

and Montreal to Trois Pistoles in Canada East (province of Quebec) and to Portland, Maine, by lease of the Atlantic and St. Lawrence Railway. The project was backed by government guarantee.

One-half the shares and debentures were offered at once and heavily oversubscribed. Construction of new line was begun, and arrangement made for the acquisition or rental of certain existing lines. By 1860 the first program was more than carried out, giving the Grand Trunk a direct line from Sarnia through the length of southern Ontario to Montreal. There it divided: one line going southward to Portland, Maine, and the other along the St. Lawrence to Riviere du Loup.

END OF THE FIRST PERIOD OF CONSTRUCTION

By 1860 the force behind early railway construction in Canada was exhausted and a pause ensued. In the decade 1850-1860 there had been added almost exactly 2,000 miles of road in operation to the humble total of 66 existing in 1850.

Constructed, in the case of the Grand Trunk particularly, to a standard intended to be high, with costly adjuncts such as the Victoria bridge at Montreal, and traversing to a great extent a settled community, the early railways of central Canada were not so much "development roads" as colonial counterparts of the first trunk lines of Great Britain and Europe. Long sections of their routes paralleled existing highways—then no disadvantage—but their main lines, to follow the belt of population, had to hold to the general course of the great waterway, then their principal competitor, which the Government continued periodically to deepen and improve. Nearly all of them suffered, too, from the defect of absentee direction; for, even in the case of the Grand Trunk, the initial arrangement for Canadian representation on the board of directors gave way, in time, to control from London. Confronted with these difficulties the wonder is, not that they failed to prosper, but that they succeeded generally in avoiding the receivership soon to become so prevalent in the United States. All things considered, the Grand Trunk especially constituted a noteworthy achievement; involved in a ceaseless contest with the railways of the then American West whose through traffic it sought to tap (though still dependent upon them for its connection with Chicago), handicapped at the outset by differences of gauge, and duplicating in part the line of its principal local rival, the Great Western, the Grand Trunk yet succeeded in supplying Central Canada before Confederation with an extensive and on the whole effective railway service.

CONFEDERATION AND TRANSPORTATION

For services of transportation, the provinces of Nova Scotia, New Brunswick and Canada (Quebec and Ontario), which were federated into the Dominion of Canada in 1867, brought roads, waterways and canals. The roads, which remained under the control of the provinces, had developed both in quantity and quality, but in neither were they adequate for through transport, for, though stage coaches plied over certain main highways, no motive power for quick road transportation had yet been discovered. The waterways had been to a large extent made available for through communication by means of canals, the total expenditure on canals before 1867 being \$20,692,244. The mileage of the railways and the principal routes have already been mentioned. The total capital expended on Canadian railways in the period ending in 1867 was \$147,817,217. Of this expenditure \$11,054,000 was in Nova Scotia and New Brunswick and \$136,763,217 in the Canadas. In these latter provinces the investments by municipalities in railway enterprises amounted to \$5,867,000. As the direct contributions of the two Canadas amounted to \$20,264,800 the sum of \$116,498,417 will be seen to have been provided from other than government sources.

The British North America Act of 1867 joined the older provinces in a political union; it remained, however, to make that union a reality both politically and economically. One of the principal means towards this national end was the development of transportation to a state in which all the provinces had easy communications with each other. As has been mentioned above, transportation in Canada was never wholly disassociated from government enterprise; but political union made possible for the first time a national policy towards transportation, which is best expressed in the original meaning of the phrase "political economy."

JURISDICTION AND ADMINISTRATION

It was provided by the British North America Act that all transportation agencies, the operations of which extended beyond the confines of any province, should be subject to the jurisdiction of the Parliament of Canada, while those operating within any one province should remain subject to provincial jurisdiction.¹ Railways are chartered either by the Parliament of Canada or a provincial legislature. In the early years of the Dominion responsibility for the construction and operation of government railways and the general oversight of private railway enterprises lay with the Department of Public Works; but at the time of the completion of the Intercolonial Railway, and the consideration of a Pacific Railway, it became necessary to set up a separate Department of Railways. Because of the relation of the problems of railways and waterways, the construction of canals was also placed under the new department. Improvements in channels below Montreal were placed under the jurisdiction of the Department of Marine, and improvements in Canadian waters above Montreal under the Department of Public Works.

CANALS, AFTER CONFEDERATION

Though the most spectacular developments in transportation in the era after Confederation were in railway building, the improvement of the waterways system was pursued with similar object. Confederation, operating in a political sense, produced the strongest incentive to the development of the one natural channel of communication possessed by the new Dominion.

Agricultural expansion in the middle west, operating commercially and in a manner similar to its effect upon the strategic location of the Grand Trunk, prompted an expansion of the waterway that would attract to the Canadian route the export grain traffic of the mid-western States, and thus neutralize the diversion, not only of American, but of much Canadian traffic through the Erie canal to New York.

Under the influence of these factors a further enlargement of the connecting canals in the Great Lakes-St. Lawrence System was undertaken, the deepening of the Welland canal to twelve feet being commenced in 1871 and a further deepening to fourteen feet being decided upon in 1875. Work on the St. Lawrence canals lagged somewhat behind, but before the close of the century the whole connecting canal system had been enlarged to a minimum depth of fourteen feet, at a cost to the Dominion Government of approximately \$100,000,000.

As a bid for the American grain trade the work of enlargement, however, proved largely ineffective. The draught of the upper lake freighters increased faster than the depth of the Welland canal; and these larger vessels, which the Welland canal could not accommodate, enjoyed an ascendancy in the matter of rates. Moreover, all grain vessels discharging at American ports enjoyed an additional advantage in the availability of return cargoes of coal. So the bulk of the grain trade, instead of following the Canadian route to Montreal,

¹ Imperial Statute, 30 and 31 Victoria, Cap. III, Section 92.