

Commissioners of Sewers on the 23rd of October, 1854.¹ In 1850 Mr. Roe was appointed to carry out the drainage of Windsor. His advice was also obtained for the drainage of Eton, Eton College, Derby, Beaconsfield, Reading, Harrow-on-the-Hill, and other places. In the drainage of Harrow the outfall pipe was 18 inches in diameter only.

Mr. Roe was elected an Associate of the Institution on the 1st of February, 1842, and on the 19th of the same month contributed a Paper "On the Causes of Accumulation of Deposit in Sewers,"² in which the usual mode of removing that deposit was alluded to, and a description was given of a flushing apparatus for cleansing sewers. He died on the 15th of March, 1874, aged seventy-nine years.

GENERAL SIR JOHN MARK FREDERIC SMITH,³ K.H., R.E., F.R.S., the son of the late Major-General Sir J. F. Sigismund Smith, K.C.H., R.A., and grand-nephew of Field Marshal Baron Von Kalkreicht, Commander-in-Chief of the Prussian Army, was born at the Manor House, Paddington (then the only house there), on the 11th of January, 1790. He entered the Army as second lieutenant of the Royal Engineers, on the 11th of December, 1805; and, after passing through the various grades, finally became General on the 3rd of August, 1863, and was the senior Colonel Commandant of the corps of Royal Engineers. He thus held commissions from four sovereigns. He served in Sicily from 1807-12. In 1809 he was at the siege of Ischia and the capture of that island, and of Procida, in the Bay of Naples. He was also at the capture of Zante and Cephalonia. In 1810, in the action before the investment of the fortress of Santa Maura, he was deputy assistant-quartermaster-general, and at the siege and capture of the fortress he served as an officer of Royal Engineers. He was Inspector-General of Railways till November 1841; and in that capacity he examined and reported on the London and Birmingham, and the other principal railways before they were opened to the public; besides being on several occasions a Royal Commissioner on railways, harbours, &c. In 1845 he was Chairman of the Commission to Inquire into the Gauge of Railways, and, in 1846, one of the Commissioners appointed to investigate the various projects for establishing

¹ A copy of this Report is preserved in the Library of the Institution. [Tract, Svo., vol. 108.]

² *Vide* Minutes of Proceedings Inst. C.E., vol. ii. (1842), p. 132.

³ The substance of this notice is taken from the "United Service Gazette."—ED.

railway termini within or in the immediate vicinity of the metropolis. In 1841 he made a report, in conjunction with the late Professor Barlow, to the Lords of the Treasury, respecting railway communication between London, Edinburgh, and Glasgow. He was the commanding Engineer of the London district in 1830-1, during which period he made frequent reports for the information of his late Majesty William IV.; he commanded the Royal Engineers at Portsmouth in 1851, and afterwards at Chatham and Aldershot. He was M.P. for Chatham, in the Conservative interest, from 1852-3, and again from 1857-65; was the author of a translation of Marshal Marmont's work on the "Turkish Empire," with military and political notes; and was appointed, in March 1834, Gentleman Usher of the Privy Chamber, which office he held to the time of his death. He was widely known and greatly respected, having been in the Army just sixty-nine years, and connected with the Court for more than forty years.

Sir Frederic Smith was elected an Associate of the Institution of Civil Engineers on the 23rd of February, 1841. He died on the 20th of November, 1874, at his residence in Pembridge Villas, Notting Hill, and was buried at the Kensal Green Cemetery.

MR. WILLIAM WOODCOCK was born in the year 1814, at Hinckley, Leicestershire, and was educated near his native town, where his father was a manufacturing hosier. Upon leaving school he assisted in the business until his father's death, after which he remained in partnership with his brother until the year 1848, when he came to London and turned his attention to brewing. During the time he was so occupied, owing to the "Smoke Nuisance" Act, his thoughts were directed to the question of the consumption of smoke, and to the best method of setting steam boilers. Subsequently he invented a method for effecting the former object in steam-boiler furnaces, and he devoted his whole energies for some years to matters connected therewith. Whilst so engaged he was introduced to Mr. (afterwards Sir Goldsworthy) Gurney, and, in conjunction with him, brought out the Gurney stove. Mr. Woodcock then became the Managing Director of the London Warming and Ventilating Company, a company which has proved in every way a success, and has supplied warming apparatus to the principal cathedrals in England, including St. Paul's. In the year 1870 Mr. Woodcock made arrangements to purchase the business of the company from the shareholders, which at the time of his death, at Brixton on the 15th