

OBITUARY.

ASHLEY JOHN HUNTER, eldest son of John Agrippa Hunter, merchant, of London, was born at Paddington on the 14th April, 1854, and died at Auckland, N.Z. on the 28th May, 1932.

After being educated at Coventry, and afterwards at the Merchant Taylors' School, London, he went to New Zealand, and in March, 1872, entered the Public Works Department as a cadet under the late Mr. John Carruthers, M. Inst. C.E. After a short period spent in the drawing office at Wellington he was engaged for 6 years on the design and construction of the Auckland-Puniu Railway under the late Mr. James Stewart, M. Inst. C.E. In January, 1879, he was transferred to Patea, Taranaki County, in independent charge of the construction of railway lines, bridges, etc.; and towards the end of 1880 he was appointed Resident Engineer on the construction of the Waikato-Thames Railway and the Hamilton railway-bridge.

In November, 1882, he resigned this appointment and engaged in private practice in partnership with Mr. Stewart. The firm carried out the construction of the Thames Valley and Rotorua Railway, and were consulting engineers to the Te Aroha Gold Mines and the Napier Waterworks.

Mr. Hunter then engaged in private practice on his own account, and carried out the design and installation of several large coal-mining plants on the west coast of New Zealand. He was also appointed by the N.Z. Government to several Royal Commissions dealing with engineering matters in the Dominion.

Mr. Hunter was elected as an Associate Member of The Institution on the 4th December, 1883, and was transferred to the class of Members on the 14th January, 1908. He was for many years a Member of the Advisory Committee of the Council in New Zealand, and served from 1929 to 1932 as the Member of the Council resident in that Dominion.

He married in 1878 the second daughter of the late James Halyday, of Auckland, who survived him, and by whom he had two sons.

Sir FRANCIS JOSEPH EDWARD SPRING, K.C.I.E., M.A.I., son of the Rev. Edward Spring, rector of Magourney, County Cork, was born on the 20th January, 1849. He was educated at Middleton School, County Cork, and then passed on to Dublin University, where he received the degree of L.C.E. He served an apprenticeship

for one year under Mr. A. McDonnell, M. Inst. C.E., then locomotive superintendent of the Great Southern and Western Railway, Ireland.

In 1870 he entered the Indian Public Works Department and was engaged for $2\frac{1}{2}$ years on canal surveys and projects in the Punjab Irrigation Department. He then joined the Punjab Northern State Railway, and spent the next 5 years, from 1873, on survey and construction of various parts of that Railway and on the Chenab Bridge. In 1878 he was promoted to the temporary position of Executive Engineer, which was confirmed in 1880, and had charge of a division of the Bhavnagar-Gondal Railway. He came back to England for 2 years, and then returned to India on the Bengal-Nagpur Railway survey and the Benares-Cuttack Railway until 1884, when he was appointed Under-Secretary to the Government of Bengal on the Public Works Department, Railway Branch, and assistant to the Chief Engineer of Bengal. In 1888 he became Secretary for Railways, Bombay, a post which he only held for a few months as he then received the appointment of Government Consulting Engineer in Assam. After holding that post for 3 years, he became Secretary for Railways to the Government of Madras, an office he occupied for 5 years, after which he became Deputy Secretary of the Railway Department of the Government of India. In the following year he was appointed Secretary to the Department, and in 1904 he retired with the rank of Chief Engineer, 1st class.

Several months before his retirement from the Public Works Department, Sir Francis accepted the Chairmanship of the Madras Port Trust, and in 1905 he became, in addition to his other duties, Chief Engineer of the Trust; he thereupon devoted his time to the construction of a modern port at Madras. When he commenced his work there, the harbour was sheltered by two arms each about 3,500 feet long, the entrance, which was 500 feet wide, being directly exposed to the swell from the eastward. There was no place for small craft to lie in shelter in dangerous weather, and the only landing facilities were native surf-boats, a few 10-ton lighters, and an old screw-pile pier. On the beach were a few straggling railway-sidings and two or three sheds; the beach was to be seen at all times littered with goods of all descriptions in dire confusion. The entire dutiable trade of Madras had to pass through one 10-foot Customs House gateway. By 1912, working with Mr. H. H. G. Mitchell, M. Inst. C.E., as executive engineer, he had transformed Madras into a modern and efficiently-equipped port. The old exposed harbour entrance was closed and a new sheltered entrance made, rendering the harbour water smooth enough for ships to lie alongside wharves in practically all weathers. Extensive wharves for lighterage and for vessels, a boat-basin, timber-basin, efficient railway-sidings, a fine fleet of large lighters, and adequate sheds and warehouses were provided, and the average time required to discharge general-cargo steamers was halved.

He presented Papers to The Institution dealing with "Remodelling

and Equipment of Madras Harbour” ;¹ “ Coastal Sand-Travel near Madras Harbour ” ;² “ The West Quay of Madras Harbour ” (with Mr. H. H. G. Mitchell, M. Inst. C.E., as co-Author) ;³ “ Restoration of a Cyclone-Damaged Breakwater-End in Madras Harbour ” ;⁴ and a second Paper on “ Coastal Sand-Travel near Madras Harbour.”⁵ All these Papers were read and discussed at Ordinary Meetings of The Institution ; for the Paper dealing with the West Quay he was awarded the George Stephenson Gold Medal and an Indian Premium, and for the Paper on Damage to the Breakwater-End he received a Telford Premium.

Sir Francis retired in 1919, shortly after his seventieth birthday. He was created a Commander of the Indian Empire in 1894, and promoted to Knight Commander in 1911, whilst Dublin University conferred upon him the degree of M.A.I.

He was elected an Associate Member of The Institution in 1881, and transferred to the class of Members in 1885. He served for 3 years (1910-13) as the representative Member of the Council in India.

He married, in 1873, Charlotte Becher, daughter of Mr. S. Townsend, J.P., who died in 1930.

Sir Francis died on the 25th August, 1933, at St. Aubin, Jersey, where he had spent the last 14 years of his life.

¹ Minutes of Proceedings Inst. C.E., vol. cxc (1912), p. 89.

² *Ibid.*, vol. exciv (1913), p. 153.

³ *Ibid.*, vol. ccvi (1918), p. 2.

⁴ *Ibid.*, vol. ccx (1920), p. 2.

⁵ *Ibid.*, vol. ccx (1920), p. 27.