

Unfortunately Mr. Simms, relying on an iron constitution, went to India at an age too advanced to bear the climate. He, therefore, fell a more ready prey to the mischief which hard work, ill health, and domestic troubles, wrought upon him, so that thoroughly shattered, he was obliged to leave India at the end of his five years' engagement, and to decline the offer of a reappointment. The thanks of the Indian Government, together with a compliment on the "energy and promptitude" with which all business had been passed through his office, were some solace for his many afflictions whilst resident in India.

On his return home, at the close of the year 1850, Mr. Simms had to struggle hard for life through a severe attack of inflammation of the liver, and on his recovery received the appointment of Consulting Engineer to the London, Chatham, and Dover Railway, then called the Mid-Kent Line: and so was once more upon old and well-known ground. But his nerve was gone: the slightest mental exertion was too much for him, and feeling incapable even of giving evidence before a Committee of the House of Commons in favour of that line, Mr. Simms resigned all professional work, and henceforth devoted himself entirely to scientific amusement. His name soon ceased to be publicly thought of, and he was only remembered by a few old acquaintances, by whom he was known as "South Eastern Simms." About eighteen months before his death, which occurred on the 20th of February, 1864, in the 61st year of his age, Mr. Simms was elected a Director of the East Indian Railway Company, and had the satisfaction to see the railway (now called the Chord Line) which he had recommended when in India, and had indicated as the best direction, adopted as a necessity; not merely because of its directness, but on account of the excellent coal-fields through which it must pass.

Mr. Simms was elected a Graduate of the Institution of Civil Engineers on the 13th of February, 1838, and was transferred to the class of Members on the 23rd of February, 1841. He was likewise a Fellow of the Royal Astronomical and of the Geological Societies, and to both he had contributed Papers, which received the favourable notice of those bodies.

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MR. GEORGE ABERNETHY was born at Aberdeen, in the year 1815. He was first trained as a mechanical engineer at the establishment of Messrs. William Simpson and Co., in that city. Subsequently he was employed under Sir John Macneill (M. Inst. C.E.), in Ireland, and afterwards under Mr. Alexander Gibb (M. Inst. C.E.), as Resident Engineer on the Scottish North Eastern Railway. Since the year 1850 he was engaged under

his brother, Mr. James Abernethy (M. Inst. C.E.), as General Assistant on various works, including the Swansea Docks, the Birkenhead Graving Docks and Ship-building Yards, Port Adelaide (Australia), and various minor undertakings. He died suddenly, at Natal, on the 4th of December, 1864, in the forty-ninth year of his age. He was elected an Associate of the Institution of Civil Engineers on the 6th of May, 1856, and when in London, never failed to avail himself of the opportunities afforded by the Institution.

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MR. JOHN GEORGE APPOLD, F.R.S., &c., was born on the 14th of April, 1800. As a boy he evinced considerable talent for calculation and a decided turn for mechanical pursuits, which he was enabled to gratify by introducing improvements in the processes in use in his father's business—that of a fur skin-dyer, to which he eventually succeeded; and which, by his ingenuity and scientific improvements, he rendered very lucrative. In the early part of his career there were but rare opportunities for improvement by mixing with scientific men; but, as soon as it was practicable, Mr. Appold became a Member of the London Institution, where he enjoyed the advantages of the use of the Library, and of attending the evening meetings. In 1834 he was named one of the Auditors, and in 1844 he was elected one of the Managers; and henceforth he took great interest in the welfare of that Society. The excellent ventilation of the Library and of the Meeting Room are mainly due to his judicious instructions.

The processes of his own business being chiefly secret, it can only be inferred, that his ingenuity and scientific acquirements were aptly applied; and when great engineering works became more common, wherever there was any peculiar process, or any remarkable work, there Mr. Appold was to be found, and many eminent men have not hesitated to avow their obligations to his suggestions for a great part of their success on special occasions. He had peculiar facility for detecting the causes of error and of defects in machines, and he would watch indefatigably for any length of time to discover the cause of any peculiar action; his next employment being to devise some simple means of avoiding a recurrence of the error. By degrees, as he could afford to devote more time to the labour of his predilection—watching the mechanical progress of the period—the presence of Mr. Appold, on all experimental occasions, was naturally expected, and he thus made a very extensive acquaintance among the scientific and practical men of his day. Stimulated by the examples around him, he produced several very ingenious machines, the advantage of which he generally gave to the public—only a few of them being patented by