

There you see an increase from 4 to 125 per 1,000. The fact that the risk is an increasing one in both sickness and life insurance is at the root of the whole matter, and is almost always ignored by laymen. It is the crux of the question, and differentiates life from fire and other insurance at once.

Now, if we have to insure an increasing risk we can either charge a premium which will increase exactly with the risk, or we can average the risk for the remainder of the man's life, and charge a fixed or level premium which will never increase.

If we adopt the first course and charge the bare cost year by year the premium will increase very slightly for fifteen or twenty years in the case of a man aged 20, but the increase will be very great after twenty years. In fact, it would be about 8s. per £100 when the insured was 20, and would increase to £5 when he reached 70, £12 when he reached 80, and £25 at 90.

If, however, it is desired to charge a fixed annual premium which will never increase, it must be an amount which is in excess of the cost in the early years, whilst below the cost in the later years. It will be a sort of average, in short. The excess payments in the early years form the familiar funds of friendly societies and insurance offices, and it is absolutely impossible to dispense with them if we wish to have a fixed annual contribution or premium. By investing these funds year after year we call in the powerful aid of interest, and thus reduce the cost.

As an illustration, if we did not invest our fund at interest the fixed or level premium for a man aged 20 would be about £2 per £100 per annum. If the fund can be invested at 4 per cent. a premium of 19s. 10d. (or less than half) can be quoted. If 8 per cent. could be guaranteed the premium would be much lower still.

We therefore have the alternative of a constantly increasing premium on the one hand and a fixed premium accompanied by an accumulated fund on the other hand. I have shown how the aid of compound interest in the latter case reduces the premium from £2 to less than half at age 20.

Now, I have pointed out that if we desire to have a fixed or level premium per annum which will never increase we must charge more than the cost in the early years of a man's insurance. No sooner, however, is this done than some ingenious individual discovers that insurance can be given cheaper by charging only the actual cost. He always overlooks the fact that I have emphasized—namely, that with an increasing risk the premium must ultimately increase enormously if you charge only the bare cost at first. This explains how the levy system always arises. Theory and practice both show that it works more or less satisfactorily for some fifteen or twenty years, or perhaps longer, but then invariably goes to the wall, causing much distress.

I have thus demonstrated in a general way the genesis and underlying error of the assessment plan. The error is due, then, to two simple facts—the neglect to remember that a man's risk continually increases as he grows older, and the neglect to require him to pay the cost of his own average risk.

I will now proceed to deal with the matter from another point of view. It is clear that, where a society pays for its deaths by a levy covering only the current cost, and accumulates no fund, all the money must come direct from the members' pockets, and the powerful aid of interest is lost. In such case it is unnecessary to repeat that the ultimate cost must be higher than under a scheme where the contributions are supplemented by interest. This in itself should show the futility of the assessment or equal-levy plan.

Further proof may be given as follows: Take a body of men aged 20. On the average they will die at about age 70. Giving them therefore fifty years each to live, it will be seen that they must pay in about £2 each per annum to provide £100 in fifty years, assuming they get no aid from interest. If, however, the levy commences with only 8s. a year, as struck in one New Zealand society recently, it follows there must be a very large increase at some future time. The lower the levy is at first, the greater will be the ultimate increase. In the fifty years which these members aged 20 would live on the average they would only have paid in £20 if the levy were 8s.; and, as there is no other source of revenue, where is the £100 to come from?

The lapses give little or no aid, as will be clear if we consider the case of 1,000 men joining with the idea of lapsing in a year or two. These 1,000 men will produce a number of deaths which will practically swallow up their own levies, seeing that they are only being levied to the extent of the current cost. The case would be different if a proper fixed annual contribution were charged, as this would be higher than the initial current cost, as I have shown. In an equal levy society, on the contrary, the lapses ultimately give the death-blow to the business.

The figures I have quoted apply to members aged 20. It must be clear that with members entering at 30 or 40 the position must be worse still, as these members have not so long to live; their claims will fall in earlier, and, owing to their shorter lifetime, they will not have paid in nearly so much as members entering at 16 or 20.

These remarks should be quite sufficient to convince any one of the radical unsoundness of the principle, but it may be of interest to examine some of the particular arguments used in defence of the system.

It is frequently urged that the death-rate can be kept down in a society by increasing the number of new members.

In the first place it is impossible to keep the death-rate down to a sufficiently low figure. Amongst the scores of fraternal (*i.e.*, friendly) societies in America I am aware of one that managed to do so for a period of some twenty years, and this was accomplished by approximately quadrupling its membership every five years. To keep up such a rate of increase in the membership for another twenty years would exhaust a population equal to that of the Chinese Empire, and sooner or later the death-rate would increase. In that particular society the rate has since increased. In the second place, we cannot shut our eyes to the fact that not a single one of all these persons, even to the number of 400,000,000, could possibly pay for his own risk unless he paid