

## Obituary.

MR. SEDLEY TAYLOR.

THE long life of Mr. Sedley Taylor, who died recently at the age of eighty-five years, nearly all of which were spent in public activities at Cambridge, was in many ways notable. Theology, mathematics, physical science, practical economics, and pre-eminently music, occupied his attention. His withdrawal from active theological pursuits (in 1863 he was ordained to a curacy near Birmingham) was not merely a personal event; it was also linked up with the movement for greater academic freedom at Cambridge. About the same time Henry Sidgwick (1869) and Leslie Stephen (1862) gave up their fellowships. So early as 1862 appeared the first edition of Helmholtz's classical treatise on the sensations of tone. A translation into English, published by A. J. Ellis in 1875, increased its reaction in this country both on the physical theory of sound and on the æsthetic principles of music, which it for the first time brought into detailed, reasoned connection. Its influence was much forwarded by Sedley Taylor's book, "Sound and Music," which appeared in 1873, and was the earliest general exposition in short compass by a writer competent on both sides of the subject. An event which his characteristic energy rendered prominent was his invention of an apparatus which he named the phoneidoscope. It consisted essentially of a resonant cavity, with an aperture over which a soap-film was stretched: when the operator sang to it a note nearly in unison with the cavity, the aerial vibrations revealed themselves visibly in whirling movement of the coloured striations of the liquid film.

In these days perhaps such phenomena, now more fully understood, would be regarded as bearing more closely on the properties of the very remarkable structure exhibited by bubbles, being too complex to reveal direct knowledge of the constitution of sound waves.<sup>1</sup> But Sedley Taylor's enthusiasm was infectious. As a testimony to his zeal in connecting up music with acoustics, and also to the relevant state of things in Cambridge at this period, an extract from Clerk Maxwell's Rede Lecture of 1878 on the telephone (then newly discovered) is worth quoting:—

Helmholtz, by a series of daring strides, has effected a passage for himself over that untrodden wild between acoustics and music—that Serbonian bog where whole armies of scientific musicians and musical men of science have sunk without filling it up.

We may not be able even yet to plant our feet in his tracks and follow him right across—that would require the seven-league boots of the German Colossus; but to help us in Cambridge we have the Board of Musical Studies vindicating for music its ancient place in a liberal education. On the physical side we have Lord Rayleigh laying our foundation deep and strong in "Theory of Sound." On the æsthetic side we have the University Musical Society

doing the practical work, and, in the space between, those conferences of Mr. Sedley Taylor, where the wail of the Siren draws musician and mathematician together down into the depths of their sensational being, and where the gorgeous hues of the Phoneidoscope are seen to seethe and twine and coil like the

"Dragon boughts and elvish emblemings"

on the gates of that city where

"An ye heard a music, like enow

They are building still, seeing the city is built

To music, therefore never built at all

And therefore built for ever."

The special educational value of this combined study of music and acoustics is that, more than almost any other study, it involves a continual appeal to what we must observe for ourselves.

The facts are things which must be felt; they cannot be learned from any description of them.

The economic side of Sedley Taylor's work can be illustrated by a conversation with a younger friend of his who was accustomed to see him in his rooms in Trinity College during his last years of feeble health. The talk turned upon profit-sharing, which was introduced by a question about a French statuette on the mantelpiece. To his surprise the younger man, who had to probe for his information, found that Sedley Taylor had been a pioneer, had even been the inventor of that term, and had written a book on the subject, for which he had been decorated for his services towards industrial co-partnership by the French Government, which was at the time closely interested in such matters.

Sedley Taylor was a pioneer in at least two other directions. One of them was the higher education of women. He promoted the foundation of Girton College, and was afterwards its constant benefactor. Towards the end of his life, in 1911, he received the honour of the freedom of the borough of Cambridge for establishing and endowing the first dental clinic that was founded in England. His musical activities pervaded Cambridge, and are too widespread to be discussed here. His generosity, kindness, and humour endeared him to a wide circle, and in particular to many generations of musical undergraduates. CYRIL ROTHAM.

WE regret to note that the death of MR. ANTHONY GEORGE LYSTER is announced in *Engineering* for March 19 as having taken place on March 17 at sixty-eight years of age. Mr. Anthony Lyster was the second son of Mr. G. F. Lyster, of Liverpool, and father and son between them were responsible for the greater part of the port developments on the Mersey over a period exceeding fifty years. Mr. Lyster was educated at Harrow, and served his pupilage under his father. After holding the position of assistant engineer to the Mersey Dock Board for some time, during which he was responsible for the

<sup>1</sup> The writer is indebted to Sir Joseph Larmor for assistance on this subject.

construction of important new works, he succeeded to the position of acting engineer-in-chief, and became engineer-in-chief in 1898. He resigned this post in 1913, and then became a partner in the firm of Sir J. Wolfe Barry and Partners, but remained consulting engineer to the Mersey Dock Board until the time of his death. Mr. Lyster became a member of the Institution of Civil Engineers in 1882, and was president in 1914. He served as a member of the International Technical Commission for the Suez Canal, and was consulted with regard to improvements of the harbours at New York, Bombay, Port Elizabeth, Shanghai, etc. He was also a member of the Admiralty Committee on Naval Works at Doon and Rosyth, and associate professor of engineering at Liverpool University.

