

He became Vice-Chairman and Technical Director of Henry Berry & Co., Ltd in 1935. In this capacity he was first concerned with high-pressure hydraulic equipment, railway workshop tools, and chemical plant. After 1939 he was engaged on the development of machines to produce recoil systems for tank and anti-tank guns, and the design of other hydraulic equipment and apparatus in connexion with torpedo and gunnery work. From 1952 until his death he was Joint Managing Director of the firm.

He was elected an Associate Member in 1932, and was transferred to the class of Members in 1936. He was a Member of the Institute of Welding and of the American Society of Mechanical Engineers.

He is survived by his wife, a daughter, and a son.

EDWARD ARTHUR EVANS, B.Sc., who was born in 1886, died in June 1955.

He graduated from the University of Wales, and became Assistant to the County Surveyor (Roads and Bridges) of Caernarvonshire, as well as practising as a Civil Engineer and Surveyor in a private capacity. He deputized as County Surveyor in 1914 and, on the outbreak of war, was mobilized with the Special Reserve of Officers, Royal Engineers. He lost his right leg from wounds sustained in action in October 1914, and was invalided out of the Army in March 1918, with the rank of Captain. In the same year, 1918, he was appointed County Surveyor (Roads, Bridges, and County Buildings) of Montgomeryshire.

In 1926, he was appointed County Surveyor (Roads and Bridges) of Denbighshire, and held that office until 8 August, 1950.

He was elected an Associate Member in 1910. He was also a Fellow of the Royal Institution of Chartered Surveyors, and a Member of the Institution of Municipal and County Engineers.

He is survived by his wife.

SIR RICHARD AUGUSTINE STUDDERT REDMAYNE, K.C.B., M.Sc., who was born at Low Fell, County Durham, on 22 July, 1865, died at his home in Hertfordshire on 27 December, 1955.

He was educated privately and at Durham College of Science, Newcastle-upon-Tyne. In 1883, his lifelong association with mines and mining began with an apprenticeship at the Hetton Collieries, County Durham; after 5 years, he was made under-manager of the Elemore Colliery. In 1891, he undertook the post of general manager of a colliery in Natal, South Africa, and was later employed by the Natal Government to investigate the oil shales of the Drakensberg Mountains. He returned to Great Britain in 1893, and became manager of the Seaton Delaval Collieries, Northumberland.

In 1902, he was chosen to be Professor of Mining at the recently founded University of Birmingham, where the degree of Master of Science was conferred on him. He relinquished the Chair in 1908, when he was appointed H.M. Chief Inspector of Mines. He was the first to hold this office. During his tenure, the Royal Commission of Mines elected him Chairman of the Committee of Experts appointed to investigate accidents in mine shafts, underground haulage, and falls in coal mines; he reported in 1909.

From 1905 to 1908, Sir Richard acted as an Expert Member on the Board of Directors of Collieries, and subsequently he sat on many official Committees concerned with conditions in, and improvements to, mines and quarries, particularly in the interests of safety.

From 1915 to 1916, he was Chairman of the Coal-mining Organization Committee, and from 1916 to 1920, Chief Technical Assistant to the Controller of Coal Mines and Vice-Chairman of the Coal Distribution Committee. He became a member, in 1917, both of the Coal Conservation Committee and of the Fuel Research Board. In 1919, he resigned from the office of Chief Inspector of Mines to devote himself to the work of the Imperial Mineral Resources Bureau, of which he was Chairman and United Kingdom representative until 1925, when the Bureau amalgamated with the Imperial Institute. Sir Richard continued to act as Chairman of the Mineral Bureau until 1935. A year previously he had been appointed Independent Chairman of the National Joint Conciliation Board for Road Motor Transport. He was also engaged, in private practice, as a consulting mining engineer.

Sir Richard was the author of a number of technical books, notably the five volumes of "Modern practice in mining" (1908-32), and he collaborated in the writing of others. He published his autobiography, "Men, Mines, and Memories" in 1942, and was a prolific contributor of Papers to learned societies and institutions.

He was created C.B. in 1912, and two years later, K.C.B. In 1917 he was made a Companion of the Order of St John of Jerusalem, and in 1918 the French Government made him a Chevalier of the Legion of Honour.

Sir Richard, who was elected Member in 1908, became a Member of Council in 1924. He was elected Vice-President in 1931, and was President of the Institution for the Session 1934-35.* He became a member of the Institution of Mining and Metallurgy in 1904, and was elected President in 1916. He was a Fellow of the Geological Society. In 1922 he was elected the first President of the Institution of Professional Civil Servants, and was re-elected annually up to the time of his death. He was an Honorary Member of the Institution of Mining Engineers, and of the Royal Institution of Chartered Surveyors.

Edith Rose Richards, whom he married in 1898, died in 1942. He is survived by one son and two daughters of the marriage.

ALBERT TULIP, M.Sc., who was born on 26 April, 1883, died on 9 November, 1955.

He studied at Durham University from 1902 to 1906. After obtaining his degree of Master of Science, he served as an articled pupil with Thomas Hanning of Newcastle, consulting engineer, and subsequently assisted Colonel J. M. Moncrieff on various dock and river works on the Tyne and the Tees.

In 1910 he became Assistant Engineer with the Port of London Authority under Sir Frederick Palmer and his successor Sir Cyril Kirkpatrick, and remained until 1924, when he was engaged with contractors and consulting engineers on various major engineering works. In 1929 he was appointed Assistant Engineer for Docks, London & North Eastern Railway, at Hull. He succeeded Mr J. A. Wickham as Chief Engineer for Docks, L.N.E.R., in 1930, and held that office until his retirement in 1947.

He was elected Member in 1928.

He was also a Member of the Institution of Mechanical Engineers, and a Fellow of the Geological Society.

He is survived by his wife.

* Presidential Address: Min. Proc. Instn Civ. Engrs, vol. 239, p. 3 (1934-35, Pt 1).