European herbaria; the collection numbers about ten thousand.

His knowledge of books of travel, and of botanical collectors, was outstanding, and he readily gave information to anyone wishing it. Visitors to the Department, particularly those about to make their first botanical expeditions, found in Alston both inspiration and sound practical advice about how, where, and what to collect, and how to preserve and transport their finds. Many friendships were begun in this way which were mutually beneficial.

He was an active collector of British plants, of which he had a wide and critical knowledge. He could have written an interesting and valuable account of the natural history, local manners and customs, and literary associations of his native Lincolnshire, in which he always had a pride.

Usually somewhat reserved in manner, Alston could be very good company, and took obvious pleasure in being with congenial companions. With his knowledge, his culture and his courteousness, everything should have been at his feet; but, strange as it may seem in one who showed no concern about going off on his own in difficult country, he was strangely lacking in ability to deal with some very ordinary affairs and was impatient of any routine matters which inconvenienced him in his studies. I am sure he would have wished to be given authority, but he would have resented having little time for research. To make things more difficult for him, he had several break-downs in health from which, however, he seemed to recover completely.

It is a sad blow to taxonomic botany, both in Britain and abroad, that his death should have occurred when he was botanically in his prime.

JOHN RAMSBOTTOM

Dr. J. M. Nuttall

DR. J. M. NUTTALL, for many years a member of the staff of the Physics Department of the University of Manchester, died on January 28.

John Mitchell Nuttall was born on July 21, 1890, at Todmorden in Yorkshire, and entered the honours physics school at Manchester in 1908. He graduated in 1911 with a first-class degree in a brilliant year which included Sir James Chadwick and the late Prof. H. R. Robinson, sometime vice-chancellor of the University of London. Nuttall was awarded a graduate scholarship and began research with Geiger under the direction of Rutherford, who was then at the height of his powers, and had in his department, in addition to those already mentioned, Andrade, Bohr, Darwin, Fajans, Marsden and Moseley. Nuttall's work with Geiger was very successful and resulted in the discovery of a relationship which later became known as the Geiger-Nuttall Law.

At the outbreak of the First World War, Nuttall joined the Yorks and Lancs Infantry, but later transferred to the Field Survey Battalion of the Royal Engineers. He was promoted to the rank of captain and was twice mentioned in dispatches. In 1920 he returned to Manchester as senior lecturer in physics, and in the following year was made assistant director of the Physics Department under Prof. (now Sir Lawrence) Bragg. Prof. P. M. S. Blackett succeeded Bragg as director of the Physical Laboratories in 1938, and when he left for War Service in 1939 Nuttall took charge and continued to act as head until 1944. He retired in 1955.

Former colleagues and students who remember Nuttall in his prime will recall his nimbleness of mind and his powers as a raconteur. His wit enlivened his lectures.

The academic world has lost a man distinguished for his early work in radioactivity, and one who gave devoted service to the University of Manchester. His many friends will remember his loyalty, integrity, generosity and native Yorkshire wit.

Dr. Nuttall is survived by his wife, who sustained and cheered him during some years of ill-health, and by his son, Dr. Kenneth Nuttall.

G. D. ROCHESTER

NEWS and VIEWS

Zoology at Sheffield : Prof. L. E. Eastham

PROF. L. E. EASTHAM retires at the end of the current academic year from the chair of zoology in the University of Sheffield, which he has held since January 1932. Trained in the Departments of Agriculture and Zoology at the University of Leeds, his first appointment was lecturer in zoology at Birmingham in 1921. In 1927 he went to Cambridge as lecturer in advanced and economic entomology, holding this post until he left for Sheffield. His main zoological interests have always been entomological. His first considerable body of research was on the embryology of the butterfly *Pieris* and the formation of germ-layers in insects. Later, he published an important series of papers on metachronal rhythms and gill-movements in ephemeropterid nymphs, returning quite recently to an elucidation of problems of the feeding mechanism of *Pieris brassicae*. His high standing as an entomologist has been enhanced by his co-authorship of the standard zoological textbook on "The Invertebrata" known to thousands of

students as 'BEPS', a new edition of which appeared earlier this year.

The Department of Zoology at Sheffield has grown greatly during Eastham's tenure of the chair and has long been a notably active as well as a conspicuously happy and friendly part of the University, features very largely due to Eastham's scientific and administrative competence and to his kindly wisdom. These qualities explain both why students of all kinds have constantly sought his help and advice and why he was appointed first holder of the newly instituted pro-vice-chancellorship. After his four years of unsparing service in this office, he has continued to be consulted as an elder statesman, and the University will sadly miss his genial sagacity. Eastham's activities extended far outside his Department and University. Since 1945 he has been a member of the Northern Universities Joint Matriculation Board, serving as chairman during 1949-52 and again during 1955-58. He has also been a member of the Inter-University Council for Higher Education in the