

by the resemblance between these effects and those of adrenaline. These researches led him, far in advance of his time, to propose the concept of the chemical transmission of nerve impulses, thereby anticipating by nearly a quarter of a century the flood of productive work in this field. His election to the Royal Society in 1913 was a well-merited recognition of his brilliance.

In 1906, Elliott resumed his medical studies and, four short years later, he was appointed physician to University College Hospital, London. There he became closely associated with Thomas Lewis. This was the turning-point. The traditional structure of education in medicine had long been giving cause for concern, and the appointment of a Royal Commission under Lord Haldane to report on university education in London was the occasion for its searching analysis. Among the proposals made was that recommending the creation of whole-time professorial posts in clinical subjects. But the First World War came and delayed its implementation, and Elliott was in France by September 1914. Then followed four years of intensive work in which Elliott became the projection into the battlefield of the medical knowledge and skills which Walter Fletcher, of the old Medical Research Committee, was brilliantly mobilizing at home. As Elliott himself admitted, it was here that he discovered his power for combining science and administration.

The War ended; attention returned to the Haldane Report and Elliott became, inevitably, one of the first whole-time professors of medicine in London. It was expected that this would herald a spate of researches in the clinical field comparable to those that distinguished his early days in physiology. That this did not happen was largely Elliott's conscious decision. He recognized that, if clinical research was to draw level with the experimental biological sciences, then his generation had to sacrifice their personal advancement to developing and organizing the new scientific medicine; and the state of medical progress in Britain to-day is the present memorial to him and his fellows. The advancement of knowledge was his criterion. From the earliest days he was associated with the Medical Research Committee, and he was the only man who has ever served three full terms as a scientific member of its successor, the Medical Research Council. As an indication of the respect in which his judgment was held, it may be mentioned that, young as he was and not a member of the Committee, his advice was asked on the appointment of the first secretary, and it was he who suggested Walter Morley Fletcher.

But in the notices that have appeared since Elliott's death there has been one note common to all—respect for him as a man. Many men have been intelligent, upright and courageous, but in addition Elliott possessed an almost disconcerting ability to detect bias and an indifference to credit that, but for his tolerance, would have made him forbidding. It is no wonder that he remained the trusted counsellor of men with great responsibilities, or that, in need, his was the aid that was sought.

H. P. HIMSWORTH

Rev. J. E. Hull

WITH the death of the Rev. J. E. Hull in October 1960 at the advanced age of ninety-seven we have lost the last of the Rev. O. Pickard-Cambridge's pupils in the study of spiders.

After leaving St. Bede's College, Hull took a degree in mathematics in the University of Durham before returning to St. Bede's as vice-principal in 1890. Later, his work as a clergyman in various North-umberland parishes confined his natural history work mainly to that county.

He shared with Dr. A. R. Jackson and W. Falconer the chief credit for making known the spider fauna of northern England. He described two British spiders new to science, and six of his proposed new genera have survived. He also did extensive work on mites and edited a northern quarterly journal, *The Vasculum*. His last paper was published when he was ninety-two.

W. S. BRISTOWE

Dr. M. F. E. Nicolai

DR. M. F. EMLIE NICOLAI, algologist and biophysicist, director of the Hydrobiological Institute at Hilversum, Holland, died suddenly at her home in Holland on March 13. There can be few people whose passing has brought sorrow to such a wide circle of devoted friends.

Dr. Nicolai was born at The Hague on June 27, 1900 where she received her early education. In 1918 she entered the University of Leyden as a student in biology and in the subsequent years she studied botany, zoology, mineralogy, geology, chemistry and physics. Her doctor's degree was awarded in 1929 on a thesis "On Changes in Permeability in the Root Cells of *Sinapis alba*". She remained associated with Leyden until 1942 first as assistant, and later head assistant, to Prof. J. M. Janse and then, from 1931 onwards, to Prof. L. G. M. Baas Becking. During this time her published work lay in the fields of physiology and ecology, though one of her papers (on chlorophyll multilayers, with Dr. C. Weurman) already indicated her interest in the application of physical principles and methods in biology. Her first serious work in the fields both of algology and in biophysics came during this period when, in 1937, she visited the Eidgenossische Technische Hochschule, Zurich, to work under Prof. Dr. A. Frey-Wyssling on the cell wall structure of *Chaetomorpha*. It was no mere coincidence that at this same time my own interests had turned toward the related genus *Cladophora*, causing us afterwards to work closely together for so many years. In 1942 Dr. Nicolai transferred to the Fibre Research Institute, Delft, under Dr. J. R. H. van Nouhouys, and in 1946 became head of the Biological Department. Though, so far as I know, she never worked with him, she was deeply impressed by Prof. G. van Iterson, jun., and it was largely through his influence that in 1947 she came to England first as my research assistant and then as lecturer at Leeds. This was the beginning of a fruitful collaboration on wall structure in the algae lasting almost ten years, opening up a new field and laying down a foundation of work for many years still to come. It was during this period that she made her name as an algologist. Our collaboration terminated when her loyalty to her country led her in 1957 to accept the position of director of the newly founded Hydrobiological Institute in Holland, though she frequently returned to Leeds.

