

per cent. is not tampered with, but is held safely in the hands of responsible trustees, "and is not applied to any other purpose than that for which it was created, nothing on earth can disturb the security of the members." In the first year of the society's operations the premium receipts would amount to £3,562 10s.; and during the year three members would die, occasioning a withdrawal of £1,500 in payment of claims. The fund in hand at the end of the first year would, therefore, be £2,062 10s. together with the sum received for interest. There would then be a second year's premiums due by 285 members, producing an addition to the fund of the sum of £3,525, carrying interest; and at the end of the year there would be a second withdrawal of £1,500 on account of the like number of deaths; and so on for the third and fourth years. In the fifth year the number of deaths that annually take place will be increased to 4, and at that number they will continue for twelve years, when they will have increased to 5; in five years more to 6 deaths annually; in four years more to 7; and in seven years more to 8; at which number the annual death-rate will be stationary for nine years, when the rate will gradually diminish until the society has fulfilled its original purpose, and has become extinct, by the death of the whole of its members.

But the business of a life assurance office is not carried on without expense; and in order to meet the charges of management, rent, taxes, &c., and to provide for various contingencies, an addition is necessarily made to the net premium. This addition is ordinarily at the rate of one-fifth, or 20 per cent. on such net premium; so that at age 37 the rate of premium charged by a company, whether mutual or proprietary, would be 3 per cent. instead of the £2 10s. mentioned in the preceding example of a mutual society of 285 individual conducting their business among themselves without expense. This sum slightly varies in different offices; but it may be adopted as the standard rate. In a well-conducted office, the marginal charge above the net premium will always be found sufficient not only to cover the management expenditure and to pay a liberal dividend to the shareholders in a proprietary company, but to produce, from time to time, large surpluses applicable to appropriation among the policyholders, in proportion to their several interests.

We now come to our plan for the security of the last-named class of persons—the shareholders may be left to take care of themselves. It is of the simplest possible kind; easy of accomplishment; as unimpeachable as an axiom in Euclid; and as safe in its results as the operations of the Bank of England—namely,

"Never allow, under any pretext whatever, one shilling of the net premium to be made use of for any other purpose than that of meeting policy claims."

And why should the principle not be acted upon—honestly acted upon? Every pound withdrawn from the net insurance fund, except for the legitimate purpose of meeting death claims, is a species of fraud against the policyholders. It may eventually be restored, either out of the surplus percentage on the premiums, or by calls on capital, if a proprietary company; but until that is done the abstraction would be a fraud, inasmuch as that the shareholders, under such circumstances, would be carrying on their business for their own benefit with the policyholders' money. The plea of liability to make repayment out of the unpaid-up capital of a company does not alter the character of the transaction. An apprehension of approaching troubles may induce shareholders to get rid of their shares, and they may be succeeded by men of straw, which has been known to be the case in hundreds of instances with public companies. It may therefore be asked, —Who will there be to make restitution then?

In order to show with what facility the plan we

have suggested may be acted upon we will give an example of its operation in the supposed case of a proprietary life assurance company being formed with a paid-up capital of £10,000; that 285 policies for £500 each are issued to new assurers every year, instead of a single issue of that number, as in the former example;—that the age at entry is, in every instance, 37;—that the net premium is £2 10s. per cent.;—and that the additional office charge, or, as it is sometimes called, loading, is 20 per cent. on that sum—raising it to a gross premium of £3 per cent. In practice, uniformity of age at entry would never occur; but it is adopted for convenience of explanation. The same results would arise, whatever might be the difference in ages and the consequent increase, or decrease, in the rate of premium. The death-rate at all ages may be ascertained by reference to pages 255 and 256 of the new edition of the "Insurance Guide and Hand-book." We have previously exhibited what that rate is, for any number of individuals arrived at age 37;—and now the reader is fully prepared to understand the details and object of the following table:—

