

with two other Papers on Mountain Railways, was read early in the present year.¹

In February, 1895, Mr. Collett was appointed Resident Engineer and Manager to the Natal and Nova Cruz Railway in North Brazil, where his active supervision was at once successfully employed. His useful career was however destined to be prematurely cut short: during a season of unusually trying heat he contracted yellow fever, which unhappily proved fatal on the 28th of June. Mr. Collett was elected an Associate Member on the 5th of April, 1881, and was transferred to the class of Member on the 5th of April, 1892.

WILLIAM ALFRED ECKERSLEY, born on the 25th of January, 1856, was the son of Mr. William Eckersley, who for upwards of forty years has been a Member of the Institution. After being educated at Marlborough School and at Pembroke College, Oxford, he served a pupilage to his father from 1874 to 1877, during which period he was engaged in the office and on the construction of a short railway, a timber and iron-pile pier and concrete buildings at Thames Haven. He was then for a time assistant to Mr. James Scott on the construction of the Abbotsbury line, now part of the Great Western system, and from 1879 to 1882 had charge of the construction, first, of river-protection works on the Thames, and, subsequently, of a sea-wall and reclamation works at Trouville-sur-Mer, France.

Between 1882 and 1886, he was on the location and construction of the Jerez-Algeciras Railway as an Assistant Engineer, having for the greater part of two years sole charge of the Gibraltar end. He also reported upon the Algeciras-Ronda-Bobadilla line through the Sierra Nevada. Between 1886 and 1888 he was employed by Messrs. James Livesey and Son to survey and report upon the La Libertad and San Salvador Railway in Central America; he partly surveyed and prepared estimates for the Pontevedra-Carril Railway, a line of 20 miles over mountainous country in Galicia, Spain, for Mr. Edward Woods; and for Messrs. Livesey he inspected and reported on seven of the most important lines in Peru, including the Oroya Railway, and made surveys for a light rail-

¹ Minutes of Proceedings Inst. C.E., vol. cxx. p. 25.

way, *via* San Roque, to Gibraltar. He then acted in Westminster for Messrs. Livesey as engineer in charge of general work.

From 1889 to 1892 Mr. Eckersley had sole charge for Messrs. Read and Campbell of the survey and construction of the Mexican Southern Railway, a line of 230 miles, on which are seven tunnels, important river-bridges and some heavy mountain work. In addition to that, in 1890 he reported upon and prepared an estimate for the San Luis Potosi Waterworks and made plans for the drainage of Puebla, for a pier at Salina Cruz, and for markets, drainage and waterworks for several towns in Mexico. In 1893 and 1894 Mr. Eckersley was in charge, for Messrs. Livesey, Son and Henderson, of a survey of 260 miles of railway in Mashonaland from the Anglo-Portuguese frontier to Fort Salisbury. During that period he also reported upon and prepared plans and estimates for water-supply and tramways at Fort Salisbury, tramways at Beira and other works in South East Africa. In the autumn of 1894 he proceeded to San Salvador, Central America, to take up an appointment on the Ferro Carril de Santa Ana. He had in connection with this engagement to survey the projected extensions between a station on the Santa Ana Railway, in course of construction, and San Salvador, the capital. His employers, the Central American Public Works Company, of London, took over that line from the Government of the Republic and placed Mr. Eckersley in charge, and through his efficient organization and management the earnings were increased beyond the greatest hopes of the Company. It was during the discharge of these duties that he was struck down by yellow fever and died at Santa Ana on the 23rd of April, 1895, in the fortieth year of his age.

Mr. Eckersley had already displayed great ability as an engineer, while his high character and genial disposition obtained for him universal esteem and respect. He was elected an Associate Member on the 1st of May, 1888, and was transferred to the class of Member on the 16th of October, 1894.

ALFRED GILES, son of Francis Giles, a well-known engineer and a Member of Council of the Institution, was born in London in 1816. He was educated at Charterhouse, and after leaving that school studied with a private tutor, with the intention of going to Cambridge. In early life he desired to become a sculptor