Dr. Nicolai was a botanist of wide experience and a first-class investigator, and for this alone her death would be a serious loss. But she was much else beside. Warm-hearted and generous and with friendliness overflowing to all, 'Nick's' intuitive

understanding of, and sympathy with, the problems of her associates never allowed her to speak ill of anyone. Though small in stature, she was always dignified. To many of us her calm unruffled manner was a source of constant strength, and we are all the better for having known her. Few women

scientists can have been so well beloved as was 'Nick' by people in so many walks of life. Wherever she went, in Europe or farther afield, in shops or in the rooms of learned societies, she was soon surrounded by her friends.

R. D. PRESTON

NEWS and VIEWS

Royal Society : Foreign Members

THE following have been elected foreign members of the Royal Society: Prof. Olaf Holtedahl, professor emeritus of geology in the University of Oslo and member of the Norwegian Academy of Sciences, Oslo, distinguished for his outstanding contributions to geology, particularly of Norway and the arctic regions; Prof. Solomon Lefschetz, Henry B. Fine professor emeritus of mathematics in Princeton University, Princeton, distinguished for his work in the fields of algebraic geometry and topology; Prof. Elmer Verner McCollum, professor emeritus of biochemistry in Johns Hopkins University, Baltimore, distinguished for his services to the science of nutrition; Academician Aleksandr Nikolaevich Nesmeyanov, president of the Academy of Sciences of the U.S.S.R., Moscow, distinguished for his contributions to organic chemistry, particularly on organo-metallic compounds.

Civil Engineering at University College, London : Prof. A. H. Chilver

DR. A. H. CHILVER, who has been appointed to the Chadwick chair of civil engineering in University College, London, in succession to Emeritus Prof. H. J. Collins, was born in 1926. He was educated at Southend-on-Sea High School for Boys and at the University of Bristol, graduating in 1947. He was awarded the Albert Fry Prize in 1947. After leaving Bristol, Dr. Chilver worked for a year with London Midland Region of British Railways on structural steelwork design. He then returned to the Civil Engineering Department, University of Bristol, in 1948, as a research student. He was appointed assistant lecturer in civil engineering in the University in 1950 and eventually lecturer in 1952. He left Bristol in October 1954 on his appointment as a University demonstrator in the Engineering Department, Cambridge. He was promoted to a University lectureship in 1956 and was elected into a fellowship at Corpus Christi College in January 1958. Dr. Chilver's main fields of research are structural stability and related problems; stability of thin-walled metal structures, stability of complete frames, buckling of shells; structural safety; loads on engineering structures and strength of structural materials. His publications consist of various papers on structural stability published in engineering journals, an elementary text-book on theory of structures written in collaboration with R. J. Ashby and another on strength of materials written in collaboration with J. Case.

Chair of Mechanics at Cambridge :

Prof. D. C. Johnson

PROF. D. C. JOHNSON, professor of mechanical engineering in the University of Leeds, has been appointed to a chair of mechanics in the University of Cambridge. Prof. Johnson was born in 1915.

He was educated at Mill Hill School and was a Minor Scholar at King's College, Cambridge, during 1934-37. He was placed in the first class in the Mechanical Sciences Tripos in 1937, gaining distinction in heat and heat engines. After leaving Cambridge, Johnson worked during 1937-47 for Rolls-Royce, Ltd., Derby. He returned to Cambridge in 1947 as a University demonstrator and was appointed a University lecturer in 1948. He was appointed secretary to the Faculty Board of Engineering in the University and elected into a fellowship at Trinity Hall in 1954, resigning in 1955 to take up the chair of mechanical engineering at Leeds University. Prof. Johnson's main field of research is vibrations, on which subject he has lectured widely and contributed several papers. His latest publication, "The Mechanics of Vibration", was written in collaboration with Prof. R. E. D. Bishop and published by the Cambridge University Press in 1960.

Nature Conservancy Appointments

THE Nature Conservancy has appointed Prof. J. B. Cragg as director from June 1, 1961, of the Merlewood Research Station, Grange-over-Sands, and Dr. K. Mellanby as director from October 1, 1961, of the new Monks' Wood Experimental Station, to be built on a recently acquired site near Huntingdon.

Prof. J. B. Cragg

PROF. CRAGG has had some twenty-five years experience of university work. In addition to his academic duties he has served on a range of major official committees and has visited Israel, West Africa and the Antarctic. He was appointed reader in zoology in the University of Durham (Durham Colleges) in 1946 and then professor in 1950, during which period he has written extensively on problems of conservation and ecology. Prof. Cragg is president of the British Ecological Society and chairman of the Agricultural Research Council's Pest Infestation Research Board. He has also played an active part in the affairs of the Institute of Biology as member of Council, editor and vice-president. The main research at Merlewood, which the Nature Conservancy set up in 1952, concerns the study of woodland ecology, with an emphasis on nutrient cycles. Moor House Field Station, on the Westmorland Pennines near Alston, Cumberland, will also be directed by Prof. Cragg.

Dr. K. Mellanby, C.B.E.

DR. MELLANBY is one of the few senior entomologists with experience in both medical and agricultural entomology. His main interest has been concerned with the reactions of insects to temperature and humidity, a subject on which he has written many papers. He has carried out much research work in Britain and other countries (mainly tropical countries). In 1955, he became head of the Department of Entomology of Rothamsted Experimental Station.