

and upon completion will attract many tourists. In the past ten years approximately \$15,000,000 has been spent by the Province on roads and bridges, but the expenditure of an equal amount in the three years, 1912-14, is now outlined.

**Saskatchewan and Alberta.**—Saskatchewan and Alberta, occupying the prairie country north of Montana and North Dakota, were granted provincial organization in 1905, and are in a pioneer stage of development. Earth roads, with bridges, are the present need, and very little has been done toward good broken stone or gravel roads. Each of these Provinces has a Provincial Highway Department, however, and is drawing largely on its resources for road expenditure. The Provincial Governments in each case are grading and bridging the main roads. As fast as settlement permits, three or four townships are organized into Local Improvement Districts, with councils, to expend money raised by local taxation. In the case of Saskatchewan, an annual provincial appropriation (in 1910, the sum of \$60,000) was set aside to be drawn upon by the municipalities under a plan of Provincial aid. The chief Provincial expenditure in these Provinces is applied, however, to trunk highways by the Provincial Highway Departments through their own foremen. Steel and wooden bridges are also erected by permanent "bridge gangs." The Provincial Departments also carry on educational work. In Saskatchewan a special appropriation of \$5,000,000 for trunk roads was made the last session of the Legislature, of which \$1,500,000 will be spent this year, in addition to the usual appropriation of \$400,000 from current revenue. In Alberta a special grant of \$1,000,000 was made this year for a central north and south trunk road in addition to the usual sum of \$250,000 from current revenue.

**Manitoba.**—Manitoba has for several years had a Provincial Highway Commissioner, whose duties were largely educational. At the last session of the Legislature (January, 1912), two important Acts were passed. One of these, the Act Respecting Provincial Highways, set aside \$200,000 annually for Provincial aid to main roads. Townships are permitted to lay out a special system of main highways and this plan, with specifications, are to be submitted to the Provincial Highway Department. If approved by the Provincial authorities, the township may issue thirty-year debentures and proceed with the work, receiving a grant of two-thirds of the expenditure from the Province. In this way it is expected that a serviceable system of Provincial roads will be constructed.

The other Act, known as "The Good Roads Act," is one which relates to minor roads, and does not provide Provincial aid; but requires any township undertaking the improvement of these roads to submit the plans to the Provincial authorities, and upon approval the township may issue fifty-year debentures to meet the cost, which debentures may be guaranteed or purchased by the Provincial Government. The work done under this Act is also subject to the inspection and approval of the Provincial Highways Commissioner.

**Ontario.**—Ontario is, physically, in two parts—old Ontario, settled for over a century, and with complete municipal organizations; and new, or Northern Ontario, now being opened for settlement. In New Ontario the Provincial Government is this year spending about \$850,000 on colonization roads—opening and grading the road allowance—and about \$250,000 for bridges.

In Old Ontario the local municipalities are spending yearly about 1,100,000 days of statute labor and \$1,400,000 in cash. A large proportion of the latter goes into durable concrete culverts and concrete and steel bridges.

The Highway Improvement Act of Ontario is one of the most successful of Canadian road measures. County councils (composed of Reeves of the local municipalities

composing the county) are empowered to pass a by-law assuming for construction and maintenance a system of main highways.

To this work the Provincial Government contributes one-third of the cost of construction as the work progresses. The Provincial Highway Department fixes certain regulations as to construction and management, inspects from time to time, and co-operates with the municipalities to obtain good results, but the active control is vested in the county councils through their own county engineer.

This Act has been in operation for eleven years, and the annual outlay under it is steadily increasing. In 1911 the total expenditure was \$711,000, of which the Province contributed one-third.

This Act is largely educational in its aim, but at the same time is producing much excellent work at a low cost. The educational effect has several features:—

(1) It brings about an increasingly high standard of road construction, which teaches the public what good roads are and how they should be built.

(2) It instructs county councillors in road construction and impresses upon them the principles of good organization.

(3) The roads and organization become models which are observed and imitated by the township councils, so that all roads are affected.

(4) It enables the Provincial Highway Department to prescribe good principles, and the results of investigation, in an effective way.

The Ontario Highway Department is also constructing, at various points, model roads at the sole cost of the Province, or with a partial contribution from the municipality in which the road is built.

**Quebec.**—The Province of Quebec has been extremely active in the matter of road construction, and has adopted several measures of a progressive character:—

(1) The Province loans road-making machinery to municipalities making request, and has ten complete outfits for this purpose.

(2) Grants are made to local municipalities which dispense with the labor tax, and build an extent of durable gravel or stone road. Nearly 600 out of a total of 1,000 townships are this year taking advantage of the measure.

(3) The sum of \$10,000,000, borrowed under 41-year bonds, has been set aside for main highways. Municipalities may, for their construction, draw upon that sum, and are only required to meet one-half the interest (2 per cent.) on the moneys so used for the term of the bond issue, the Province meeting the sinking fund and remainder of the interest.

(4) Three Provincial highways, aggregating 350 miles in length, are now under construction. To this work the local municipalities pay \$1,000 per mile, and the Provincial Government contributes the remainder.

**New Brunswick.**—New Brunswick has not as yet developed a broad policy leading to permanent road construction, but the Provincial Engineer, by means of a contribution to county and parish construction, is enabled to bring technical instruction to bear on the work. The Province appropriated \$100,000 annually for this purpose.

**Nova Scotia.**—Nova Scotia is very actively canvassing the road question. The Province is sub-divided by county organization only, and the counties levy a statute labor tax amounting to about \$250,000 annually. But the Province spends about \$200,000 annually on road construction through an active and well-organized Provincial Highway Department. The Province constructs all bridges costing over \$500.

**Prince Edward Island.**—Prince Edward Island, the smallest but one of the most fertile of the Provinces, has an isolated position in the Gulf of St. Lawrence. Except in the case of two cities, there is no municipal organization.