

Leeds and after graduation was appointed research assistant in the Department of Mining at King's College, University of Durham, where he remained on the academic staff until 1939, becoming lecturer and then reader. During this period he was awarded the degree of M.Sc. by the Universities of Leeds and of Durham. During 1937-48 he commanded the 4th Survey Regiment, R.A.T.A., and was on active service during 1939-45 in the Balkans, the Middle East, North Africa and north-west Europe. He received the Distinguished Service Order, the Order of the British Empire, the Belgian Order of the Crown with Palm and the Belgian Croix de Guerre. Since his appointment in 1945 to the chair, the Department at Leeds has expanded steadily both in undergraduate numbers and research activities. Under his direction work in several fields, but particularly in geophysics, coal preparation, ground movement and pneumatic and hydraulic flow, has been carried out and he has contributed to nearly a hundred papers in these and other mining subjects. He was chairman of convocation for three years and was pro-vice-chancellor of the University of Leeds during 1955-57. He has been chairman of the Committee of Mining Professors of Great Britain for some years, and is at present president of the Midland Institute of Mining Engineers.

#### Prof. H. J. King

DR. H. J. KING, who is to succeed Prof. Whetton, had several years experience in mining and mine surveying in the South Wales coalfield before 1936 when he was awarded the David Davies Mining Scholarship and other scholarships for studies at the Treforest School of Mines and University College, Cardiff. Before he completed the course he joined H. M. Forces as a Territorial and served with the Royal Artillery and then with the Royal Engineers, specializing in tunnelling, at home and in north-west Europe. For a time before demobilization in 1945 he was staff captain at 21 Army Group with special responsibilities for establishing educational facilities for troops in preparation for their return to civilian life. On demobilization he returned to complete the mining course at Cardiff and in 1946 was awarded the joint diploma of the University College, Cardiff, and the Treforest School of Mines; in the same year he obtained the degree of B.Sc. (Eng.), London, as an external candidate and was awarded first-class honours. He was lecturer in mining in Whitwood Technical College for a year and was then appointed lecturer in mining and surveying at the University of Leeds, becoming senior lecturer in 1956, in which year he obtained the degree of Ph.D. of the University of London. In 1960 he was appointed reader in mining at Leeds. Prof. King is well known for his special interest in mine surveying and particularly for his research work in the laboratory and in the field on ground movement and mining subsidence, in which he has achieved a world-wide reputation.

#### C.S.I.R.O. Division of Entomology :

Mr. F. N. Ratcliffe, O.B.E.

ON January 1, 1961, Mr. F. N. Ratcliffe will relinquish his position as officer-in-charge of the Commonwealth Scientific and Industrial Research Organization Wildlife Survey Section to become assistant chief of the Division of Entomology in Canberra. He will be mainly concerned with the ecological and biological control investigations that comprise a substantial part of the Division's activities. Mr.

Ratcliffe was a member of the Division of Entomology during 1937-49, working first on termites and later on stored wheat pests. Between 1941 and 1946 he served with the Australian Army Medical Corps, and was actively associated with the work of the Malaria Control Units in northern Australia and New Guinea, and with investigations on mosquito control techniques. On returning to the Division after the War, until the establishment of the Wildlife Survey Section, of which he was the first officer-in-charge, Mr. Ratcliffe acted as assistant to the chief, Dr. A. J. Nicholson, who was succeeded on his retirement this year by Dr. D. F. Waterhouse.

#### United Kingdom Atomic Energy Authority :

##### Appointments

SENIOR appointments in the Development and Engineering Group have been announced by the United Kingdom Atomic Energy Authority. Mr. P. T. Fletcher will be deputy managing director (General Management); Mr. R. V. Moore, formerly director of reactor design, will be deputy managing director (Projects); and Dr. H. Kronberger, formerly director of research and development, will be deputy managing director (Development). Mr. S. Fawcett, formerly deputy director, has succeeded Mr. Moore as director of reactor design. The Research and Development Directorate at Risley has been divided into two executive directorates. Dr. H. K. Hardy and Mr. F. W. Fenning have been appointed respectively as director of fuel element development and director of reactor technology.

#### Solid State Physics at Harwell

THE newly formed Solid State Physics Division at the Atomic Energy Research Establishment at Harwell, under Dr. W. M. Lomer (see *Nature*, 188, 21; 1960), is to be organized into four research groups. One group, under Dr. G. E. Bacon, will be concerned with neutron crystallography, for magnetic and structural investigations and studies in crystal chemistry. Another group, under Dr. R. D. Lowde, will use a variety of techniques, such as time-of-flight measurement and the scattering of cold neutrons, to investigate the dynamics of crystals and of spin systems. Magnetic investigations with polarized neutrons and work on various physical properties employing radioactive tracers, resonance and other techniques will form the work of a third group under Mr. A. D. Le Claire. Later a further group will be added to investigate defects in crystals. There will be opportunity for university participation in the programme.

#### British Shipbuilding and Research

A STATEMENT regarding the replacement of the *Queen Mary* was made on November 3 by the Minister of Transport, Mr. E. Marples, in the House of Commons and by the Paymaster-General, Lord Mills, in the House of Lords. The size, speed, accommodation and physical characteristics of the new ship will be as recommended by the Chandos Committee, and the Government also agrees with the Committee's advice that the capital cost should not exceed £30 million: up to that figure the Government and the Cunard Line will contribute in the proportion of 3 to 2, any excess being met by the Cunard Line. The ship will be owned by a separate subsidiary company of Cunard with provision to ensure that the ship and company