OBITUARIES

Dr. S. Williams

THE death of Dr. Samuel Williams on April 5 at the age of sixty-seven, following a short illness, came only six months after he had left the staff of the Department of Botany, University of Glasgow, for though his official retirement was in 1962 (*Nature*, 194, 728; 1962) he agreed to continue for two further years in view of other changes of staff. He had served for forty-one years as lecturer and senior lecturer in the Department, and for most of this period he played a prominent and very effective part in teaching at all levels and in administration.

Williams attended the University of Manchester, where he gained the bachelor's degree with first-class honours in botany in 1920, and there came under the influence of W. H. Lang and R. S. Adamson. After research leading to the M.Sc. degree, Williams was made assistant lecturer in the Manchester Department in 1921. His appointment in 1923 to Glasgow, where botany was under the aegis of F. O. Bower, was one of a number of exchanges which have occurred between the two Departments. Williams was a most competent morphologist, and was the author of some twenty papers, mostly relating to the morphology and anatomy of ferns and other Pteridophytes. On the basis of these investigations he was awarded the Ph.D. degree by the University of Glasgow and the D.Sc. by Manchester. Among other high qualities his papers are distinguished by excellent line-drawings and photographs—Williams was expert in many branches of photography. He took justifiable pride in his erudite chapter on the experimental morphology of the pteridophytes in Verdoorn's *Manual of Pteridology* (1938), while the investigations which gave him most pleasure included that on the control by auxins of the behaviour of the anglemeristem in *Selaginella* (1937)—work which yielded some of the first evidence of hormone action in the Pteridophyta—and also his very competent study of the first material of the saprophytic liverwort *Cryptothallus mirabilis* to be found in Britain (1950). His excellence as a morphologist is perhaps best illustrated by his paper describing the extremely complex structure of *Isoetes australis* (1943). Williams's first publication (1920, with T. Eden) actually dealt with the ecology of the sand dunes of Flanders, and was based on first-hand observations made towards the end of the First World War, when he served with the Royal Naval Air Service. This interest in ecology remained, and I have pleasant memories of my introduction to the botany of the Lake District at the expert hands of Dr. and Mrs. Williams.

During his earlier years in Glasgow, Williams did valuable work with extra-mural classes, and later assisted for many years in the work of the Scottish Universities Entrance Board, while for a time he was a secretary of Section K (Botany) of the British Association for the Advancement of Science. He devoted much time to collaborating in the preparation of the fourth edition of Brimble's *Intermediate Botany*, and to drafting the morphological sections of *Practical Botany*. He had begun work on a general text-book on plant morphology and planned to complete it during his retirement. That Williams, despite his many excellent qualities and good standing in his subject, did not gain appointment to a senior position elsewhere is doubtless to be attributed in the main to the circumstance that in the period critical for him plant morphology was awaiting new techniques and was a relatively unpopular discipline.

Williams, who was most happily married (to another Manchester botanist), is survived by his widow and a son.

He will be remembered with affection by those who knew him for his sincerity and modesty, his unfailing kindness and generosity.
G. BOND

AFTER graduating from University, it was my good fortune to be appointed lecturer in plant physiology in the University of Glasgow. I arrived there, rather shy and green (a Sassenach up in Scotland), to join an excellent staff under Prof. Montague Drummond ("Montie") (*Nature*, 205, 1262; 1965). The great F. O. Bower had just retired from the chair.

Claude Wardlaw (now professor of botany in the University of Manchester) and F. W. Sansome (now professor of botany in the Ahmadu Bello University, Northern Nigeria) were then my young colleagues. There were others also, such as Dr. Isobel Case, who after forty-one years service is about to retire.

