Travancore,"[1] which he contributed to the Proceedings of The Institution in 1905. By the time these and certain minor works were successfully completed the area under cultivation had greatly increased, and in order to facilitate the work of the principal factories, it was decided to utilize the Pullivasal Falls for the erection of an electrical power installation. The work was successfully carried out by Mr. Thorp and is described in his Paper[2] on the "Munaar Valley Electrical Power Scheme," for which the Author was awarded a Crampton prize.

This concluded Mr. Thorp's work in India. He returned to London in 1906, and entered into partnership with the late Mr. B. H. Thwaite, practising as consulting engineers in Westminster, but the association was destined to be of short duration. Mr. Thorp became seriously ill, and although he fought with untiring patience and courage to the end, he was never able to do much professional work. Mr. Thwaite was also stricken by illness and died in April, 1908, and Mr. Thorp, who survived his partner only a few months, died on the 28th July, 1908, in his fortieth year. He was an ardent advocate of the thorough scientific education of engineers, and it may justly be said that the happy combination of sound theoretical attainments with a high degree of practical skill which his own career presented was the best justification which could be advanced for his belief.

Mr. Thorp was elected an Associate Member of The Institution on the 5th December, 1893, and was transferred to the class of Members on the 28th March, 1905.

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WILLIAM HUGH WOODCOCK, born at Hinckley, Leicestershire, in 1844, was educated at the Merchant Taylors' School, and served his articles to Messrs. Kennard Brothers, of Crumlin, Mon., with whom he subsequently remained 2 years as an assistant. Between 1865 and 1867 he assisted his father, the late Mr. W. Woodcock, then Managing Director of the London Warming and Ventilating Company.

From 1870 to 1892 he acted as chief assistant to the late Mr. Edward Woods, Past-President, and during that period was engaged in carrying out many important engineering works, at home

[1] Minutes of Proceedings Inst. C.E., vol. clxi, p. 332.
[2] *Ibid.*, vol. clxix, p. 365.

and abroad, with which Mr. Woods was associated. Whilst with Mr. Woods he also acted for several years, by arrangement with that gentleman, as advisory engineer to the late Sir William Shelford, in connection with the design of the more important bridges on the Hull and Barnsley Railway, including the large swing-bridges over the Rivers Ouse and Hull.

In 1892, on the recommendation of the late Sir Charles Hutton Gregory, Mr. Woodcock was appointed by the Crown Agents for the Colonies, Special Commissioner, to report to the Cape Government on the condition of the bridges on the railways throughout the Colony, and while thus engaged, he was also commissioned by the Cape Government, to report on the expenditure and as to the best method to be adopted to secure the completion of the Cape Town Harbour Works.

Mr. Woodcock returned to England in 1893 after receiving the thanks of the Cape Government for the way in which these commissions had been fulfilled, and later he had the satisfaction of seeing many of the suggestions which he had made in his reports carried out. He was on several occasions employed by the Board of Trade to inspect and report on public bridges and piers in Great Britain.

In 1901 Mr. Woodcock, in conjunction with Mr. Walter A. Harper of Messrs. Harper Brothers and Company, was instructed by the Ecuadorian Association, Limited, London, to proceed to Ecuador and make a thorough investigation of the existing state of the Guayaquil and Quito Railway and works connected therewith. He also prepared designs for swing-bridges over the Forth and Clyde Canal, and for the Falkirk and District Tramways. Subsequently, besides acting as Engineer-in-Charge in London of work in connection with the Buenos Aires Midland Railway, for Messrs. Harpers, he designed for Messrs. C. H. Walker and Company, Limited, the special plant comprising a system of movable coffer-dams, working from pontoons, employed in the construction of the Deep Water Quay at Rio de Janiero.

By his death, which occurred on the 28th March, 1908, not only is the profession deprived of the services of an engineer of exceptional ability and originality in design, but the many friends who valued his never-failing help, advice and sympathy have sustained an irreparable loss.

Mr. Woodcock was elected a Member of The Institution on the 3rd March, 1891.