

erection of engines, alternators, and electrical equipment for many power-stations. In 1899 he severed his connexion with Ferranti and became Chief Engineer of the County of London Electric Supply Company. In the same year he set up a consulting practice, in which he was later joined by his brother, Colonel H. C. Sparks, and his son, Captain A. C. Sparks, and carried out much work in connexion with the electricity-supply industry and the erection of industrial power plants for collieries, notably the Powell Duffryn Company, metalliferous mines, and mills in various parts of the world. He was associated with the St. James' and Pall Mall Electric Lighting Co. for many years, and later joined the Boards of the London Associated Electricity Undertakings, and the London Power Company. During the War of 1914-18 he was engaged in important work for the Government. In 1920 he was appointed a Commander of the Order of the British Empire.

Mr. Sparks was elected an Associate Member of The Institution on the 6th March, 1894, and was transferred to the class of Member on the 30th January, 1900. He was President of the Institution of Electrical Engineers in 1915 and 1916, and also served as President of the British Electrical and Allied Industries Research Council and as Vice-President of the British Electrical and Allied Manufacturers Association, whilst in 1937 he was President of the Smeatonian Society.

In 1890 he married, at Rottingdean, Mabel Florence Thacker, and leaves four sons and one daughter.

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EDWARD BROUGH TAYLOR was born in Pimlico on the 4th August, 1856, and died at East Molesey, Surrey, on the 7th February, 1941. He was educated at King's College, London, and received his early engineering training as a pupil with Messrs. James Simpson & Company, of Grosvenor Road, Pimlico, and in the office of his father, Mr. John Taylor, M. Inst. C.E., by whom he was placed in charge of extensive works for the Bristol Waterworks Company. In 1882 he was taken into partnership in the firm of Messrs. John Taylor and Sons, and on his father's death, in 1891, he became senior partner, a position which he retained for 50 years. In addition to his advisory activities for the Bristol Waterworks Company, he designed and carried out extensive works for the Colne Valley, Chatham, Aldershot, and Herne Bay Water Companies, all of which obtained their supplies from the chalk, of which formation he had made a close study, becoming a recognized authority upon it. He also advised numerous other water undertakings in England and Wales, and was frequently retained to give evidence before parliamentary committees. He was one of the principal witnesses in the prolonged arbitration proceedings in connexion with the formation of the Metropolitan Water Board. For many years he advised the Shanghai Waterworks Company,

especially in regard to its extensive pumping-plant, and also visited Newfoundland, Genoa, and Russia in connexion with the augmentation and purification of water-supplies. More recently he designed waterworks for the City of Karachi, India.

Mr. Taylor was elected an Associate Member of The Institution on the 1st February, 1881, and was transferred to the class of Member on the 4th February, 1890. He was also a member of the Institution of Mechanical Engineers and a Fellow of the Geological Society.

In 1880 he married Frances Bishop Hicks, and had two children who died in infancy ; his wife pre-deceased him by 35 years.

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CHARLES HUMPHREY WINGFIELD was born on the 20th May, 1855, at Glatton, Huntingdonshire, and died on the 15th February, 1941, in Edinburgh. He was educated at private schools and at Haileybury College. At the age of 18 he was apprenticed to Messrs. J. and H. Gwynne at the Hammersmith Ironworks, and as a draughtsman he was engaged on exceptionally large centrifugal pumps for the Ferrara reclamation scheme in Italy and on pumping plant for the Hyderabad water-supply. In 1877 he joined Messrs. James Simpson & Company, of Pimlico, and later in that year was engaged in the design of hydraulic machinery with Messrs. Thomas Owens, of Whitefriars. In January 1878 he became an engine draughtsman for Messrs. John I. Thornycroft & Company, and in 1882 was placed in charge of the firm's steam engineering department. In that capacity he was intimately concerned with the design of H.M.S. *Speedy*, the first large vessel in the Navy to be fitted with the Thornycroft water-tube boiler, and was responsible for the design of machinery, engines, boilers, etc., for the torpedo-boats, destroyers, and other craft introduced and manufactured by the firm. He held that position until 1901, when he obtained a similar position with Messrs. Willans and Robinson. Subsequently he commenced to practise as a consulting engineer, specializing in legal work, and acted as an arbitrator in engineering disputes. He represented the British Government on the international jury on steam engines and allied machinery at the Brussels exhibition, and at the Turin exhibition he presided over the international jury on prime movers. He also acted as Secretary of The Institution's committee on tabulating the results of steam-engine and boiler trials from its inception in 1913. During the war of 1914-1918 he was engaged for the Ministry of Munitions on the manufacture of shrapnel shell and on the supply of forgings for the national ordnance factories. He was also Secretary of the committee for the disposal of obsolete components, and equipment officer for the Coventry Ordnance Works and the Austin Motor Company, Ltd. On the conclusion of the war he retired from active practice.