

esteem which he won from all was due to the influence of his personal character and to his generous and considerate disposition.

Mr. Purser was elected a Member of The Institution on the 7th February, 1860.

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ARTHUR HENRY WHIPHAM, born at Chiswick on the 30th April, 1843, was the younger son of the late Mr. Thomas Henry Whipham, of Lincoln's Inn Fields, Barrister-at-Law. Educated at East Sheen and at King's College, London, he spent one year with the late Mr. James Cudworth at the Ashford works of the South Eastern Railway, and served a pupilage of 3 years, from 1864 to 1867, to the late Mr. William Cudworth, of the North Eastern Railway, Darlington. Subsequently he joined the staff of the latter company as Resident Engineer on the dock extension works at Middlesbrough.

In 1874 he left the company's service to take up the appointment of Engineer to the Owners of the Middlesbrough Estate, and, 10 years later, he was appointed General Manager and Secretary to that body, in which capacity he had charge of their large estates at Middlesbrough and Saltburn, as well as of their timber yards and salt works, which latter were designed and built under his supervision. During his management of the estates he played no small part in the development in the town of Middlesbrough and of the coast resort of Saltburn-by-the-Sea. In 1899, owing to ill health, he resigned his position, and took up his residence at Leamington, where he died on the 11th March, 1907, in his sixty-fourth year.

Mr. Whipham was elected an Associate of The Institution on the 9th April, 1872, and was transferred to the class of Members on the 30th April, 1878.

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JAMES YOUNG, son of the late Mr. James Young, of Ruthven, Forfarshire, was born on the 14th June, 1845, and received his education at Ruthven Parish School and at the High School, Dundee. He obtained his practical training under Mr. D. H. Halkett, of Alyth, and subsequently undertook a course of study at Glasgow University under Professor Rankine. In 1868 he entered the Public Works Department of India as an Assistant Engineer and received promotion in due course, being finally appointed Executive Engineer with headquarters at Jacobabad, Sind. His work in India was chiefly connected with the irrigation service in

Sind and Guzerat, where he was employed on extensive and important works of maintenance and construction. He remained in the public service until his retirement in 1898, a period of 30 years. After his retirement, he returned to Scotland, lived quietly at Meigle for several years, afterwards removing to Bridge of Allan, where he died on the 28th June, 1906, aged 61.

Mr. Young was elected a Member of The Institution on the 4th May, 1886.

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CHARLES BLACKWELL, born at Foxhangers, near Devizes, Wiltshire, on the 4th February, 1843, was the eldest son of the late Mr. Thomas Evans Blackwell, who went to Canada in 1857 and subsequently became first Vice-President and General Manager of the Grand Trunk Railway. The subject of this notice studied at the High School and at McGill College, Montreal, and obtained his practical experience in the service of the Grand Trunk Railway. From 1869 to 1876 he was engaged upon the location and construction of the Intercolonial Railway, and during part of this period he supervised the equipment and erection of the machinery in the principal repair shops at Moncton, New Brunswick. During 1876 and 1877 he was Resident Engineer in charge of the completion of 45 miles of the Quebec, Montreal, Ottawa, and Occidental Railway, and in the two following years he acted in the same capacity on the construction of the Quebec Central Railway. In 1879 he was appointed Mechanical Engineer to the Dominion Department of Railways and Canals, and was responsible for the design and construction of all rolling stock required for the Canadian Pacific Railway, as well as for the water service. On the completion of the line in 1881 and its transfer to the Canadian Pacific Railway Company, Mr. Blackwell went to Roanoke, Virginia, as Superintendent of Motive Power of the Norfolk and Western and the Shenandoah Valley Railroads. The workshops at Roanoke were built and equipped in accordance with the plans and specifications prepared by him. In 1885 he left Roanoke and took service for 3 years with the Union Pacific Railroad, acting for a time as Manager of the Montana Division. Subsequently he became Engineer of the machinery department to the Central of Georgia Railway and remained with that company at Savannah, Georgia, for 2 years, when the state of his health obliged him to return to the north. Between 1891 and 1897 he was engaged as Engineer to the Schoenberger Steel Company, with headquarters at Pittsburg, but in the latter year, he returned to the railroad service on