livestock research and development throughout the subcontinent, drafted an all-India Act for the Control of Contagious Diseases of Animals, defined and published a description of most of the important breeds of cattle in India and organized the All-India Cattle Show Society as well as originating research and promoting veterinary education. He was knighted in 1937.

He left India in 1938 to become principal of the Royal (Dick) Veterinary College in Edinburgh, which he administered through the difficult war years that followed. He retired from Edinburgh and public life in 1946 to farm with the enthusiasm and zest with which he had pursued all his undertakings.

He had many outside interests, but he excelled at, and derived most pleasure from, field sports. Since an illness some five years ago lessened his physical activity he took up painting with the single-minded concentration so characteristic of him. Two of his paintings were accepted by the Royal Academy, and he was greatly amused that a critic predicted a promising career for the artist.

He is survived by a widow and one son.

G. Williamson

NEWS and VIEWS

The Royal Radar Establishment: Mr. W. J. Richards, C.B., C.B.E.

Mr. W. J. Richards resigned from the post of director of the Royal Radar Establishment in July in order to become first director of the new Staff College for Further Education recently established by the Ministry of Education (*Nature*, **190**, 308; 1961). He joined the Scientific Civil Service in 1925, and was attached to the Royal Aircraft Establishment, Farnborough, where most of his active research work was carried out, his main interest being in the development of instruments for use in aircraft. He was appointed head of the Instrument Department in 1936. After a period at Ministry of Aircraft Production Headquarters in London, Mr. Richards succeeded Dr. W. B. Lewis in 1946 as chief superintendent of the Telecommunications Research Establishment, Malvern, and when this was amalgamated with the Radar Research and Development Establishment in 1953 (*Nature*, **172**, 277; 1953) he was made director of the combined establishment now known as the Royal Radar Establishment. Under his directorship the amalgamation was achieved in a happy and efficient manner and the Royal Radar Establishment became a central research establishment for electronics serving both the Royal Air Force and the Army. It has played a notable part in the expansion of Britain's defence system, and, in particular, has made significant contributions to the electronic aspects of guided weapons, to the electronic equipment of the V-bomber force and to the modernized early-warning radar. The Establishment has achieved an international reputation for fundamental physics research, particularly in the physics of solids, and has pioneered in the development of many new radio techniques now commonly used in industry. One of Mr. Richards's main interests has been in education, and training of new staff members. It was largely due to his initiative that the Malvern College of Electronics was founded, in association with the Royal Radar Establishment. His new post will give him further scope for the development of these interests.

Dr. G. G. Macfarlane

Dr. Macfarlane, at present deputy director of the National Physical Laboratory, has been appointed to succeed Mr. Richards as director of the Royal Radar Establishment. Dr. Macfarlane, who is forty-five, graduated with first-class honours in electrical engineering at the University of Glasgow in 1937, and went on to do two years postgraduate research at Dresden, where he obtained the degree of Dr. Ing. in 1939. He joined the Telecommunications Research Establishment (now the Royal Radar Establishment) in 1939. Throughout the War years he concentrated on mathematical problems in radar and microwave physics. In 1945 he became head of the Mathematical Group and a year later took charge of the Theoretical Physics Division. In 1953, Dr. Macfarlane began individual research work on semiconductors in the Physics Department at the Royal Radar Establishment. In a series of fundamental studies of the optical properties of germanium and silicon he and his group obtained and explained detailed fine structure in the absorption spectra of germanium and silicon over a wide temperature-range. They demonstrated the occurrence of excitons and phonon-assisted indirect transitions in the absorption edge spectra of these semiconductors. He continued this work until early 1960 when he became deputy director at the National Physical Laboratory with special responsibilities for relations between the Laboratory and industry. Dr. Macfarlane will take up his new appointment at Malvern in March 1962.

Chemistry in the University College of Sussex: Prof. C. Eaborn

Dr. C. Eaborn has been appointed professor of chemistry in the new University College of Sussex. He is best known for his publications on the chemistry of organosilicon compounds, including a book of which Prof. H. J. Emeléus recently wrote, "The outstanding impression on reading this book is that, for the first time, order has been introduced into the widely scattered literature". His major research contributions have involved mechanistic studies of reactions of silicon–hydrogen and silicon–carbon bonds, particularly cleavages of aryl–silicon bonds. He has shown that these cleavages are usually electrophilic aromatic substitutions, and with his co-workers has accumulated a large body of information on effects of substituents on the ease of such substitutions, has extended the study to include the reactions of aryl–germanium, –tin, and –lead bonds, and he has shown that these cleavages are useful in synthesis; for example, they can be used to attach a nitro- or sulpho-group at a specified position of an aromatic compound. Recently, Dr. Eaborn and his co-workers, using a simple method they devised for counting tritium, have carried out detailed studies of the rates of acid-catalysed aromatic hydrogen-exchange reactions, and the results, combined with those from the aryl–metal cleavages mentioned here, have been