

chemistry and for university education generally in East Africa was lost.

Born in 1921 in London, Ralph Naylor was educated at Emanuel School and at the Imperial College of Science and Technology, London, where he graduated B.Sc. with honours in 1942. He then joined the British Rubber Products Research Association where he worked on olefinic reactivity and aliphatic sulphur compounds. Some twelve publications on this work resulted, including one in *Nature*, over the period 1943-1949.

In 1949 he went to Makerere College as a lecturer in organic chemistry and became a senior lecturer three years later. In September 1953 he was given nine months leave of absence to work with Dr. J. H. Hanks in the Department of Bacteriology and Immunology at Harvard, in which he was assisted by Smith-Mundt Research and Fulbright Travel Grants. He returned to Makerere as acting head of the Chemistry Department. The head of Department, Prof. Tenniswood, had died shortly before, also in a motor accident. He acted in this capacity for nearly two years. Although one of the new chemistry buildings had just been completed, much of the design of the second building and the planning for future expansion, which he performed enthusiastically and in masterly fashion, fell to him.

In spite of these increased responsibilities, Naylor continued his research on the chemotherapy of leprosy drugs. He took much interest in leper colonies and villages throughout Uganda and neighbouring territories. He was on the Board of Governors of the Kumi Leprosy Settlement, which he visited regularly. Having decided that a radiochemical approach to this problem was likely to be fruitful he spent most of one long vacation at Harwell learning tracer techniques, so that he might design and equip a radiochemical laboratory in the Chemistry Department at Makerere. He read a paper on his work at the seventh International Congress on Leprosy in Tokyo in 1958.

The East Africa Section of the Royal Institute of Chemistry held its first annual general meeting early in 1956. Ralph Naylor was one of those responsible for its foundation. He became the Section's first secretary, and up to the time of his death he never relaxed in arranging, organizing and reporting meetings, visits, excursions and exhibitions. East African chemists owe him a particular debt in this connexion.

At Makerere he always took an active personal interest in students and student affairs, particularly in his own tutorial group. He was for a time a resident tutor, and later deputy warden of Mitchell Hall, one of the student halls of residence. He was much sought after as a lucid lecturer, an enthusiastic committee member and an impartial chairman. Ralph Naylor was a man of deep religious conviction. He was the founder leader of a Boys' Crusader Bible Class in Kampala, and also for some years secretary of the Uganda auxiliary of the British and Foreign Bible Society.

His interest in open-air activities was shown by his love of travel and mountain climbing. He was for a time president of the Uganda Mountain Club, and had made ascents of several of the difficult Ruwenzori peaks as well as other mountains in East Africa. He was also a trustee of the East Africa Outward Bound organization, which has its headquarters at Loitokitok at the base of Kilimanjaro, and carries out its activities on that mountain. He had also been

president of the Uganda Amateur Athletic Association at the time when Uganda was beginning to play a part in international athletics. Photography was one of his hobbies.

In 1955 he married Miss Dilys Rees. She was slightly injured in the accident through which he died, and their son Paul, aged four, rather more seriously.

In January 1961 he took up duty as first professor of chemistry at the Royal College, Nairobi, and in his short time there he was also dean of the Faculty of Science, and worked enthusiastically on the planning of the new chemistry building. It is sad that he will not now see the building through to final completion and occupation.

It will thus be clear that Ralph Naylor was characterized by the energy which he put into so many diverse activities, and the thoroughness with which he carried them out. He took a pride in meticulous planning down to the finest detail and his plans nearly always succeeded. His loss will be felt by his many friends and by all who have an interest in scientific education and development in East Africa.

MALCOLM CRAWFORD

Sir Arthur Olver, C.B., C.M.G.

WITH the death on August 15 of Sir Arthur Olver at the age of eighty-six, the veterinary profession has lost one of its most eminent authorities on livestock development. The son of a successful Cornish livestock breeder, he was early introduced to the exactions of animal husbandry. After studying in London and becoming a member of the Royal College of Veterinary Surgeons, of which he later became a Fellow, he was commissioned in the Army Veterinary Department some months before the outbreak of the South African War.

He saw active service with the cavalry, and later, as senior veterinary officer, Natal, first showed his flair for administration.

In 1904 he obtained permission to work under Theiler at his Daspoort laboratory when that authority was so successfully competing with the prevalent epizootics, as well as demonstrating with exactness connexions between nutrition and disease. In 1906, while still a captain, he was appointed principal veterinary officer, Egyptian Army and the Sudan Civil Service. In his first year he stamped out rinderpest in the Nile Valley, organized the Sudan Veterinary Service and enabled the cattle trade between Central Africa, the Sudan and Egypt to be reorganized on a satisfactory basis, for which he was awarded the Order of Osmanieh, 4th class.

He then was appointed assistant director general, Army Veterinary Service, at the War Office. For the greater part of the First World War he served at headquarters of the British Expeditionary Force and besides being mentioned in dispatches four times was made a C.M.G. In 1917 he was sent to re-organize the veterinary arrangements of the Remount Commission in the United States and Canada, where equine infectious diseases were causing havoc. Once again his efforts were successful and he was made a C.B.

In 1930, when a colonel, he retired from the Army to become animal husbandry commissioner with the Government of India, an appointment which had been created on the recommendation of the Royal Commission to investigate the state of agriculture in India. During his eight years in that office he brought under centralized supervision all aspects of official

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