

Rideau Canal.

This canal, constructed by the British Government between the years 1826 and 1832 and providing a continuous waterway between the cities of Ottawa and Kingston, owed its inception to purely military considerations incident to the war of 1812. It consists of a series of natural water courses connected by short cuttings and locks, starting with the Rideau river at Ottawa, rising to a summit at the Upper Rideau lake and finally entering lake Ontario by the Cataraqui river. This canal, with a total length of $126\frac{1}{4}$ miles, was transferred to the Provincial Government in 1857 and after Confederation was taken over by the Dominion authorities. It has forty-seven locks, 134 feet by 33 feet, with 5 feet of water on sills. From the northerly end of the Lower Rideau lake, a branch, 7 miles in length, extends to the town of Perth.

Trent Canal.

In the Trent canal is comprised a system of navigation which extends from Trenton, on the bay of Quinte, to Georgian bay, on lake Huron. The route of this canal follows the river Trent to Rice lake, thence by the Otonabee river to Peterborough, from which point, by a series of rivers, lakes and artificial channels it reaches lake Simcoe, passing next into lake Couchiching and Sparrow lake, whence it follows the line of the Severn river to Honey harbour on Georgian bay. Up to the present the canal has been opened to navigation as far west as Sparrow lake and, by the use of marine railways at Swift rapids and Big Chute, motor vessels of five tons may complete the passage to Georgian bay *via* Port Severn. While the canal is of no economic importance as a waterway, its power facilities are of considerable value. It is also noted for the hydraulic lift-lock at Peterborough, capable of lifting an 800-ton vessel a vertical distance of 65 feet.

Murray Canal.—An open waterway across the isthmus of the Prince Edward County peninsula may in a sense be considered as forming part of the Trent Canal system. Vessels leaving the Trent canal at Trenton can by this route pass directly into lake Ontario. The first proposal to construct this canal appears to have been made in 1796, and the project was discussed frequently thereafter in the Provincial Legislature. Construction, however, was not begun until 1882 and was completed in 1889.

St. Peters Canal.

This, the most easterly of the Canadian canals, crosses an isthmus half a mile in width on the southerly side of Cape Breton Island, N.S., and connects St. Peters bay with the Bras d'Or lakes, from the northerly end of which access is had to the Atlantic ocean. It consists of one tidal lock, 300 feet by 48 feet, with a depth of 18 feet on sills, first constructed in 1869 but extensively repaired and improved between the years 1912 and 1917.

St. Andrews Lock.

St. Andrews Lock, with dimensions of 215 feet by 45 feet, with 17 feet of water, overcomes rapids on the Red river 15 miles north of Winnipeg, and was opened to traffic in 1910.