

## Prof. W. M. Thornton, O.B.E.

WILLIAM MANDELL THORNTON was born in Liverpool in 1870 and had his schooling at the Liverpool Institute. After eight years of practical work with an engineering firm he entered the University College (now the University) of Liverpool, where he worked under Lodge and Carey and graduated in the honours schools of physics and engineering. He was senior lecturer in engineering in the University of Bristol during 1896-98, lecturer in electrical engineering in Armstrong College (now King's College), Newcastle upon Tyne, from 1898, and was appointed to the chair of electrical engineering when this was inaugurated in 1906. On retiring from the chair in 1937, he was elected professor emeritus of the University of Durham.

Thornton took a lively interest in the work of the Tyneside engineers and was elected chairman of the North Eastern Centre of the Institution of Electrical Engineers for the year 1905-6 and again for 1921-22. He was president of the Association of Mining Electrical Engineers in 1920-21 and president of the Institution of Electrical Engineers in 1934-35. In 1920 he was decorated with the Order of the British Empire, and more recently the Greenwell Gold Medal was conferred upon him by the North of England Institution of Mining and Mechanical Engineers for his researches on gaseous and dust explosions in mines.

An account of Thornton's achievements is an indication of the scope and fervour of his mind; so too are some ninety original papers which he contributed to the scientific and engineering journals. His thought moved naturally in terms of physics and mathematics, but his early training taught him to understand the problems of practising engineers; and his great humanity made him eager for the vigorous growth of applied science. His research on gaseous and dust explosions, the work for which he is perhaps most widely known, had its inspiration in a visit which he paid to a colliery where an explosion had occurred. The damage and injury which he saw made an impression which was never obliterated. He described his feelings recently when speaking of it—"Surely we should be able to prevent this". The work he extended later at the suggestion of the Institution of Electrical Engineers and the Medical Research Council with the object of increasing the safety in operating theatres where ether is used as an anæsthetic.

Thornton also investigated with enthusiasm the problems of high-voltage measurement, the operation and design of electrical machines, the theory of dielectrics and the electrical conductivity of bacteria. During his last illness he looked forward constantly to his return to the laboratory.

It is not surprising that as a teacher Thornton could bring to his students the feeling that new discoveries were always within their reach, and, guided by him, undergraduate and postgraduate investigation flourished. His zest for research and his delight in discovery were at once apparent; you went further and knew that the happiness which he communicated arose from something deeper than an untiring intellectual appetite, and that in him the whole man was happy because grounded upon a confident faith.

In spite of his many preoccupations Thornton was always accessible: always ready to listen and understand. All who knew him were proud to feel them-

selves his friends. "Few, in general estimation, are sincerely praised: few can evoke both wide and deep affection." Of these few Thornton was one.

J. C. PRESCOTT.

## Dr. E. C. Scott Dickson

DR. E. C. SCOTT DICKSON, senior lecturer in physics in the University of Manchester, died at his home in Manchester on April 8.

Younger son of Lord Scott Dickson and nephew (by marriage) of Sir James Dewar, Dickson was born at Edinburgh in 1888. He was educated at Edinburgh Academy and Trinity College, Cambridge, where he took the Natural Sciences Tripos. Later he proceeded to the University of Bonn, and worked under Prof. Kayser for two years, taking a Ph.D. degree for research on the ultra-violet fluorescence of the benzols. In 1913 he was appointed demonstrator in physics in the University of Toronto. During the War of 1914-18 he served in India and in Mesopotamia with a battalion of the Highland Light Infantry.

In 1919 Dickson was appointed to a lectureship in physics in the University of Manchester, and continued his work there under Prof. W. L. Bragg and later Prof. P. M. S. Blackett until his death.

During his earlier years at Manchester, Dickson took part in the research work on crystal structure problems under Bragg. But his chief work in Manchester, for which he will be remembered, was as a physics teacher particularly of elementary students. In recent years he had charge of the physics teaching of medical students, and he organized this with characteristic thoroughness and keenness. He gave much time and thought to their interests and was always on the look-out for new ways of interesting medical students in physics and its applications to medicine. Apart from being an able physicist, Dickson had a very wide range of interests. He was exceptionally keen on music. During his student days in Germany he studied singing seriously with an intimate friend of Brahms. At Manchester he took particular delight in giving a special course of lectures on acoustics to a small group of students preparing for the Mus. Bac. degree. He was interested in all the arts and convinced of the value of classics in education, even for scientific men.

On the routine side of the work of the University, Dickson was a valuable member of the Faculty of Science and of the Faculty of Music. His loss will be particularly keenly felt during the period of reconstruction after the War, when such an experienced and wise university teacher and administrator as was Dickson would have rendered invaluable service.

J. M. NUTTALL.

WE regret to announce the following deaths:

Prof. W. E. H. Berwick, emeritus professor of mathematics in the University College of North Wales, Bangor, on May 13, aged fifty-five.

Mr. H. N. Dixon, the distinguished bryologist, on May 9, aged eighty-three.

Prof. Edward B. Mathews, emeritus professor of mineralogy and petrography at the Johns Hopkins University, on February 4, aged seventy-four.

Lieut. G. B. Wilson, information officer, South African Army, formerly director of the Rhodes-Livingstone Institute of Anthropology, Northern Rhodesia, aged thirty-five.