

OBITUARY.

ROBERT HARRIS, the eldest son of the late Mr. Robert Harris, of Feltham, Middlesex, was born on the 14th of September, 1835. When between sixteen and seventeen years of age he became a pupil of the late Mr. Alexander Wright, the Engineer to the Western Gas Light Company, and was engaged at the Company's works at Kensal Green, and upon similar works at Luton, Penzance, and other towns. In January, 1859, on the death of Mr. Wright, he was appointed Engineer of the gasworks at Bow Common, then the property of the Great Central Gas Company. When that Company was amalgamated with the Gas Light and Coke Company, Mr. Harris was retained as Engineer of the Bow Works, and appointed "Regulating" Engineer of the Eastern Division of the latter. He also acted for some years as Consulting Engineer to the East Barnet Gas Company. In 1884 he left Bow and entered the Company's station in Goswell Road as General Distributing Engineer, which post, however, he was obliged to resign in 1889 on account of ill-health.

Mr. Harris died on the 5th of April, 1892, from a paralytic seizure. As a gas engineer he possessed considerable ability; and his simplicity of character and kindness of heart gained for him universal respect and affection. He was an active member of "The Gas Institute," and served as President in the year 1884. Mr. Harris was elected a Member of the Institution on the 4th of March, 1873.

JOHN HEMPHILL MORANT, son of the late Captain George Morant of the Grenadier Guards and of Shirley House, Carrickmacross, Ireland, was born on the 29th of April, 1847. After being educated at Cheltenham College, where he obtained several prizes, he was articled in 1866 for four years to Mr. James Barton of Dundalk. On the expiration of his pupilage he acted for Mr. Barton as Resident Engineer on the construction of the Dundalk and Greenore Railway until May, 1872, when he proceeded to Brazil as First Assistant Engineer on one of the four staffs

organised to survey a projected line of railway from the harbour of Paranagua, on the Atlantic seaboard of the Province of Paraná, to Miranda in the Province of Matto Grosso on the borders of Bolivia, a distance of about 1,300 miles. Among the concessionaires from the Brazilian Government for this line were the late Viscount Mauá and the late Captain Christian Palm of the Swedish Royal Engineers. The Consulting Engineers were Messrs. Brunlees and McKerrow, and Captain Palm was Engineer-in-Chief until his death, when he was succeeded by Mr. William Lloyd, and, during the absence of the latter, by Mr. H. Edgell Hunt.

On the completion of the work of his own staff, which included the survey of some 260 kilometres through difficult and unexplored country, Mr. Morant joined a supplementary staff formed to assist the second staff, whose work lay yet farther in the interior. He then went to Rio de Janeiro to prepare the plans, after the presentation of which to the Government in June, 1874, he returned to England. The great difficulties encountered in carrying out these surveys through an unknown country, peopled for the most part by tribes of Indians, with impenetrable forests, tropical heat, insufficient food and accommodation, and every possible torment in the shape of mosquitoes and other insects, demanded endurance, pluck, and self-denial, and Mr. Morant showed that he possessed the qualities necessary to meet and overcome all obstacles. It is related that on one occasion, when a sudden rising at night of the Rio Ivahy flooded the camp, his bed floated in the direction of the river on the two empty barrels which supported it; on awaking he calmly sat up and lighted a pipe before proceeding to more energetic measures.

In 1887 Mr. Morant was appointed Acting Engineer to the Irish Lights Commissioners, which post, however, he resigned in May of the following year, being presented by the Commissioners with the sum of £300 on his retirement. In 1879 he again proceeded to Brazil as Assistant Resident Engineer on the construction of the Natal and Nova Cruz Railway, and in the following year became Chief Engineer for the contractors, which position he held until 1884, when he was appointed Chief Engineer to the Central Sugar Factories of Brazil. In 1885 he returned to the service of the Natal and Nova Cruz Railway Company as Resident Engineer and Manager, which post he occupied at the time of his death, from the effects of sunstroke, on the 1st of June, 1892.

Mr. Morant was a man of high character and of more than ordinary ability as an engineer. His generous and amiable disposition won the esteem and respect of his brother officers and of all

who came into immediate relation with him. In 1888 he received the Brazilian decoration of the Imperial Order of the Rose as a recognition of his services in preparing the first map of the Province of Rio Grande do Norte. In April, 1885, he married a daughter of Mr. Wells Hood, of Pernambuco, leaving her a widow with one child. Mr. Morant was elected an Associate of the Institution on the 11th of January, 1876, and was transferred to the class of Associate Member on its creation in December, 1878, and to that of Member on the 11th of November, 1890.

WILLIAM SMITH, son of the late Mr. J. H. Smith, was born at Elphin, county Roscommon, Ireland, on the 23rd of June, 1823. He was educated at Elphin Diocesan School and at Trinity College, Dublin, where he graduated as Bachelor of Arts in 1844. In the following year he entered the service of the Board of Works in Ireland, in which he remained until 1852, being employed for the first half of that time as an Assistant Engineer on the Shannon Navigation Works, and for the latter half as an Inspector of Drainage and other works under the Irish Lands Improvement Acts. He then acted for nearly two years as Manager of the Brighton Waterworks.

In February, 1855, Mr. Smith was appointed an Assistant Engineer in the Public Works Department of the Government of India. He was posted to the office in Calcutta of the Civil Architect of the Presidency Division, and in the following year was placed in charge of the survey and of the preparation of designs and estimates for bridging and metalling the Jessore Road. On the completion of that work, he acted for a short time in 1857 as Civil Architect, and was then appointed Executive Engineer of the Burdwan Division, which included the construction of the Damooda and Adji embankments and of civil buildings in the Burdwan and Bancoorah districts. He held that post for five years, acting for several months in 1860 as Superintending Engineer of the Burdwan Circle. In 1862 he was posted to the Presidency Division as Civil Architect, and two years later was promoted to the rank of Superintending Engineer, transferred to the South Eastern Circle, and appointed President of the "Bengal Cyclone Relief Committee," for his services in connection with which he received the thanks of the Government of Bengal.

In July, 1865, Mr. Smith accepted, with the consent of the