

donment of the tontine feature lately by its chief exponents, and the advertisement of policy forms which give straight life insurance, non-forfeitable and understandable, together with the announcement of conservative methods generally, in addition to the improved condition already apparent from the 1895 reports, as above indicated, constitute the grounds for our belief. There is still abundant room for improvement in the management of the business, but we believe that it will gradually come.

THE MUTUAL RESERVE FUND LIFE ASSOCIATION.

The reserve fund of a life assurance company to be in a healthy condition must be enlarging as the claims for which it is reserved gradually increase in amount, and the period in which they mature shortens. The inevitable effluxion of time brings the two latter conditions. As the average age of a company's policy-holders increases, the death claims increase in an ascending ratio, and the average period in which the whole of the claims will mature proportionately decreases. The average interval before maturity, if the basis of the company is sound, will be amply long enough to provide all the funds necessary for meeting all the claims that are liable to mature in that interval. A serious condition then arises when the reserve fund shows signs of decreasing while the necessity for its increasing is growing year after year. Nothing could be more clearly demonstrative of a company's basis being unsound than its reserve falling off, while the amount of its contingent claims is being enlarged. The *Underwriters Review* calls attention to the Mutual Reserve Fund Life Association making a desperate effort to persuade the public into believing that its affairs are in a satisfactory state. Not one dollar has been carried to the reserve fund since June, 1895. On the contrary, in the Association's bi-monthly statement, dated July 19, 1895, printed in connection with Call 81, the total cash and invested reserve is given as \$3,928,479. In the statement for January 17, 1896, the reserve is stated as \$3,435,025, showing a depletion of the reserve fund in less than six months of \$493,453. We may fairly suppose there were some special circumstances at work to cause so serious a reduction in the reserve. Whatever they were, they need to be met, or the entire reserve will be wiped out in three or four years. It seems evident from this, that the increase made in the assessments of those who had become members previous to 1890 was not sufficient to stop the drain caused by the increasing death claims. Another unpromising condition is pointed out. The new business accepted in 1895 amounted to 60 millions, but the increase in 1895, as shown by the statements, was only \$15,293,265. This gives a lapse ratio of 74.50 per cent.—that is, the Association was charged with the expenses of acquiring sixty millions of new business, of which it lost nearly forty-five millions in course of the first year. The position of the Mutual Reserve is one which is causing anxiety to many who are interested in its fortunes.

MORTALITY FROM CASUALTIES.

Dr. Marsh, medical director of the Mutual Life, has compiled an elaborate statement relating to the mortality from casualties, deaths from which inflict unexpected and serious losses on life assurance companies. Comparisons with earlier years in this connection cannot be made with accuracy until those are reached during which the life assurance companies were operating on a scale large enough and wide enough to afford reliable data for comparisons of one period with others. The element of locality, though not alluded to, in such matters is an important one. Railway accidents, drowning, and other casualties are much more frequent in some localities than they are in others. It is therefore not feasible to draw out any general average results from the statistics relating to mortality from casualties, the averages must be localized to have any approach to accuracy. Take for instance the cities built on the shores of lakes or bays which are liable to be storm swept suddenly, but which are very popular resorts for boating parties, in such places the number of drowning casualties will exceed those of a number of other localities where such danger does not exist. So with building trade accidents, they will be numerous where constructive work is being extensively carried on, and few or none where the trade is stagnant. A year of hard times will also reduce those casualties, and so vitiate comparisons with other years.

Dr. Marsh gives the following analysis of 759 deaths from casualty between 1884 and 1893:

| | | | |
|----------------------------|-----|----------------------|-----|
| Railway accidents..... | 120 | Heat, cold, etc..... | 35 |
| Falls and falling bodies.. | 119 | Burns and scalds.... | 31 |
| Drowning..... | 118 | Machinery..... | 25 |
| Horse and wagon, etc.... | 84 | Unclassified..... | 31 |
| Homicide..... | 76 | | |
| Firearms..... | 72 | Total..... | 759 |
| Poisons..... | 48 | | |

Out of 17,375 deaths from all causes, those from casualties were 4.37 per cent. Classified according to ages, we find the percentages to be as follows, worked out from Dr. Marsh's data:

| Ages. | Total deaths. | Total casualties. | Percentage of casualties. |
|-------------|---------------|-------------------|---------------------------|
| 20 to 29 | 787 | 82 | 10.42 |
| 30 to 39 | 2,112 | 168 | 7.95 |
| 40 to 49 | 2,941 | 198 | 6.05 |
| 50 to 59 | 4,064 | 169 | 4.15 |
| 60 to 69 | 4,312 | 97 | 2.25 |
| 70 and over | 3,159 | 45 | 1.42 |

The ages during which the largest number of railway accidents to passengers occur are those from 30 to 39, a natural result of the greater activity as travellers of persons of those years. The years in which the accidents are most numerous from trains at crossings are those from 50 to 70, most of which arise from running imprudent risks. Of the 120 deaths from railway accidents, 11 per cent occurred among employees of the road. The data given by Dr. Marsh shows the great hazard of this class, over 40 per cent. of their insurance having become claims in less than 10 years. The short period in which the policies run of homicidal victims is very remarkable, no less than 80 per cent. having become claims in from 1 to 5 years. The moral hazard seems to have been overlooked in most of these cases as their violent deaths arose from their vicious lives.