

reduction of the fire loss. The work of several of the secondary brigades has demonstrated that equally effective work can be carried out in the small towns and that the extension of salvaging work as a standard operation throughout the fire service is desirable.

(6) *Training*.—It is noted elsewhere in this report that an improvement in brigade training has been evidenced in most cases. The aspect which calls for reference here is that more brigade work is being carried out and the men are being exercised in the layout of plant and equipment required for dealing with large fires, which, while they do not occur frequently, are the cause of the major part of the fire loss. Training is also carried out on the actual buildings which constitute the principal fire risks, and in a number of cases the equipment for this work has been improved by the provision of breechings, standards, &c., for throwing large extinguishing streams.

The improvement of the brigade organization and equipment to a satisfactory standard on the lines indicated above would not involve a great increase in annual cost taken over the whole fire service, but in individual cases, and particularly in the smaller towns, the capital expenditure involved in, for instance, the purchase of a fire-pump is a matter of concern to the local ratepayers. From the practical point of view the question cannot be considered apart from the insurance position. In the first place, the figures for insurance premiums are the only reliable indication available of the property under protection in the individual district; secondly, the insurance companies who pay approximately half the fire-brigade costs have an interest in the relationship of fire-brigade levies to insurance premiums; and, thirdly, because when additional expenditure is proposed the local-authority representatives almost invariably raise the question as to whether the increased efficiency of the fire-protection service will also result in a corresponding benefit to the ratepayers by a reduction of the insurance tariff.

In theory insurance tariff rates are based on the situation of the property and the occupational hazard of the building, but in practice there are so many factors variable from time to time, such as the alteration in the character of a town or district, the type of buildings, water-supply, or fire service, and the like that the existing tariff is largely a compromise based on negotiations between local authorities and the underwriters. It is notoriously difficult to increase rates once established, and, as insurance is based on averages, inequalities have arisen as between districts, which are not justifiable on the facts but which could probably not be corrected without something approaching a complete reclassification.

The tables of average statistics published in these reports for the past three years were designed to provide an indication, based on a sufficiently long period to be of value, of the fire-loss position in the individual fire district. The insured fire losses shown for the year covered by each report refer to fires which the brigades attended, but do not include a considerable number of small fires on which insurance is paid. It was found by experience over several years that the payment made on these fires was approximately the same on the average as the uninsured loss returned in the brigade reports, and the total-loss figure has therefore been used in compiling the average statistics. The latter may be taken as correct within about 5 per cent., and apply to the respective years ending 31st March.

Prior to 1930 there was no co-ordination between the statistical returns prepared for these reports and those prepared by the Government Statistician, but since that date the reports on fires received from fire districts have been checked against the insurance companies' returns. The following table sets out the average position for the last five and three year periods as disclosed by these figures, and for purposes of comparison the ten-years average for the whole Dominion has been included. The first five years of the ten-year period were the peak years for high fire losses (in 1928 the insured loss was £1,454,328), but it is evident that the reduction in fire loss, particularly during the last three years, has been sufficient to compensate for this, and the ten-year average discloses an underwriting position by no means unfavourable. The figures shown for non-protected areas were obtained by difference after deducting figures for areas protected by municipal brigades estimated on the same basis as for the small fire districts.

	Insurance Premiums.	Insurance Companies' Payments.				Percentages of Total Payments to Premium Income.
		Fire Board Levies.	Percentage of Premium Income.	Payments in respect of Fire Loss.	Percentage of Premium Income.	
	£	£	£	£		
Whole Dominion : Ten-year average ..	1,894,952	63,675	3·36	975,903	51·50	54·86
Whole Dominion : Five-year average ..	1,855,508	67,743	3·65	801,847	43·21	46·86
Fire districts : Five-year average ..	929,280	67,034	7·21	294,080	31·65	38·86
Non-protected areas : Five-year average ..	740,677	..	..	448,391	60·55	60·55
Whole Dominion : Three-year average ..	1,761,751	66,483	3·77	615,883	34·96	38·73
Fire Districts : Three-year average ..	904,155	66,076	7·31	220,988	24·44	31·75
Non-protected areas : Three-year average ..	681,421	..	..	351,732	51·62	51·62

These figures show that over the five-year period the fire districts, despite the lower tariff rates in force in most of these areas, produced 50·1 per cent. of the premium income and were responsible for 41·5 per cent. of the loss, whereas in unprotected areas the relation