

mously elected to the office. He returned to India in November, and about the 1st of May, 1841, took charge of the steam branch of the Navy, aided by one chief assistant, four European foremen, a staff of one hundred European engineers and boiler makers, and about two hundred native artificers. He was the first native of India who had been placed over Europeans, and no doubt his path was not one of roses for a long time; but his natural kindness soon made him a favourite with all those placed under him, as he meted out justice to all irrespective of colour or creed. In 1843 the steam factory was opened for carrying out repairs, of which he took charge. The strength of the service was augmented both with ships and men; consequently his work increased to a corresponding extent. In 1851 he was struck with paralysis, and his life despaired of; but he recovered and came to England, and was allowed by the then Court of Directors to visit various cities to see the different improvements in machinery, his great hobby being to introduce novelties into Bombay. At this time he visited America and selected various wood-cutting machines, which were sent to Bombay. He was also the first to introduce the sewing machine, and show its working; and was foremost in introducing photography and electro-plating into Bombay. He returned to Bombay in 1852, and carried on the duties of his office until 1857, when failing health again overtook him.

In July 1858 he retired on a special allowance of Rs.400 a month, being two-thirds of the salary attached to the office, and much higher than the ordinary pension. After coming to England he so far recovered that he entered the service of the *Indus Flotilla Company* as their superintending engineer. He proceeded to *Kotree* in *Scinde*, the headquarters of the company, and took charge of the steam branch and workshops; but in less than two years he was compelled by ill-health to give up the post, and settled down at *Richmond*, for the remainder of his life, esteemed for his benevolent actions by a large circle of friends both European and Indian. He died on the 16th of November, 1877.

MR. SAMUEL HOCKING was born under the shadow of *Carn-Brea Hill*, near *Redruth*, in *Cornwall*, on the 6th of February, 1807. He was one of a large family, and his father, being a miner, took his son *Samuel*, at a very early age, to work in the copper mines of *Illogan*. In these mines, especially in the cele-

brated Dolcoath mine, young Hocking worked for some years, and being employed to turn a ventilating machine, his attention was drawn to its mechanical construction, and much of his leisure was devoted to the construction of a model of a ventilator, in which several improvements were introduced upon the machine he had moved underground. Mr. Hocking ever traced his success in life to the encouragement given by his mother to his mechanical tendencies, and to the efforts she made to cultivate in her son Samuel a love of knowledge. The steadiness exhibited by young Hocking, and the eagerness he displayed in endeavours to make himself acquainted with the principles of mechanics, attracted the attention of one of the largest adventurers in Dolcoath mine, Mr. John Rule, who was about to proceed to Mexico, in charge of large quantities of machinery for the silver mines of that country. Samuel Hocking accompanied Mr. Rule; and there became acquainted with Colonel Colquhoun, R.E. After spending a few years in Mexico, he returned to England, and Mr. Rule placed him, in 1828, with the well-known engineer Woolf, with whom he was a great favourite, and under whom he speedily gained considerable knowledge of the principles involved in the use of steam power. Next, he was employed in the fitting shops of the Hayle foundry, and had charge of the first works at the Clifton suspension bridge, somewhere between the years 1836 and 1843. That scheme failed, and the chains were bought by the company formed for erecting the Hungerford suspension bridge; and Mr. Hocking, as agent for the Hayle Copper-house Company, superintended the work across the Thames. On the 7th of March, 1844, he was elected an Associate of the Institution, and frequently attended the meetings during his residence in London. He also superintended the erection of pumping engines at Old Ford, at Brentford, at Battersea, and at the Croydon Waterworks; and put up the pumping engine at Leek, in Staffordshire, and other places, for the Hoyle Cooper-house Company. When the Company was dissolved, the services of Mr. Samuel Hocking were secured by the well-known manufacturers of safety-fuze, Messrs. Bickford, Smith, and Davey, for whom he reconstructed and greatly improved the machinery in the works at Tuckingmill, in Cornwall, by which the firm were enabled to meet the growing requirements of their trade. He also designed and superintended the erecting of all the machinery in the manufactories established by this firm in Lancashire, in France, in Prussia, in Spain, and in America.

In the midst of his labours, constructing some new machines for the Tuckingmill works, and when apparently enjoying his usual

health of body and vigour of mind, Mr. Hocking was seized with apoplexy from which he never rallied, dying at Rosewarne, Camborne, on Friday, the 16th of February, 1877. Though of a quiet, retiring, and modest disposition, one could not fail to be impressed with his earnestness and enthusiasm, nor to notice evidences of great thoughtfulness about all matters that were allowed to occupy his mind.
