

Mr. JAMES COLLINS was born in the neighbourhood of Dublin on the 15th of March, 1817. After being educated at Trinity College and graduating B.A. in 1836, he was, during the years 1836 and 1837, employed by Mr. Vignoles, Past-President Inst. C.E., in surveying and as an Assistant-Engineer on the extension of the Dublin and Kingstown railway. In 1838 he entered the service of Mr. I. K. Brunel, Vice-President Inst. C.E., and was for eighteen months in the London office, subsequently being engaged on field work, as Assistant, and afterwards as Resident Engineer, on various extensions of the Great Western system, and in laying out lines in South Wales and in Ireland. After being thus occupied for about six years and a half, he was sent to Italy as assistant to Mr. Herschel Babbage, the Resident Engineer of the Maria Antonia and the Florence and Pistoja railways, remaining until the completion of those lines. He finally left Mr. Brunel in 1849, and was next for two years and a half Resident Engineer on the Lough Corrib and Mask Junction canal, acting for the Board of Public Works in Ireland. After this, he, for a few months, acted as engineering agent for Messrs. Hutchings and Co., on the Guernsey Harbour Works, and for another short period was on the Wiesbaden and Cologne railway, but resigned the latter position on receiving advantageous offers to go to India. In 1854 he entered the service of the Madras Railway Company, and served for seven years as Resident Engineer, returning home in 1861 on account of ill-health. In 1863 he was engaged by the Scinde Railway Company, as second in command under Mr. J. Brunton, M. Inst. C.E., to conduct the survey between Kotree and Mooltan of the proposed Indus Valley Extension of that company's undertaking. On the completion of these surveys in 1866 the Government put a stop to further proceedings on the proposed extension, and the staff had consequently to be discharged. Mr. Collins was then employed as Assistant under Mr. Newnham, the Engineer in charge of the Scinde railway, upon some extensive repairs. Of his services in that capacity, the Agent, Mr. J. Rawlinson, in a letter dated 23rd July, 1867, speaks as follows: "That portion of the work confided to his charge has been executed in a most creditable manner. . . . In April last, owing to the illness of the Engineer in charge of the line, I appointed Mr. Collins to act for him, there being four large bridges under repair and reconstruction, from the floods of last year. He fulfilled his duty to my entire satisfaction, and also to that of the Deputy Consulting Engineer." When this work was finished, Mr. Collins obtained an appointment from the

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Bombay and Baroda Company, to survey the proposed line from Bombay to Agra; but here again financial difficulties intervened, and the works were stopped. Upon this, Mr. Collins applied for employment, and was appointed to the Public Works Department for five years as an Executive Engineer, being posted to the Punjab on the surveys for the Sirhind canal branches, which works, for irrigation and navigation, were subsequently commenced by him, when he was transferred to the Tirhoot State railway. Mr. Collins was upon the point of completing his five years' engagement when he was attacked by heart-disease, and died suddenly at Dinapore on the 18th of March, 1875. He was elected an Associate of the Institution of Civil Engineers on the 1st of March, 1853, and was transferred to the class of Member on the 2nd of March, 1858.

Mr. Collins was a clever practical engineer, and it may provoke surprise that he did not rise to a higher position. In common with many other civilians in the Indian Engineer Establishment, he felt aggrieved at what he deemed the undue preponderance of military men holding the superior offices in the department, and was, perhaps, more outspoken in his complaints than prudence should have dictated. This, conjoined to some faults of temper, which do not appear to have been lessened by dwelling upon his grievances, may possibly have interfered with that promotion which his talents otherwise merited.

MR. CHARLES WILLIAM HAWKINS, son of the Rev. H. A. Hawkins, Vicar of Topcliffe, Thirsk, was born on the 8th of July, 1839. He received his education first at a private tutor's at Sharow, near Ripon, and subsequently at Ripon Grammar School; and commenced his engineering career in the locomotive works of Messrs. Robert Stephenson and Co., Newcastle-on-Tyne, being apprenticed for seven years from the 8th of July, 1853. On the completion of his articles, he continued in the employment of the firm as a draughtsman until August 1861, and soon afterwards entered the service of the Great Northern Railway Company, under Mr. Archibald Sturrock, the then Locomotive Superintendent. As there was not at the time any suitable position vacant, Mr. Hawkins went into the running-shed as a fitter, in order to obtain a knowledge of a description of work not to be seen at a manufacturer's. He was then sent out as fireman, and served as a regular stoker on goods and passenger engines; in the