Richard Thomas & Co. Ltd. He achieved the necessary reorganization of the Company and the Bank of England released its control. In 1945, he organized the amalgamation between Richard Thomas & Co. Ltd. and Baldwins Ltd. Later he was responsible for the formation of the Steel Company of Wales, of which he was Chairman from 1947 to 1955. He was a former president of the British Iron & Steel Federation and from 1953 to 1961 was a director of Lloyd's Bank.

He had a distinguished record in the 1914–18 War, largely as a liaison officer, when he was mentioned in despatches and received the following foreign honours and decorations:

Chevalier de la Légion d'Honneur Croix de Guerre (with palm) Croix de Guerre (with gold star) Knight Order of Dannebrog Commander of Order of Polonia Restituta

He gave great service to the Institute. He was an Examiner 1924–31, served on Council for 19 years between 1925 and 1948, was Honorary Secretary 1931–33, and Vice-President 1933–35. To the Institute he submitted three papers: 'An Investigation into the Mortality experienced by life tenants under reversions, with some conclusions drawn therefrom' (J.I.A. 53, 1), 'Foreign Exchange Restrictions' (J.I.A. 65, 157), and 'Some Reflections on Long-Term Investments with particular reference to the business of Life Assurance' (J.I.A. 69, 10). He delivered an Alfred Watson Memorial Lecture in April 1949 entitled 'Management in Industry as a Career for the Actuary: Prospects and Difficulties' (J.I.A. 75, 232). He also delivered a course of lectures on Foreign Exchange to the Institute in 1924–25 and was Chairman of the Special Examination Sub-Committee from 1944 to 1946 which reviewed the Examination System.

By his many colleagues and associates he will be remembered for a brilliant mind and rapid grasp of all financial problems, as well as for his consideration for his staff and friends.

LESLIE BROWN

JOSEPH BROTHERTON MACLEAN

J. B. MACLEAN, a Fellow of the Institute since 1911, died at Yarmouth Port, Massachusetts, on 29 July 1970 in his eighty-second year. Born in Glasgow, Scotland, Maclean had an outstanding record at Glasgow High School and on leaving school he entered the service of the Scottish Temperance Life Assurance Company (now the Scottish Mutual). He passed the examinations of the Faculty in successive years 1907, 1908 and 1909. He attained Fellowship in the Institute in 1911 and in the same year emigrated to the United States and joined the Mutual Life Insurance Company of New York. In 1913 he qualified by examination as a Fellow of the Actuarial Society of America. At the very young age of 24, he was a Fellow of each of the actuarial bodies in the English-speaking world.

With the outbreak of war in 1914, he returned to Scotland and enlisted as a Private in the Cameronians. He came out of the war a Captain and was awarded the Military Cross for Gallantry in action. This decoration was bestowed upon him in 1919 on board the British battle cruiser H.M.S. Renown in New York harbour by the then Prince of Wales.

Maclean returned to the United States and to the Mutual Life in 1919. A year later

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he was made an Assistant Actuary, and in 1926 he was promoted to Associate Actuary. He was elected Vice President and Actuary in 1941, a post he held until 1947 when he took early retirement and moved to Cape Cod. From there he continued his writing and undertook consulting actuarial work.

In 1924, *Life Insurance* by J. B. Maclean was first published. Based on a series of lectures he had given at Columbia University, this textbook became that extreme rarity among business books, a 'best-seller'. It is now in its ninth edition, has been printed in Japanese and Spanish, has sold over 100,000 copies, and is still a highly recommended textbook for students. This book has been basic study material for the examinations of among others, the Society of Actuaries, the Life Office Management Association, and the American College of Life Underwriters. Jointly with E. W. Marshall, he wrote Actuarial Study No. 6 on *Distribution of Surplus*. This volume published in 1937, is still on the Society of Actuaries list of Reading for Students. Prior to the publication of this volume, Maclean in 1931 contributed a paper to the Institute entitled 'Notes on the Practical Application of the Contribution Method of Distributing Surplus' in which, as M. E. Ogborn said in a review of Actuarial Study No. 6, he put forward a view of the Contribution Method new to most British actuaries. He made many other contributions to actuarial literature.

In 1942 he was elected President of the Actuarial Society of America following a long record of official service to the profession. Owing to war conditions, he held the office of President for an unprecedented term of three years. In one of his Presidential Addresses, he put forward the suggestion that the time had come to consider a possible union of the American Institute of Actuaries and the Actuarial Society, a suggestion which bore fruit 6 years later when the Society of Actuaries came into being.

Maclean was, until he reached retirement age, a Trustee and Member of the Executive Committee of the Teachers' Insurance and Annuity Association and a trustee of the College Retirement Equities Fund. He was frequently consulted by other insurance companies and individuals as well as by Government agencies. He served as a Panel Member of the American Arbitration Association.

The lengthy record of his work does not adequately convey a picture of Joe Maclean. His Scottishness was marked. He had the burr and the bristling eyebrows, but beyond these outward evidences he possessed Scottish traits of forthrightness, reliability, sound thinking and rectitude. By the force of his ability, industry, and character, and with his exceptional talent for exposition, he became one of the best-known actuaries of his day. His contributions of service to the profession were numerous and extraordinarily valuable and throughout his life he exemplified the finest qualities of the profession, His many friends inside and outside the profession will treasure the memory of a great actuary and a great individual.

Maclean is survived by his wife Marjorie whom he married in Paris while on leave during his First World War military service, and by their two children and three grandchildren.

A. C. WEBSTER