But "Sammy" Williams had been there before all the rest of us, and, with his cunning sense of humour, looked after us. In an intangible way, "Sammy" contributed to the progress of science in general and botany in particular, by guiding us all—he was just that bit older and certainly wiser.
L. J. F. BRIMBLE

Prof. P. S. Hench

PROF. PHILIP SHOWALTER HENCH, a member of the staff of the Mayo Clinic during 1923–57, well known for his work on arthritis, and pioneer in the clinical use of cortisone and joint winner of the Nobel Prize in Physiology and Medicine in 1950 for his work with that hormone, died at Saint Ann's Bay, Jamaica, on March 30.

Dr. Hench was born in Pittsburgh, Pennsylvania, on February 28, 1896, the son of Jacob Bixler Hench and Clara John Showalter Hench. His father, Dr. J. B. Hench, was a classics scholar, a well-known preparatory-school teacher and an educational leader in western Pennsylvania.

Dr. Hench received his preparatory-school education at the Shadyside Academy and at the University School, both of Pittsburgh. He was granted the degree of bachelor of arts from Lafayette College, Easton, Pennsylvania, in 1916, and the degree of doctor of medicine from the University of Pittsburgh in 1920. After a year's internship at Saint Francis Hospital in Pittsburgh he became, in October 1921, a fellow in medicine in the Mayo Graduate School of Medicine of the University of Minnesota. In 1923 he became a first assistant and a member of the staff of the Mayo Clinic. He was appointed an associate in 1925, and in 1926 became a consultant in the Division of Medicine and head of the new Section on Rheumatic Diseases of the Mayo Clinic. In 1953 he became a senior consultant of the Mayo Clinic, and he retired from the Mayo Clinic and Mayo Graduate School of Medicine on July 1, 1957.

Dr. Hench studied abroad during October 1928–May 1929, being chiefly with Dr. Ludwig Aschoff at the University of Friesburg, Germany, and with Friedrich Von Müller at the Ludwig-Maximilians-Universität, Munich.

In the Mayo Graduate School of Medicine, University of Minnesota, at Rochester, Dr. Hench was instructor during 1928–32, assistant professor during 1932–35 and associate professor during 1935–47. From 1947 until 1957 he was a full professor of medicine in the school.

For many years Dr. Hench was one of the leaders in the study of rheumatism in the United States, being one

of the founders of the American Rheumatism Association, of which he was president during 1940-41. He did some early work on the treatment of gout by means of uric-acid diuretic agents, and was the author of almost two hundred papers, chapters in books and other works.

As the culmination of many years of clinical investigations of the treatment of rheumatoid arthritis, Dr. Hench in 1948 introduced into clinical medicine the steroid hormone, cortisone, developed after a long period of laboratory investigation by Dr. Edward C. Kendall, of the Mayo Clinic. The two men had worked together on the problem, one from the clinical point of view and the other from the biochemical and physiological aspects. In 1950 Dr. Hench and Dr. Kendall, with Dr. Tadeus Reichstein, of Basle, Switzerland, were awarded the Nobel Prize in Physiology and Medicine "for their discoveries relating to adrenal cortical hormones, their structure and biological effects".

During 1932-48 Dr. Hench was the chief editor of the American Rheumatism Association's annual *Rheumatism Reviews*, and he had been associate editor of the *Annals of Rheumatic Diseases* (London). He also had been chairman of the American Committee of the Ligue Internationale contre le rhumatisme. He was chairman of the Arthritis and Rheumatism Study Section of the National Institutes of Health, U.S. Public Health Service,

in 1949 and 1950, and was a member of the Advisory Council of the National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, U.S. Public Health Service. He also was titulate to the Central Committee of the Pan-American League against Rheumatism, a member of the Advisory Committee of the U.S. National Research Council and a member of the Medical and Scientific Committee of the Arthritis and Rheumatism Foundation. In 1962 he was appointed a member of the Commission on Drug Safety for advancement of the predictability of the action of new pharmaceuticals in the human being.

