

points, made its first halting trip from Quebec to Montreal. In 1816 the first steamboat in the maritime provinces made its appearance on the St. John river. By 1837 the lower St. Lawrence boasted in the *Canada*, the largest and fastest steamer in North America; and lake Ontario enjoyed a service of steamers that, for speed and comfort, compared favourably with anything on the continent. Indeed, the twenty years that had succeeded Fulton's first demonstration on the Hudson had witnessed a development in inland steam navigation that not only brought to a country with such extensive waterways as Canada's an entirely new outlook in transportation, but actually an approximation to perfection in the instrument itself. Judged even by present-day standards these early lake and river steamers had already achieved speed, safety, and a high degree of comfort.

#### DEVELOPMENT OF THE WATERWAYS: CANALS AND PORTAGE RAILWAYS

The wide use of the steamer, together with the increase of population and of industry, brought with it a demand for the construction of canals to permit the uninterrupted utilization of the inland waterways. Hitherto canalization had been confined to the provision of an occasional shallow work to facilitate the passage of the Upper St. Lawrence *bateaux* at points of special difficulty. The advent of the steamer now revealed the possibilities of enlarged operations; but the first important undertaking deliberately avoided the direct, main channel. Military considerations arising out of the War of 1812, inspired the selection of the more secluded, triangular, and restricted route of the Ottawa river and the Rideau lakes as a line of communication between Upper and Lower Canada, and the work, carried through at the expense of the Imperial Government, and completed in 1832, for a time diverted much of the through traffic from the St. Lawrence. The completion of the post-road from Montreal to Kingston, utilized in conjunction with the navigable reaches of the river as a composite route partly by land and partly by water, restored much of this traffic to the St. Lawrence even before the difficult work of canalization was completed; and when, in 1841, the union of the provinces made possible a complete canal system nine feet in depth on the direct route of the Upper St. Lawrence, the issue was placed beyond doubt. Henceforth the tortuous, small-scale route of the Rideau system continued steadily to decline in importance, while the St. Lawrence continued to expand.

Meanwhile, as settlement spread further west beyond lake Ontario across the Niagara peninsula to the Huron Tract, a demand had arisen for a canal that would provide a passage from lake Ontario to lake Erie around Niagara falls. This most formidable obstacle to the continuity of inland navigation, which had involved the transshipment of all supplies for the western settlements across a portage twenty-seven miles in length, had been surmounted in 1829 by the completion of the first Welland canal, which gave a depth of eight feet. Wood was used for the locks and sides. So that, prior to the advent of railway operation in Canada upon a commercial scale, the development of inland navigation had proceeded to a point where it provided an uninterrupted channel of communication from the tide-waters of the lower St. Lawrence to the most remote settlements on lake Huron.

As an alternative method of overcoming the obstacles of the great falls and rapids on the St. Lawrence System, portage railways were for some years employed to transport goods around the break in navigable water. The first experiment of this kind—actually the first steam railway in British North America—was the Champlain and St. Lawrence, opened in 1837, which ran from La Prairie on the St. Lawrence to St. John on the Richelieu river, thus facilitating the movement of passengers and freight from Montreal to New

York. In accordance with its purpose the railway was only operated during the navigation season. Further lines of the same nature were later built, such as the Montreal and Lachine (1847), which ran the eight miles around the Lachine rapids, and the Erie and Ontario (1854) which ran from Chippewa to Niagara-on-the-Lake.

#### THE FIRST RAILWAY ERA: THE FIFTIES

In 1850 the steam railway mileage of Canada amounted to only 66 miles of primitive and fragmentary line. For all its economy and natural advantage, a system of transport that depended primarily upon inland waterways presented serious shortcomings in a country exposed to a winter climate of sufficient severity to interrupt navigation for nearly half the year. As a substitute, particularly in the spring and fall, the rough unsurfaced highways of those days were totally inadequate to the growing colony; and it is said that, with the forming of the ice on the river, the prices of produce in Montreal used to double. During the 'forties the early "experiments" in Canada, together with the more ambitious performance in England and the United States, showed that steam railways were more than a mechanical novelty; and the new method of transportation offered nowhere greater possibilities of usefulness than in Canada with its long distances and scattered population. Together with the realization of the importance of railways came the willingness of the various governments to assist financially a means of transportation that was increasingly seen to be essential to the development of the country. The ten years from 1850 to 1860 saw a remarkable outburst of construction, and an even greater activity in promotion, chartering and stock-jobbing.

The support which the governments brought was more than financial; for the statesmen as well as the financiers and builders began to take an active part in the furtherance of railway projects. Government guarantees, in various forms, became the order of the day; and thus railways were almost from the first, like roads and canals, matters of national concern. In Nova Scotia and New Brunswick ambitious plans were drawn, but in spite of the energy of Joseph Howe sufficient financial assistance could not be obtained. Neither of the two rival plans—a line from Halifax to Quebec, and a line from Halifax to Portland—was actually constructed for more than a few miles. In the Province of Canada the results were more tangible. Francis Hincks was the chief driving-force in the government, while the willingness of the great English contracting firm of Peto, Brassey and Company to undertake construction and find part of the capital was a further factor making for success. Lines, variously financed, were struck out in several strategic directions: the Northern Railway joined Toronto and Collingwood (on Georgian Bay) by 1854 and so facilitated travel to the upper lakes and far west. After many delays the Great Western was pushed through, so that in 1860 it operated lines from Toronto and the Niagara river to Sarnia and Windsor, and from Windsor through American territory to lake Michigan.

#### ORIGIN OF THE GRAND TRUNK

But the most important railway project of these years—both in its original plan and further development—was that of the Grand Trunk Railway. Various proposals for route, management and financing were made, but finally one was adopted and appeared in the glowing prospectus of the new company, issued in London early in 1853. This promotion called for the construction or operation of 1,212 miles of road, extending from Sarnia, through Toronto