

the joints of those parts of the engines supposed to fit closely. Mr. Potts was much liked by the men, and more especially by the drawing-office apprentices to whom he had always something pleasant to remark. In those days locomotive-engines were in great demand, at large profits, and Messrs. Jones and Potts were turning them out at the rate of about one engine a week. A strike, which lasted a considerable time, caused the firm great anxiety, but owing to the confidence that Mr. Brassey, Mr. Locke, and others had in the two partners, they did not suffer so much as might have been expected. Some of the men eventually gave in, but many of the best mechanics did not, and in many cases their places had to be filled up by indifferent workmen who were by no means efficient substitutes. Notwithstanding this, Messrs. Jones and Potts turned out some excellent work; the quality of the work in their engine the "Newton" was not surpassed by that of any other firm of the day. In 1852, offers were made by the London and North Western Railway Co. for the purchase of the Viaduct Works (without the machinery), and that company ultimately acquired the property, when Mr. Potts retired from business with an ample fortune. Thereafter, until his death on the 4th of April, 1888, Mr. Potts lived at Hoole Hall, Cheshire, and amused himself in horticultural pursuits, growing orchids, &c.; he also had a love for Alpine plants, and had collected a good many; he was much esteemed by his friends and neighbours for his frank and simple manner, his warm-hearted generosity, and the liberal views he took of his responsibilities as a county gentleman and Justice of the Peace.

Mr. Potts was elected a Member of the Institution on the 6th of December, 1870.

FRANK SALTER, younger son of the late Rev. W. A. Salter, of Amersham and Leamington, was born on the 19th of October, 1848. He was educated at Amersham and University College, London, where he gained the Andrews Entrance Exhibition (£25) for mathematics, and eventually graduated as Bachelor of Science, London, in 1868.

His apprenticeship was served in the workshops of the London and North Western Railway Company, at Crewe, from 1868 to 1870, and in 1871 (the second year of the Whitworth scholarship), he competed in the workman's competition in which he was successful. After this he had experience of the Newcastle engineering strike in 1871, being then with Messrs. Clark,

Watson and Gurney, followed by a short stay with Messrs. Gwynne, of Hammersmith. From 1874 until 1881, he was manager of Messrs. Bryan, Donkin and Company's works at Bermondsey, and on the reconstruction of that firm, he became one of the partners, acting as managing partner in the works, until the failure of his health in the autumn of 1887. With the exception of a short time in the summer of 1888, he was unable to resume work, and his illness terminated fatally on the 31st of December, 1888.

As a Student of the Institution, he contributed a paper on "Economy in the Use of Steam," for which he was awarded a Miller prize; this Paper was afterwards rewritten, enlarged and published by Messrs. Spon, under the above title. He was elected an Associate on the 12th of January, 1875, and transferred to Member on the 3rd of May, 1887. In conjunction with Mr. B. Donkin, jun., he communicated a Paper to the Institution, on some trials of a Rotative Pumping-Engine, and more recently a Paper on the Measurement of Water over Weirs, both of which were published in the Minutes of Proceedings.¹

An extensive series of experiments on the small steam-engine now in the engineering laboratory of University College, London, was made by Mr. Salter, together with the late Mr. B. W. Farey, and Mr. B. Donkin, jun., in the years 1874-1881, the results of which were published in "Engineering" in November and December 1886.

The genial, thoughtful and hardworking character of Mr. Salter, with his kind and quiet disposition, gained him many friends in the works, as well as in the offices. A special feature of his character was a keen sense of honour, appreciated by all those with whom he came into contact in business. As an employer he was much respected, and his early death was greatly regretted, not only by his partners, but by all those under him.

BERNHARD SCHMIDT was born on the 13th of April 1828, at Prenzlau in Prussia. His father was Pastor of the Parish of S. Nicolaus in that town, his mother Adelaide von Raven, a daughter of Baron von Raven of the Uckermark.

Of six children Bernhard was the eldest son. He received his early education at the gymnasium of his native town. He was being carefully prepared for the University when the death of his father at the early age of 41, necessitated a change of plans, and he was removed to the Polytechnic School of Potsdam, to receive a

¹ Minutes of Proceedings Inst. C.E., vol. lxvi. p. 278; vol. lxxxiii. p. 377.