in value, and how largely our purchases in the States exceed our sales in that market. Germany, France, Spain, Holland and Belgium are also poor customers for our goods. But though Canada would be glad to send those countries more of her productions, we may be sure of this, that we should not buy their goods unless the trade was profitable. The theory that trade to be satisfactory must be mere " swopping " is antiquated. Buying and selling are alike profitable if conducted with business-like judgment, and settlements of balances of trade, though interesting as a study in exchange, need cause no anxiety so long we can keep up our credit as a nation by some form of honorably meeting obligations.

ACTUARIAL CORNER.

The official labor of the actuary has been considerably simplified and facilitated of late years by the publication of extensive tables of a useful character. However fond he may be of original research and investigation of a theoretical nature, the actuary's mind is of a distinctly utilitarian character,—in his own particular sphere at least. However much he may admire the beauty of a graceful formula, the number of new volumes designed by the profession for the saving of tedious labor shows that he still retains a keen appreciation of the practical every-day needs of life assurance and kindred businesses. The time, patience and work which have been applied in this direction can scarcely be conceived by the ordinary layman, but the debt which the assurance world, the assuring public included, owes to the actuarial profession is none the less for that fact. The latest addition to works of the kind alluded to is a volume of " Valuation and other Tables, deduced from the Institute of Actuaries Mortality Experience, etc.," by George King and J. H. Whittall, Fellows of the Institute of Actuaries. The tables now published are—Hm 2½ per cent., Hm (5) 2½ to 4 per cent., and Government annuitants (1883) Select Mortality, 2½ and 3 per cent. The first two may be regarded as supplementary to Mr. Ralph P. Hardy's well-known valuation tables, whilst the last will fill a long-felt want in the mother country.

The highest rate of interest employed in the tables being 4 per cent., they will probably be of little practical use to Canadian companies, for the present at least, but they should be of interest to those engaged in actuarial pursuits.

A NEW PLAN OF ASSURANCE.

To the making of so-called new tables there is no end. There are really only two distinct classes of policy benefits contingent upon human life, viz : pure assurances and pure endowments, the former payable at death and the latter on survival of a certain period. All other plans are simply modifications or combinations of these in some form or other. They are, however, none the less important, as is shown by the fact that a large proportion of the policies effected are for mixed benefits. A rather novel example of this class has been lately adopted by the Colonial Mutual Life Assurance Society. The policy is a whole life assurance

purchasable by annual premiums which cease on attaining sixty years of age, when the assured for the remainder of his life receives from the Society the refund of an annual premium every year, the assurance still continuing in full force. As the plan may have attractions to some, we have taken the trouble to compute specimen rates upon the basis of the IIm Table with 4½ per cent. interest and a "loading" of, say, 20 per cent. upon the gross premiums for expenses and profits. By way of illustration these are shown below side by side with those for ordinary limited payment life policies at the same rate of interest and with the same percentage of loading.

	Limited payment life.			Reversible premium plan.		
Age	Net Premium	Loading	Gross Premium	Net Premium	Loading	Gross Premium
	$	$	$	$	$	$
20	12.42	3.11	15.53	13.46	3.37	16 83
25	14.58	3 65	18.23	16.29	4.07	20.36
30	17.63	4.41	22 04	20.62	5.18	25.80
35	21 81	5.45	27.26	27.49	6.87	34.36
40	27.96	6.99	34 95	40.27	10.06	50.33
45	38.17	9.54	47 71	73.78	18.44	92.22

It will be seen that the rates for young ages are only slightly higher than those for ordinary limited payment life policies; but we should think that the premium for the higher ages would be practically prohibitive. The formula for the gross rate is—

$$\frac{M_x}{N_x - _1 (1 - l) - N_{x+n-1} (2 - l)}.$$

In the the above expression n represents both the number of premiums payable and the number of years at the expiration of which the premium return commences; and l the proportion of the gross rate proposed to be charged for loading. If the loading to be added be a fixed quantity, irrespective of the premium, or a constant and a percentage, of course the formula must be modified accordingly.

THE ALLIANCE ASSURANCE COMPANY.

The annual report of above Company for 1893, which appears elsewhere in this issue, records the result of its operations during the seventieth year of its existence. Its history since organization has been one of steady and progressive growth and successful management, and its experience during the year under review, if less favorable than heretofore, proves to have been no exception in this respect. It is true that in common with most other companies, the Alliance suffered from an increased loss ratio in its fire branch ; but unlike many of its contemporaries, it is to be congratulated upon having succeeded in earning a profit out of the premiums during the most disastrous year in the history of fire underwriting. The Company has earned an enviable reputation for the prudence and ability with which its affairs have always been conducted, and that special care was exercised during the past trying year is indicated by the fact that the premium income, unlike that of other years, practically remained stationary at a little over £530,000. A favorable feature of the report is the reduction of the expense ratio from 34.54 to 33.74 per cent., showing that despite the increased cost resulting from keener competition, the Company succeeded in