Year.	A	B	C	D	E	F	G	H	I
	No. of Policies	No. of deaths.	Gross Premiums.	Office Margin.	Net Premiums.	Interest on insurance fund.	Premiums and interest in hand.	Claims thereon.	Fund in hand after payment of claims.
	£	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
1st	285	3	4,275	712 10	3,562 10		3,562 10	1,500	2,062 10
2nd	567	6	8,505	1,417 10	7,087 10	274 10	9,424 10	3,000	6,424 10
3rd	846	9	12,690	2,115 0	10,575 0	510 0	17,509 10	4,500	13,009 10
4th	1,122	12	16,830	2,805 0	14,025 0	810 0	27,844 10	6,000	21,844 10
5th	1,395	16	20,925	3,487 10	17,425 0	1,178 0	40,447 10	8,000	32,447 0
6th	1,664	20	24,960	4,160 0	20,775 0	1,596 13	54,818 0	10,000	44,818 0
					73,450 0	4,369 3		33,000	

Explanation of the several Columns in the preceding Table.

Column A.—Number of policies in force in each succeeding year, on the assumption of 285 new entrants in each year, of whom a certain number will die in that year, and in each succeeding year, increasing periodically with the age of the individuals up to a certain point, and then, from diminished numbers decrease in the manner previously shown.

Column B.—Number of assurers who die in each year.

C.—Gross amount of premium received in each year.

D.—One-sixth of gross premium applicable to management expenditure, payment of a dividend to shareholders and for appropriation for bonus to policyholders when a sufficient surplus arises for the purpose.

E.—Net premium, to be added annually to the assurance fund; which is the sole property of the policyholders.

Column F.—Interest annually received on the amount available for investment after payment of the death-claims of the preceding year.

G.—Amount of net premium and interest at end of each year.

H.—Amount of claims in each year.

I.—Amount of assurance fund that ought to be found safely invested at the end of each year. Upon the inviolability of the amounts in this column the security of the policyholders mainly depends.

The several sums in each of the columns E, F, and H, in the preceding table, have been added up for the purpose of testing the reliability of the plan. The fund in possession at the end of every year ought clearly to be the amount of the whole of the net premiums and interest thereon, minus the total amount of claims that have arisen and have been paid. By adding £73,450 (net premiums, col. E) to £4,369 (interest received, col. F,) we get a total of £77,819; and by adding £33,000 (claims paid, col. H) to £44,818 (invested funds, col. I,) we get a total, £77,818. The difference of £1 arises from neglecting shillings and pence in some of the items.

We have not yet dealt with the paid-up working capital. We have already supposed it to be £10,000, and we will further suppose, for convenience of argument, the annual expenditure of every kind with which it is chargeable—even payment of interest to which there could be no valid objection—to be £5,000. These annual payments would be reduced in amount by the sums in col. D, Table 1; the only column in which the shareholders have a present financial interest, and the only one over which the Directors ought to be permitted to exercise the slightest control, except as to the safe custody and judicious investment of the sums in cols. E, F and I. We will now exhibit, in a tabular form, the action of col. D on the capital:—

Year.	A	B	C	D
	Marginal Premium.	Office Expenditure.	Capital diminished to	Deficiency of Capital.
1	£712 10	£5,000	£5,712 10	.....
2	1,417 10	5,000	2,130 0	.....
3	2,115 0	5,000	.....	£755 0
4	2,805 0	5,000	.....	2,950 0
5	3,487 10	5,000	.....	4,462 10
6	4,160 0	5,000	.....	5,302 10

It will be seen by col. D that at the end of three years the £10,000 paid-up capital will be exhausted, and that there will be a deficiency of £755, to be provided for by a further call of capital. The deficiency, it will be observed, increases annually; and it will continue to do so up to the end of the eighth year, when it will begin to decrease rapidly, from the growing excess of the sums in col. A over the £5,000 annual expenditure.

It is to be borne in mind, however, that the sums in col. F, Table 1, are less than those that will arise in practice, from a rate of interest much higher than 3 per cent., and that the expenditure in the earlier years may be kept down to a much less sum than £5,000 per annum. The deficiencies in the preceding table, to be provided for by the shareholders, will, consequently, be much diminished in amount, and the time for their being reduced and extinguished by the increasing marginal profits in col. A, will much sooner arrive.