

Cascades Canal across the point between the Ottawa and St. Lawrence Rivers, having three locks, 120 ft. by 9 ft. with 6 ft. of water on the sills. With this and other improvements boats loaded with 100 bbl. of flour could be accommodated. In the course of time, these canals were found inadequate and, in 1842, construction was started on the Beauharnois Canal on the south side of the river. It was completed in 1845 and had nine locks, 200 ft. by 45 ft. with a draught of 9 ft. Although it has not been used for navigation since 1902, its dams control the levels of Lake St. Francis for navigation and other purposes.

Soulanges Canal.—Construction of the Soulanges Canal, built to replace the Beauharnois Canal, began in 1892 and was completed in 1899. It is 14.67 miles long and provides 14-ft. navigation from Lake St. Louis to Lake St. Francis, with a lift of 83.50 ft.

Cornwall Canal.—This canal was built to pass the Long Sault Rapids and extends from Cornwall to Dickinsons Landing. Construction to provide 9-ft. draught began in 1834 and was completed in 1842. The work of enlarging the canal to 14-ft. draught was started in 1876 and completed in 1904. This canal overcomes a 48-ft. difference in the levels of the river, is 11 miles long and has six locks, 270 ft. by 45 ft.

Williamsburg Canals.—The Farran's Point, Rapide Plat and Galop Canals are collectively known as the Williamsburg Canals; they have a total lift of 31.27 ft. The Farran's Point and Rapide Plat Canals were constructed to overcome rapids of the same names, and the Galop Canal by-passes the Pointe aux Iroquois, Point Cardinal and Galop rapids. The construction of these canals began in 1844 and the first two were completed in 1847 to provide 9-ft. draught. The Galop Canal experienced a number of changes before reaching its present condition. There were at first two distinct canals, one to avoid the Iroquois Rapid and the second to avoid the Galop Rapid. After a few years' experience, it was found that the Iroquois Canal was not deep enough and it was decided to connect it with the Galop Canal. Work was begun in 1851 and completed in 1856. These canals were subsequently enlarged to 14-ft. draught.

Welland Canal.—This important waterway, which overcomes the fall of 326 ft. on the Niagara River, connects Lake Ontario and Lake Erie. The original canal, built by a private company and opened in 1829, extended from Port Dalhousie on Lake Ontario to the town of Port Robinson, where a connection was made with the Welland River. The course was down this river to its junction with the Niagara River and thence to Lake Erie. This was not found satisfactory, so between the years 1831 and 1833 the canal was extended along a route from Port Robinson to Port Colborne. In 1841 the Government of Upper Canada purchased the canal and began to enlarge its capacity to provide for 9-ft. navigation. The new canal was opened in 1845. In 1871 a canal commission recommended the further enlarging of this canal and work was begun in 1873. By 1887, the Third Welland Canal was completed, providing a draught of 14 ft. Its northern terminus was at Port Dalhousie and its route extended in a southerly direction, climbing the escarpment at Thorold, and thence generally following the route of the Second Canal to Port Colborne.

The tremendous growth of the eastern movement of grain and iron ore and the western movement of coal necessitated the construction of vessels of much larger dimensions than the limiting dimensions of the Welland and St. Lawrence Canals.