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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).