

Mr. Manly did not view staff pension funds in any limited way, but included in his researches widows' and orphans' funds, and funds of similar character. The arithmetical work involved in such enquiries was stupendous, and the younger members of the Institute were always delighted to assist Mr. Manly, and in doing so to sit at the feet of a great master. He recognized the value of their help by coupling their names with his own in the titles of a number of his papers.

Among other contributions was one of great value which he wrote in collaboration with Mr. T. G. Ackland on the staff pension funds of Metropolitan Boroughs. His last contribution was a short paper entitled "A Novel Superannuation Scheme," which appeared in the *Journal* in January, 1914.

Mr. Manly attended regularly the International Actuarial Congresses, and we believe that he was present at all the seven which have been held, and he was Treasurer and Secretary for Home Correspondence of the London Congress in 1898. He, however, did not take very active part in the deliberations, there being only two papers from him in the *Transactions*. One of these he submitted to the London Congress, its subject being "The Solution of some "problems which frequently arise out of the rules of Pension Funds and Friendly Societies." This created great interest, especially among the foreign delegates. His second Congress paper was read at the Congress held in Amsterdam in 1912, when he dealt with a comparison between the mortality experience of the Equitable Life Assurance Society at the beginning and the end of the 19th century.

Although, as we have said, not a frequent contributor to the *Transactions*, Mr. Manly was always an honoured member, and through his social qualities added much to the success of the Congresses. He was thus better known amongst the actuaries in the British Dominions and in foreign countries than the majority of his confreres.

Mr. Manly's home was a happy one. He married about 45 years ago and was a good husband and kind father, and he has left his life companion and many children and grand-children to mourn his loss.

G. K.

The late SIR G. F. HARDY, K.C.B.

[Mr. Lidstone has kindly communicated for publication, as an Addendum to his Memoir in the January number of the *Journal* the following account by Sir Lionel Abrahams, K.C.B., Assistant Under Secretary of State for India, of Sir George Hardy's connection with the India Office.]

A branch of Government work that absorbed much of Sir George Hardy's attention during the last five years of his life was undertaken at the request of the Secretary of State for India.

His connection with the India Office had indeed begun much earlier, since, as already mentioned, he carried out important investigations into the age distribution and rates of mortality of the population of India as shown by the Indian Census figures of 1881, and did similar work in connection with the figures of 1891 and 1901. (See *Report on the Census of British India* for 1881, volume I. chapter vi, published by Eyre and Spottiswoode, London, 1883; *Census 1891, General of India Tables for British Provinces and Feudatory States*, volume II, pages 143 to 185, same Publishers, 1893; and *Memorandum on the Age Tables and Rates of Mortality of the Indian Census of 1901* by G. F. Hardy, published by the Superintendent of Government Printing, Calcutta, 1905). He had also prepared in 1903-4 for the Secretary of State for India and the Managers of the Bengal Uncovenanted Service Family Pension Fund (a fund not managed by Government but in receipt of Government assistance) Tables of Mortality and Marriage experience which were used as the basis of a new and larger Fund for the Presidencies of Bengal and Madras, established with Government approval and assistance in 1904.

But from 1909 until his death his connection with the India Office was much closer and practically continuous. The India Office, unlike most other Government Offices, has undertaken the establishment and management of several funds by means of which members of the various Indian services provide pensions for their widows and orphans; the most important being maintained respectively on behalf of the Indian Civil Service and the officers of the Indian Army. Subscription being compulsory, the contributors naturally allege occasional grievances against the Government in respect of the rates of subscription and the amount and scope of the benefits. In 1909 Lord Morley appointed a Committee under the presidency of Lord Welby to examine the Indian Military Service Family Pension Scheme; and Sir George Hardy became a member. He subsequently carried out one of the periodical valuations both of that scheme and of the Indian Civil Service Family Pension Scheme. The chief result, in the strictly professional sense, of this work was that by using a much wider experience of mortality, marriage, remarriage and issue than had previously been brought under investigation, he was able to recommend in the case of one scheme that, in spite of a reduction from $4\frac{1}{2}$ to 4 per cent. in the rate of interest allowed by the Government on the balance at the credit of the scheme, the rebates of

subscriptions granted when the $4\frac{1}{2}$ per cent. rate was in force should nevertheless be continued ; while in the case of the other scheme he recommended the grant of valuable new privileges to the subscribers. In both cases his recommendations were adopted. In addition, an entirely new fund, on a more scientific basis, was established for officers joining the Indian Army on and after 1st January, 1915.

But the professional result was not the only result of his connection with the India Office. He found a great pleasure and interest in assisting the work of a busy Government department ; while to the other members of Lord Welby's Committee, all men of financial experience, but without any special actuarial knowledge, it was a liberal (and also a practical) education to discuss the somewhat difficult problems arising out of a Government pension scheme with a colleague so eminent a master of the subject, but so modest, lucid, and patient in understanding and removing the difficulties of non-professional colleagues.
