple, direct and self-reliant. She knew her mind and spoke it, sometimes perhaps with devastating frankness; but her remarks were informed with such regard for scientific truth and with such conspicuous sincerity that they commanded the greatest respect in all circumstances. In all her work, whether in the laboratory, in discussion, or in committee, she set herself the highest standards and she was most conscientious in the fulfilment of any duties she undertook.

She leaves with her husband two children—a daughter Hélène, married to a grandson of the late Prof. P. Langevin, and a son Pierre.

J. CHADWICK

## NEWS and VIEWS

### New Foreign Member of the Royal Society: Prof. R. B. Woodward

ROBERT BURNS WOODWARD, professor of organic chemistry in Harvard University and recipient of many honours, has now been elected a foreign member of the Royal Society. In 1937 he was awarded the degree of Ph.D. at the Massachusetts Institute of Technology and shortly afterwards moved to Harvard University. His work there has ranged over almost the whole field of organic chemistry, and has had an outstanding influence upon the development of the subject, particularly during the past decade. His most important contributions have been concerned with the elucidation of the structure of natural products and their total synthesis, and in this his views on biogenesis have been of great value. His synthesis of quinine (1944), followed by his brilliant work culminating in the first total synthesis of the steroids (1951), has created a new era in synthetic organic chemistry. He has regarded the complexity of some natural products as a challenge, and this he has met by applying in masterly sequence the methods now available to the modern organic chemist. His recent total synthesis of strychnine will always be regarded as a classical achievement. His work on the elucidation of the structure of natural products is characterized by the use of physical methods which are suitably complementary to the chemical methods of structural investigation. He was a pioneer in the use of ultra-violet and infra-red spectroscopic techniques in structural work, and the present popularity of these methods is in some measure due to his influence; his rules concerning the ultra-violet spectral properties of various chromophoric systems are of great value. Many natural products have been forced to reveal the secrets of their molecular archi-

ture as a result of Woodward's attentions, and these have included patulin, sempervirine, terramycin, aureomycin, magnamycin, ajmaline and cevine and related veratrum alkaloids.

### Astronomy in the Australian National University: Prof. Bart J. Bok

DR. BART J. BOK, who has been appointed to succeed Dr. R. v. d. R. Woolley in the chair of astronomy at the Australian National University, will take to Mount Stromlo a detailed knowledge of the problems of galactic structure and stellar statistics, to which he can apply observations obtained with the new 74-in. reflector of the Commonwealth Observatory. At Harvard, Bok was closely associated with Harlow Shapley, and Bok himself took a particular interest in the problems of the southern hemisphere, visiting the Harvard Observatory at Bloemfontein, South Africa, to secure observations with the 60-in. reflector. As a consequence of the closing down of the Harvard Southern Station, Bok has recently turned his attention to radio astronomy, and his appointment to the chair at Canberra will no doubt strengthen the contact between astronomy at Mount Stromlo and the radio astronomy work of the Radio Physics Laboratory of the Commonwealth Scientific and Industrial Research Organization at Sydney.

### Beit Memorial Fellowships for Medical Research

THE following Beit Memorial Fellowships for Medical Research have been awarded for research work at the places indicated. *Fourth-Year Fellowship* (£1,000 a year): Dr. Evelyn E. B. Smith, synthesis of hyaluronic acid and of specific polysaccharides in pneumococci (Departments of Bacteriology and Biochemistry, University of Glasgow).