

Bo'ness, and Cardiff Docks, and for the North British Railway Company.

Leaving Edinburgh, in 1880, Mr. Williams started practice in Westminster as a consulting engineer, and soon succeeded in securing an extensive connection. His work consisted mainly in designing hydraulic and steam machinery, steam-tugs, barges, &c. He invented an hydraulic capstan and a steam reversing engine which were considerably used, and he fitted refrigerating plant into barges on the river. He was consulting engineer to the London and Tilbury Lighterage Company, Messrs. Wm. Cory & Son, and other important companies. For Messrs. Cory & Son he designed, in conjunction with Mr. Henry Adams, a crane of an entirely new pattern, which was erected on their derricks for loading barges on the outside of the vessel being discharged. He assisted Messrs. Hunter and English in the design of hydraulic machinery, and designed auxiliary engines for the steamers of the Pacific Steam Navigation Company, the London and North Western Railway Company, the City of Dublin Steam-Packet Company, and the East and West India Docks Company.

Mr. Williams died in Edinburgh on the 28th August, 1898, at the age of 50. He was elected an Associate Member on the 19th May, 1885, and was transferred to the class of Members on the 8th March, 1887. He was also a Member of the Institution of Mechanical Engineers.

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JOSEPH WILLIAM WILSON, son of the Rev. William Wilson, D.D., Vicar of Walthamstow, Essex, and later Vicar of Over Worton, Oxfordshire, was born on the 11th October, 1829. He was originally destined for the Church, and was entered with that intention at Wadham College, Oxford. However, as a lad, he had evinced a strong inclination towards engineering, and his father was persuaded to place him as a pupil under his cousin, Mr. (afterwards Sir) Charles Fox, of the firm of Fox & Henderson, Birmingham. At the expiration of his pupilage Mr. Wilson acted for them as an Assistant Engineer on the construction of the Exhibition Building of 1851, having charge of the machinery employed in the preparation of the large quantity of timber required for the structure. He introduced several important improvements in those machines.

After this, Mr. Wilson, in partnership with his brother-in-law,

Mr. S. H. F. Cox, erected and opened at Birmingham the Oldbury Engineering Works, where from 300 to 400 men were employed in turning out important pumping and other engines and machinery, including large quantities of stamps and other apparatus for use in the Californian gold-fields. After a few years his health temporarily gave way, and he retired from the Oldbury Works and established himself at Banbury, where, as consulting engineer to the timber works there, he had further scope for the exercise of his inventive genius, and in 1855 he patented the well-known circular gouge and disk-paring tools for timber machinery, for which he received, from the hands of the Prince Consort, the Medal of the Society of Arts.

In 1857 Mr. Wilson came to London and commenced to practise as a consulting engineer, carrying out, latterly in conjunction with his eldest son, various pier, water and other works at Starcross, Hampton, Hunstanton, Teignmouth, Shoreham, the Isle of Wight, High Wycombe, Westward Ho and other places.

Mr. Wilson had always taken special interest in the mechanical as well as in the theoretical training of his pupils, having pattern and fitting shops attached to his offices in Westminster, and in 1872, in order to further develop this idea, he persuaded the Directors of the Crystal Palace Company, to inaugurate their School of Practical Engineering. There he and his sons devoted themselves to providing for students a personal training in the combined theory and practice of the earlier stages of their professional career. Mr. Wilson possessed in a high degree the faculty of winning the affection of his pupils as well as of imparting to them his varied professional experience; and he lived to see many of them rise to important positions in the engineering world.

After occupying for twenty-six years the position of Principal of the Crystal Palace Engineering School, Mr. Wilson contracted a chill in Scotland in August last, from the effects of which he gradually grew weaker, and finally passed peacefully away at his residence at Kenley, Surrey, on the 5th November, 1898, in the 70th year of his age. Mr. Wilson was elected an Associate of the Institution on the 2nd February, 1869, and was transferred to the class of Members on the 14th January, 1879. He was also a Member of the Institution of Mechanical Engineers, a Fellow of the Royal Colonial Institute, and a Vice-President of the Junior Engineering Society.