(3) Percentage of income saved. Most of the remarks made in reference to expense ratios hold here. It is clear that the larger the proportion of new business to old, the smaller will be the percentage of income saved, whether new business is or is not being obtained at a reasonable price. The ratio discriminates, therefore, against the young com-The amounts of surpluses being paid out and the proportion of endowment and high-priced plans should be considered. Again, some companies have a regular period for surplus distribution for all plans and years of issue. Should the ratio be considered for any such company in one of these years of distribution, it will show considerable distortion from the usual trend. As a matter of fact for this ratio or any ratio, it is generally wise to consider the trend of the same ratios for some years past to notice any discrepancy in regularity. For example a company might through some peculiar circumstances have a very heavy mortality one year which in all probability would be followed by a light mortality the following year. This would distort many of its ratios and, perhaps, especially in the case of a young company, render them useless for comparison.

Surplus on Ledger Assets.

(4) Surplus earned on ledger assets. This is a very important ratio and a good comparative one for companies of approximately equal ages, sizes and rates of progression, as it focalizes all significant ratios on the supreme point of earning power. The ratio is, however, well nigh impossible to ascertain accurately for the other company, and hence its chief importance-but as a matter of fact this statement holds true of every other known ratio-is to enable the management of any company to test their own progress year by year in order to éradicate defects, introduce improvements, and still further nourish strong points. Quite often, however, the ratio can be approximately found from a company's published statement as follows: From surplus to policyholders, deduct the paid-up capital, thus obtaining the divisible sur-plus; from this latter amount deduct the divisible surplus as shown by the accounts at the end of the previous year and add the profits paid to policyholders during the year. increase or decrease in the amount of dividends due and unpaid over that of the previous year should then be added or subtracted and to this result should be added the amount of dividends which the shareholders receive in excess of the interest earned on their paid-up capital.

A change in the reserve basis during the year will make it impossible to find from the statement alone the year's gain in surplus. It should also be noted whether any contingency reserve funds have been increased during the year by amounts drawn from the surplus. The dividends paid to policyholders shown in a company's statement will very probably include premium reductions earned in preceding years and now simply falling due. The "outsider," however, has no means of obtaining this proportion, which, of course, should be deducted in ascertaining the true surplus earned.

Lapse Ratios Important.

(5) (a) Terminations to new business; (b) lapses to insurance in force. The "lapse" problem has been to the fore very much during the last few years, and it has received particular consideration from many sides, while, at the same time, the companies have endured much condemnation by one or two "weakly" journals, whose knowledge of life insurance is hardly on a par with their propensities for criti-cism. One of the most able papers on this "lapse" problem, that I have had the pleasure of reading, is that of Mr. B. W. N. Grigg, in the last number of the Toronto Insurance Institute Proceedings. But he is at fault in succumbing to the fallacy which lies in the first of these ratios. For instance, he gives the new business for Canadian companies in the proceedings of these ratios. in the year 1914, and with it compares the terminations (consisting of surrenders, lapses and not takens), and draws this conclusion: "We are confronted with the fact that in the year 1914, of every \$100 of insurance written, \$63 vanished on account of surrenders, lapses or refusal to accept."
Now these figures are not facts. Of the \$63, "surrenders". comprise \$9 and have no relation whatever to the new business of the year since they occur on policies three or more years in force; "lapses" comprise \$44 of the remaining \$54, but they, too, are largely due to the preceding two years business, since they occur on policies upon which some payment has been made and which have therefore been in force on the average, we shall say, of a year and a half; "not takens" make up the remaining \$10, and fully one-third of these would be on the preceding year's business. It is clear, then, that in constructing ratios of this kind, the history of

each year's business would have to be known. Take, again, Mr. Grigg's use of the year 1914. This year, as you all know, hard on insurance companies. Business written verv was light. Lapses were heavy, and particularly so due to the fact that the preceding year 1913 had been one of the best in insurance history for the writing of new business. And yet Mr. Grigg takes the lapses due mainly to this large 1913 business and compares them with the unusually light, 1914, new business. Understand me, I do not state that Mr. Grigg's stricture that "lapse" rates are too high, is in-I quite agree with what he says in that respect, and correct. the conclusions he deduces from these high rates are per-fectly sound and well-timed. I point out merely that the figures by which he arrives at his conclusion are incorrectly taken, and if used as a comparison between companies would, not improbably, lead to the most unfair deductions.

Necessary to Onward Movement.

A low lapse rate is not necessarily a matter for congratulation. It may be quite the reverse, indicating unpregressiveness and stagnation. Quite often the most energetic and reliable companies have high lapse ratios which they regard not as a reproach, but as a necessary accompaniment to vigorous headway. Generally speaking, however, when the necessary allowances have been made for new business, a heavy lapse rate is a bad sign, indicating "forced" business, slackness in looking after existing policyholders, and per-haps a growing lack of confidence in the company on the part of the public. Lapse ratios as a rule decidedly favor the old company, both apparently owing to its larger proportion of old to new business, and actually due to the fact that its greater reputation for stability and security attracts a larger proportion of the careful investors. In figuring on this ratio, the amount of revivals should, of course, be considered, and also the company's practice in respect to the entry of lapses, whether immediately on lapse or after the expiry of a considerable time when all hope of continuance is gone. Some companies leave a considerable "buffer" between the lapses recorded, and those actually realized, until a year of depression comes, when they "write off" every bit of business they can possibly dispose of this way. As in a year of depression, or "war" year, conditions distort many of the ratios of all companies, their heavy lapse rate for such years passes unnoticed, whereas their light rate in "good" years comes in for hearty commendation on the part of themselves The lapse trend for several years should, financial journals. therefore, be considered. It is pleasant to be able to state that the attitude of the Underwriters' Association to the "twister" has practically banished lapses due to his malign

Participating v. Non-Participating.

There is one fallacy that I must not ignore—it is the fal-lacy that non-participating insurance is better than participating. I think the argument here can be put in a nutshell as follows: The main elements of the premium are interest, mortality and loading factors. Both the non-participating premium and the participating premium must be calculated on the assumption of future experience in these three elements, and a considerable margin allowed therein for the sake of safety. In a good, reliable company-and that, I believe, every company we represent is-that margin of safety or some part of it is certain to be returned to the participating policyholder, and at least refund of any excess premium he has paid for the participating feature; with the non-participating policy the whole of the safety-margin is forfeited by the assured. In other words, the participating policyholder gets his insurance carried at absolutely net rates, the non-participating policyholder does not.

An interesting discussion followed Mr. Langstaff's paper, centring largely around the manner in which the premium rates for participating and non-participating policies were made. Mr. E. R. Machum, St. John, J. A. Johnson, Great-West Life, Vancouver, G. E. Williams, North American Life, Montreal, Archer Wickware, Imperial Life, Ottawa, W. J. Phillips, Ottawa, took part in the discussion.

Mr. J. A. Johnson, Great-West Life, Vancouver, told of well-known United States company, which for a few years had written both participating and non-participating insurance, and, he added, "the man who holds the two kinds of policies, both of the same date, in that company, finds that the par-ticipating policy is costing him a great deal less than the non-participating policy." This discussion was developing to an interesting stage, when, unfortunately, the pressure of programme procedure stopped it abruptly.