Prof. Krijgsman was born in Holland in 1901. After studying biology at the University of Utrecht, he became junior lecturer there in 1921, later being appointed lecturer. In 1928, after being awarded the degree of doctor of philosophy with distinction, he emigrated to Java to become head of the Veterinary Research Institute at Buitenzorg. He later combined this post with that of professor of medical zoology at Batavia. In 1935 he returned to Holland to study the physiological effects of insecticides for the Netherlands Council for Scientific and Industrial Research and to lecture at the University of Utrecht. In 1949 he accepted the post of senior lecturer in physiology, in the Zoology Department, University of Cape Town, later being appointed associate professor. At the beginning of 1959 he became the first head of the newly formed Sub-department of General Physiology.

In spite of heavy teaching duties, Prof. Krijgsman published at least one hundred and twelve original papers during his lifetime, wrote four books on zoology and contributed to six others. His wife, Mrs. Nel E. Krijgsman, was a great help to him in this respect, being not only a devoted companion but also undertaking duties as his research assistant. Prof. Krijgsman is, perhaps, best known for his studies on the physiology of the invertebrate heart and on the physiology of parasites, but, in fact, he pioneered research in many fields, and the whole subject of invertebrate physiology would have been the poorer had he turned his talents elsewhere. The world of science has lost an eminent research worker and an original thinker: the University of Cape Town has lost also a valued colleague and friend.

A. C. BROWN

Dr. E. de Barry Barnett

EDWARD DE BARRY BARNETT, who died on March 23, will be greatly missed by his many former colleagues and students. He could truly be described as a character. He was held in great affection but was often unpredictable. His instructions to his executors were definitely that he did not wish any obituary notice to be published, but he left a summary of his life among his papers, realizing, no doubt, that it would not be possible to avoid such notice and desiring, as always, to be of help.

He was born on October 20, 1886, and educated at Malvern College and University College, London, graduating with first-class honours in chemistry in 1908. After holding some industrial appointments in the dyestuff and explosives industries, he went back to academic work and was appointed lecturer in organic chemistry at the Sir John Cass Technical Institute in 1919; eventually he became head of the Department and deputy principal, retiring in 1947.

He was the author of a number of well-known books, the latest of which, *Mechanism of Organic Chemical Reactions*, was published in 1956.

His own summary of his life passes very lightly over much that was significant. It does not tell of the extent or the high quality of his published papers, numbering more than a hundred, chiefly in the field of anthracene chemistry. It does not indicate his rather lonely private life as a bachelor, isolated by his deafness in so many ways. It gives no idea of the extent of his help to his students. He had an uncanny knack of selecting as junior laboratory staff those applicants who had the ability to advance. Barnett

would teach them himself, at the same time often arranging and paying privately for other tuition to make good defects in their earlier education. Having got them over these hurdles, he would see that they lacked no help in gaining their degrees. There is no way of assessing the generous financial assistance that Barnett gave to so many students in days when grants from public funds were less common than they are now.

He was greatly handicapped by his deafness. His well-known "What?" with his hand cupped to his ear and his "You see what I mean to say", said in the loudest of tones, without any basis for uncertainty and not infrequently to the discomfort of those who overheard his criticism of them, remain as vivid memories. But at all these times, even when he criticized both his students and those in authority, there was a humorous twinkle in his eye and an underlying kindness in all he did.

Sir John Cass College was to him a life-time interest. He worked selflessly for its development throughout the whole of his teaching career. During the War, when much of the building was severely damaged by bombing and fire, he continued his teaching there, chiefly with classes at week-ends and by correspondence. He took more than his full share of fire-watching, spending his nights on the roof to make sure that his deafness did not cause him to miss any incidents that might have escaped his immediate attention had he been in a less-exposed position.

He is remembered by his many friends with a deep sense of loss and also with appreciation of the contribution he made not only to the advancement of chemistry but also to the development of the 'Cass'. His sincere care for the well-being and interests of his many students will not be forgotten. A. M. WARD

Mr. W. E. Lawrence

THE death on April 16 of Mr. W. E. Lawrence came as a great shock to his many friends and admirers who have, from time to time, received his help and been regaled with his varied experiences during his forty-three years of service in the Prosectorium of the Zoological Society of London.

William Edward Lawrence was born May 1, 1900, the son of a London milk-roundsman; his mother was Welsh, but "Billy", as he was affectionately known, was himself—both in physical appearance and temperament—a typical Cockney, with his ready wit, quick repartee, irrepressible sense of humour and rich fund of experiences.

Lawrence received an elementary school education at Princess Road School, Regent's Park (1904–14). Here he proved a good scholar, reaching the highest standard. Under the influence of his teacher, a Mr. Dakin, a Zoo addict, Lawrence's interests were early channelled towards animals and he made many visits with his teacher to the neighbouring Zoological Gardens. Apparently it was through Dakin's influence that "Billy" was recommended to the post in the Society's Gardens when, as was customary at that time, he left school at the age of fourteen.

He entered the 'dead house', as it was then called, as prosector's boy and was placed under the direction of the prosector's assistant, Mr. C. H. Hicks, from whom Billy learned dissection, injection and the preparation of skeletal material, albeit employed mainly on menial tasks until Hicks' promotion to superintendent's assistant in 1925, when Lawrence

assumed charge of the technical aspect of the work in the Prosectorium. Apart from a brief interlude of two months in 1916 and two years war service (1917–19), he spent his working life at the Zoo, where he returned in 1920, first for a year as butcher's assistant and thereafter in the Prosectorium, where he remained until retiring on pension on October 1, 1958.

