

to over-rapid driving, with its accompanying nuisances, of which the dust evil is but one. However, the traffic is of great value to the summer resort region, which would be the goal of most of these hurrying wayfarers, and the interests of such regions must be considered as well as those of the more strictly farming districts.

Along the interurban roads many persons will pass who do not live in the municipalities in which they are situated. This is perfectly natural; from time immemorial the King's highway has been for the use of the traveler, regardless of his residence. It is necessary, of course, to see that the burdens of constructing and maintaining such a road are equitably adjusted, so as not to impose an undue proportion of them on the people of the locality. Indeed, if measures of this sort are not taken, the situation will work itself out, and disadvantageously to all concerned; for the motorists will search out and appropriate to their use the best stretches, and there will be motor routes which at once will give dissatisfaction to the motorists and inflict a sense of injury upon the farmers and ratepayers along them.

At the same time, a road which constitutes an artery of this sort is not exclusively an affair for the traveller from a distance. It is a series of links—market roads necessary for the needs of local people, and it will be the strictly local road for those who dwell along it. In short, it discharges functions at once local, provincial, and in some cases even national, and in consequence it demands assistance from more than local administrations.

**Rural Roads.**—It can hardly be doubted that there is impending a revolution in farm operations. Two centuries ago or less the European farmer used the pack-horse to take his products to market. A revolution in methods occurred, and he came to employ wagons, which were hauled along roads much better than the tracks his ancestors had known. The self-propelled vehicle has come to stay, and the successful solution of the problem of good roads in some part depends upon a recognition of that fact. Indeed, the motor, to no small extent, creates the problem, for it has proved so destructive to main highways which resisted the wear and tear of horse-drawn vehicles that means must be devised to guard against a deterioration which now proceeds with a rapidity formerly unknown. Opportunities as well as difficulties are created by this new method of transportation. It prevents some, at least, of the features essential to profitable use by farmers; it conveys loads of a size so moderate that a single farm can furnish one or more than one, yet so large as to out-class the old horse-drawn wagon; it requires, not specialized tracks, like railway, but a common highway, albeit improved to a standard within the reach of the community; it is free from the difficulties of traffic adjustment which have made the conduct of railways a business by itself, and a peculiarly difficult business. In short, it is an individualistic method of transportation, and this commends itself to farming, the most independent and individualistic occupation in the world. Already there are cheap motor cars and trucks to be obtained; the farmer of to-day can procure one of these with as little straining of his resources as his grandfather could a top buggy; and it is but reasonable to expect a further lowering of the price. In this beneficent revolution, good roads must play a necessary and important part.

Increasing attention must be given, not only to the important market roads, but also to the township roads, those gravel or earth highways which pass the doors of the great mass of farmers and afford them access to the country or market roads, which lead to the centres where they sell their products and make their purchases. In

Ontario these township roads are estimated at 85 per cent. of the whole of the highways.

It is proposed that township councils should provide for and control the roads of local travel, with the proviso that to encourage better methods and organization the province will grant a subsidy of 20 per cent. of their annual expenditures for a limited period of years. Such aid should not, however, be given to townships until the county has assumed a system of market roads; otherwise, as alternative plans, they might seriously interfere with the installation of a proper system of such county roads. It is felt that provision for a system of good market roads in each county is of first importance and that aid to townships should not be in any way allowed to take the place of such roads. As to the division of cost for rural market roads, it is suggested that 60 per cent. of both construction and maintenance expenses be paid by the county, and 40 per cent. by the province.

**Future Development and Maintenance.**—In the present circumstances, the general condition of rural roads being so indifferent, interurban and market routes have a tendency to shift, as one stretch of road is improved or another allowed to deteriorate, so that the volume of traffic borne by a particular route is not an absolute proof that under a proper organization of the road system it would not be a main traveled road. A road census would show what amount of travel is furnished to-day by a given district, and the channels which it now takes; but considerations such as the density of population, the productivity of the land, railway construction, possible or probable developments, the distribution of road-making material, and so forth, would have to be taken into account.

One such consideration is the possibility of future urban growth which will lead to the places concerned sending out and attracting to themselves a greatly increased volume of traffic; should this occur, the place so developing would need additional market and interurban routes, striking out from it at varying angles, and in some cases cutting diagonally across the present rectangular road-patterns. It is suggested that tentative plans for such diagonal roads be drawn up with regard to certain prominent centres, and some arrangement—such as the prohibition of the erection of buildings in their track—be made to ensure the possibility of their being constructed at the lowest possible cost, if need should arise in the future.

It is the opinion of the Ontario Highways Commissioners that if due care is taken in studying the situation, the county roads, those taking care of the heavy non-local traffic, need not greatly exceed fifteen per cent. of the whole. Thus they view the problem in Ontario as that of bringing 42,500 miles of township roads to a reasonably fair standard, and of fitting 7,500 miles of county roads to bear the severe demands made upon them.

The first principle in connection with road expenditure is that money secured by bond issues should only be put into permanent roads. The future should not be called upon to pay for the present, unless the present creates something that will be useful to the future. The maintenance of permanent roads is made necessary through the wear and tear of the present generation, hence that burden should be met by the users. As bond issues must eventually be redeemed, and as the roads will wear out and call for renewal from time to time, the bonds should not run for a longer period than the natural life of the road with proper maintenance. It is believed, therefore, that the bond should preferably be redeemed within twenty years, and should not exceed thirty years.