

years his strength had been on the wane, and on his return to England in 1889 he was taken ill, and, after more than six months' decline, died on December 14th, 1889, with twelve of his children around him.

He was of a taciturn disposition, though his varied experience made him a mine of information; and his name will be remembered as that of one who was never associated with anything which was not above-board and straightforward—a man of steadfast honesty and integrity. He was elected a member of the Institution on the 20th of May, 1854.

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WILLIAM WILLCOX was born at Areley, Staffordshire, January 18th, 1830, and was educated at Park School, Bewdley. He studied engineering under Mr. Stephen Ballard and Mr. Samuel Willcox (his brother), who carried out important contracts for the late Mr. Brassey. From 1860 to 1863, Mr. William Willcox was engaged on the Melbourne and Castlemaine Railway, in Victoria, and was on his brother's staff in constructing railways in New South Wales. In 1863 he returned to England, and from that time until 1869 was in charge of works for Messrs. Brassey and Ballard, upon the Evesham and Ashchurch Railway and on the London and Bedford portion of the Midland Railway. In 1870 and 1871, Mr. Willcox was District Engineer on the East Hungarian Railway for Messrs. Waring Brothers; and from 1872 to 1874 he was engaged in the survey of the Parana and Matto Grosso Railway, in Brazil. In 1874 Mr. Willcox went out to South Africa, and from that time to 1883 was engaged in carrying out surveys and railway works for the Government of Cape Colony. In 1885 he constructed the section of the Kimberley Line from Orange River to Modder River; on its completion, in consequence of the suspension of railway work in South Africa, Mr. Willcox turned his attention to gold-mining, but he did not meet with the success which he anticipated in his new enterprise, and when railways were recommenced he undertook the surveys in the Free State on the lines from Colesberg to Bloemfontein, and from Harrismith to the Natal border. It was while engaged upon the latter survey that he caught a cold, which he neglected in his anxiety to push on the surveys; pneumonia supervened, and he died at Harrismith, August 14th, 1889.

Mr. Willcox had a good practical knowledge of his profession, and possessed a remarkable faculty in the selection of country,

which proved most valuable to him in his varied Colonial railway experience. He was elected a Member of the Institution on the 4th of March, 1884.

CHARLES FREDERICK VON BIBRA was born in India on the 15th of November, 1844. He began his professional career as a pupil of Mr. J. B. Nelson, under whom he was employed until 1867 on various railway surveys, designs for public buildings in Central India, the Municipal Railway of Calcutta, and other works. He then joined the staff of Messrs. Brassey, Wythes, and Perry, and was employed on the construction of the Chord line, East Indian Railway. Mr. von Bibra's next appointment was that of Superintendent of Drainage and Waterworks at Calcutta, under Messrs. Clarke, Anley, and Smith. While thus occupied he built the Wellington Square reservoir. In 1869 he entered the service of the Eastern Bengal Railway Company, and was employed under Mr. (now Sir) Bradford Leslie, and Mr. Ernest Benedict, in charge of important works of construction and maintenance. In 1870 he left the Eastern Bengal Railway, and entered into partnership with Mr. Thomas Mitchell, of Calcutta, as a contractor, and with that gentleman constructed the Porada Branch connecting the Eastern Bengal Railway with the Northern Bengal State Railways, with locomotive workshops for the latter line. As a contractor he was also concerned in the Darjeeling Himalayan railway-bridges and warehouses for the Eastern Bengal Railway; the Northbrook Memorial Hall, Dacca, and municipal buildings at Calcutta. In 1880 he dissolved partnership with Mr. Mitchell, and joined Mr. Robinson Souttar, as Resident Engineer and Superintendent, for the construction of the Calcutta Tramways. On the completion of the latter undertaking, Mr. von Bibra became an extra Resident Engineer on the East Indian Railway, and was employed on special works till the end of 1887. He then again joined Mr. Mitchell; but failing health compelled him to give up work in 1888, and, growing gradually worse, he died on the 1st of April, 1889.

Mr. von Bibra learnt his business in the school of practical experience, being one of those useful men who, born in India, have a thorough knowledge of the habits, languages, &c., of the natives. Being a gentleman by birth, nature, and education, he was invaluable in dealing with native contractors. He joined the Institution as an Associate Member on the 4th of December, 1883.