

For forty years, during which the population increased from 500,000 to 1,750,000, he directed the waterworks of Berlin and at all times furnished the city with a plentiful supply of pure water. As some recognition of his services, a movement is now on foot in Germany to erect a bronze bust (larger than life size) of him at the new works at the Mueggel-See. To his staff and to all who came in contact with him, he endeared himself greatly by his strong sense of justice, his disinterestedness and never failing kindness.

Mr. Gill was elected a Member of the Institution on the 4th of December, 1860. In 1891 he presented a Paper¹ on "The Sale of Water by Meter," which system had been adopted at Berlin in May, 1878. It elicited a useful and interesting discussion and obtained for the Author a Telford Premium.

WILLIAM MAGEE GRIER the third son of the late Rev. John William Grier, M.A., Incumbent of Amblecote, near Stourbridge; nephew of the late Archbishop Magee of Dublin and cousin of the late Archbishop Magee of York, was born on the 17th of September, 1839. At sixteen years of age he was articled to Messrs. Cochrane Brothers of Woodside, near Dudley. During the five years of his pupillage he was occupied in the workshops and in the drawing and estimating offices and was subsequently employed by Messrs. Cochrane to assist in the erection of the Westminster and Charing Cross Bridges over the Thames. He was next engaged for Messrs. Ordish and Le Feuvre in preparing designs and details for the Exhibition buildings of 1862 and then for Mr. Henry Carr on designs and working drawings for the Blackfriars Railway Bridge. In 1863 he inspected bridges for the Concessionaires of certain Italian railways and was then for two years Engineer to Messrs. Fleet and Newey, bridge builders in Staffordshire. In 1865 he became an assistant to Mr. W. H. Barlow, Past-President Inst. C.E., on the Midland Railway extension to London. He prepared detail drawings of bridges and other works at the London end and superintended their construction; and was also placed in charge of the erection of a portion of the roof of the station at St. Pancras,² and of the columns and girders of the lower floor.

¹ Minutes of Proceedings Inst. C.E., vol. cvii. p. 203.

² *Ibid.*, vol. xxx. p. 78.

Mr. Grier then became in 1869 Engineer to the Park Gate Iron Company, Rotherham, which had large contracts in hand for bridges and roofs; on the completion of some exceptionally difficult iron-roof and girder work for Messrs. John Aird and Sons at the Chartered Gas Works, Beckton, he retired from that post. In 1870-71 he was employed by the late Mr. J. M. Heppel,¹ Consulting Engineer to the Oude and Rohilkund Railway Company, in preparing the plans and detail drawings of large workshops and running-engine sheds for Lucknow; on the completion of these, contracts were let and the materials sent forward and set up, Mr. Grier being requested to proceed to Lucknow and superintend the erection, a request to which he was unable to accede. In 1872 he became General Manager and Engineer to the Trent Foundry Company, which post he held for five years.

On the nomination of Mr. (now Sir) Charles Hutton Gregory, K.C.M.G., Mr. Grier was appointed in 1877 an Engineering Assistant in the Public Works Department of Cape Colony. Four years later the post of Chief Inspector of Public Works became vacant and in 1882, on the expiration of one year's probation, Mr. Grier was permanently appointed to it. His duties included the construction and maintenance of new roads, bridges and public buildings; the charge of all the lighthouses along the coast, and of the East London and Port Alfred Harbours, at the former of which very difficult and heavy works were under construction. During Mr. Grier's tenure of office the works carried out by the department increased rapidly both in number and magnitude. The new Houses of Parliament in Cape Town and several important buildings at Port Elizabeth, Kimberley and other parts of the Colony, were erected. Some heavy mountain roads were formed and numerous bridges were erected, amongst them being the cantilever bridge over the Gouritz River, the largest bridge in South Africa. Mr. Grier was a member of the Meteorological Commission and of the Philosophical Society, a Road Magistrate for the Colony and a Justice of the Peace.

For some time past Mr. Grier had been afflicted with cancer in the throat, a most distressing malady, and in the winter of 1892-93 he came to England for special treatment. One physician took a somewhat hopeful view of the case and for a time it was thought that he would recover sufficiently to resume control of his Department. This confidence, however, was short lived; before Mr. Grier left England he knew he was returning

¹ Minutes of Proceedings Inst. C.E., vol. xxxvi. p. 265.

to South Africa to die; and after a long period of suffering and gradual exhaustion, he passed away at Wynberg on the 26th of May, 1893, at the comparatively early age of fifty-four.

Mr. Grier was greatly respected throughout the Colony, not only for the able and conscientious performance of his professional duties, but for the keen sense of justice and kindly feeling he displayed towards all with whom he was brought into contact. He was strongly interested and rendered constant assistance in Church matters. The calm fortitude and patience with which he bore the terrible sufferings of his last illness have been characterized as truly wonderful. He was elected a Member of the Institution on the 6th of March, 1883.

JOHN HEAD was born in Birmingham on the 11th April, 1839, and was educated in France. On leaving school he was engaged in that country as a bank clerk until his nineteenth year, when he returned to England and set up on his own account as a commission agent. He carried on a successful business in steam-gauges and other engine-fittings, and it was probably in connection with the sale of these that he first became acquainted with Mr. (afterwards Sir) William Siemens,¹ who was then agent for the Berlin firm of Siemens and Halske. In 1859 Mr. Head was engaged by Messrs. Siemens and Halske and in the following year was appointed personal assistant to Mr. William Siemens, who had a private engineering business. From that time he devoted himself absolutely to the work and interests of his employer, and if there is little or nothing to chronicle specially about him, it is because he sank his own personality entirely in that of Mr. Siemens. In 1868 Mr. Head took special charge of the furnace and metallurgical business, which some years later, and until William Siemens's death, he managed, as principal assistant. On the transfer of the business to Mr. Frederick Siemens—after the death of Sir William—Mr. Head was appointed general representative of the firm for England, France, Belgium, Spain, Portugal, the United States of America, and the Colonies and Dependencies of those countries. During the whole of his career he was actively engaged in this country and abroad in superintending the design, construction, and working of regenerative gas-furnaces applied to

¹ Minutes of Proceedings Inst. C.E., vol. lxxvii. p. 352.