

11. Persons entering at different ages would have to pay different premiums in order to secure shares of the same value. I think it would be best, until more is known of the mortality of diseased lives, to make their premiums proportional to those which would have to be paid by healthy lives of the same age. Thus, if the pure premium at age thirty-five is £2, as supposed in section 6, those for ages twenty, forty, and fifty would be £1 4s. 11d., £2 7s., and £3 10s. 10d. respectively. The proper method of loading the premiums for management expenses will be discussed subsequently. Persons dying in the same year would share alike at death (*i.e.*, in proportion to the number of their shares), whatever their ages might be.

12. Next we have to consider the bearing of the fact that our policy-holders do not insure *simultaneously*. A little consideration will show that this need not in any way affect the method by which the gross amount to be periodically divided is to be determined. Each calendar year will necessarily have a certain premium income from all the members on the books, whatever the length of time they have been insured. This premium income is composed of all the separate premiums paid during the year by the individual policy-holders, and in the case of each separate premium the method described in section 5 will give the portion to be thrown into the fund for division among claimants. Hence there is no difficulty in ascertaining the gross sum to be divided.

It remains to be seen, however, whether this gross sum ought still to be divided *equally* (or rather in exact proportion to the number of shares held) among the claimants, as it unquestionably ought in the first simplest case we considered, where all the policy-holders insured simultaneously. Let us suppose that it is divided equally, and consider what will happen. If, as we hope, the mode of apportionment described in section 5 has the effect of somewhat over-estimating the portion of the premium which it is necessary to reserve, then it is clear that, as time goes on, it will be possible (on an average) to pay larger and larger sums to the dying. But if we adopt the practice of dividing the gross divisible fund *equally* (*i.e.*, in proportion to number of shares) among all policy-holders, irrespectively of the duration of their policies, then the whole of this benefit will be made contingent, not on the age of the policies, but on the age of the office. The policy-holder dying in 1895 will receive more than the policy-holder dying in 1890, although both of them may have been insured precisely the same length of time. The policy-holder entering the office at an advanced stage of its existence will benefit at the expense of those who enter the office in its infancy. This is manifestly unfair. In order, therefore, to make the division equitable it will be necessary, if the ratio of the sum divisible to the number of deaths shows a steady tendency to increase as the office grows older, to divide that sum, *not pro ratâ* according to the number of shares held by the claimants, but in such a manner that those claimants who have only been insured a short time would receive no more than their predecessors did in the earlier days of the office, and that the whole benefit would go to those claimants who have been insured longer. The effect of this would be that, as the office progressed, a fixed proportion of assurance would tend to become established, corresponding to each duration of a policy, the sum assured increasing steadily with that duration. Thus it might turn out that, if £30 was the sum payable per share on policies of five years' duration, £40 would be payable on those of ten years', £60 on those of twenty years' duration, and so on. It would, of course, be necessary to wait some fifteen or twenty years before it would be possible to tell whether a steady and permanent tendency to an increase of the sums at death existed—whether, in fact, the needful reserve had been over-estimated by our method of apportionment or not.

13. A further complication is introduced by the absolute necessity of having a probationary period, say, of two years during which no payment should be made except in case of death by *bonâ fide* accident. For the sake of simplicity we have hitherto assumed that a certain proportion of the premiums of each year is annually divided among all the policy-holders dying in that year, however short a time they may have been insured. But it is clear that such a practice would open the door to what are termed "death-bed" insurances, *i.e.*, insurances effected by persons suffering from dangerous acute diseases or in the last stage of fatal chronic disease, thus greatly reducing the benefit to be derived from the scheme by that vast number of lives who are far above this level, though unable to effect insurances in ordinary offices. It is therefore necessary to adopt some plan by which, although all are allowed to enter, lives of the worst class shall receive no benefit at the expense of those above them in the scale of vitality. A probationary period secures this object more satisfactorily than any other device I can think of. A person dying within the probationary period should receive nothing, and forfeit the premiums he had paid in. As, however, the liability to accident is quite irrespective of ill-health, there would be no objection to the payment of a sum in the event of accidental death. But it would not do to divide the whole of the first two years' premiums among the claimants on account of accident, as this would give a much higher sum than would subsequently fall to the lot of persons dying natural deaths. After the office had been in existence a few years it would, I think, be best to make the sum payable on accidental death during the first two years of insurance equal to the average of the sums which had been paid on natural death during the third year of insurance. During the infancy of the office it would be necessary to adopt some other plan, and, in default of anything better, I would suggest that the sum payable on accidental death during the probationary period should be one-fifth of the amount which the premium paid would secure in the Ordinary Branch of the department.

It is worth consideration whether a payment should not also be made in case of death (during probationary period) arising from a disease (zymotic or other) *which could be proved to have commenced after the payment of the first premium*. This would be equivalent to a sort of retrospective medical examination. It would involve no medical examination at entry; but, in case of a claim on account of a natural death within the probationary period, medical evidence would have to be adduced to the effect that the disease causing death had commenced subsequently to the insurance, and that it was not merely the *sequelæ* of a disease which was already in progress at the time the first premium was paid. Unless such evidence could be furnished no payment should be made.