

PRACTICAL TREATMENT OF UNDER-AVERAGE LIVES.

At the recent New York meeting of the Actuarial Society of America, a paper was read by Mr. Arthur Hunter, associate actuary of the New York Life, on the subject of "practical treatment of under-average lives." The principal methods of insurance for under-average lives are:

1. A lien is charged against the face of the policy, generally reducible by the premiums paid from year to year.
2. The policy is placed in a special class as to dividends.
3. An extra premium is charged.
4. The premium is taken at an advanced age and not the true age.

Mr. Hunter said in part:

The lien system is particularly applicable to risks in which the extra mortality gradually decreases, such as that due to light weight combined with a history of tuberculosis. It is not entirely satisfactory in connection with a heavy extra mortality which exists for a short period after the issue of the policy—such as that resulting from a history of appendicitis, because of the very high lien required in the early policy years. Theoretically a rapidly decreasing lien would be excellent, but practically the lien is so heavy that agents find great difficulty in inducing applicants to accept such policies. For applicants, therefore, who have had that and similar diseases which are liable to recur in a few years following the attack, an extra premium for a few years is the most practical form of treatment. Liens are of little value and are unsatisfactory when the extra hazard does not occur until the policy has been in existence for many years. Probably the most striking example of such cases to which the lien system is inapplicable is that of persons distinctly overweight at the young ages of entry, as the relative mortality increases from the young to the middle ages (attained) of life.

The device of placing policyholders in a special class as to dividends was used to a considerable extent prior to 1907 under deferred dividend policies. It is an equitable way of treating persons in hazardous occupations.

METHODS ADOPTED.

Before any plan for creating special dividend classes is put into effect, the maximum extra mortality which can be borne by using the surplus to pay extra mortality should be ascertained. It is then a matter of business judgment to determine what proportion of the regular dividends it would be advisable to pay in each of the sub-standard classes, and thereafter to calculate the range of cases which should be put into each class. If the under-average business of the company is largely limited to cases in which there is a hazard from occupation, and if this hazard is principally from accident, the system of charging an extra premium is the better one. In general, where the additional mortality is a constant, irrespective of age, the extra premium method is better than the advance in age; but if the additional hazard is expected for many years to be a percentage of the regular mortality, the advance in age is the better plan. The extra mortality may also be a decreasing percentage of the normal for a longer or shorter period, in which case the extra premium is probably better than the advance in age. As the

business of the company is likely to be composed of applications from persons under these and other conditions, neither of the systems under discussion is entirely satisfactory in every particular. Some companies have therefore adopted both the extra premium and the advance in age methods, while others, for the sake of simplicity, have adopted the one which in the main fits the majority of the cases received.

What reserve should be carried on policies with an extra premium? If the additional hazard is assumed to be a current one, then one-half the net extra premium is sufficient.

When a risk is markedly impaired, it is the part of wisdom to limit to 10-, 15-, or 20-year endowment policies. If the continued insurance is not eliminated, then part of the object in obtaining a good selection by limiting to high-priced policies is defeated. A short calculation will show that if the insured carries the policy for a few years and then takes term extension, he is getting the insurance at practically the same rate as would have been charged him for a term policy in the first instance.

In an impairment which lasts only for a very few years some provision for remission of the extra premium is necessary.

When an insured changes from a hazardous occupation to one in which there is little or no hazard, the question of treating him as a standard risk arises. We are forced to determine from our knowledge of the conditions under which a number of the companies operate and from our own experience through his occupation that he had to give it up.

A MATTER OF BUSINESS JUDGMENT.

A question which is frequently put to the actuary is: Can we not adequately cover certain types of impairments by restricting to the higher price plans of insurance? There is probably not a company which during the course of its experience has not limited persons who were overweight, those who have had an attack of syphilis, etc., to 15- and 20-year endowment policies. The Specialized Investigation showed that the companies had a higher mortality than the normal on policies offered by the companies on higher-priced plans than applied for. It seems to me that the question resolves itself into whether a company, rather than lose business, is willing to stand a slightly higher mortality than the normal on part of its 10-, 15- and 20-year endowment policies. If a company on such part of its endowment business experiences 25 per cent. extra mortality, the monetary loss would be small, and unless an undue proportion of such risks were accepted, the mortality among the endowment insurances as a whole would be distinctly lower than among ordinary life policies. It is therefore a matter of business judgment whether the company is willing to take on the endowment plans a proportion of risks under which the mortality is likely to be slightly above the normal. It has been stated that the psychological effect of acceptance by the applicant on endowment insurance constitutes a selection in favor of the company.

Mr. T. R. Whitley, western supervisor of the Royal Bank of Canada, has been appointed to take charge of the English interests of the Bank, in succession to Mr. W. M. Botsford, who is retiring from the service.