

obtained employment with the General Electric Company at Schenectady for about a year. He relinquished this employment in order to take up the pursuit of agriculture at Hemet in California, where, 18 months afterwards, on the 26th June, 1905, he met his death whilst shooting, as the result of the accidental discharge of his gun.

Mr. Blackburn was elected an Associate Member of the Institution on the 3rd December, 1901.

JOHN BOWDEN, born on the 8th May, 1841, near Morpeth, Northumberland, became assistant surveyor to the Preston Corporation in 1863, and after serving in this capacity for a period of 5 years, obtained an appointment as District Surveyor to the Salford Corporation. His connection with the latter body lasted until 1872, during which time he was engaged in the design and execution of extensive sewerage and other works, including the main intercepting sewer of the borough to Mode Wheel.

In 1872 Mr. Bowden was appointed Surveyor of the Trafford Estates near Manchester and in Cheshire, a position which he held for a period of 31 years. During this period he also engaged in private practice as an architect and surveyor in Manchester, and carried out several important drainage schemes in the neighbourhood. He died at Glossop, Derbyshire, on the 16th November, 1905, in his sixty-fifth year.

Mr. Bowden was elected an Associate of the Institution on the 2nd February, 1869, and was subsequently placed in the class of Associate Members.

JOHN CARLINE, second son of the late Mr. Thomas Carline, for many years County Surveyor to the North Riding of Yorkshire, was born in 1839 and received his education at the Grammar School, Richmond, Yorkshire. After serving 3 years in his father's office, he joined the staff of the late Sir Thomas Bouch, by whom he was employed on the construction of the South Durham and Lancashire Union Railway, connecting the North Eastern and the London and North Western systems. This line traverses very high ground and its construction presented considerable engineering difficulties. Mr. Carline superintended the erection of some of the highest viaducts on this railway, and subsequently acted as Assistant Resident

Engineer on the extension of the line to West Auckland. In 1862 he was appointed Resident Engineer in charge of the construction of the Leadburn, Linton and Dolphinton branch of the North British Railway, successfully carrying the line over Leadburn Moss, one of the deepest mosses in the south of Scotland, and in the following year he held sole charge of the works of the Edinburgh, Perth and Dumfriesshire Railway, comprising several heavy bridges over the water of Leith and extensive sewer- and road-diversions. In 1869 Mr. Carline received the appointment of Highways Surveyor and subsequently that of Surveyor to the Lewisham District Board of Works, an appointment which he held until 1901, when the office of Surveyor to the Board of Works was abolished, a period of more than 30 years. As Surveyor, he designed and constructed all the sewers, roads, bridges and other improvement works carried out by the Board in the extensive and steadily growing suburban district under their care, involving a considerable annual expenditure. Mr. Carline died at Melrose, Scotland, on the 26th September, 1905, aged 66. He was a Member of the Sanitary Institute and of the Incorporated Association of Municipal and County Engineers.

He was elected an Associate Member of this Institution on the 4th December, 1877.

WILLIAM RICHARD HOPKINS CHIPPERFIELD, Borough Engineer of Ladysmith, Natal, died on the 13th March, 1906, from injuries sustained in a fall from his horse. Born on the 22nd June, 1857, he served his pupilage to Mr. Baldwin Latham, with whom, on the completion of his articles, he remained as an assistant, afterwards becoming Chief Assistant and Resident Engineer on numerous works of water-supply, sewerage and sewage-disposal for which Mr. Latham was the Engineer. After 14 years' service with that gentleman, he obtained the appointment of Engineer and surveyor to the Atherstone district, Warwickshire, for which, under Mr. Latham's direction, he had carried out water-supply and sewerage works. He retained this position until 1902, a period of 12 years, when he went out to South Africa and joined the Public Works Department of Cape Colony. He obtained the post of Chief Assistant Engineer at Port Elizabeth, and during the time he was thus employed, he prepared two schemes on biological principles for dealing with the sewerage of places of 10,000 inhabitants, and was also engaged in connection with drainage and water-supply schemes at Grahamstown and Middelburg. In September,