

Presidency, he was later transferred to the State Railways department of India, in which service he remained until his retirement in 1896. He gained a high reputation in the construction of bridges, amongst the more notable structures erected by him being the Empress bridge over the Sutlej,¹ the Muttra bridge across the Jumna, Ferozepur bridge and the Sher Shah bridge over the Chenab. He also devised successful means for training rivers by means of bunds. He carried out a large number of difficult surveys and constructed many miles of railway on the North Western, East Coast, Indus Valley and other systems, but perhaps his most important service to India was the construction, in a remarkably short time, of the line from Ruk to Bolan, giving military access to Kabul. Mr. Bell was for several years Consulting Engineer to Government for State railways.

He was elected a Member of The Institution on the 2nd December, 1879.

OSBERT CHADWICK, C.M.G., son of Sir Edwin Chadwick, was born on the 5th April, 1844, and died in Scotland on the 27th September, 1913. Educated at the Royal Military Academy, Woolwich, he entered the Royal Engineers in 1864, but resigned his commission 10 years later to become a civil engineer. Like his father, he adopted the sanitary branch of the profession, and for many years, as Consulting Engineer to the Colonial Office, he carried out many important sanitary works, chiefly in the Crown Colonies. These included water-supply, sewerage and drainage systems for Grenada, Malta, Hong Kong, Mauritius, Trinidad, Kingston, Jamaica, and many other places. His services were rewarded with a C.M.G. in 1886.

Mr. Chadwick was elected an Associate of The Institution on the 9th January, 1872, was subsequently placed among the Associate Members, and was transferred to the class of Members on the 30th November, 1897.

JOHN COATES, born in 1846, died in London on the 10th February, 1914. Educated at Newcastle-on-Tyne, he received his engineering training at Lord Armstrong's Elswick Works, and was

¹ Minutes of Proceedings Inst. C.E., vol. lxx, p. 242.