increasing the numerical strength of the staff, to appoint Mr. F. W. Frankland to be Actuary under the Friendly Societies Act, and clerk in the department, Mr. Frankland's previous special training and mathematical attainments having qualified him to perform the duties imposed on him.

Section 9 (5c) of the Act provides that the Registrar shall, with the approval of the Governor, from time to time cause to be constructed and published tables for the payment of sums of money on death, in sickness, or old age, or on any other contingency forming the subject of an assurance authorized under this Act, which may appear to be calculable: Provided, nevertheless, that the adoption of such tables by any society shall be optional.

The actuarial soundness of the rates of contribution is one of the fundamental conditions of the stability of a friendly society. It is, however, a condition the disregard of which may not bring about its inevitable punishment until after the lapse of a very considerable period of time. A society may start with a rate of contribution quite inadequate to secure the benefits promised, and may go on accumulating funds for a great number of years, and exhibit every outward appearance of prosperity, the deceptiveness of the result being often, in the case of New Zealand societies, aggravated by the special circumstances of the rapidly-increasing value of freehold property, and the high rate of interest obtainable; circumstances which, however, should be considered as abnormal, and which should not influence a society to adopt a scale of contributions which would not under ordinary circumstances enable it to meet all the demands which will ultimately be made on the funds. As a consequence of this, there is the most wide-spread misconception among the members of friendly societies as to what constitutes an adequate rate of contributions, and very generally also, a complete want of appreciation of the importance of the subject. Among some of the members, however, there is to be found a healthy interest in the subject of financial reform, and the representatives of one large order (the Rechabites) have manifested the greatest anxiety for the appearance of model tables having the official sanction of the Registrar of Friendly Societies.

Mr. Frankland was accordingly instructed to prepare a series of tables of rates of contribution corresponding to the benefits most usually granted by the friendly societies of the colony. In view of the circumstance that the bulk of the settlers in New Zealand are of the same race as the inhabitants of the British Islands, having similar occupations, and living in a climate which, while somewhat more temperate, assimilates in character to the English climate, and as there is in the colony a comparative exemption from the evils attendant on the severity of the struggle for existence in the mother country, it was concluded that the sickness and mortality among the members of friendly societies in this colony might safely be expected to be, on an average, not in excess of that which obtains among the friendly societies in England.

Of the not very numerous tables which have been compiled of sickness and mortality experienced by members of English friendly societies, the three following are undoubtedly by far the best:—

(*a.*) *Mr. Neison's English Friendly Societies' Experience*, constructed from the returns of friendly societies in England and Wales for 1836–40, sent to the Registrar, embracing the experience of 1,147,143 years of life.

(*b.*) *Mr. Ratcliffe's Manchester Unity Experience of* 1856–60, embracing the experience of 1,006.272 years of life.

(*c.*) *Mr. Ratcliffe's Manchester Unity Experience of* 1866–70, embracing the experience of 1,321,048 years of life, being the largest experience hitherto collected of friendly societies in the United Kingdom.

It is the last of these experiences that has been selected by the Actuarial Commissioners appointed under the Imperial Friendly Societies Act of 1875, as the basis for the tables of rates of contribution which they have recommended for temporary use. It was accordingly resolved that this experience should be made the basis of the tables to be contructed in the Registrar's office.

The monetary tables which Mr. Ratcliffe has calculatad on the basis of his experience of 1866–70, being computed at a rate of interest of 3 per cent., were inapplicable to the construction of premiums for societies in New Zealand, it being the unanimous opinion of actuaries that an interest-basis of 4 per cent. may with safety be adopted for the valuation of life contingencies in the Australasian Colonies. It appeared, however, from a report issued by the Independent Order of Odd Fellows in Dunedin, that a series of monetary tables, computed at 4 per cent., had been calculated on the basis of the same experience by Messrs. G. Leslie and P. Black, officers of the Manchester Unity of Odd Fellows in that city. It was therefore deemed advisable to request these gentlemen to supply to this office the tables they had calculated, as the labour of the actuary attached to the office would thereby be very greatly abridged.

This was accordingly done. The required tables were furnished, and were accompanied by a most able and lucid memorandum explanatory of the methods used. This memorandum was then submitted to the Actuary for examination, and it was found by him that all the methods except one were perfectly correct. As the single incorrect method, though but slightly affecting the arithmetical result, is one which has been adopted by so high an authority as Mr. Ratcliffe, it may be interesting to refer to it at somewhat greater length. It is the mode adopted by him of computing the preliminary tables for finding the value of a benefit during the first six months of sickness. In calculating the K column,* the average sickness per annum is discounted by him for a quarter of a year only. It ought properly to be discounted for half a year, as in the case of sickness benefits for the first twelve months' sickness and for the whole period of sickness, as the reasoning by which the rule for discounting is established is not in the least affected by the classification of sickness according to periods. It is gratifying to find that this error has been rectified, in a treatise on the Valuation of Friendly Societies, quite recently issued by Mr. Reuben Watson, one of the officers of the Unity.

The clerical accuracy of the tables computed by Messrs. Leslie and Black was then tested by the independent calculation of each entry, and was found to be very great indeed. A correction was furnished of those tables which related to the first six months' sickness, and the tables are now worthy of all confidence, as a basis for the construction of such model rates as the Registrar had in

* *See* Supplementary Report, 1st July, 1872, of the I.O.O.F. Manchester Unity) F.S., p. 82.