He was an honorary member of societies and academies in many countries. His hobbies were tennis, opera, photography and the writings of Sir Arthur Conan Doyle, and he published original investigations on medical history, being considered an authority on the conquest of yellow fever. In 1958 he contributed an essay on "Of Violence at Meiringen", describing the escape of Sherlock Holmes in 1891 from death at the hands of Prof. Moriarty at the Reichenbach Falls, and telling how Hench and others combined to put up a plaque at the site in 1957 to mark the scene of the incident. This essay was printed in the volume, *Exploring Sherlock Holmes*, issued in 1958 by the Norwegian Explorers' Club of Minneapolis.

E. H. RYNEARSON

NEWS and VIEWS

Mechanical Engineering in University College, Swansea: Prof. R. H. Macmillan

PROF. R. H. MACMILLAN has recently resigned his chair of mechanical engineering at the University College of Swansea to become the new director of the Motor Industry Research Association establishment at Lindley near Nuneaton. Prof. Macmillan graduated in mechanical sciences at Cambridge in 1941 and became an engineering officer in the Royal Air Force. At the end of the Second World War he returned to Cambridge and became successively, assistant lecturer and lecturer in the Department of Engineering. In October, 1957, he was appointed to the first chair of mechanical engineering at the University College of Swansea in the University of Wales. One of Prof. Macmillan's major interests has been the theory and practice of automatic control. His interest and knowledge in this field were further stimulated by his secondment to the Massachusetts Institute of Technology where he was able to carry out teaching and research in the field of automatic control. Throughout his stay in Swansea he was concerned with teaching and research in control. In particular he directed his attention to the automatic gearbox used in motor-cars and contributed towards the design of such systems. In this study he determined the relationship between special types of automatic gearboxes and extended the knowledge of gearboxes themselves. This work was particularly fruitful as he was able to combine his interest in automobile automatic control and theory of mechanisms. While at Swansea, Prof. Macmillan helped to plan a large new Department of Engineering and took his full share in the administration of the Department, having been its chairman for three years. His resignation is a great loss to the Department and the College, but his experience should fit him well for his new post at Lindley. Since taking up his new position he has been appointed to the associate professorship in engineering science at the new University of Warwick.

Prof. F. R. Barwell

DR. F. R. BARWELL, formerly director of electrical research, British Railways Board, has been appointed to

succeed Prof. R. H. Macmillan as professor of mechanical engineering in the University College of Swansea as from May 1. Dr. Barwell was born in Bromley, Kent, where he received his secondary education at the County School before beginning his training as a Premium Apprentice in the Chief Mechanical Engineer's Department of the Great Western Railway at Swindon in 1927. In 1939 he left the railways and joined the scientific staff of the National Physical Laboratory, and in 1948 he was appointed head of the Lubrication and Wear Division of the newly formed Mechanical Engineering Research Organization, being responsible for a series of researches ranging from the properties of surfaces to high-speed bearings. In 1958 he returned to the railways on his appointment as electric traction engineer (research) in the Electrical Engineering Department of the British Transport Commission. His early training on the railways covered work in the test house and drawing office at Swindon. Dr. Barwell then studied motive power engineering at the City and Guilds College (Imperial College), during the tenure of a Whitworth Scholarship. He was awarded a Robert Blair fellowship which enabled him to spend a year studying electric and Diesel railway traction in Europe and North America. Dr. Barwell became the first chairman of the newly formed Railway Engineering Group of the Institution of Mechanical Engineers in 1961, and was awarded the George Stephenson Prize for the inaugural lecture. He received the Thomas Hawksley Gold Medal for a paper to the same Institution, entitled "Surface Contact in Theory and Practice". Dr. Barwell was chairman of the Junior Institution of Engineers during their 1963-64 session, and is honorary treasurer of the Whitworth Society.

Electrical Engineering Science in the University of Warwick : Prof. J. L. Douce

DR. J. L. DOUCE, who has been appointed to the chair of electrical engineering science in the University of Warwick, became interested in electronics and control as a final-year physics student at the University of Manchester, where a course of such a nature offered by the