and under Mr A. M. Tippett (M) gained practical experience of railways, bridges, and harbour engineering (in which he specialized).

During World War I he served from 1914–15 with the Royal Durban Light Infantry in German South-West Africa, and from 1916–19 with the Royal Engineers in France, Belgium, and Germany, with the rank of Captain. He was awarded the M.C.

Between the two world wars he played a prominent part in many major developments at South African ports. From 1920–26 he was Senior Assistant Engineer under Mr W. R. Crabtree (M) on the construction of the Prince Edward Graving Dock in Durban. In 1927 he was Engineer-in-Charge of construction of a pre-cooling store at East Pier, Cape Town, and over the next two years worked as Assistant Harbour Engineer, Port Elizabeth, on the construction of the south breakwater. From 1929–31, as Harbour Engineer, East London, he commenced construction of the turning basin on the east bank of Buffalo River, and was appointed Harbour Engineer, Durban, in 1931. Over the next nine years he was responsible for the construction of Durban's esplanade railway, two wharves, a seaplane base, a large dredging programme at Durban Bay, and land reclamation.

In World War II he commanded the Railway and Harbour Construction Group of the S.A.E.C. in East Africa and the Middle East from 1941–1942, with the rank of Lt Colonel, and was awarded the O.B.E. He returned in 1942 to South Africa to undertake construction of the Sturrock Graving Dock, of vital strategic importance after the loss of Singapore. This was completed at a cost of £3 500 000.

At the time of his retirement in 1950 he was Assistant Chief Civil Engineer (Harbours). Thereafter he continued as a consultant on marine and river problems.

Mr Paterson was awarded the Crampton Prize for his paper presented to the Institution in 1947, 'The Sturrock Graving Dock, Cape Town'. J. 28 (Oct. 1947), 328. Discussion: 354. Discussion at Cape Town: J. 28 (Oct. 1947 Supplement), 602. He was also author of 'A short history of the development of Table Bay Harbour', J. 28 (Oct. 1947), 418.

Elected an Associate Member in 1916, he became a Member in 1944.

He is survived by his widow and two sons.

HERBERT EDGAR LUNN, *C.B.E.*, B.Sc., who was born on 20 November, 1888, died on 16 March, 1964.

Educated at the Queen Elizabeth Grammar School, Tamworth, Staffordshire, he received the degree of B.Sc.(Eng.), London, and from 1906 to 1910 was articled to the City of Worcester Corporation under Mr T. Caink. For the next two years he was engineering assistant to Islington Borough Council, and held a similar position from 1912–14 with the Tunbridge Wells Corporation.

He served throughout World War I, first in the ranks of the Royal West Kent Regiment, then with a commission in the North Staffordshire Regiment, and finally with the Royal Engineers (Roads), rising to the rank of Major. He was twice mentioned in despatches.

Demobilized in 1919, he became for a year Deputy Borough Surveyor to Tunbridge Wells Corporation and in 1920 was appointed Assistant Engineer to the newly formed Ministry of Transport, where he remained for three years. The future course of his career was set in 1923, when he joined the East Sussex

County Council. Starting as Deputy County Surveyor, he became in 1927 County Surveyor, a position he held until his retirement in 1955. An expert in road engineering, sewerage, coast protection, and mechanical engineering, Mr Lunn was soon a well known and popular figure among highway engineers in general, and county surveyors in particular. His task was to cope with the vast post-war traffic problems of a corridor county carrying London traffic to and from popular seaside resorts, including Brighton, Eastbourne, and Hastings. The fact that all the principal resorts were county boroughs, contributing nothing to the rates of a largely agricultural county made the financial and administrative problems of road construction acute, while wealden clay added to the engineering problems, but within a decade the concrete-surfaced East Sussex roads were outstanding, and have not since been surpassed in this country. Mr Lunn, who had served under Maybury in the Royal Engineers, made sure of results, turning a blind eye to hampering regulations, and he lost only one fight—against the Channel gales which battered sea defences protecting the A.259 between Newhaven and Seaford (a stretch of road now diverted inland).

On his retirement, he worked hard to improve the status and remuneration of his serving colleagues. He was a founder member of the Association of Local Government Engineers and Surveyors, with which he was actively associated up to the time of his sudden death. Another of his interests was the Rees Jeffries Memorial Fund.

Mr Lunn was a member of the Institution of Municipal Engineers and of the County Surveyors' Society. He was awarded the *C.B.E.* in 1955.

He was elected an Associate Member in 1915 and became a Member in 1949. He is survived by his widow.

FREDERICK AUGUSTUS CORTEZ-LEIGH, who was born on 22 March, 1873, died on 11 April, 1964.

Educated at Prior Park College, Bath, his scientific training was at Owens College, Manchester. Early practical training in the office and works of the Brush Electrical Engineering Company, Loughborough (steam engines, dynamos, switch gear, and other machinery) led to his appointment in 1893 as Assistant Engineer in the Contract Department of this firm. Two years in which he supervised the erection of machinery in power houses at Huddersfield, Worcester, Clerkenwell, and elsewhere were followed by a further two years as Assistant Engineer at the Worcester Corporation Electricity Works. In 1897 he became Chief Assistant Engineer to Mr S. V. Clirehugh (M) and in the same year was made a partner in the firm of Lacey, Clirehugh & Sillar, electrical engineers, and put in charge of their Manchester office. In that capacity he remained for the next twelve years, advising many town and city corporations on power-plant installation and tramways (including Belfast, Blackburn, Bournemouth, Rochdale, and Salford). The firm also advised the London & North-Western Railway on some of their power stations, electrical equipment, and hydraulic machinery. In his last year as partner of the firm, now known as Lacey, Sillar & Leigh, Mr Cortez-Leigh was made Chief of the Engineering Department of the Fire Offices' Committee, a body then responsible for the policy of all the leading fire insurance offices on technical and engineering matters.