

JAMES HENDERSON, born in Aberdeen in 1821, a descendant of Hendersons of Hallyards, Perthshire, was the son of the late Lieutenant-Colonel George Henderson, Royal Engineers. His father, as well as his uncle, Admiral Robert Henderson, served with distinction, the former under Wellington, the latter under Nelson. The subject of this notice began his professional career at an early age as a pupil under the late Mr. Edward Dixon, Resident Engineer on the London division of the London and South Western Railway. In 1839 he became himself Resident Engineer on a portion of the line, under the direction of Mr. Joseph Locke, Past-President. Later in that year he proceeded with a party of Royal Engineers under Captain (subsequently General) E. C. Frome, to South Australia, where he was engaged in extensive surveys, notably of Lake Alexandrina and the north-west bend of the River Murray, in the course of which he endured considerable hardship and privation. In 1841 he was transferred to the Department of Public Works, and ten years later, on the death of his elder brother, he returned to England with his wife and two sons. He had in the meantime married a daughter of the late Mr. C. B. Newenham, High Sheriff of South Australia.

His father's large interest in Cornish mines induced Mr. Henderson to settle in Truro as a Mining Engineer and Surveyor. Fresh from the healthy surroundings of his life in Australia, he brought to his new work a fund of vigour and vitality which carried him through the dangers and discomforts of the early mining days, when Government Mine Inspectors were unknown and little or no care was paid to the preservation of life or limb. With a powerful physique and robust health, Mr. Henderson carried on his arduous life beyond the usual limits. Seventy years and more still found him as keen as ever, going through a long day's work underground, climbing ladders and breathing vitiated air with impunity. In the evening he would be found working out his trigonometrical observations, and the next day plotting and draughting his work, with hand and eye as steady as in the early Australian days.

In November, 1902, Mr. Henderson was honoured by the City Council of Truro (though not a member of the Council himself) with the invitation to accept the office of Mayor, in view of the approaching dedication of the nave of the cathedral, and entered on his new and unaccustomed duties with energy and vigour. He died at his residence, Dalvenie, Truro, on the 13th April, 1903, in his eighty-second year.

At the International Exhibition of 1862 Mr. Henderson was awarded a bronze medal for mining plans. In 1868 he received the bronze medal of the Royal Cornwall Polytechnic Society for a plan of the Botallack Mine, and a silver medal in 1869 for an improved dial, while in later years he was the inventor of the surveying instrument known as "Henderson's rapid traverser," which is much used in the dense forests of West Africa. As a Captain of Volunteers, he devoted himself with great energy to military duties, and was well known as a marksman. He organised the Truro Volunteer Fire Brigade, and commanded it for twelve years.

Mr. Henderson was elected an Associate of the Institution on the 6th February, 1855, and was transferred to the class of Members on the 27th November, 1877. In 1858 he was awarded a Telford Medal for a Paper on "The methods generally adopted in Cornwall in Dressing Tin and Copper Ores."¹

WILLIAM BOURNE LEWIS, second son of Mr. Alderman Lewis, J.P., of Worcester, was born in that city on the 13th January, 1831, and was educated at home and at private schools. He was articled in 1848 to his father's friend, the late Mr. Richard Varden, who, under Brunel, was engineer for the Oxford, Worcester and Wolverhampton Railway. He was afforded rare advantages in his pupilage, as the plans for some 93 miles of railway, through a somewhat difficult country, were prepared in Mr. Varden's office from designs supplied by Brunel. He was stationed for nearly twelve months at the Mickleton Tunnel and acquired early a practical knowledge of materials and methods of construction. Under Mr. Varden's advice, he accepted a post in Brunel's office under Mr. Fisher, who had charge of the preparation of the specifications of works for which Brunel was responsible, from which he obtained most useful information.

Amongst the various subjects for which, under Brunel's instructions, Mr. Lewis had to draw up specifications, may be mentioned the Crystal Palace water-towers, the locomotive power on the South Devon Railway, the Saltash bridge, a timber slipway for launching the "Great Eastern," the South Wales Railway, the

¹ Minutes of Proceedings Inst. C.E., vol. xvii. p. 195.