By the death of MR. W. A. E. USSHER, which occurred on March 19, many British geologists will lose an old friend who, whether in his usual mood of breezy optimism, or in a rarer phase of boisterous pessimism, was always good company. Mr. Ussher joined the Geological Survey in 1868 and was engaged in the mapping of various parts of England, but his name will always be associated with the Devonian, Carboniferous, and New Red rocks of Devon, Cornwall, and Somerset, where he spent most of his official career. His principal contributions to the literature of these formations appear in the Memoirs of the Geological Survey, in the Journal of the Geological Society, and in the Transactions of the Devonshire Association. In his study of the West Country rocks it was his constant endeavour to secure correlation with their European equivalents, and thus he was brought into close association with many Continental geologists of note. In 1914 he was awarded the Murchison medal of the Geological Society in recognition of his labours. Mr. Ussher retired from the Survey in 1909; unfortunately, ill-health since then kept him in almost complete retirement.

By the comparatively early death of DR. R. C. MACLAURIN on January 15 last, the United States have lost an accomplished and energetic immigrant. Dr. Maclaurin was born at Lindean, Scotland, in 1870, and in 1897 was placed in the first division of the first class of the advanced part of the Mathematical Tripos. It was an unusually good year, the candidates including Grace and Bromwich. Dr. Maclaurin was also equal for the second Smith's prize. After graduating, he at first turned his attention to law, but before very long became professor of mathematics in the University of New Zealand. This post he left in 1907 to occupy the chair of mathematical physics at Columbia, N.Y., and two years later became president of the Massachusetts Institute of Technology. He published one legal treatise, and two on the theory of light; besides this, he contributed various papers to the Philosophical Transactions and other periodicals.

NO. 2631, VOL. 105]

## Notes.

A LIST of 5604 promotions in and appointments to the Civil Division of the Order of the British Empire "for services in connection with the war" was published on March 30 as a supplement to the *London Gazette*. We notice the following names of men of science and other workers known in scientific circles:—*Knight Grand Cross (G.B.E.)*: Dr. A. E. Shipley, F.R.S., Vice-Chancellor of Cambridge University. *Knights Commanders (K.B.E.)*: Prof. I. Bayley Balfour, F.R.S., University of Edinburgh; Prof. W. H. Bragg, F.R.S., University College, London; Dr. S. F. Harmer, F.R.S., Director of Natural History Departments, and Keeper of Zoology, British Museum; and Dr. J. E. Petavel, F.R.S., Director of the National Physical Laboratory. *Commanders (C.B.E.)*: Prof. H. L. Callendar, F.R.S., Imperial College of Science, London; Dr. C. C. Carpenter, chairman, South Metropolitan Gas Co.; Mr. F. H. Carr, Chief Chemist, Messrs. Boots Pure Drug Stores; Prof. F. G. Donnan, F.R.S., University College, London; Mr. W. P. Elderton; Mr. A. P. M. Fleming; Prof. P. F. Frankland, F.R.S., University of Birmingham; Dr. F. W. Edridge-Green; Prof. W. A. Herdman, F.R.S., University of Liverpool; Prof. J. C. Irvine, F.R.S., University of St. Andrews; Mr. J. G. Lawn; Prof. T. M. Lowry, F.R.S.; Mr. W. Macnab; Dr. R. A. O'Brien, Director, Wellcome Physiological Research Laboratories; Mr. J. E. Sears, National Physical Laboratory; Mr. F. J. Selby, National Physical Laboratory; Dr. T. E. Stanton, F.R.S., National Physical Laboratory; Mr. G. Stubbs, Government Laboratory; Lieut. J. R. F. Wild, member of Sir E. Shackleton's Antarctic Expedition; and Dr. Dawson Williams, editor, *British Medical Journal*.

THE impending retirement of Sir Napier Shaw, who has been the Director of the Meteorological Office since 1905, and as president of the International Meteorological Committee occupies a unique position, marks an epoch in the history of British meteorology. Trained primarily as a physicist, Sir Napier has been able to approach meteorological problems in a scientific spirit. His academic experience brought him into contact with younger men, and by the encouragement he extended to them he raised the level of his subject. As a consequence, there are at the present moment a greater number of men in the British Empire capable of dealing with intricate meteorological problems than in any other part of the world. A heavy responsibility rests on the authorities on whom the duty of nominating Sir Napier's successor falls. When the Meteorological Office was taken over by the Air Ministry last year the change was looked upon with grave misgivings. The near future will show whether the anxiety then felt regarding the wisdom of a step that was taken against the advice of all competent authorities is to be relieved or intensified. It would be an irretrievable calamity if administrative rather than scientific qualifications were to determine the choice. Unless the whole future of British meteorology is to be