

scopic equipment to the Admiralty, relinquishing the chair at Greenwich to Bernard Parker Haigh. On that change of office he received the honour of knighthood. The advent of the Second World War saw him once again in the front ranks of gyro development.

His interests were, however, not limited to gyros. He contributed papers to many institutions, including the Institute of Naval Architects, on problems of interest to the naval architect, and to the Institution of Mechanical Engineers on steam flow. One of his earliest papers, communicated by Lord Kelvin to the *Proceedings of the Royal Society* in 1893, related to the effects of mechanical stress on electrical resistance, a subject of interest to-day in the design of resistance strain gauges.

Henderson was a teacher as well as a research worker, and his students will always remember him as bringing to Greenwich the Stroud system of units. The origin of the system is obscure, although in a paper to the British Association 1923, he gives credit to Prof. William Stroud, of the University of Leeds. Henderson delighted to introduce his students and colleagues to the virtues of a system which has now become known throughout the Navy, and the pound weight written with a capital (Lb.) and the pound

mass written with lower case (lb.) are now familiar not only to all those who knew Henderson but to those also who have benefited by the foundation laid by him at Greenwich.

Sir James received the honorary degree of doctor of laws from the University of Glasgow in June 1932 on the occasion when he delivered the Commemoration Day Oration on W. J. Macquorn Rankine. He married Miss Annie Margaret Henderson, daughter of the late Joseph Henderson, of Esp Hill, Haydon Bridge, Northumberland, who died some twelve months ago.

F. W. THORNE

WE regret to announce the following deaths:

Mr. A. Abbott, C.B.E., formerly H.M. chief inspector of technical schools, Ministry of Education, on June 19, aged seventy-eight.

Admiral Sir Mostyn Field, K.C.B., F.R.S., during 1904-9 hydrographer of the Navy, on July 3, aged ninety-five.

Mr. V. K. Maitland, C.S.I., chief forestry adviser to the Persian Government and formerly chief conservator of forests, Central Provinces, India, aged fifty-two.

NEWS and VIEWS

Physics at Birmingham:

Prof. M. L. E. Oliphant, F.R.S.

PROF. M. L. E. Oliphant, since 1937 Poynting professor of physics in the University of Birmingham, where he has played a large part in the development of the University's academic structure, leaves this month to direct the School of Physical Sciences at the Australian National University, Canberra. Oliphant went to Birmingham from the Cavendish Laboratory, where his early work with positive ions had demonstrated his remarkable experimental skill, and his later studies of nuclear disintegrations with high-voltage apparatus had shown his aptitude for building and using the large-scale apparatus that was at that time becoming prominent in nuclear physics. The timely generosity of Lord Nuffield enabled Oliphant to build a new research laboratory at Birmingham and to start the construction of a 60-in. cyclotron; but the approach of war turned his energies to centimetre-wave radar, and his laboratory quickly made the outstanding contribution of the cavity magnetron. In 1943 he and several of his colleagues left Birmingham for the United States of America to help in the electromagnetic separation of uranium isotopes. This was a task for which Oliphant's experience and qualities were ideal; in his Cambridge days he had taken the leading part in the electromagnetic separation of lithium isotopes for studies of nuclear disintegration.

Prof. Oliphant was, however, already looking ahead to post-war research, and his was the first of three independent conceptions of the application of frequency-modulation to the cyclotron principle. By the end of the War his plans had crystallized into the proton synchrotron, designed for an energy of more than 1,000 MeV., now under construction in the Nuffield Laboratory at Birmingham. He has created not only equipment of the most bold and advanced design, but also a large and active school of physics by no means limited to nuclear research. Oliphant's

return to the land of his birth after twenty-three years is a loss to British university and scientific life that is fortunately lessened by his strong sense of Commonwealth unity, which, combined with more personal ties, will certainly keep him in close and frequent contact with British science.

Physics at the University College of North Staffordshire:

Dr. F. A. Vick, O.B.E.

DR. F. A. VICK, whose appointment to the chair of physics in the University College of North Staffordshire has already been announced, graduated at Birmingham in 1932 and carried out his first research there under Dr. Martin Johnson on adsorption of gases on solids. In 1936 he was appointed to the staff of University College, London, where he worked on the electrical properties of thin adsorbed layers until 1939, when he was seconded to the Ministry of Supply. During the War he served in the Ministry as assistant director of scientific research in charge of general physics and received the O.B.E. in recognition of his work. In 1944 he accepted an invitation to join the physics staff at the University of Manchester as lecturer and later senior lecturer. In his short period at Manchester, Dr. Vick has made a conspicuous contribution to the activity of the University and to its relations with industrial and professional bodies. He has taken a large share in University administration, served as a member of the board of the Institute of Physics, as chairman of the Manchester Branch of the Institute, and as chairman of the Manchester Federation of Scientific Societies. He has also been a popular president of the Manchester branch of the Association of University Teachers. Under his direction a most active school of research on the fundamental problems of thermionic emission has developed in Manchester, which will form the nucleus of research at his new post. In leaving Manchester, Dr. Vick carries with him the good wishes of all his colleagues in the