

the 3rd of April, 1860. He constructed the road bridges across the Thames at Pangbourne, Walton, and Hampton Court, and continued in the exercise of his profession till 1864, when he retired into private life. He took up his residence in Ireland on his father's death in 1871. His own death was caused by a fall from his horse at Bray, Co. Wicklow, on the 27th of September, 1882.

---

JOHN PATON was the only son of Mr. James Paton, of Dumfries, and was educated at the Universities of Glasgow and Edinburgh. He served an apprenticeship of seven years under Mr. John Wilson, Assoc. Inst. C.E., an extensive iron and coal master at Dandyvan, and was then for eight years colliery agent, and furnace and forge and mill manager, and ultimately general manager of the Silverdale and Biddulph Valley Works, near Stoke-upon-Trent. Leaving this, he, for two and a half years, held the position of consulting manager of the iron department of Sir John Brown and Co.'s works, Sheffield. In February, 1863, he became general manager and engineer to the Blaenavon Iron and Coal Company. Through his instrumentality the town of Blaenavon was greatly enlarged and its resources developed, and the works under his management were much improved. It was through him that one of the largest furnaces in South Wales was constructed at Blaenavon. On retiring, in 1874, he went to live at Pontypool, where he died suddenly of apoplexy on the 30th of June, 1883. Mr. Paton was elected a Member of the Institution on the 7th of April, 1868.

---

THOMAS ROBERT WINDER was born at Gate-beck, Westmoreland, in 1817, and was educated successively at Prestonpatrick and Kirkland. He served an apprenticeship of five years, 1834-39, in the works of Messrs. Thomas Winder and Co., at Low Mill, Westmoreland, principally occupied in the application of water as a motive power, and partly under Mr. Perry, when surveying the country between Lancaster and Carlisle for railway promotion, and in the construction of a section of the Lancaster and Preston Railway, after which he assisted in laying out the railway through Wakefield. He next for many years had responsible charge for the contractors of the execution of extensive works on portions of the Great Western Railway in 1839-43; the Eastern Counties in

1843-45; the Southampton and Dorchester in 1845-47; the East Anglian and the North London Railways, and the Plymouth Great Western Dock in 1847-50; the Wolverhampton Railway in 1850-52; the entrance to the West India Docks in 1852-53; a railway bridge over the Medway, and a quay at Rochester, in 1854-56; and the Admiralty Pier Works at Dover in 1856-59. He was also employed, in 1853-54, as Engineer, in conjunction with Sir John Rennie, to the Netherlands Land Reclamation Co., and at a later date as Engineer for Rye Harbour. Subsequently he was engaged in making surveys and estimates in Malta, Sicily, Holland, and Cornwall. Here he carried out, from his own designs, the Harbour and Dock Works at the port of Pentewan. At the time of his death, on the 11th of October, 1882, he had been Resident Engineer for eight years, under Mr. J. Fowler, Past-President Inst. C.E., and the late Mr. R. J. Ward, M. Inst. C.E., on the Rosslare Harbour Works, and the Waterford and Wexford Railway, the latter of which was just completed. Mr. Winder was a man of mature experience, upright, and conscientious, and always took great pains to explain in detail to those by whom he was employed everything relating to the work under his charge, and he combined with a thorough knowledge of his profession as a Civil Engineer, the very valuable qualification of keeping clear accounts.

---

RICHARD FRANCIS ALFORD, the eldest son of Mr. Richard Alford, F.R.C.S., was born on the 8th of May, 1849, at Tewkesbury, in Gloucestershire. He was educated first at the Engineering College, Chester, and then became a pupil of Mr. E. Slaughter, M. Inst. C.E., from October 1865 to May 1870, at the Avonside Engine Works, Bristol, partly in the shops and partly in the drawing-office. He remained with Mr. Slaughter some time after his pupilage was over; but, his health failing, he took a voyage to the West Indies. After his return he was engaged on various works, from May 1871 till the end of 1872; and in January 1873 he was again employed at the Avonside works, on some Fell engines for New Zealand, on Fairlie engines, and various other works. From November 1878 until his death he was in the office of Messrs. Hemans, Falkiner, and Tancred, at Westminster.

He was elected an Associate-Member of the Institution on the 6th of April, 1880. Mr. Alford had been delicate from infancy, and at the age of eighteen had an attack of pleurisy, from the