PROBLEMS OF DISABILITY RISK.

That the disability feature in life insurance is a matter still requiring much scientific study, was a point made by Mr. Henry Moir, the well-known actuary, in a recent address before the Association of Life Insurance Presidents.

The standard net rates adopted by the insurance department of New York indicate that the net premium required at age 20 for the waiver of ordinary life 3 per cent. net premiums per $1,000, in event of disability before age 60, is but 10 cents; at age 40 it is increased to 32 cents; and at age 55 it is $1.12. For the waiver of a 20 payment net premium, the net extra at age 20 is but 6 cents; at age 40 it is 25 cents; and at age 55 it is $1.16. These premiums are scientifically computed, and are the best yet available, although admittedly based upon statistics which do not necessarily conform to the conditions under which the benefit is now being conferred by old line life companies.

Even when accurate net premiums have been computed, these would merely insure the waiver of net premiums only; while many of the companies agree to waive participating premiums, and to pay the same dividends when the premiums are thus waived as would be paid if the policies were being maintained from year to year in the usual course of events.

SCIENTIFIC STUDY REQUIRED.

The net standard premium to insure the waiver of a net whole life premium at age 40 is but 32 cents; but if the insured be entitled to dividends, then the net published premium is insufficient, since it must be increased by a percentage equal to the percentage of the net life premium which will be payable as dividends from the loadings of subsequent years.

After premiums are waived much collection expense may be saved, but if dividends are paid, net extra premiums must be raised to provide such dividends. After computing this enlarged net premium, the proper loadings for expense should be made. There are many little pitfalls of this nature, open for the unwary, and the entire subject is one which needs careful scientific study, instead of being treated with that looseness of method with which it has been surrounded in the past.

Many, indeed most, lives insured become disabled before they die. Except in the case of very sudden deaths there is always some period of disability; but a large proportion of these cases have no effect on the premium for this extra benefit. In some cases, where a premium falls due while the insured is in a moribund condition, the company will lose that individual premium; and, in like manner, cases will arise in which the insured will die during the grace period and the premium cannot be collected; but the intent of the provision seems clear that such cases are not meant to come within the scope of this particular feature, which is designed to cover the more lasting forms of disability and to lighten the hardship of prolonged sickness.

But there are also disability claims which arise from causes not necessarily leading to an early death. For example, a man becomes blind, or loses both arms by accident; or, again, certain types of insanity while they unfit a man for business yet seem conducive to longevity perhaps because of the care a patient receives in a sanitarium and his regular life.

Such are the expensive cases from the disability standpoint. Such cases are comparatively rare; by far the more common forms of invalidity bring an early death, as tuberculosis, paralysis and most forms of insanity. The death benefit is already covered for the full sum insured by the regular premium, and the extra for disability covers only the premium waver during the interval, short on the average, between disability and death.

OLD AGES INCREASE RISK.

There are some interesting features shown by the mortality of disabled lives. As might be expected, the rate is highest during the year immediately following disability. But strangely enough it is higher at the younger than at the older ages. It has been shown that the mortality during the first year of disability at age 25 is about 40 out of 100; about 20 per cent. the second year; about 10 per cent. the third year; and only about 5 per cent. the fourth year. On the other hand, if disability takes place at age 65, the mortality in the first year is less than 20 per cent.; in the second year, about 13 per cent.; in the third year, about 12 per cent.; and at no time comes much below 10 per cent.

These figures show that at the younger ages disability is usually a precursor of death, but at the older ages the lives, having less recuperative power, disability is more likely to be long drawn out and expensive from the disability standpoint. Doubtless many of the claims at young ages arise from tuberculosis or serious accidents which are liable to result fatally soon after. Those who survive for two or three years after disability occurring at a young age become fairly good lives on the average showing the recuperative power of youth.

In this also, it may be seen that selection against a company may be a potent factor at the older ages; and of course the figures confirm the condition, already explained, that the risk of permanent disability, viewed as an addition to the regular life insurance risk, is immensely greater at old than at young ages.

AN ARTIFICIAL PROSPERITY.

I am prompted to remark that the prosperity we have enjoyed of recent years has been more or less artificial. To a great extent it has rested upon a solid basis of profitable production, but to some extent it has not. Large sums of money have been spent rapidly, the chief object being, seemingly, to get things done, no matter what the cost might be, and without due regard to economy, or to the overhead burdens which the increased cost placed upon the industry. Manufacturers during the past three years have had more business than they could attend to profitably. We find ourselves handicapped for the time being by habits we have learned, which will have to be unlearned, and by methods we have become accustomed to, which will have to be abandoned. Irrespective of tariffs, taxes and freight rates, business kept forging ahead. We set for ourselves and for our workpeople a standard of expensive living second to none in the world. In these and other ways our costs have become inflated as compared with the costs of competitors in other countries, with the result that our tariff no longer protects us to the same extent that it used to. I do not cite these conditions as an argument for higher protection, but rather as pointing to the necessity for more economical methods of production and development.—*Mr. C. B. Gordon of the C. M. A.*