

under whom he had served; and his premature death, from an illness incurred in the execution of his duties, was much regretted by his friends and fellow officers in Bombay.

He was elected an Associate Member of the Institution on the 11th of January, 1887. He died on the 14th of February, 1890.

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JOHN LYONS began his apprenticeship to engineering as a student of the Thomason College, Roorkee, India. After passing the final examination, he was appointed to the Public Works Department, as an overseer, in charge of a subdivision of 78 miles of grand trunk road for two years. From this appointment, on account of extra qualifications as a surveyor and draughtsman, he was transferred to Rajputana State Railway, where he served five years (from 1869 to 1874), two of which were employed surveying, and preparing plans and sections of different alternative lines, and making working plans and drawings of the approved lines. The last three years of the time he was in charge of a subdivision of 18 miles of the construction of the line, at the completion of which he was transferred to the Northern Bengal State Railway, where he also held charge of a subdivision during the Bengal famine of 1874-5. After a year he was re-transferred to the Rajputana State Railway, and subsequently to the Indus Valley State Railway. He then resigned the Government service, and went to Bombay to engage in private practice. He joined the Bombay Municipality in 1876, and was employed in preparing working drawings for the Tulsi Water-works, which he afterwards helped to carry out by superintending the construction of the service reservoirs at Bombay. He also superintended the pipe-laying, and subsequently took charge of the construction of the New Outlet Works at Vehar Lake. He was transferred to the Bombay Drainage Works in December 1879, but resigned this appointment on the 23rd of February, 1882, to take up a post of Assistant Engineer on the Southern Maratta Railway. He was Assistant Engineer on the survey for the railway from Satara to Kolapore, under Captain Burn-Murdoch, R.E., was afterwards Assistant Engineer on the Bellary-Kistna Railway, and later Assistant Engineer on the Indian Midland Railway. He went to England in 1886 for a short furlough, and on his return set up in private practice at Poona. He, however, met with indifferent success, and had applied for and obtained the post of Secretary to the Municipality of Sukkur, when he was

stricken down with heart disease, and died on the 28th of May, 1889.

Mr. Lyons was elected an Associate Member of the Institution on the 4th of May, 1880.

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PLOTINO SOARES was born in Brazil on the 9th of July, 1850, He was educated in the Polytechnic School of Rio de Janeiro, where he took a doctor's degree in mathematics, physical and natural sciences. In 1875 he was appointed by the Imperial Government Assistant Engineer, under Dr. Francisco Gomes Collasso, the Chief Engineer for the Exploration of the proposed Government Railway from Cuiaba Alagoinhas, Province of Matto Grosso. He then served as Assistant Engineer on the Rio de Janeiro Water-works for one year, from March 1876, under Mr. Edward Lynch, Chief Engineer, and next became Engineer-in-Chief of the Government surveys of the Alto Rio Doce, in the province of Minas Geraes. Mr. Soares was then appointed Engineer of the First Class in the exploration, and chief of section, on the construction of the Paulo Affonso State Railway (80 miles long), in the province of Alagoas, from June 1878 to November 1880, under Mr. Reginald von Krüger, the Chief Engineer. From June 1881 to April 1882, he was on the contractor's staff of the Minas and Rio Railway (100 miles long), of which Sir James Brunlees, Past President Inst. C.E., was the Consulting Engineer, being concerned in the revised studies of the line. He was subsequently Chief Engineer of the surveys for a proposed railway from Antonina to Assunguy (80 miles long), province of Parana, from September 1882 to April 1883. Dr. Soares then served as contractor's district agent of the Bahia Central Sugar Factories, from June 1883 to May 1884, under Mr. W. Chapman, after which he was for six months District Engineer on the Sergipe Railway (80 miles long), under Mr. W. Rogers. On the 30th of April, 1885, he was appointed Government Fiscal Engineer of the Brazil Great Southern Railway (110 miles long), province of Rio Grande do Sul, which appointment he retained until his death in October 1889.

Previous to commencing his professional career Mr. Soares had been aide-de-camp to a Brazilian general during the Paraguayan War, and was wounded during an engagement; and he afterwards served for more than a year in the works of a firm of mechanical engineers at Glasgow. The combined experience thus obtained served to rub off the pedantry of the college-educated "doctor-