

of Electrical Engineers, the Institution of Chemical Engineers, and also a Fellow of the Royal Aeronautical Society.

Elected an Associate Member in 1944, Mr Bramwell was transferred to the Class of Members in 1945.

HENRY JOHN GREEN, O.B.E., M.C., who was born on 10 October, 1883, died on 18 July, 1958.

He was educated at Tisbury School and Winchester Training College, and after working in Harrow as an Assistant Master from 1905 to 1908, he began his career in civil engineering when he was engaged in 1908 on a survey of the route for the Grand Trunk Pacific Railway through the Rocky Mountain Division, where he was also responsible for instrumental field work.

From 1910–14 Mr Green was Engineer-in-Charge of mountain survey and reconnaissance for the Grand Trunk Pacific Railway, where he was also responsible for the construction of 60 miles of the railway, costing £800,000, in the Mountain Division.

For a time preceding the outbreak of World War I, he was Survey and Construction Engineer when the war began, and enlisted in the Royal Fusiliers. In 1916, however, he was commissioned in the Royal Engineers, when he commanded the 10th Railway Company and 259 Railway Company, both engaged in railway construction in the forward areas of France and Belgium. His service took him through the Ypres, Arras, and Somme battles and he was awarded the M.C. in 1917.

In 1919, Mr Green became Chief Construction Engineer in France and Belgium for F. N. Pickett et Fils, where up to 1922 he was concerned with railways and other works worth £250,000, and in 1923 he was Resident Engineer for the Train Ferry Berth, Harwich.

It was in 1924 that Mr Green entered the services of the Metropolitan Railway Company as Assistant to the Chief Engineer. He was then responsible for the execution of various engineering works in progress at that time, and in 1926 was appointed Maintenance Assistant to the Chief Engineer, becoming Assistant Chief Engineer in 1931.

Two years later he became Acting Chief Civil Engineer, Metropolitan Railway, and in 1940 was appointed Chief Engineer (Civil) to the London Passenger Transport Board. When intensive air raids began he organized and supervised the whole of the work of repairing damage to underground railways and tram tracks. He relinquished this post for health reasons towards the end of 1943.

Mr. Green was elected a member in 1934.

BERTRAM DARELL RICHARDS, B.Sc.(Eng.), who was born on 7 April, 1882, died at Parracombe, North Devon, on 9 October, 1958.

He was educated at St Dunstan's College and later at London University, where he was awarded the degree of B.Sc.(Eng.).

From 1905–11 he was Senior Assistant to the Chief Engineer of the Bombay Port Trust, after a period of service on the Avonmouth Dock Works. He then became a Resident Engineer at the Tata Hydro-Electric Works, India, until 1920, when he became a consulting civil engineer, first in private practice and later with Sir William Halcrow and Partners. His work included investigations and reports on water-power schemes in India, Estonia, Brazil, Spain, New

Guinea, and West Africa, and flood control and other works in Palestine, Greece, Iceland, Britain, and other countries.

Mr Richards was the Author of a book¹ on flood estimation and control which has been widely used as a text-book on that subject. He also presented seven Papers²⁻⁸ to the Institution. For one of these² he was awarded the Crampton Prize in 1937, and two of the others earned him Telford Premiums. His other writings included Papers to the Bombay Engineering Congress, the World Power Conference, Tokio, and the Economic and Social Council, United Nations, 1949.

Elected an Associate Member in 1907, Mr Richards was transferred to the class of Members in 1916.

REFERENCES

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 3. "Records of rainfall on the catchments of the Tata hydro-electric power works", Min. Proc. Instn civ. Engrs. vol. 207 (1918-19), p. 405.
 4. "Consideration in the development of water-power, with special reference to India", Min. Proc. Instn civ. Engrs, vol. 220 (1924-5), p. 1.
 5. "Further note on flood hydrographs", J. Instn civ. Engrs, vol. 2, p. 585 (Apr. 1939).
 6. "Post-war transport in Great Britain", J. Instn civ. Engrs, vol. 21, p. 129 (Jan. 1944).
 7. "Economic development and utilization of water-power", J. Instn civ. Engrs, vol. 25, p. 207 (Jan. 1946).
 8. "Tidal power: its developments and utilization", J. Instn civ. Engrs, vol. 30, p. 104 (Apr. 1948).
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WILLIAM LAW WATSON, C.B.E., was born on 25 February, 1883 and died on 3 July, 1958.

After serving an apprenticeship at the locomotive works of the Great North of Scotland Railway, he was employed in the drawing office of the Great Western Railway at Swindon in 1905, and in 1912 he became Chief Locomotive Draughtsman for the Crown Agents for the Colonies. In 1915 he was seconded to the Raw Materials Department of the Ministry of Munitions as Sub-section Director.

Mr Watson was appointed Deputy Chief Engineer (Designs) by the Crown Agents in 1918, and in 1935 he became Chief Engineer (Contracts), a position which he held until his retirement on 1 May, 1951. He was also a special representative of the Crown Agents, visiting various countries round the Pacific and Indian Oceans, and in the Middle East. He was a member of the Commonwealth Standards Committee, and a committee, dealing with the preparation of General conditions of contract, formed under the auspices of the Institution of Electrical Engineers.

Elected an Associate Member in 1911, Mr Watson was also a Vice-President of the Institution of Locomotive Engineers.