

## OBITUARIES

## Sir Frederick Keeble, C.B.E., F.R.S.

FREDERICK WILLIAM KEEBLE, who died on October 19, was a biologist of great versatility who in his time was academic botanist, Civil servant, horticulturist with a flair for garden design, agricultural adviser to industry and, last but not least, a man who was a witty talker and one with marked literary gifts.

Keeble was born on March 2, 1870, and educated at Alleyn's School, Dulwich, and Caius College, Cambridge. After taking a degree in botany, he was appointed Frank Smart Student of the University of Cambridge, and spent a year in Ceylon on plant-physiological research. On his return to England, he became for two years assistant lecturer in botany at Owens College, Manchester. He was then appointed professor of botany at University College, Reading, where he stayed until, in 1914, he was made director of the Wisley Gardens of the Royal Horticultural Society. On the outbreak of war in the year of this appointment, Keeble was drawn away to war-work at the Board of Agriculture, where he became controller of horticulture in the Food Production Department. He did not, however, sever his connexion with Wisley until he became, in 1919, an assistant-secretary to the Board. While in this position, he did a great service to horticultural research, for it was with his support and encouragement that the constitution was drafted which, in 1919, gave East Malling Research Station its position as a separate independent institute.

He was soon, however, to resume academic work, for in 1920 he was appointed Sherardian professor of botany at Oxford. He held the chair for seven years; but after this there came a new phase in his career, for he was invited by Lord Melchett to become adviser in agriculture to Imperial Chemical Industries, Ltd. There his main concern was with the use of fertilizers, and under his direction the Company's experimental and research station at Jealott's Hill, near Bracknell, was developed. He resigned from his position with Imperial Chemical Industries in 1932.

The literary charm with which Keeble could invest a scientific subject was first brought home to his biological colleagues in a little book, published early in his career, entitled "Plant Animals", in which he described the behaviour of the curious animal, *Convoluta roscoffensis*, a heliotropic, chloroplast-bearing flat-worm inhabiting sandy tide-pools on the coast of Brittany. The same literary grace was also shown in the autobiographical "Polly and Freddie", which he published in 1936, and also in his articles in the *Gardeners' Chronicle*—a journal he edited during 1908–19. In addition to scientific memoirs, published mostly in the *Proceedings of the Royal Society*, he was the author of a number of other books—"Practical Plant Physiology", "Life of Plants" and "Fertilisers and Food Production".

Keeble was elected a Fellow of the Royal Society in 1913 and was knighted in 1922. He married in 1898 Matilde Maréchal, who died suddenly in 1915, leaving a daughter. In 1920 he married Lillah McCarthy, and while at Oxford they lived at Hamels, on Boars Hill. This was a place of great attraction, for the house was an old oak tithe-barn from Herefordshire adapted as a residence, and the garden, laid out by Keeble, one of great beauty.

Keeble had a quick mind and was a fluent speaker who could adorn his subject with wit and felicitous phrasing. Though on occasions he barbed his wit with sarcasm, he was essentially warm-hearted, as his friends knew well. For some modern scientific trends, such as mechanism, he had little sympathy. At a dinner held in his honour not long ago, he chose as the subject of his after-dinner speech the thesis, "The future of biology lies with the naturalist".

V. H. BLACKMAN

## Mr. J. A. Howe, O.B.E.

JOHN ALLEN HOWE was born on October 27, 1869, and died in his eighty-fourth year on December 11, leaving a widow and one son. He will be remembered by some of the older generation as the genial custodian of the old Museum of Practical Geology, 28 Jermyn Street, Piccadilly, London. This somewhat gloomy edifice, opened by the Prince Consort in 1851, was built not only to house the Geological Survey and its collections but also as a teaching and research establishment, particularly for natural history, chemistry, mining and metallurgy. These classes ultimately grew into the Royal School of Mines and the Royal College of Science, which were later transferred to South Kensington, where they are now parts of Imperial College. They were followed there by their parent when the new Museum of Practical Geology in Exhibition Road was opened in 1935 to mark the centenary of the Geological Survey.

Howe, previously an assistant in the geological department of the Royal College of Science, joined the Geological Survey in April 1901. He served at first on the field-staff in Cheshire and in the London area, but in September 1902 was chosen to succeed Rudler as curator of the Museum. His early work was concerned with clays, roadstones and building stones; he maintained his interest in these materials almost to the last and was often consulted about them.

He was made assistant director of the Geological Survey, in charge of England and Wales, in October 1920, and continued in that post until his retirement in July 1931. The esteem in which he was held was marked by the award of the O.B.E. for his services to the Ministry of Munitions during the First World War, by the Bolitho Medal of the Royal Geological Society of Cornwall and by the presidency of the Institute of Mining and Metallurgy; he also served on the Council of the Geological Society of London.

Howe was a good companion, who will be missed, alas, by an ever-narrowing circle of friends and acquaintances.

T. EASTWOOD

## Mr. L. O. Newton

MR. L. O. NEWTON, who was honorary secretary of the Institution of Chemical Engineers for seven years, died on October 2 at the age of seventy. He was educated at Tiffins Boys School, Kingston-on-Thames, King's College (University of London) and the Sir John Cass Technical Institute. He served an apprenticeship with the Locomotive Co. of America and in 1902 became assistant works manager to the Locomotive Co. of Great Britain, Ltd. In 1907 he joined Lassen and Hjort, water purification engineers, and in 1912 became manager of Sofnol, Ltd., Greenwich, and from 1921 until his death was managing