Lawrence's long service was officially recognized by his award in 1953 of the British Empire Medal in the Coronation Honours List, and in 1960 by the conferring of the Zoological Society's Bronze Medal.

One of his most outstanding memories dated from the epidemic in 1926–27 of anthrax in the Zoo's Elephant House. In January 1927, after an autopsy on an elephant, Lawrence developed two small malignant pustules which proved to contain the anthrax bacillus. He was rushed to hospital expecting to be dead in forty-eight hours, but in a few weeks he was back at work, cheerful as ever.

He leaves a widow, son and daughter, to whom the sympathy of his many friends and admirers will be extended in their recent bereavement.

W. C. OSMAN HILL

NEWS and VIEWS

The Queen's Birthday Honours List

THE following names of scientists and others associated with scientific work appear in the Queen's Birthday honours list:

K.C.M.G.: Dr. John C. R. Buchanan, medical adviser to the Secretary of State for the Colonies; Dr. Boris P. Uvarov, lately director, Anti-Locust Research Centre.

Knights: Prof. John F. Baker, professor of mechanical sciences and head of the Department of Engineering, University of Cambridge; Robert R. Blackwood, general manager, Dunlop Rubber Co. (Australia), for services to the University of Melbourne; G. Trenchard Cox, director, Victoria and Albert Museum; Arthur B. Duncan, lately chairman, Nature Conservancy; Prof. Austin Bradford Hill, professor of medical statistics, London School of Hygiene and Tropical Medicine, University of London; Dr. Thomas Malcolm Knox, principal, University of St. Andrews.

C.B.: Dr. R. C. Sutcliffe, chief scientific officer, Meteorological Office, Air Ministry.

C.M.G.: G. C. L. Clark, president of the Australian Institute of Mining and Metallurgy; A. B. Cowen, deputy chairman, Standards Association of Rhodesia and Nyasaland; A. F. MacKenzie, Federal agricultural adviser, West Indies; Dr. J. O. Poynton, director of the Institute of Medical and Veterinary Science, State of South Australia.

C.B.E.: R. E. Beales, deputy director, Central Statistical Office, Cabinet Office; Dr. D. Curran, senior psychiatrist, St. George's Hospital, London; A. K. Briant, director of agriculture, Zanzibar; Dr. W. L. Francis, director (grants and information), Headquarters, Department of Scientific and Industrial Research; Dr. J. W. Gregor, director, Scottish Society for Research in Plant Breeding; Prof. J. E. Harris, professor of zoology, University of Bristol; A. J. Nicholson, formerly chairman, Division of Entomology, Commonwealth Scientific and Industrial Research Organization, Australia; L. F. C. Northcott, principal superintendent, Materials and Explosives Division, Armament Research and Development Establishment, War Office; E. Norton, research director, Yarow and Co., Ltd., Glasgow; J. D. Parsons, director, Royal Ordnance Factories (Explosives), War Office; Dr. W. H. Penley, deputy chief scientific officer, Royal Radar Establishment, Ministry of Aviation; H. W. Springer, registrar, University College of the West Indies; A. B. Taylor, registrar-general, Scotland; G. A. Whipple, chairman and managing director, Hilger and Watts, Ltd.; R. G. McK. Willan, chief

conservator of forests, Nyasaland; Prof. F. C. Williams, professor of electrical engineering, University of Manchester.

I.S.O.: T. W. V. Jones, senior principal scientific officer, Air Ministry (Bracknell, Berks.); A. D. Fraser, director of Wild Life Conservation, Southern Rhodesia; P. Ryan, director of agriculture, State of Victoria; J. H. Griffiths, chief electrical and mechanical engineer, Tanganyika.

Taxonomic Botany at Birmingham:

Prof. J. G. Hawkes

At a time when it is becoming widely acknowledged that there is a shortage of scientifically trained taxonomic botanists, the election of Dr. J. G. Hawkes to a chair of taxonomic botany in the Department of Botany, University of Birmingham, is a noteworthy event. Dr. Hawkes was educated at Cheltenham Grammar School and Christ's College, Cambridge. After initial research training in cytology, he joined an Imperial Agricultural Bureaux expedition to South America as taxonomic botanist, and was appointed afterwards by the Bureaux to work out the taxonomy and cytogenetics of the potato material collected on the expedition. This was the beginning of the work which has made Dr. Hawkes a world authority on *Solanum*, commanding a unique knowledge of the distribution, variation and ecology of the genus in its principal areas in the New World. In addition to leading further expeditions in Central and South America, the last in 1958, he spent two extensive periods in Colombia at the invitation of the Colombian Government organizing a national potato research programme and training groups of specialists in various aspects of breeding and pathology. Since his appointment as lecturer in flowering-plant taxonomy at the University of Birmingham in 1952, Dr. Hawkes has combined his researches on *Solanum* with a study of the Warwickshire flora. Based on new methods of recording distributional data, this may well become a model of its kind. To his chair of taxonomic botany—the first in Britain to bear the name—Dr. Hawkes thus brings the admirable combination of first-hand acquaintance with tropical and temperate floras and the experience gained from the detailed study of a major genus by modern methods.

A Pioneer of Aerology: Prof. Vilho Väisälä

MODERN weather forecasting techniques are largely based on observations derived from radio-sonde soundings. The name of Väisälä is known to all