

partially invested in landed estates, and which, apart from a few legacies, he has divided equally between his children, directing that the whole may be kept intact for twenty years from his decease.

Mr. West was elected a Member of the Institution of Civil Engineers on the 12th of February, 1839. He remained a thorough Cornishman throughout his life, proud of his native county and proud of his origin, and of his having made his own way in the world. He was straightforward in all his doings, plain and downright in speech, but with a kindly heart—always ready to do a good turn to those who needed it. He interested himself in the various county institutions and societies, and had a vein of native humour which made his company most enjoyable. He possessed a fund of quaint stories and reminiscences upon which he was never weary of drawing, and which were all the more valuable because in him passed away the last link between Cornwall of the days of Watt and Trevithick, and Cornwall of the present—the last of a school of mining engineers that made the old county famous.

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MR. FRANCIS DAWSON was for some time a student in the Applied Sciences Department, King's College, London. In 1852 he entered the office of Mr. W. H. Barlow, President Inst. C.E., as a pupil, and afterwards went to the Crimea in the Army Works Corps, where he was engaged on the telegraph staff. On his returning he continued his articles with Mr. Barlow, and for a short while acted as the assistant of Mr. T. F. Chappé, M. Inst. C.E., on the Gloucester and Stonehouse railway. In the autumn of 1858 he obtained the appointment of "Assistant Engineer," Jamaica; in 1861 he was promoted to be "County Engineer," and in 1868 to be "Deputy Director of Roads." In these several capacities he was engaged in the construction of new roads, improving the communications throughout the island, and in the erection of government buildings. In several cases he exercised much engineering skill in spanning rivers. One of the works he designed and successfully carried out was the Victoria Market, Kingston. He organised and introduced a better means of extinguishing fires, which are frequent and destructive in Jamaica, and formed a fire brigade for that purpose. He was remarkable for an originality of character and inventive talent which attracted

those with whom he came in contact. He entered into the work he had in hand with a singular thoroughness of character, and exhibited a command of resources and indefatigable industry and interest in his duties. He came to England at the end of 1878 for change and rest; but on his return to Jamaica, early in 1879, he died suddenly. Mr. Dawson was elected an Associate of the Institution on the 7th of March, 1871.

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MR. JOHN HANVEY, a native of Dublin, was an Irishman in the best sense of the word, possessed of shrewdness of character combined with urbanity of temperament and disposition. From his earliest years he showed an aptitude for scientific and mechanical pursuits, and became a proficient in mathematics at one of the best private schools in Dublin. When almost a boy he obtained employment on railways in Ireland under Mr. W. McCormick, and often encountered strange adventures in the pursuit of his calling as Manager of Works. He afterwards served on the Liverpool and Bury railway, and as Manager of Works to Messrs. Williams, Ackroyd and Co. He spent some time at Penrith in Cumberland, and for several years was engaged on the Birkenhead Dock Extension Works. From thence he went to Gloucester as the City Surveyor, where he formed a reservoir embankment outside the city boundary; and in 1861 he was elected, out of sixty candidates, Borough Surveyor of Dover. Here his labours were many and varied; the construction of an additional reservoir at the waterworks, the improvement of the borough prison, the original East Cliff revetment, the extension of the main drainage, and the laying out of the Maison Dieu estate came under his direction. He designed and carried out a scheme for separating the upper and lower services of supply from the waterworks, and inaugurated a system of water inspection that effected considerable economy. Later he designed and executed a comprehensive scheme for separating the surface water from the sewers, and shortly before his death completed the East Cliff sea-defences. Mr. Hanvey was one of the earliest advocates of the Rifle Volunteer movement, and for many years was connected with the Dover corps, from which he ultimately retired with the rank of captain. Mr. Hanvey was elected an Associate of the Institution of Civil Engineers on the 3rd of December, 1850, and during the discussion of a Paper on "The Brighton Intercepting and Outfall