

of the other three groups. In the "large towns" it is 7·48 per cent., in the "small towns" 6·83 per cent., in the "country districts" 7·99 per cent., and in the "mining districts" 12·11 per cent. As the experience includes, through fortuitous circumstances, an exceptionally-large proportion of facts (8,833·5 out of 23,946·5 years of life), relating to "mining districts," the value of this induction is greater than it would otherwise be.

4. *Mortality*.—In regard to mortality the data are too scanty to be of value for ages higher than 45. Such as they are, they lead to the following death-rates per 1,000 members. The numbers of years of life under observation in the various age-periods are prefixed to indicate the width of the numerical basis on which each result is founded, and the death-rates in the Manchester Unity of Odd Fellows in England, in the whole male population of England and Wales (Dr Farr's "English Life Table, No. 3, Males"), and in the life assurance companies forming the basis of the H<sub>M</sub> table, in the middle year of each quinquennial age-period, are also given for purposes of comparison.

Ages.	No. of Years of Life under Observation.	No. of Deaths during Quinquennium.	Death-rate per 1,000.	Death-rate, Manchester Unity, England.	Death-rate, Farr's Life Table.	Death-rate, H <sub>M</sub> Table.
Under 20 ...	1,197·5	10	[8·4]	...	...	..
20 and under 25 ...	3,417·0	14	4·1	6·5	8·7	6·8
25 " 30 ...	4,120·5	27	6·6	7·5	9·6	6·9
30 " 35 ...	6,016·5	40	6·6	8·3	10·6	8·1
35 " 40 ...	5,108·0	36	7·0	10·1	11·9	9·5
40 " 45 ...	2,668·5	31	11·6	12·1	13·9	10·7
45 " 50 ...	924·5	6	[6·5]	14·6	16·8	13·7
50 " 55 ...	205·5	4	[19·5]	19·2	21·5	17·5
55 " 60 ...	63·5	1	[15·7]	25·6	27·6	24·0
60 " 65 ...	49·5	2	[40·4]	37·2	37·8	34·6
65 " 70 ...	13·5	1	[74·1]	51·5	54·8	49·9
70 and upwards ...	8·5	...	[Nil]	...	...	...
Unspecified ...	153·5	2	[13·0]	...	..	...
Totals ...	23,946·5	174	7·3	...	..	...

It will be seen that from age 20 to age 50 the mortality is very much lower than that amongst English friendly societies. I believe the main cause of this to be the recency of admission of the members. A comparison of the admission-rate and secession-rate in New Zealand with those which obtain in England will show that the members of our friendly societies constitute, to a much greater extent than those of English societies, what has been characterized as "a shifting population, which is subject to observation but for a very brief space of time." To explain the influence of such a state of things on the observed death-rate, I cannot do better than quote an extreme illustration given by Mr. A. G. Finlaison, the Actuary to the English National Debt Office, from whom the above phrase is borrowed: "Of all the multitude of persons who, in the course of a year, travel on the great railway line from London to Liverpool, how few, if any, are recorded as dying in the course of transit. Yet they are of all ages, and are a vast body of people. And were we even to club with the travellers the whole corps of railway servants employed on the same line, how very light would still be the mortality observed to take place. The infinitesimal number of deaths recorded would represent neither the mortality of the travellers, nor of the railway servants, nor of the whole mass correctly; and it would appear to be incredibly small if ascribed to the general body. Yet nobody will believe that fewer railway travellers die than are buried of the same number of persons who stay at home. Nor will any reasonable person suppose that, because the facts are recorded with the most scrupulous accuracy in regard to the immense mass—and but few or no deaths are registered as having occurred while it fell under observation—that therefore the people composing that mass do not die in much the same numbers, and with the same regularity, as the rest of the world."\*

The explanation is, of course, that persons do not usually set out on railway journeys when on the point of death, and must therefore—for the purposes of the few hours or minutes that the journey lasts—be regarded as extremely select lives. In the same manner, persons cannot join friendly societies when they are ill, and, when the medical examination is strict, they cannot even join if of unsound constitution. Hence a constant infusion of new members in large numbers must tend to lower the mortality at all the ages of life at which members are admitted.

But apart from this, there is a circumstance which throws serious doubt on any conclusions which may be based on the favourable mortality exhibited. From Schedule I. to this report it will be seen that the 174 deaths of members observed during the quinquennium were thus distributed during the five separate years: 10 in 1873, 36 in 1874, 46 in 1875, 37 in 1876, 45 in 1877. Now, although the number of members under observation is not very large, and considerable fluctuations from year to year may be expected in the death-rate, yet the low mortality in 1873 constitutes a divergence from the mean much greater than that which the "law of error" would lead us to expect in a period of five years. Coupling this with the facts that I have no means whatever of checking the death returns for 1873, and that, owing to changes of secretaries, gradual improvement in the keeping of books, &c., the information for 1873 may be expected to be the least accurate of all, and that in the matter of mortality records sins of omission are more frequent than sins of commission, I am constrained to think it only too probable that the mortality for this earliest year of the quinquennium may have been understated. The death-rates for the various age-periods, derived from the remaining four years, will of course be considerably higher than those given in the above table. Thus the death-rate in age-period 30–35 will be 7·5 instead of 6·6, and that in age-period 35–40 will be 8·4 instead of 7·0.

\* Walford's "Insurance Cyclopædia," vol. v., p. 86.