

leadership being marked by a general remodelling of the old office machinery and investment policy. In the height of his intellectual powers his health failed and in 1906, at the early age of 49, he was compelled to retire. In later years he devoted much of his leisure to pension schemes. He became in 1910 a member of the Advisory Committee of the Board of Education, which resulted in the establishment of the Federated Superannuation System for Universities, and he subsequently acted as Chairman of the Sub-Committee of King Edward's Hospital Fund, which was appointed in 1914 to frame a Pension Fund for Hospital Officers. His Report on the Hospital Officers' Scheme is of the most comprehensive character and is regarded as a classic in this particular field. In connection with Pension problems, reference may also be made to a valuable note which he contributed to the *Journal* in 1918-19 on the growth of national pension obligations both in this country and in America.

Mr Whittall's intellectual activities extended over many fields other than actuarial. Music was a dominating interest to the last, and he was one of those who originated the Dolmetsch Foundation for the preservation of ancient music and musical instruments. He was also a collector of rare early books and of majolica ware. But, above all, scientific gardening and planting formed, perhaps, his most abiding hobby. His apple orchards at Grayswood Hill were widely known, and he was a frequent prize winner at the Annual Shows of the Royal Horticultural Society.

One word must be added as to the charm of Mr Whittall's personality. He was a singularly lovable and understanding man, alert to every fresh idea, and to the last he retained his sympathy with the views and aspirations of the younger generation. He made hosts of friends and all who came in contact with him will ever hold his memory in deep affection. A. D. B.

#### T. G. C. BROWNE

The death on 13th August last of Thomas Gillespie Chapman Browne has removed from the list of Fellows of the Institute an honoured name which has appeared there for upwards of 55 years, a period of membership exceeded only by four existing Fellows. Mr Browne, who at the time of his death was aged 85 years and a few weeks, was born at Corstorphine and educated at the famous Edinburgh Academy. In 1862 he entered the Head Office of the *Standard* under William Thomas Thomson and in 1872 came to London as Chief Clerk of the *London and Provincial Law* under Ralph Price Hardy, but remained there

only until the following year, when he succeeded G. W. Berridge as Life Manager of the *Guardian*, the Office with which his name will always be associated. In December 1874, he became Secretary and Life Manager and, subsequently to the death of Samuel Brown in March 1875, Actuary and Secretary. On the transfer to the *Guardian* of the business of the *Westminster and General* in February 1906, Mr Browne relinquished the actuaryship in favour of Mr Ernest Woods, but his management of the Life business continued for a total period of more than 40 years until in 1915 he retired and was elected to a seat on the Board, which he retained until his death. His wife, formerly Miss Mary Ballantyne of Edinburgh, to whom he was married in 1875, survives him, as well as their family of three sons and two daughters.

Mr Browne passed all the examinations of the Faculty of Actuaries (of which he became an Associate in 1870) and contributed to the proceedings of the Actuarial Society of Edinburgh. After migrating to London he became, in 1873, an Associate of the Institute and was elected a Fellow in 1875. He held office from time to time in various capacities such as Auditor 1874–5, Honorary Secretary 1888–90, Vice-President 1891–4 and also 1902–4, Examiner 1893 and 1894 and served as a Member of Council for a total period of thirty years.

In the collective deliberations of the Institute, Mr Browne was content to take little part and on the comparatively rare occasions on which he joined in the discussions at Staple Inn, his speeches usually were concerned with the various methods of ascertaining and distributing the profits of life assurance offices, a subject which had a great fascination for him and on which he was an acknowledged authority. His name has been attached to one particular method of distribution devised by him to overcome certain difficulties which confronted him when, as Actuary, he took charge of the *Guardian* in 1876. This was adopted by the Directors after considering a notable report "On the Methods of Dividing Profits among Life Policy holders," in which he classified contemporary offices into seven groups according to the method of division employed by each and explained a new one which he thought better suited to the circumstances of the *Guardian*. Mr Browne's method in a slightly modified form is still used by the office for which it was invented and has been found capable of producing results such as he wished to bring about even under the widely different conditions now prevailing\*. It seems probable, however, that future

\* A description of the method will be found in *J.I.A.* vol. xxxii, pp. 115, 194.

actuarial opinion will consider that Mr Browne's "debt to his profession" was discharged not so much by the invention of the method of dividing profits which bears his name as by his persistently inculcating both by example and precept the importance of maintaining a systematic analysis of the profits of a life office and by demonstrating that, with the aid of suitable books and schedules and a moderate expenditure of labour throughout the year, it is possible to carry out an annual valuation and mortality investigation and to estimate the profits of each year from various sources with sufficient accuracy to account in ordinary circumstances for 98 or 99 % of their total amount and so to establish an efficient and extremely useful check on the processes of valuation and the results shown by the valuation balance sheet.

W. P. C.

#### PROFESSOR VON BORTKIEWICZ

THE world of Statistical Science has lost an outstanding personality through the demise on the 15th July last of Ladislaus von Bortkiewicz, for thirty years a Professor at Berlin University. Of Russian origin, having been born at St Petersburg on the 7th August, 1868, he was educated and also nationalized in Germany, the majority of his many important treatises being in German. A pupil of Lexis, the great teacher on the handling of mass phenomena, von Bortkiewicz followed the path set by the master; blazing new trails which extended widely the domain of statistical science.

At a very early stage von Bortkiewicz came into touch with actuarial science; when twenty-five years of age he published a book "On the mean duration of life" which is still valuable. At the time of his death he was Chairman of the Mathematical Section of the German Society for Insurance Science. Yet probably he achieved the greater part of his fame in his development of biological statistical methods which are marked by incisiveness and comprehensiveness of treatment. A reference to the volumes of the International Actuarial Congresses will show the active part he took in the discussions, and indicate sufficiently a rather combative temperament. In fact, he often tilted a lance with other eminent statisticians—e.g. Professor Karl Pearson, to whom he was much less than just. Still, this did not lessen the general admiration felt in this country for his remarkable attainments. A fuller appreciation of the life and work of Professor von Bortkiewicz will be found in the October number of the *Blätter für Versicherungs-Mathematik* written by Professor Karl Freudenberg (vide p. 123).

G. W. R.