

OBITUARY.

JAMES BINGHAM ALLIOTT, born at Nottingham on the 28th November, 1844, died at Brighton on the 31st March, 1910. The son of Mr. Alexander Alliott, a founder of the business of Manlove, Alliott and Company, Limited, manufacturing engineers, of Nottingham, he entered the firm in his youth, was subsequently taken into partnership, and at the time of his death, was Chairman of the company. His name was associated with many improvements in sugar-making processes and in other machinery. Mr. Alliott was elected a Member of The Institution on the 20th May, 1890.

FRED SMITH BUTTON, born at Barnsley in 1859, died suddenly at Manchester on the 21st March, 1910. Trained in the Borough Engineer's Office of his native town, he became Borough Engineer and Surveyor at Accrington and later at Burnley, resigning in 1895 to engage in private practice. He was well known in connection with sewerage matters and acted as Consulting Engineer to many local authorities. He was elected an Associate Member of The Institution on the 4th December, 1888, and was transferred to the class of Members on the 8th January, 1895.

ALFRED COLSON, born at Newport, Monmouth, on the 31st January, 1849, died on the 27th May, 1910, at Leicester, where he had been Gas Engineer to the Corporation for 28 years. Appointed in 1882, after some years' similar experience in Birmingham, he carried out many improvements and extensions, and later successfully undertook also the management of the electrical department. A well-known figure in gas-engineering circles, he was the patentee of many inventions, especially for dealing with residuals,

and frequently acted in a consultative capacity. He was elected an Associate Member of The Institution on the 7th March, 1886, and was transferred to the class of Members on the 9th April, 1889.

CHARLES HENRY DENHAM, eldest son of the late Admiral Sir Henry M. Denham, was born at Parkfield, Liverpool, on the 13th April, 1833, and died at Southsea on the 18th April, 1910. Joining the staff of the East Indian Railway in 1852, he served 37 years with that Company, occupying for several years the position of Chief Engineer. He was a joint inventor of the Denham-Olpherts cast-iron sleeper and chair, which has been extensively employed in India. Mr. Denham was elected a Member of The Institution on the 4th February, 1868.

ARTHUR GREENWOOD, born in October, 1845, died at Burley-in-Wharfedale on the 19th January, 1910. After being privately educated at home and on the Continent, he entered, as an articled pupil, the firm of Greenwood and Batley, of Leeds, of which his father, Mr. Thomas Greenwood, was one of the original partners. After acting as one of the shops' foremen, he became under-manager, and at the age of 25 was made a partner in the firm. He was elected Chairman on its conversion to limited liability in 1888. The great development of the firm, which manufactured turbines, torpedoes, small arms and other machinery for Government and private users, was due largely to Mr. Greenwood's good management and business acumen. He was a Justice of the Peace for the city of Leeds, and took great interest in local affairs, especially in the University of Leeds. Latterly he held the office of Chairman of the Engineering Employers' Federation. He was also a member of council of the Institution of Mechanical Engineers.

Mr. Greenwood was elected a Member of The Institution on the 6th December, 1881.

CHARLES ALFRED HASBROUCK, born at Ithaca, New York, on the 31st July, 1864, died at Pasadena, California, on the 1st February, 1910. Graduating from Cornell University in 1884, he joined the staff of the Detroit Bridge and Iron Company, serving